



**AGENDA  
BELOIT CITY COUNCIL  
100 State Street, Beloit WI 53511  
City Hall Forum - 7:00 p.m.  
Monday, January 3, 2011**

1. CALL TO ORDER AND ROLL CALL
2. PLEDGE OF ALLEGIANCE
3. SPECIAL ORDER OF THE DAY/ANNOUNCEMENTS
  - a. Proclamation honoring **City Clerk Carol Alexander** (Leavy)
4. PUBLIC HEARINGS
  - a. Resolution approving a change in Use of the **City's HOME Program** Income and 2008, 2009 and 2010 HOME Dollars (Christensen)  
Community Development Authority recommendation for approval  
Continued Public Hearing from 12-20-10
5. CITIZENS' PARTICIPATION
6. CONSENT AGENDA

All items listed under the Consent Agenda are considered routine and will be enacted by one motion. There will be no separate discussion of these items unless a Council member so requests, in which event the item will be removed from the General Order of Business and considered at this point on the agenda.

  - a. Approval of the **Minutes** of the Regular meeting of December 20, 2010 (Alexander)
  - b. Application for **Street Name Change** from Frederick Street to Woodman Lane (Christensen) Refer to Plan Commission
  - c. Resolution approving **Intergovernmental Agreement** between the City of Beloit and the State of Illinois Department of Transportation regarding Funding for the Operation of the Stateline Area Transportation Study (Botts)
7. ORDINANCES - none
8. APPOINTMENTS - none
9. COUNCILOR ACTIVITIES AND UPCOMING EVENTS
10. CITY MANAGER'S PRESENTATION
  - a. **Energy Efficiency and Renewable Energy Assessment** Presentation (Jacobsen)
11. REPORTS FROM BOARDS AND CITY OFFICERS
  - a. Resolution affirming Local Support for Housing Tax Credit Application by **Keystone Development** for Rehabilitation of Countryside Village Apartments located at 2101 Freeman Parkway (Christensen)

b. Resolution authorizing a Temporary change in the **Housing Rehabilitation Loan Program** (Christensen)

12. ADJOURNMENT

\*\* Please note that, upon reasonable notice, at least 24 hours in advance, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information to request this service, please contact the City Clerk's Office at 364-6680, 100 State Street, Beloit, WI 53511.

Dated: December 29, 2010  
Carol S. Alexander, WCPC/MMC  
City of Beloit City Clerk <http://www.ci.beloit.wi.us>

You can watch this meeting live on Charter PEG channel 98 or digital channel 992. Meetings are rebroadcast during the week of the Council meeting on Tuesday at 1:00 p.m., Thursday at 8:30 a.m. and Friday at 1:00 p.m.

**RESOLUTION**  
**APPROVING A CHANGE IN USE OF THE CITY'S HOME PROGRAM**  
**INCOME AND 2008, 2009 AND 2010 HOME DOLLARS**

**WHEREAS**, the City of Beloit has approximately \$230,000 in HOME Investment Partnership (HOME) Program Income and a balance in the 2008, 2009, and 2010 funds of \$50,459, \$95,573, and \$108,172, respectively, and

**WHEREAS**, the City Council of the City of Beloit allocated these HOME funds to homeowner rehabilitation projects only for 2008, 2009, and 2010 program years, and

**WHEREAS**, the Housing Rehabilitation Program Manual currently authorizes the City to provide loans for rental rehabilitation projects, and

**WHEREAS**, the HOME regulations allow cities to fund both homeowner rehabilitation and rental rehabilitation projects with HOME dollars, and

**WHEREAS**, the City of Beloit has a need for rental rehabilitation dollars.

**NOW THEREFORE BE IT RESOLVED**, that the City Council of the City of Beloit, Rock County, Wisconsin allocates the remaining HOME Program Income and the remaining balances of the 2008, 2009, and 2010 City HOME funds to the City's housing rehabilitation loan program for owner-occupied and rental rehabilitation projects in the proportions outlined in the Housing Rehabilitation Program Manual.

Adopted this 3<sup>rd</sup> day of January, 2011.

**BELOIT CITY COUNCIL**

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Kevin D. Leavy, Council President

**ATTEST:**

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Carol S. Alexander, WCPC/MMC, City Clerk

# CITY OF BELOIT

## REPORTS AND PRESENTATIONS TO CITY COUNCIL

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**Topic:** Consideration of a resolution allowing HOME funds to be used for both homeowner and rental projects

**Date:** January 3, 2011

**Presenter(s):** Julie Christensen

**Department:** Community Development Authority

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### **Overview/Background Information:**

In July 2001, the City of Beloit, Rock County and City of Janesville formed the Rock County HOME Consortium. This allows us to receive HOME funds directly from the Department of Housing and Urban Development (HUD) similar to CDBG. In prior years, the City has allocated its HOME dollars only to homeowner rehabilitation projects.

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### **Key Issues (maximum of 5):**

1. HOME Investment Partnership Program guidelines allow HOME funds to be used for homeowner rehabilitation projects and rental rehabilitation projects. Historically, the City has allocated its HOME dollars to homeowner projects only.
  2. The City's housing rehab loan program manual allows dollars to be used for rental rehabilitation loans. However, since the resolution approving HOME only allocated the funds to homeowner projects, we have been restricted to using these dollars only on homeowner projects.
  3. The City has approximately \$230,000 in HOME program income, and \$50,459 in 2008 HOME dollars, \$95,573 in 2009 HOME dollars, and \$108,172 in 2010 HOME dollars.
  4. City staff is finding that there is a demand for rental rehab loans.
  5. The program guidelines for the owner-occupied and rental loans are listed below.
    - a. Owner Occupied Low Interest & Deferred Payment Loans – this loan program provides loans to homeowners.  
Maximum Loan Amount: \$20,000  
Interest Rate: Deferred loans are 0 percent and installment loans are 3 percent.  
Term of the Loan: 10 years, with the ability of staff to extend the term to 15 years
    - b. Rental Housing Rehabilitation Loan Program – this loan program is available to property owners to rehab their rental properties. Each property owner can receive one rental rehab loan each year.  
Maximum Loan Amount: \$20,000 for a single-family; \$25,000 for a multi-family building and \$8,000 for each additional unit over two units  
Interest Rate: 3 percent  
Term: 10 years.
- 

### **Conformance to Strategic Plan (List key goals this action would support and briefly discuss its impact on the City's mission.):**

- Consideration of this request supports Strategic Goal #4.
- 

### **Sustainability (Briefly comment on the sustainable long term impact of this policy or program related to how it will impact both the built and natural environment utilizing the four following eco-municipality guidelines.):**

- **Reduce dependence upon fossil fuels** – Not applicable

- **Reduce dependence on chemicals and other manufacturing substances that accumulate in nature** – Not Applicable
- **Reduce dependence on activities that harm life sustaining eco-systems** – Not Applicable
- **Meet the hierarchy of present and future human needs fairly and efficiently** – This change would help us meet the demands of our landlords and homeowners.

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**Action required/Recommendation:**

CDA recommends approval of the proposed resolution

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**Fiscal Note/Budget Impact:**

Not Applicable

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**Attachments:**



**PROCEEDINGS OF THE BELOIT CITY COUNCIL**  
**100 State Street, Beloit WI 53511**  
**Monday, December 20, 2010**

Presiding: Kevin Leavy (arr. 7:24 p.m)

Present: Sheila De Forest, Martin Densch, Charles Haynes, Heidi Johns, Eric Newnham,  
James Van De Bogart

Absent: None

1. The meeting was called to order at 7:08 p.m. by Vice President Van De Bogart for President Leavy who arrived at 7:24 p.m.
2. PLEDGE OF ALLEGIANCE
3. SPECIAL ORDER OF THE DAY/ANNOUNCEMENTS- none
4. PUBLIC HEARINGS
  - a. Resolution approving a change in use of the **City's HOME Program** Income and 2008, 2009 and 2010 HOME Dollars. It was noted that Community Development Authority recommended approval. Community Development Director Julie Christensen explained details of the request and said there was a greater demand for rental rehab loans rather than homeowner loans and asked for the use of HOME dollars for rental loans. Public hearing opened and closed without participation. Councilor De Forest moved to adopt, second by Councilor Johns. Councilor Newnham asked if there was a maximum amount that one person could apply for and a limit to how many units could be on one particular parcel. Ms. Christensen said that this was a budget allocation and if Council was not comfortable with the details of the program she suggested that it be laid over. She said there were guidelines in place and if questions arose, details could be shared, and these were City standards, not HUD regulations. Councilor Newnham moved to lay over to Jan. 3, 2011, second by Councilor De Forest. Motion carried 5-1 with Councilor Haynes voting no. File 8311/8370/8406
5. CITIZENS' PARTICIPATION
  - a. Richard McClellan and Kim Sandow, 2536 Hawthorne Drive, spoke in opposition of item 6d. Relocation Order for an Easement and Future Special Assessments for Sewer and Water. They asked that the person who needs the septic system be allowed to get a permit to put in the system and leave the remaining residents alone.
  - b. Max Dodson, 2531 Hawthorne Dr., also spoke in opposition to 6d.
6. CONSENT AGENDA

Councilor De Forest requested that item d) Relocation Order to acquire a Construction Access and Utility Easement over portions of the Properties located at 2555 White Oaks Drive and 2536 & 2542 Hawthorne Drive to allow for the Extension of Gravity Sanitary Sewer and Potable Water to Twelve (12) Properties on Hawthorne Drive be removed. Councilor Van De Bogart moved to adopt, second by Councilor Haynes and the motion carried that the following items from the Consent Agenda be accepted, approved, adopted or referred and acted upon as required by state and local codes except item d).

  - a. **Minutes** of the Regular and Special Meetings of December 6 and the Special Meeting of December 13, 2010 were approved.
  - b. Resolution approving an **Amendment to the Class "B" Beer and "Class B" Liquor License** for Sara's Pub Inc., d/b/a Sara's Pub, Shpezime (Sara) Fadirovski, Agent, for an Outside Premises Extension was adopted. File 8499

- c. Resolution approving a **Relocation Order** to acquire certain Real Estate to allow for the Construction of a North-South Alley over the Eastern Twenty-Four (24) Feet of the properties located at 2627, 2635, 2639, 2649 & 2683 Prairie Avenue, also referred to as Sunshine Alley was adopted. File 8480
  - e. Resolution authorizing Final Payment of Public Works **Contract C10-06 Wyetta Drive Resurfacing** was adopted. File 8453
  - f. Resolution authorizing Final Payment of Public Works **Contract C09-03 Public Avenue Reconstruction** was adopted. File 8437
  - g. Resolution authorizing Final Payment of Public Works **Contract C09-13 Freeman Parkway Reconstruction** was adopted. File 8200
  - h. Resolution authorizing Final Payment of Public Works **Contract C10-07 Street Resurfacing** was adopted. File 8458
  - i. Resolution authorizing Final Payment of Public Works **Contract C10-25 Concrete Street Resurfacing** was adopted. File 8468
  - j. Resolution authorizing Final Payment of Public Works **Contract C10-24 Concrete Street Repair** was adopted. File 8467
  - k. Resolution awarding Final Payment of Public Works **Contract C10-05 Cranston Road Resurfacing** was adopted. File 8441
- d. Resolution approving a **Relocation Order** to acquire a Construction Access and Utility Easement over portions of the Properties located at 2555 White Oaks Drive and 2536 & 2542 Hawthorne Drive to allow for the Extension of Gravity Sanitary Sewer and Potable Water to Twelve (12) Properties on Hawthorne Drive. It was noted that Plan recommended approval 6-0. Public Works Director Dave Botts reviewed the request for the Relocation Order and the process leading up to special assessments for sewer and water, which was due to the failing septic system of a resident. He said that because of the number of Councilor questions, he offered to lay over the issue to a future meeting and meet with the residents early in January. Mr. Botts said because there is sewer service available in the area, the County does not issue a permit for a new septic system, and the City begins the process to install sewer and water service. He said filing of the Relocation Order begins the negotiation process with the residents on the project, which is followed by a public hearing at Council after resident notification. He said if approved, the project proceeds and if not, the affected property owner must find another solution. Mr. Botts stated that the City has the right to issue a waiver if deemed necessary, however, when sewer service is available, waivers cannot be granted. Councilor De Forest said that the request to lay over was to answer resident concerns and to be sure they know when the item will be discussed. Her thoughts were concurred with by Councilor Johns. Councilor De Forest moved to lay over to the January 18, 2011 meeting, second by Councilor Newnham. Mr. Botts and the City Manager agreed to meet with the residents at a convenient time during the first week in January to review all the options and alternatives, and Councilors will be noticed as well. It was agreed to invite everyone who is impacted by the project, and the discussion would lay out the entire process. City Manager Larry Arft stated the Relocation Order dealt only with the easement portion of the project and follows State Statutes. Motion carried. File 8470

7. ORDINANCES - none

8. APPOINTMENTS - none

#### 9. COUNCILOR ACTIVITIES AND UPCOMING EVENTS

- a. Councilor De Forest informed the public about Project Hope, helping those struggling economically and financially, announced the December 23 date for a coat giveaway with free bus rides, and said that other items were welcomed.
- b. Councilor Densch reminded everyone to practice home fire safety and pointed out the wreath at Fire Station #1.
- c. Councilor Van De Bogart thanked all participants in Holidazzle, wished everyone a happy holiday season and reminded everyone to drive carefully.
- d. Councilor Newnham congratulated all Holidazzle participants, thanked Chuck Benedict on his three terms in the State Assembly and wished everyone a Merry Christmas and Happy New Year.
- e. Councilor Johns thanked the Downtown Beloit Association for Holidazzle and wished everyone a warm, safe and joyous holiday.
- f. Councilor Haynes reminded everyone to clear their sidewalks and drive safely.

- g. Councilor Leavy thanked Vice President Van De Bogart for filling in for him during the slow winter drive; he asked everyone to drive carefully, clear their walks, remove cars from the streets for safe plowing and wished everyone a happy holiday.

10. CITY MANAGER'S PRESENTATION

- a. Update on **Christmas Decoration Disposal** was presented by Mr. Botts who said that on Monday, Jan. 3, 2011, trees can be placed curbside for two weeks, free of stands, lights, and ornaments, or can be dropped off at the recycling center beginning Jan. 15 during recycling hours.

11. REPORTS FROM BOARDS AND CITY OFFICERS

- a. Resolution approving the Naming of the **Steve Gregg Memorial Path**. It was noted that Plan Commission recommended approval 6-0 and Parks, Recreation & Conservation Advisory Commission also recommended approval. Councilor Johns moved to adopt, second by Councilor De Forest. Councilor Van De Bogart suggested a bike ride be held in addition to the ribbon cutting, and Councilor Densch noted that signage would be paid for from memorial funds donated by Mr. Gregg's family. Motion carried. File 8482
- b. Resolution authorizing the **Transfer of Funds** from the General Fund Contingency Reserve Account. Finance and Administrative Services Director Paul York stated that unexpected costs were incurred for legal fees through the Human Resources Department and in the Code Enforcement Department for property maintenance for mowing and snow removal. Councilor Haynes moved to adopt, second by Councilor Densch. Motion carried. File 8406
- c. Resolution approving Contract between the City of Beloit and **Rock County Humane Society, Inc.** Police Chief Norm Jacobs said the Humane Society wishes to focus more on sheltering animals and the new contract more accurately reflects their expected expenditures to provide services. Councilor Densch moved to adopt, second by Councilor Johns. Councilor De Forest said there was a \$56,000 increase in cost for services and noted that Chief Jacobs was looking for an alternative service provider. Motion carried. File 5956

12. At 7:57 p.m. Councilor Johns moved to adjourn, second by Councilor De Forest. Motion carried.

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Carol S. Alexander WCPC/MMC, City Clerk

<http://www.ci.beloit.wi.us>

Date Approved by Council:



# CITY OF BELOIT

## REPORTS AND PRESENTATIONS TO CITY COUNCIL

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**Topic:** Renaming a Portion of Frederick Street to Woodman Lane – Council Referral to the Plan Commission

**Date:** January 3, 2011

**Presenter(s):** Julie Christensen

**Department:** Community Development

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**Overview/Background Information:**

The Engineering Division has proposed the renaming of that portion of Frederick Street lying northeast of Madison Road to Woodman Lane.

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**Key Issues (maximum of 5):**

- The attached Certified Survey Map (CSM) dedicated Woodman Lane and a portion of Fir Drive to the public. However, the CSM did not address an approximately 300-foot segment of Frederick Street between Madison Road and the beginning of Woodman Lane (highlighted in orange). Therefore, this street has two names, which may cause confusion.
- This proposal will not affect that portion of Frederick Street lying southwest of Madison Road or the 1900 & 2000 blocks of Frederick Street (between Burton Street and Staborn Drive).
- The parcels adjacent to the affected street segment have Madison Road addresses, so this proposed street renaming will not change any property addresses.
- The process for renaming an existing street is outlined in the Subdivision Ordinance.

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**Conformance to Strategic Plan (List key goals this action would support and briefly discuss its impact on the City's mission.):**

- Consideration of this request supports Strategic Goal #4.

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**Sustainability (Briefly comment on the sustainable long term impact of this policy or program related to how it will impact both the built and natural environment utilizing the four following eco-municipality guidelines.):**

- **Reduce dependence upon fossil fuels** – N/A
- **Reduce dependence on chemicals and other manufacturing substances that accumulate in nature** – N/A
- **Reduce dependence on activities that harm life sustaining eco-systems** – N/A
- **Meet the hierarchy of present and future human needs fairly and efficiently** – N/A

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**Action required/Recommendation:**

- Referral to the Plan Commission for the January 5, 2011 meeting
- This item will most likely return to the City Council on January 18, 2011

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**Fiscal Note/Budget Impact:** N/A

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**Attachments:** Memo from Transportation Engineer and CSM

**CITY OF BELOIT**  
**DEPARTMENTAL CORRESPONDENCE**

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**TO:** Drew Pennington

**FROM:** Jason Dupuis, Transportation Engineer (Ext. 6735)

**DATE:** December 6, 2010 JD  
12/6/10

**SUBJECT:** Renaming Frederick Street to Woodman Lane

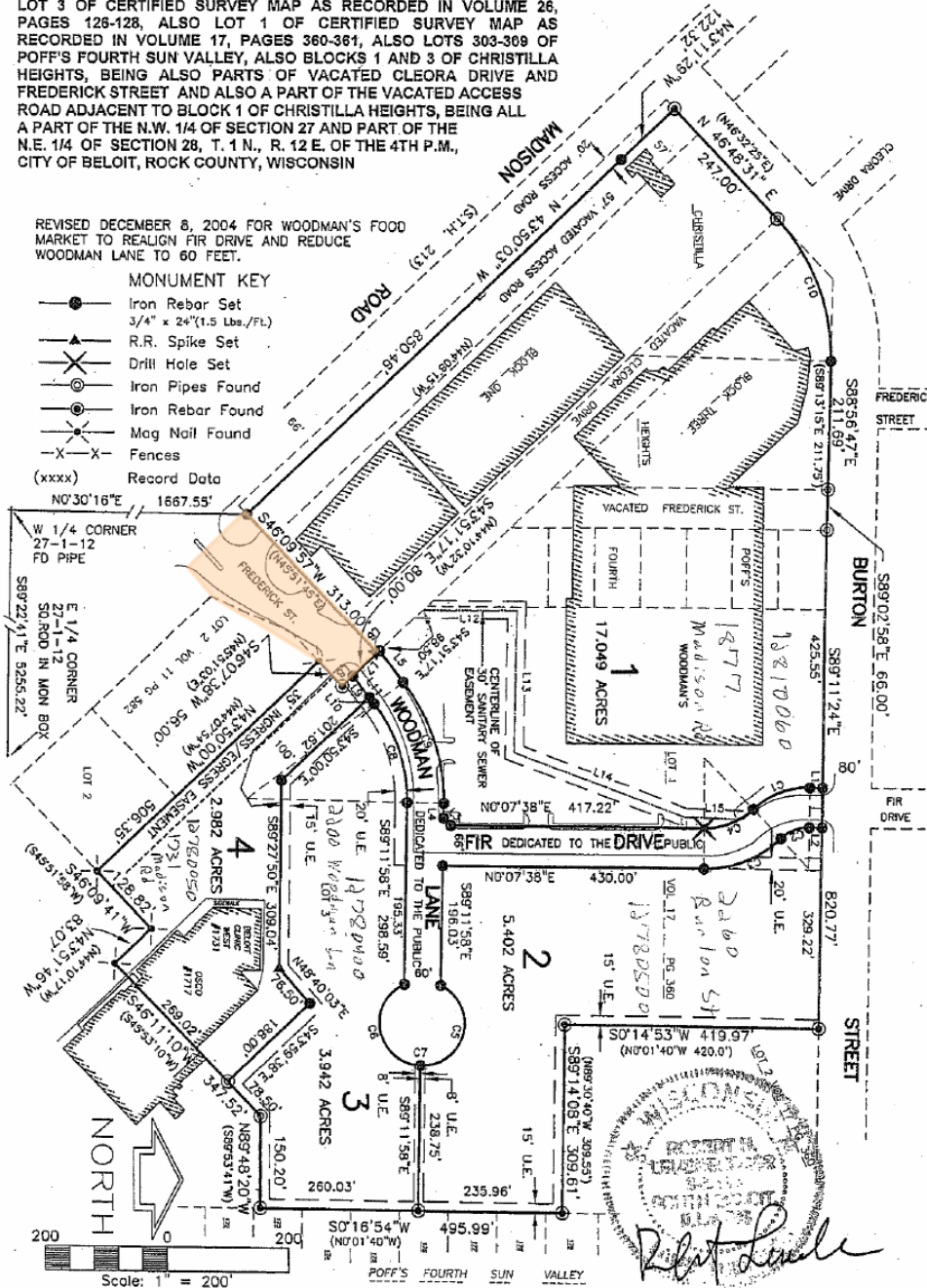
This memo is to request that the renaming of Frederick Street between *Madison Road* and *vacated Cleora Drive* to Woodman Lane be placed on the January 5<sup>th</sup> Plan Commission Meeting. The attached Certified Survey Map (CSM) shows a portion of Fir Drive and Woodman Lane as dedicated to the public. However, the existing right-of-way portion of Frederick Street, shown in orange, was not addressed in the CSM. To avoid any confusion with the street naming for this area, Woodman Lane should begin at the intersection of Madison Road and continue east until it terminates at the east end of the cul-de-sac. Since no buildings front this portion of Frederick Street, no changes in addresses, licenses or other personal information is required. If you should have any questions, please contact me.

# CERTIFIED SURVEY MAP OF

LOT 3 OF CERTIFIED SURVEY MAP AS RECORDED IN VOLUME 26, PAGES 126-128, ALSO LOT 1 OF CERTIFIED SURVEY MAP AS RECORDED IN VOLUME 17, PAGES 360-361, ALSO LOTS 303-309 OF POFF'S FOURTH SUN VALLEY, ALSO BLOCKS 1 AND 3 OF CHRISTILLA HEIGHTS, BEING ALSO PARTS OF VACATED CLEORA DRIVE AND FREDERICK STREET AND ALSO A PART OF THE VACATED ACCESS ROAD ADJACENT TO BLOCK 1 OF CHRISTILLA HEIGHTS, BEING ALL A PART OF THE N.W. 1/4 OF SECTION 27 AND PART OF THE N.E. 1/4 OF SECTION 28, T. 1 N., R. 12 E. OF THE 4TH P.M., CITY OF БЕЛОИТ, ROCK COUNTY, WISCONSIN

REVISED DECEMBER 8, 2004 FOR WOODMAN'S FOOD MARKET TO REALIGN FIR DRIVE AND REDUCE WOODMAN LANE TO 60 FEET.

- MONUMENT KEY**
- Iron Rebar Set
  - ▲ 3/4" x 24"(1.5 Lbs./Ft.) R.R. Spike Set
  - ⊗ Drill Hole Set
  - ⊙ Iron Pipes Found
  - ⊕ Iron Rebar Found
  - ⊖ Mag Nail Found
  - X-X- Fences
  - (xxxx) Record Data



File Name: J:\28550-28599\28575\28575.DWG  
 ORDER NO. 27929  
 DATE DECEMBER 19, 2003  
 FOR J & D БЕЛОИТ PROPERTIES, LLC  
 SHEET 1 OF 4

**R.H. BATTERMAN & CO. INC.**  
 LAND SURVEYORS - ENGINEERS - PLANNERS  
 2857 BARTELLS DR, БЕЛОИТ, WISCONSIN 53511  
 (608) 365-4464 FAX (608) 365-1850

**RESOLUTION APPROVING INTERGOVERNMENTAL AGREEMENT  
BETWEEN THE CITY OF БЕЛОIT AND THE  
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION  
REGARDING FUNDING FOR THE OPERATION OF THE  
STATELINE AREA TRANSPORTATION STUDY**

WHEREAS, the attached Intergovernmental Agreement provides funding from the State of Illinois Department of Transportation to the City of Beloit to fund the operation of the Stateline Area Transportation Study; and

WHEREAS, the City Council of the City of Beloit finds that it in the best interest of the City to enter into an Intergovernmental Agreement to provide transportation planning services as detailed in the adopted Stateline Area Transportation Study's Unified Work Program; and

WHEREAS, the attached agreement has been renewed annually in substantially the same form and was last approved by the City Council of the City of Beloit on November 16, 2009.

NOW, THEREFORE, BE IT RESOLVED, that the attached Intergovernmental Agreement be, and hereby is, approved.

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the City Manager be, and hereby is, authorized to execute the same on behalf of the City of Beloit, and furthermore that the City Manager be, and hereby is; authorized to execute future renewals thereof without further annual approval by the Beloit City Council so long as any such future annual renewal does not involve substantive changes from the attached Intergovernmental Agreement.

Adopted this 3<sup>rd</sup> day of January, 2011.

**City Council of the City of Beloit**

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**Kevin D. Leavy, President**

**Attest:**

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**Carol S. Alexander, WCPC/MMC, City Clerk**

# CITY OF BELOIT

## REPORTS AND PRESENTATIONS TO CITY COUNCIL

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**Topic:** City of Beloit Contract on behalf of the Stateline Area Transportation Study with the Illinois Department of Transportation to fund SLATS

**Date:** January 3, 2011

**Presenter(s):** David Botts

**Department(s):** Public Works / Engineering Division

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**Overview/Background Information:** Resolution approving the Intergovernmental Agreement (Contract) between the City of Beloit and the Illinois Department of Transportation for the reimbursement of expenses for the Stateline Area Transportation Study (SLATS).

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**Key Issues (maximum of 5):**

1. Agreement should be completed as soon as possible so expenses starting January 1, 2010 can be reimbursed.
2. The Federal Funds are \$67,000, State IDOT Funds are \$11,343 and Local Illinois Community Funds are \$8,375 for a total of \$86,718, with no City of Beloit Funds expended for this contract for the Illinois side of SLATS operations.

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**Conformance to Strategic Plan (List key goals this action would support and briefly discuss its impact on the City's mission.):**

This agreement conforms to the Strategic Plan Goal # 5 by providing intergovernmental coordination promoting regional development.

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**Sustainability (Briefly comment on the sustainable long term impact of this policy or program related to how it will impact both the built and natural environment utilizing the four following eco-municipality guidelines.):**

- **Reduce dependence upon fossil fuels:** A goal of SLATS is to reduce usage of fuel.
- **Reduce dependence on chemicals and other manufacturing substances that accumulate in nature:** N/A
- **Reduce dependence on activities that harm life sustaining eco-systems:** N/A
- **Meet the hierarchy of present and future human needs fairly and efficiently:** Environmental justice and related rules and regulations apply to the planning and programming process as attested to in SLATS documents.

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**Action required/Recommendation:**

The Engineering Division recommends approval of the intergovernmental agreement.

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**Fiscal Note/Budget Impact:**

Approval of this agreement will not have an adverse impact on the budget and would likely have a positive impact on long-term development of the Beloit regional area in both Wisconsin and Illinois.

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**Attachments:**

Resolution & Intergovernmental Agreement



Governmental Body Name City of Beloit		
Address 100 State Street		
City, State, Zip Beloit, Wisconsin 53511		
Remittance Address (if different from above)		
City, State, Zip		
Telephone Number 608/364-6702	Fax Number 608/364-6609	FEIN/TIN 39-6005397

Brief Description of Service (full description specified in Part 5) Funds for this Agreement will be used to conduct 3-C (Continuous, Coordinated and Comprehensive) transportation planning activities for the Stalene Metropolitan Planning area, covering South Beloit, Illinois, and their contiguous urbanized areas.			
Compensation Method (full details specified in Part 6) Flat Rate			Agreement Term From: January 01, 2011
Total Compensation Amount \$78,343		Advance Pay <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	To: December 31, 2011

**REQUIRED SIGNATURES**

By signing below, the Governmental Body and the Department agree to comply with and abide by all provisions set forth in Parts 1-7 herein and any Appendices thereto.

**For The Governmental Body:**

_____ Signature and Job Title of Authorized Representative	_____ Type or Print Name of Authorized Representative	_____ Date
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**For The Department:**

_____ Keith M. Sherman, Bureau Chief, Urban Program Planning	_____ Ellen Schanzle-Haskins, Chief Counsel (Approved as to form)	_____ Date
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By \_\_\_\_\_

_____ Charles J. Ingersoll, Director, Office of Planning & Programming	_____ Matthew R. Hughes, Acting Director, Finance & Administration	_____ Date
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Date: \_\_\_\_\_

By \_\_\_\_\_

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

_____ Gary Hannig, Secretary of Transportation	_____ Date
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By \_\_\_\_\_

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Title

**INTERGOVERNMENTAL AGREEMENT**  
**FOR**  
**3-C TRANSPORTATION PLANNING ACTIVITIES**

This Agreement is by and between

City of Beloit

Please type or print legibly the GOVERNMENTAL BODY'S legal name and

100 State Street

Beloit, Wisconsin

Attn: Bob Soltau

E-mail: soltaub@ci.beloit.wi.us

hereinafter called the GOVERNMENTAL BODY, and the State of Illinois, acting by and through its Department of Transportation, hereinafter called the DEPARTMENT.

Part 1	Scope/Compensation/Term
Part 2	General Provisions
Part 3	Federally Funded Agreements
Part 4	Specific Provisions
Part 5	Scope of Services/Responsibilities
Part 6	Compensation for Services
Part 7	Agreement Award Notification

**PART 1**  
**SCOPE / COMPENSATION / TERM**

- A. Scope of Services and Responsibilities.** The DEPARTMENT and the GOVERNMENTAL BODY agree as specified in Part 5.
- B. Compensation.** Compensation (if any) shall be as specified in Part 6.
- C. Term of Agreement.** The term of this Agreement shall be from **January 01, 2010 to December 31, 2010**.
- D. Amendments.** All changes to this Agreement must be mutually agreed upon by the DEPARTMENT and the GOVERNMENTAL BODY and be incorporated by written amendment, signed by the parties.
- E. Renewal.** This Agreement may not be renewed upon written agreement by the parties.

**PART 2**  
**GENERAL PROVISIONS**

**A. Changes.** If any circumstance or condition in this Agreement changes, the GOVERNMENTAL BODY must notify the DEPARTMENT in writing within seven days.

**B. Compliance/Governing Law.** The terms of this Agreement shall be construed in accordance with the laws of the State of Illinois. Any obligations and services performed under this Agreement shall be performed in compliance with all applicable state and federal laws.

**C. Non-Appropriation.** This Agreement is subject to termination and cancellation in any year for which the General Assembly or the United States Congress fails to make an appropriation to make payments under the terms of the Agreement.

**D. Records Inspection.** The DEPARTMENT or a designated representative shall have access to the GOVERNMENTAL BODY's work and applicable records whenever it is in preparation or progress, and the GOVERNMENTAL BODY shall provide for such access and inspection.

**E. Records Preservation.** The GOVERNMENTAL BODY, shall maintain for a minimum of **three years** after the completion of the Agreement, adequate books, records and supporting documents to verify the amounts, recipients and uses of all disbursements of funds passing in conjunction with the Agreement.

**F. Subcontracting/Procurement Procedures/Employment of Department Personnel**

1. **Subcontracting.** Subcontracting, assignment or transfer of all or part of the interests of the GOVERNMENTAL BODY concerning any of the obligations covered by this Agreement is prohibited without prior written consent of the DEPARTMENT.

2. **Procurement of Goods or Services – Federal Funds.** For purchases of products or services with any Federal funds that cost more than \$3,000.00 but less than the simplified acquisition threshold fixed at 41 U.S.C 403(11), (currently set at \$100,000.00) the GOVERNMENTAL BODY shall obtain price or rate quotations from an adequate number (at least three) of qualified sources. Procurement of products or services with any Federal funds that are in excess of the simplified acquisition threshold fixed at 41 U.S.C. 403(11), (currently set at \$100,000.00) will require the GOVERNMENTAL BODY to use the Invitation for Bid process or the Request for Proposal process. In the absence of formal codified procedures of the GOVERNMENTAL BODY, the procedures of the DEPARTMENT will be used, provided that the procurement procedures conform to the provisions in Part 3(K) below. The GOVERNMENTAL BODY may only procure products or services from one source with any Federal funds if: (1) the products or services are available only from a single source; or (2) the DEPARTMENT authorizes such a procedure; or, (3) after solicitation of a number of sources, competition is determined inadequate.

3. **Procurement of Goods or Services – State Funds.** For purchases of products or services with any State of Illinois funds that cost more than \$10,000.00, (\$5,000.00 for professional and artistic services) but less than the small purchase amount set by the Illinois Procurement Code Rules, (currently set at \$31,300.00 and \$20,000.00 for professional and artistic services) the GOVERNMENTAL BODY shall obtain price or rate quotations from an adequate number (at least three) of qualified sources. Procurement of products or services with any State of Illinois funds in excess of the small purchase amount (currently set at \$31,300.00 for goods and services and \$20,000.00 for professional and artistic services) will require the GOVERNMENTAL BODY to use the Invitation for Bid process or the Request for Proposal process. In the absence of formal codified procedures of the GOVERNMENTAL BODY, the procedures of the DEPARTMENT will be used. The GOVERNMENTAL BODY may only procure products or services from one source with any State of Illinois funds if: (1) the products or services are available only from a single source; or (2) the DEPARTMENT authorizes such a procedure; or, (3) after solicitation of a number of sources, competition is determined inadequate.

The GOVERNMENTAL BODY shall include a requirement in all contracts with third parties that the contractor or consultant will comply with the requirements of this Agreement in performing such contract, and that the contract is subject to the terms and conditions of this Agreement.

4. **EMPLOYMENT OF DEPARTMENT PERSONNEL.** The GOVERNMENTAL BODY will not employ any person or persons currently employed by the DEPARTMENT for any work required by the terms of this Agreement.



**PART 3**  
**FEDERALLY FUNDED AGREEMENTS**

**A. Standard Assurances.** The GOVERNMENTAL BODY assures that it will comply with all applicable federal statutes, regulations, executive orders, Federal Transit Administration (FTA) circulars, and other federal requirements in carrying out any project supported by federal funds. The GOVERNMENTAL BODY recognizes that federal laws, regulations, policies, and administrative practices may be modified from time to time and those modifications may affect project implementation. The GOVERNMENTAL BODY agrees that the most recent federal requirements will apply to the project.

**B. Certification Regarding Lobbying.** As required by the United States Department of Transportation (U.S. DOT) regulations, "New Restrictions on Lobbying," at 49 CFR 20.110, the GOVERNMENTAL BODY'S authorized representative certifies to the best of his or her knowledge and belief that for each agreement for federal assistance exceeding \$100,000:

1. No federal appropriated funds have been or will be paid by or on behalf of the GOVERNMENTAL BODY to any person to influence or attempt to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress regarding the award of federal assistance, or the extension, continuation, renewal, amendment, or modification of any federal assistance agreement; and
2. If any funds other than federal appropriated funds have been or will be paid to any person to influence or attempt to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any application for federal assistance, the GOVERNMENTAL BODY assures that it will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," including information required by the instructions accompanying the form, which form may be amended to omit such information as authorized by 31 U.S.C. 1352.
3. The language of this certification shall be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements).

The GOVERNMENTAL BODY understands that this certification is a material representation of fact upon which reliance is placed and that submission of this certification is a prerequisite for providing federal assistance for a transaction covered by 31 U.S.C. 1352. The GOVERNMENTAL BODY also understands that any person who fails to file a required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

**C. Nondiscrimination Assurance.** As required by 49 U.S.C. 5332 (which prohibits discrimination on the basis of race, color, creed, national origin, sex, or age, and prohibits discrimination in employment or business opportunity), Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. 2000d, and U.S. DOT regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation--Effectuation of Title VI of the Civil Rights Act," 49 CFR Part 21 at 21.7, the GOVERNMENTAL BODY assures that it will comply with all requirements of 49 CFR Part 21; FTA Circular 4702.1A, "Title VI and Title VI - Dependent Guidelines for Federal Transit Administration Recipients," and other applicable directives, so that no person in the United States, on the basis of race, color, national origin, creed, sex, or age will be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination in any program or activity (particularly in the level and quality of transportation services and transportation-related benefits) for which the GOVERNMENTAL BODY receives federal assistance.

Specifically, during the period in which federal assistance is extended to the project, or project property is used for a purpose for which the federal assistance is extended or for another purpose involving the provision of similar services or benefits, or as long as the GOVERNMENTAL BODY retains ownership or possession of the project property, whichever is longer, the GOVERNMENTAL BODY assures that:

1. Each project will be conducted, property acquisitions will be undertaken, and project facilities will be operated in accordance with all applicable requirements of 49 U.S.C. 5332 and 49 CFR Part 21, and understands that this assurance extends to its entire facility and to facilities operated in connection with the project.
2. It will promptly take the necessary actions to effectuate this assurance, including notifying the public that complaints of discrimination in the provision of transportation-related services or benefits may be filed with U.S. DOT or FTA. Upon request by U.S. DOT or FTA, the GOVERNMENTAL BODY assures that it will submit the required information pertaining to its compliance with these requirements.
3. It will include in each subagreement, property transfer agreement, third party contract, third party subcontract, or participation agreement adequate provisions to extend the requirements of 49 U.S.C. 5332 and 49 CFR Part 21 to other parties involved therein including any subrecipient, transferee, third party contractor, third party subcontractor at any level, successor in interest, or any other participant in the project.

4. Should it transfer real property, structures, or improvements financed with federal assistance to another party, any deeds and instruments recording the transfer of that property shall contain a covenant running with the land assuring nondiscrimination for the period during which the property is used for a purpose for which the federal assistance is extended or for another purpose involving the provision of similar services or benefits.
5. The United States has a right to seek judicial enforcement with regard to any matter arising under the Act, regulations, and this assurance.
6. It will make any changes in its 49 U.S.C. 5332 and Title VI implementing procedures as U.S. DOT or FTA may request.

**D. Control of Property.** The GOVERNMENTAL BODY certifies that the control, utilization and disposition of property or equipment acquired using federal funds is maintained according to the provisions of OMB Circular A-102 Common Rule.

**E. Cost Principles.** The cost principles of this Agreement are governed by the cost principles found in 49 CFR Part 18.22 and OMB Circular A-87, "Cost Principles for State, local or Indian tribal governments", and all costs included in this Agreement are allowable under 49 CFR Part 18.22 and OMB Circular A-87, "Cost Principles for State, local or Indian tribal governments".

**F. Debarment.** The GOVERNMENTAL BODY shall comply with Debarment provisions as contained in 2 CFR Part 1200, as amended. The GOVERNMENTAL BODY certifies that to the best of its knowledge and belief, the GOVERNMENTAL BODY and the GOVERNMENTAL BODY'S principals: a) are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal department or agency; b) within a three-year period preceding this Agreement have not been convicted of or had a civil judgment rendered against it 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 anti-trust 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 subsection (b), above; and d) have not within a three-year period preceding this Agreement had one or more public transactions (federal, state or local) terminated for cause or default.

The inability of the GOVERNMENTAL BODY to certify to the certification in this section will not necessarily result in denial of participation in this Agreement. The GOVERNMENTAL BODY shall submit an explanation of why it cannot provide the certification in this section. This certification is a material representation of fact upon which reliance was placed when the DEPARTMENT determined whether to enter into this transaction. If it is later determined that the GOVERNMENTAL BODY knowingly rendered an erroneous certification, in addition to other remedies available to the federal government, the DEPARTMENT may terminate this Agreement for cause. The GOVERNMENTAL BODY shall provide immediate written notice to the DEPARTMENT if at any time the GOVERNMENTAL BODY learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this Part shall have the meaning set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549.

The GOVERNMENTAL BODY agrees that it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized, in writing, by the DEPARTMENT. The GOVERNMENTAL BODY agrees that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the DEPARTMENT, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. The GOVERNMENTAL BODY may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless the GOVERNMENTAL BODY knows the certification is erroneous. The GOVERNMENTAL BODY may decide the method and frequency by which it determines the eligibility of its principals. The GOVERNMENTAL BODY may, but is not required to, check the Non-procurement List. If the GOVERNMENTAL BODY knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation, in addition to other remedies available to the federal government, the DEPARTMENT may terminate this Agreement for cause or default.

Nothing contained in this section shall be construed to require establishment of a system of records in order to render in good faith the certification required by this section. The knowledge and information of the GOVERNMENTAL BODY is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

**G. Single Audit.** The Single Audit Act of 1984 (Public Law 98-502) and the Single Audit Amendments of 1996 (P.L. 104-156) require the following:

1. State or local governments that receive \$500,000 or more a year in federal financial assistance shall have an audit made in accordance with the Office of Management and Budget (OMB) Circular No. A-133.
2. State or local governments that receive less than \$500,000 a year shall be exempt from compliance with the Act and other federal requirements.
3. Nothing in this paragraph exempts state or local governments from maintaining records of federal financial assistance or from providing access to such records to federal Agencies, as provided for in federal law or in Circular A-133 "Audits of States, Local Governments and Non-Profit Organizations."
4. A copy of the audit report must be submitted to the DEPARTMENT within 30 days after completion of the audit, but no later than one year after the end of the GOVERNMENTAL BODY'S fiscal year.

**H. Drug Free Workplace.** The GOVERNMENTAL BODY certifies that it will comply with the requirements of the federal Drug Free Workplace Act, 41 U.S.C. 702 as amended, and 49 CFR 32.

**I. Disadvantaged Business Enterprise Assurance.** In accordance with 49 CFR 26.13(a), as amended, the GOVERNMENTAL BODY assures that it shall not discriminate on the basis of race, color, national origin, or sex in the implementation of the project and in the award and performance of any third party contract, or subagreement supported with Federal assistance derived from the U.S. DOT or in the administration of its Disadvantaged Business Enterprise (DBE) program or the requirements of 49 CFR Part 26, as amended. The GOVERNMENTAL BODY assures that it shall take all necessary and reasonable steps set forth in 49 CFR Part 26, as amended, to ensure nondiscrimination in the award and administration of all third party contracts and subagreements supported with Federal assistance derived from the U.S. DOT. The GOVERNMENTAL BODY'S DBE program, as required by 49 CFR Part 26, as amended, will be incorporated by reference and made a part of this Agreement for any Federal assistance awarded by FTA or U.S. DOT. Implementation of this DBE program is a legal obligation of the GOVERNMENTAL BODY, and failure to carry out its terms shall be treated as a violation of the Agreement. Upon notification by the Federal Government or the DEPARTMENT to the GOVERNMENTAL BODY of its failure to implement its approved DBE program, the U.S. DOT may impose sanctions as provided for under 49 CFR Part 26, as amended, and may in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001, as amended, and/or the Program Fraud Remedies Act, 31 U.S.C. 3801 *et seq.*, as amended.

**J. Assurance of Nondiscrimination on the Basis of Disability.** As required by U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," at 49 CFR 27.9, the GOVERNMENTAL BODY assures that, as a condition to the approval or extension of any Federal assistance awarded by FTA to construct any facility, obtain any rolling stock or other equipment, undertake studies, conduct research, or to participate in or obtain any benefit from any program administered by FTA, no otherwise qualified person with a disability shall be, solely by reason of that disability, excluded from participation in, denied the benefits of, or otherwise subjected to discrimination in any program or activity receiving or benefiting from Federal assistance administered by the FTA or any entity within U.S. DOT. The GOVERNMENTAL BODY assures that project implementation and operations so assisted will comply with all applicable requirements of U.S. DOT regulations implementing the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794, *et seq.*, and the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. 12101 *et seq.*, and implementing U.S. DOT regulations at 49 CFR parts 27, 37, and 38, and any applicable regulations and directives issued by other Federal departments or agencies.

**K. Procurement Compliance Certification.** The GOVERNMENTAL BODY certifies that its procurements and procurement system will comply with all applicable third party procurement requirements of Federal laws, executive orders, regulations, and FTA directives, and requirements, as amended and revised, as well as other requirements FTA may issue including FTA Circular 4220.1F, "Third Party Contracting Guidance," and any revisions thereto, to the extent those requirements are applicable. The GOVERNMENTAL BODY certifies that it will include in its contracts financed in whole or in part with FTA assistance all clauses required by Federal laws, executive orders, or regulations, and will ensure that each subrecipient and each contractor will also include in its subagreements and its contracts financed in whole or in part with FTA assistance all applicable clauses required by Federal laws, executive orders, or regulations.

**L. Intelligent Transportation Systems Program.** As used in this assurance, the term Intelligent Transportation Systems (ITS) project is defined to include any project that in whole or in part finances the acquisition of technologies or systems of technologies that provide or significantly contribute to the provision of one or more ITS user services as defined in the "National ITS Architecture."

1. In accordance with Section 5307(c) of SAFETEA-LU, 23 U.S.C. 502 note, the GOVERNMENTAL BODY assures it will comply with all applicable requirements of Section V (Regional ITS Architecture and Section VI

(Project Implementation)) of FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," at 66 *Fed. Reg.* 1455 *et seq.*, January 8, 2001, and other FTA requirements that may be issued in connection with any ITS project it undertakes financed with Highway Trust Funds (including funds from the mass transit account) or funds made available for the Intelligent Transportation Systems Program authorized by SAFETEA-LU, 23 U.S.C. 502 note.

2. With respect to any ITS project financed with Federal assistance derived from a source other than Highway Trust Funds (including funds from the Mass Transit Account) or SAFETEA-LU, 23 U.S.C. 502 note, the GOVERNMENTAL BODY assures that it will use its best efforts to ensure that any ITS project it undertakes will not preclude interface with other intelligent transportation systems in the Region.

**M. Davis-Bacon Act.** To the extent applicable, the GOVERNMENTAL BODY will comply with the Davis-Bacon Act, as amended, 40 U.S.C. 3141 *et seq.*, the Copeland "Anti-Kickback" Act, as amended, 18 U.S.C. 874, and the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. 3701 *et seq.*, regarding labor standards for federally assisted subagreements.

**N. Certifications and Assurances Required by the U.S. Office of Management and Budget (OMB) (SF-424B and SF-424D)**

As required by OMB, the GOVERNMENTAL BODY certifies that it:

1. Has the legal authority and the institutional, managerial, and financial capability (including funds sufficient to pay the non-federal share of project cost) to ensure proper planning, management, and completion of the project.
2. Will give the U.S. Secretary of Transportation, the Comptroller General of the United States, and, if appropriate, the state, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives;
3. 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;
4. Will initiate and complete the work within the applicable project time periods;
5. Will comply with all applicable Federal statutes relating to nondiscrimination including, but not limited to:
  - Title VI of the Civil Rights Act, 42 U.S.C. 2000d, which prohibits discrimination on the basis of race, color, or national origin;
  - Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. 1681 through 1683, and 1685 through 1687, and U.S. DOT regulations, "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance," 49 CFR Part 25, which prohibit discrimination on the basis of sex;
  - Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794, which prohibits discrimination on the basis of handicap;
  - The Age Discrimination Act of 1975, as amended, 42 U.S.C. 6101 through 6107, which prohibits discrimination on the basis of age;
  - The Drug Abuse, Prevention, Treatment and Rehabilitation Act, Public Law 92-255, and amendments thereto, 21 U.S.C. 1101 *et seq.* relating to nondiscrimination on the basis of drug abuse;
  - The Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act, Public Law 91-616, and amendments thereto, 42 U.S.C. 4541 *et seq.* relating to nondiscrimination on the basis of alcohol abuse or alcoholism;
  - The Public Health Service Act of 1912, as amended, 42 U.S.C. 290dd-2 related to confidentiality of alcohol and drug abuse patient records;
  - Title VIII of the Civil Rights Act, 42 U.S.C. 3601 *et seq.*, relating to nondiscrimination in the sale, rental, or financing of housing;
  - Any other nondiscrimination provisions in the specific statutes under which Federal assistance for the project may be provided including, but not limited, to 49 U.S.C. 5332, which prohibits discrimination on the basis of race, color, creed, national origin, sex, or age, and prohibits discrimination in employment or business opportunity, and Section 1101(b) of the Transportation Equity Act for the 21st Century, 23 U.S.C. 101 note, which provides for participation of disadvantaged business enterprises in FTA programs; and
  - Any other nondiscrimination statute(s) that may apply to the project.
6. Will comply with all federal environmental standards applicable to the project, including but not limited to:
  - Institution of environmental quality control measures under the National Environmental Policy Act of 1969 and Executive Order 11514;

- Notification of violating facilities pursuant to Executive Order 11738;
  - Protection of wetlands pursuant to Executive Order 11990;
  - Evaluation of flood hazards in floodplains in accordance with Executive Order 11988;
  - Assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et seq.;
  - Conformity of federal Actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended, 42 U.S.C. 7401 et seq.;
  - Protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended;
  - Protection of endangered species under the Endangered Species Act of 1973, as amended;
  - The Wild and Scenic Rivers Act of 1968, 16 U.S.C. 1271 et seq., which relates to protecting components or potential components of the national wild scenic rivers system.
7. Will comply with all other federal statutes applicable to the project, including but not limited to:
- Title II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, which provides for fair and equitable treatment of persons displaced whose property is acquired as a result of federal or federally-assisted programs;
  - The Hatch Act, 5 U.S.C. 1501-1508 and 7324-7328, which limits the political activities of employees whose principal employment activities are funded in whole or in part with federal funds;
  - The Flood Disaster Protection Act of 1973, which requires the purchase of flood insurance in certain instances;
  - Section 106 of the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470;
  - Executive Order 11593, which relates to identification and protection of historic properties;
  - The Archaeological and Historic Preservation Act of 1974, 16 U.S.C. 469a-1 et seq.;
  - The Laboratory Animal Welfare Act of 1966, as amended, 7 U.S.C. 2131 et seq., which relates to the care, handling, and treatment of warm-blooded animals held for research, teaching, or other activities supported by a federal award of assistance;
  - The Lead-Based Paint Poisoning Prevention Act, 42 U.S.C. 4801 et seq., which relates to prohibiting the use of lead-based paint in construction or rehabilitation of residence structures;
  - The Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

**O. Energy Conservation** To the extent applicable, the GOVERNMENTAL BODY and its third party contractors at all tiers shall comply with mandatory standards and policies relating to energy efficiency that are contained in applicable state energy conservation plans issued in compliance with the Energy Policy and Conservation Act, 42 U.S.C. Section 6321 et seq.

**P. Clean Water** For all contracts and subcontracts exceeding \$100,000, the GOVERNMENTAL BODY agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Water Pollution Control Act, 33 U.S.C. Section 1251 et seq.

**Q. Clean Air** For all contracts and subcontracts exceeding \$100,000, the GOVERNMENTAL BODY agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, 42 U.S.C. 7401 et seq.

**R. Eligibility For Employment In The United States** The GOVERNMENTAL BODY shall complete and keep on file, as appropriate, Immigration and Naturalization Service Employment Eligibility Forms (I-9). These forms shall be used by the GOVERNMENTAL BODY to verify that persons employed by the GOVERNMENTAL BODY are eligible to work in the United States.

**S. Buy America** Only steel, iron and manufactured products produced in the United States may be purchased with Federal funds unless the Secretary of Transportation determines that such domestic purchases would be inconsistent with the public interest; that such materials are not reasonably available and of satisfactory quality; or that inclusion of domestic materials will increase the cost of overall project contract by more than 25 percent. Clear justification for the purchase of non-domestic items must be in the form of a waiver request submitted to and approved by the Secretary of Transportation.

**T. False Or Fraudulent Statements Or Claims** The GOVERNMENTAL BODY acknowledges that if it makes a false, fictitious, or fraudulent claim, statement, submission, or certification to the Government in connection with this Project, the Government reserves the right to impose on the GOVERNMENTAL BODY the penalties of 18 U.S.C.

Section 1001, 49 U.S.C. Section 5307, 31 U.S.C. Section 3801, and 49 CFR Part 31, as the Government may deem appropriate. GOVERNMENTAL BODY agrees to include this clause in all state and federal assisted contracts and subcontracts.

**U. Changed Conditions Affecting Performance** The GOVERNMENTAL BODY shall immediately notify the DEPARTMENT of any change in conditions or local law, or of any other event which may significantly affect its ability to perform the Project in accordance with the provisions of this Agreement.

**V. Third Party Disputes Or Breaches** The GOVERNMENTAL BODY agrees to pursue all legal rights available to it in the enforcement or defense of any third party contract, and FTA or U.S. DOT and the DEPARTMENT reserve the right to concur in any compromise or settlement of any third party contract claim involving the GOVERNMENTAL BODY. The GOVERNMENTAL BODY will notify FTA or U.S. DOT and the DEPARTMENT of any current or prospective major dispute pertaining to a third party contract. If the GOVERNMENTAL BODY seeks to name the Government as a party to the litigation, the GOVERNMENTAL BODY agrees to inform both FTA or U.S. DOT and the DEPARTMENT before doing so. The Government retains a right to a proportionate share of any proceeds derived from any third party recovery. Unless permitted otherwise by the Government, the GOVERNMENTAL BODY will credit the Project Account with any liquidated damages recovered. Nothing herein is intended to nor shall it waive U.S. DOT's, FTA's or the DEPARTMENT's immunity to suit.

**W. Fly America** GOVERNMENTAL BODY will comply with 49 U.S.C. §40118, 4 CFR §52 and U.S. GAO Guidelines B- 138942, 1981 U.S. Comp. Gen. LEXIS 2166, March 31, 1981 regarding costs of international air transportation by U.S. Flag air carriers.

**X. Non-Waiver** The GOVERNMENTAL BODY agrees that in no event shall any action or inaction on behalf of or by the DEPARTMENT, including the making by the DEPARTMENT of any payment under this Agreement, constitute or be construed as a waiver by the DEPARTMENT of any breach by the GOVERNMENTAL BODY of any terms of this Agreement or any default on the part of the GOVERNMENTAL BODY which may then exist; and any action, including the making of a payment by the DEPARTMENT, while any such breach or default shall exist, shall in no way impair or prejudice any right or remedy available to the DEPARTMENT in respect to such breach or default. The remedies available to the DEPARTMENT under this Agreement are cumulative and not exclusive. The waiver or exercise of any remedy shall not be construed as a waiver of any other remedy available hereunder or under general principles of law or equity.

**Y. Preference for Recycled Products** To the extent applicable, the GOVERNMENTAL BODY agrees to give preference to the purchase of recycled products for use in this Project pursuant to the various U.S. Environmental Protection Agency (EPA) guidelines, "Comprehensive Procurement Guidelines for Products Containing Recovered Materials," 40 CFR Part 247, which implements section 6002 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6962.

**Z. Cargo Preference - Use of United States Flag Vessels.** The GOVERNMENTAL BODY agrees to comply with 46 U.S.C. § 55305 and 46 CFR Part 381 and to insert the substance of those regulations in all applicable subcontracts issued pursuant to this Agreement, to the extent those regulations apply to the Project.

All of the requirements listed in Part 3, paragraphs A through Z apply to the federally funded project. The GOVERNMENTAL BODY agrees to include these requirements in each contract and subcontract financed in whole or in part with federal assistance.

#### **PART 4 SPECIFIC PROVISIONS**

**A. Invoices.** The amount shown on each invoice shall be in accordance with the rates established in Part 6. All non-labor costs, if allowable, shall be listed and itemized as provided in Part 6. Any invoices/bills issued by the GOVERNMENTAL BODY to the DEPARTMENT pursuant to this Agreement shall be sent to the following address:

**Illinois Department of Transportation  
Bureau of Business Services  
Attn: Juanita Akers  
2300 South Dirksen Parkway, Room 302  
Springfield, IL 62764**

All invoices shall be signed by an authorized representative of the GOVERNMENTAL BODY.

**B. Billing and Payment.** All invoices for services performed and expenses incurred by the GOVERNMENTAL BODY prior to July 1st of each year must be presented to the DEPARTMENT no later than July 31 of that same year for payment under this Agreement. Notwithstanding any other provision of this Agreement, the DEPARTMENT shall not be obligated to make payment to the GOVERNMENTAL BODY on invoices presented after said date. Failure by the GOVERNMENTAL BODY to present such invoices prior to said date may require the GOVERNMENTAL BODY to seek payment of such invoices through the Illinois Court of Claims and the Illinois General Assembly. No payments will be made for services performed prior to the effective date of this Agreement. The DEPARTMENT will send all payments to the GOVERNMENTAL BODY's remittance address listed in this Agreement.

**C. Termination.** If the DEPARTMENT is dissatisfied with the GOVERNMENTAL BODY'S performance or believes that there has been a substantial decrease in the GOVERNMENTAL BODY'S performance, the DEPARTMENT may give written notice that remedial action shall be taken by the GOVERNMENTAL BODY within seven (7) calendar days. If such action is not taken within the time afforded, the DEPARTMENT may terminate the Agreement by giving seven (7) days written notice to the GOVERNMENTAL BODY. Additionally, the Department may terminate the Agreement by giving **thirty (30)** days written notice. In either instance, the GOVERNMENTAL BODY shall be paid for the value of all authorized and acceptable work performed prior to the date of termination, based upon the payment terms set forth in the Agreement.

**D. Location of Service.** Service to be performed by the GOVERNMENTAL BODY shall be performed as described in Part 5.

**E. Ownership of Documents/Title to Work.** All documents, data and records produced by the GOVERNMENTAL BODY in carrying out the GOVERNMENTAL BODY'S obligations and services hereunder, without limitation and whether preliminary or final, shall become and remain the property of the DEPARTMENT. The DEPARTMENT shall have the right to use all such documents, data and records without restriction or limitation and without additional compensation to the GOVERNMENTAL BODY. All documents, data and records utilized in performing research shall be available for examination by the DEPARTMENT upon request. Upon completion of the services hereunder or at the termination of this Agreement, all such documents, data and records shall, at the option of the DEPARTMENT, be appropriately arranged, indexed and delivered to the DEPARTMENT by the GOVERNMENTAL BODY.

**F. Software.** All software and related computer programs produced and developed by the GOVERNMENTAL BODY (or authorized contractor or subcontractor thereof) in carrying out the GOVERNMENTAL BODY'S obligation hereunder, without limitation and whether preliminary or final, shall become and remain the property of both the DEPARTMENT and the GOVERNMENTAL BODY. The DEPARTMENT shall be free to sell, give, offer or otherwise provide said software and related computer programs to any other agency, department, commission, or board of the State of Illinois, as well as any other agency, department, commission, board, or other governmental entity of any country, state, county, municipality, or any other unit of local government, or to any entity consisting of representatives of any unit of government, for official use by said entity. Additionally, the DEPARTMENT shall be free to offer or otherwise provide said software and related computer programs to any current or future contractor.

The DEPARTMENT agrees that any entity to whom the software and related computer programs will be given, sold or otherwise offered shall be granted only a use license, limited to use for official or authorized purposes, and said entity shall otherwise be prohibited from selling, giving or otherwise offering said software and related computer programs without the written consent of both the DEPARTMENT and the GOVERNMENTAL BODY.

**G. Confidentiality Clause.** Any documents, data, records, or other information given to or prepared by the GOVERNMENTAL BODY pursuant to this Agreement shall not be made available to any individual or organization without prior written approval by the DEPARTMENT. All information secured by the GOVERNMENTAL BODY from the DEPARTMENT in connection with the performance of services pursuant to this Agreement shall be kept confidential unless disclosure of such information is approved in writing by the DEPARTMENT.

**H. Reporting/Consultation.** The GOVERNMENTAL BODY shall consult with and keep the DEPARTMENT fully informed as to the progress of all matters covered by this Agreement.

**I. Travel Expenses.** Expenses for travel, lodging, or per diem could possibly be paid by the DEPARTMENT pursuant to this Agreement.

**J. Indemnification.** Unless prohibited by State law, the GOVERNMENTAL BODY agrees to hold harmless and indemnify the DEPARTMENT, and its officials, employees, and agents, from any and all losses, expenses, damages (including loss of use), suits, demands and claims, and shall defend any suit or action, whether at law or in equity, based

on any alleged injury or damage of any type arising from the actions or inactions of the GOVERNMENTAL BODY and/or the GOVERNMENTAL BODY'S employees, officials, agents, contractors and subcontractors, and shall pay all damages, judgments, costs, expenses, and fees, including attorney's fees, incurred by the DEPARTMENT and its officials, employees and agents in connection therewith.

**K. Equal Employment Opportunities, Affirmative Action, Sexual Harassment.** The GOVERNMENTAL BODY will comply with the Illinois Human Rights Act with respect to public contracts, including equal employment opportunity, refraining from unlawful discrimination and having a written sexual harassment policy.

**L. Tax Identification Number.**

GOVERNMENTAL BODY certifies that:

1. The number shown on this form is a correct taxpayer identification number (or it is waiting for a number to be issued.), **and**
2. It is not subject to backup withholding because: (a) it is exempt from backup withholding, or (b) has not been notified by the Internal Revenue Service (IRS) that it is subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified the GOVERNMENTAL BODY that it is no longer subject to backup withholding, **and**
3. It is a U.S. entity (including a U.S. resident alien).

NAME OF GOVERNMENTAL BODY: City of Beloit

Taxpayer Identification Number: 39-6005397

Legal Status (check one):

- |  |  |
|--|--|
| <input type="checkbox"/> Tax-exempt        | <input checked="" type="checkbox"/> Government |
| <input type="checkbox"/> Nonresident Alien | <input type="checkbox"/> Other _____           |

**M. International Boycott.** The GOVERNMENTAL BODY certifies that neither GOVERNMENTAL BODY nor any substantially owned affiliate is participating or shall participate in an international boycott in violation of the U.S. Export Administration Act of 1979 or the applicable regulations of the U.S. Department of Commerce. This applies to contracts that exceed \$10,000 (30 ILCS 582).

**N. Forced Labor.** The GOVERNMENTAL BODY certifies it complies with the State Prohibition of Goods from Forced Labor Act, and certifies that no foreign-made equipment, materials, or supplies furnished to the DEPARTMENT under this Agreement have been or will be produced in whole or in part by forced labor, or indentured labor under penal sanction (30 ILCS 583)

**PART 5  
SCOPE OF SERVICE/RESPONSIBILITIES**

The Governmental Body will provide the work described in the approved CY2011 Unified Work Program (UWP) for the Stateline Metropolitan Planning Area. Those activities in which the Department will participate with federal Metropolitan Planning (PL) funds, federal State Planning and Research (SPR) funds, Federal Transit Administration (FTA) Section 5303 funds and State Metropolitan Planning Appropriation funds are shown in the following work elements.

1. **PROGRAM ADMINISTRATION** – The Governmental Body will administer the program; prepare necessary reports; coordinate with other governmental agencies; and participate with other groups in the development, application and interpretation of traffic simulation models.
2. **SHORT-RANGE PLANNING** – The Governmental Body will collect and maintain a database of vehicle movements, parking and other information; monitor and review land use, changes and developments; continue to assist the United States Bureau of Census as needed in conjunction with the 2010 Census; coordinate with the Department in deploying new technologies and operational safety improvements of the Intelligent Transportation System (ITS); monitor the effectiveness of the Public Involvement Plan (PIP); monitor the multi-modal rail facility at Rochelle, IL and determine ways to maximize its positive impact to the



region; evaluate air quality and find ways to improve air ambience; participate in planning for the improvement of I-39/I-90 and I-43; provide technical assistance to local governments and other agencies; and participate in emergency response coordination and homeland security activities.

3. TRANSPORTATION IMPROVEMENT PROGRAM (TIP) – The Governmental Body will prepare the FY2010 Transportation Improve Program (TIP) which will list all federally-funded and major projects between 2010 through 2013 to be undertaken emphasizing priority dates, project costs, status and subsequent amendments; provide opportunities for the public to review and make comments on the TIP.
4. TRANSIT PLANNING – The Governmental Body will assist public transit providers to improve services; encourage coordination with other Metropolitan Planning Organizations (MPOs); work with private transportation providers in planning process involvement; evaluate opportunities for commuter rail, commuter bus and other interregional public transit.
5. LONG-RANGE PLANNING (LRP) – The Governmental Body will continue implementing the 2006-2035 LRP; develop improvements; work with local governments to update the Adjusted Urbanized Area and/or the Metropolitan Planning Area (MPA) boundaries in light of new data from the 2010 Census; conduct meetings with the public and private stakeholders; work with other governmental agencies and interest groups to assure compatibility with land use plans; provide technical assistance and coordination in the preparation and maintenance of comprehensive long-range plans; and assist in the development and finalization of statewide LRPs.
6. SPECIAL STUDIES – The Governmental Body will continue to update the Average Daily Traffic (ADT) map; refine the functional classification proposal; expand and refine the future roadway corridor study; assist the Stateline Mass Transit District (SMTD) in clarifying planning issues and in updating its transit development plan, which will produce a route and schedule guide, translation of appropriate materials into Spanish; and an evaluation of the impact of changes stemming from Adjusted Urbanized Area and Metro Area boundaries as per the 2010 Census. Governmental Body will also assist in the coordination of a study regarding the proposed eastward and southward extension of Inman Parkway to connect with the road system in the eastern part of the Metropolitan Planning Area (MPA).

Deliverables: The Governmental Body will make available, at the Department's request, copies of all work products prepared through this agreement.

**PART 6  
COMPENSATION FOR SERVICES**

Federal Metropolitan Planning (PL) Funds	\$31,544	80%
Governmental Body	3,943	10%
Department State Funds	3,943	10%
Total	\$39,430	100%
Federal Transit Administration (FTA) Section 5303 Funds	\$5,456	80%
Governmental Body	682	10%
Department State Funds	682	10%
Total	\$6,820	100%
Federal State Planning and Research (SPR) Funds	\$30,000	80%
Governmental Body	3,750	10%
Department State Funds	3,750	10%
Total	\$37,500	100%
Department State Funds	\$2,968	100%
Participation:		
Federal Funding Through Department	\$67,000	
Matching Funding By Governmental Body	8,375	
Matching Funding By DEPARTMENT	11,343	
Grand Total	\$86,718	

PART 7

AGREEMENT AWARD NOTIFICATION

**REQUIRED FOR ALL PROJECTS**

Does this project receive Federal funds?  Yes  No

Amount of Federal funds: \$31,544  
Federal Project Number: SPR-PL-3000(046)  
CFDA Number\* 20.205  
Federal Agency Federal Highway Administration  
Program Title IL Highway Planning Research Program

Amount of Federal funds: \$5,456  
Federal Project Number: IL-80-0006  
CFDA Number\* 20.505  
Federal Agency Federal Transit Administration  
Program Title Technical Studies Grant

Description: 3-C transportation and planning activities

\*For CFDA (Catalog of Federal Domestic Assistance) Number, refer to original Federal Award/Grant Agreement.

**ANNUAL CERTIFICATION FOR COMPLIANCE WITH FEDERAL OMB-  
CIRCULAR A-133**

**NOTICE**

- This certification applies ONLY to governmental agencies, local units of government and non-profit agencies expending federal funds for this project. It does not apply to for-profit public or private entities.
- If OMB Circular A-133 applies to your organization, this certification or a copy of your OMB A-133 single audit must be submitted to the department at the end of your fiscal year for any fiscal year in which you expended any federal funds related to this contract.

**NOTE: ANNUAL COMPLIANCE WITH THIS REQUIREMENT IS MANDATORY FOR EVERY YEAR IN WHICH FEDERAL FUNDS ARE EXPENDED FOR THIS PROJECT BY ANY STATES, LOCAL GOVERNMENTS OR NONPROFIT ORGANIZATIONS. FAILURE TO COMPLY WITH THE ANNUAL CERTIFICATION TO THE DEPARTMENT WILL RESULT IN THE SUSPENSION OF PAYMENTS TO REIMBURSE PROJECT COSTS.**

In accordance with OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, such non-federal entities that expend \$500,000 or more in federal awards in a year are required to have a single audit performed in accordance with OMB Circular A-133. The Illinois Department of Transportation (IDOT) is required by federal law to obtain and review the single audit of all entities that had any federally participating funds pass through it, irrespective of the amount provided by IDOT. It is the responsibility of the agencies expending federal funds to comply with the requirements of OMB Circular A-133 and determine whether they are required to have a single audit performed.

In order to comply with this requirement, your agency must provide the following information to the department on an annual basis for every year in which you expended funds for costs associated with this project:

1. If your agency expended \$500,000 (or the current OMB Circular A-133 qualifying amount) or more in federal awards from all sources, including other agencies, in a year, you are required to have a single audit performed in accordance with OMB Circular A-133 and submit a copy of the report to the department within the earlier of 30 days after completion of the single audit or no more than nine months after the end of your fiscal year end.

**This is an annual requirement for every year in which you expended funds for this project.**

2. If your agency did not expend \$500,000 (or the current OMB Circular A-133 qualifying amount) or more in federal awards from all sources, including other agencies, in any fiscal year for which you expended funds for project costs and were not required to conduct a single audit, you must complete and return the certification statement on the following page.

**This is an annual requirement for every year in which you expended funds for this project.**

3. If your agency receives multiple awards from the department, only one annual submittal of this information is required.

Please submit a copy of your OMB Circular A-133 single audit or the Single Audit Not Required Certification to:

Illinois Department of Transportation  
Audit Section, Rm. 126  
2300 South Dirksen Parkway  
Springfield, IL 62764

Attn: Julie Brooks

The single audit must be comprised of four parts. You have the option of including the four parts in one report or a combination of reports. The four parts are commonly known as:

1. Comprehensive Annual Financial Report (Financial Statements).
2. Schedule of Expenditures of Federal Awards and Independent Auditor's Report thereon.
3. Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and other matters based on an Audit of Financial Statements performed in accordance with Government Auditing Standards.
4. Independent Auditor's Report on Compliance with Requirements Applicable to each Major Program and on Internal Control over Compliance in accordance with OMB Circular A-133.

Additional information which should be submitted:

1. Corrective Action Plan(s), if applicable.
2. Management Letter, if applicable.
3. Status of Prior Year Findings, if applicable.

For your convenience, you may also submit the information via email to Julie Brooks at [Julie.Brooks@illinois.gov](mailto:Julie.Brooks@illinois.gov) or via fax at 217/785-7624. If you have any questions, please contact Julie Brooks or Ron McKechean at 217/782-5148.



# **City of Beloit**

## **Energy Efficiency and Renewable Energy Assessment**



**Submitted By: Shaw Environmental & Infrastructure, Inc.**  
**444 N. Wells Street, Suite 602**  
**Chicago, Illinois 60654**

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## *1. Executive Summary*

Increasingly, building owners and operators are focused on improving the energy performance of their buildings, thus benefitting their financial bottom line, as well as protecting the well-being of the building occupants and the environment. Rising energy prices and uncertainty in the commodity markets are also significant drivers for increasing the energy performance of a building. Energy efficiency is a proven tool for reducing energy usage and resulting operating costs. Most commercial and institutional buildings use 10 to 30 percent more energy than necessary and have abundant opportunities for savings. It has been shown that the majority of facilities can significantly reduce energy usage through the implementation of low-cost / no-cost measures and capital improvements. Often, identified capital improvements can provide an attractive return on investments from the resultant energy cost savings.

Beyond energy efficient equipment upgrades, building owners and operators are beginning to consider renewable energy projects. There are four major categories of renewable energy generation including solar, wind, hydro, and geothermal, all of which have their own applications in and around building sites. Solar and wind are currently the most popular renewable energy sources due to widespread applicability to varying project sites. Indeed, because of the numerous environmental benefits of renewable energy several local, state, and federal incentives are available for renewable project funding assistance. However, a common factor that plays a large role in renewable energy feasibility studies is the overall return on investment (ROI). How fast the project will be able to offset the initial capital costs is often the deciding factor in whether or not to pursue a renewable project.

In October of 2008, the Honeywell Energy Audit Team (HEAT) performed a comprehensive energy audit of several of the City of Beloit's (Beloit or the City) buildings and facilities. Energy conservation measures identified by the HEAT included lighting, HVAC, and building envelope projects. Since the audit, Beloit has taken a progressive approach to implementing the identified measures and has made remarkable progress within each of the buildings and facilities. On September 22<sup>nd</sup> and 23<sup>rd</sup> of 2010, Beloit, with the assistance of Shaw Environmental & Infrastructure, Inc. (Shaw), explored additional options for potential energy efficiency equipment upgrades that can be pursued. The intent of these site assessments was to point out other projects the City can pursue that were not initially detailed in the HEAT report. Additionally, Shaw was responsible for assessing each building and facility for potential renewable energy projects. Each location was examined and evaluated using Shaw's Renewable Assessment Spreadsheet (RAS). The following report is a summation of the potential energy efficiency projects and the feasibility of various renewable energy technologies.

The ten buildings and facilities evaluated are as follows:

1. City Hall/Police Department
2. Krueger-Haskell Club House
3. Public Works- Operations
4. Edwards Activity Center
5. Fire Station #1
6. Fire Station #2
7. Fire Station #3
8. Transit Headquarters
9. Grinnell Hall
10. Utilities and Engineering

## ***2. Renewable Energy Feasibility Study***

Each of the ten buildings and facilities were assessed for three types of renewable energy projects; wind electric generation, solar photovoltaic electricity generation, and solar thermal domestic water heating. Using Shaw's Renewable Assessment Spreadsheet (RAS) tool, a series of assessment questions were addressed which help identify each site's potential for a renewable energy project. Qualitative properties including a site's exposure to wind/ solar resources were considered as well as quantitative properties like a site's available area. A score was assigned to each building and facility which Shaw used to rank the potential of various renewable energy projects.

### **2.1. Wind**

#### **2.1.1. Potential Sites**

To analyze the potential sites for wind project feasibility, several years of wind speed data has been collected for areas near Beloit. These data were arranged in a plot called a wind rose. The main purpose of using a wind rose is to give a potential wind developer an idea of the wind energy potential and from which direction the wind is coming during the year. While a separate study should be done at a specific site to test a large-scale wind energy project's feasibility, for the purposes of this report, nearby data was used to predict the site's wind exposure. On the following page is the wind rose for Rockford, Illinois, a city located near Beloit, Wisconsin.

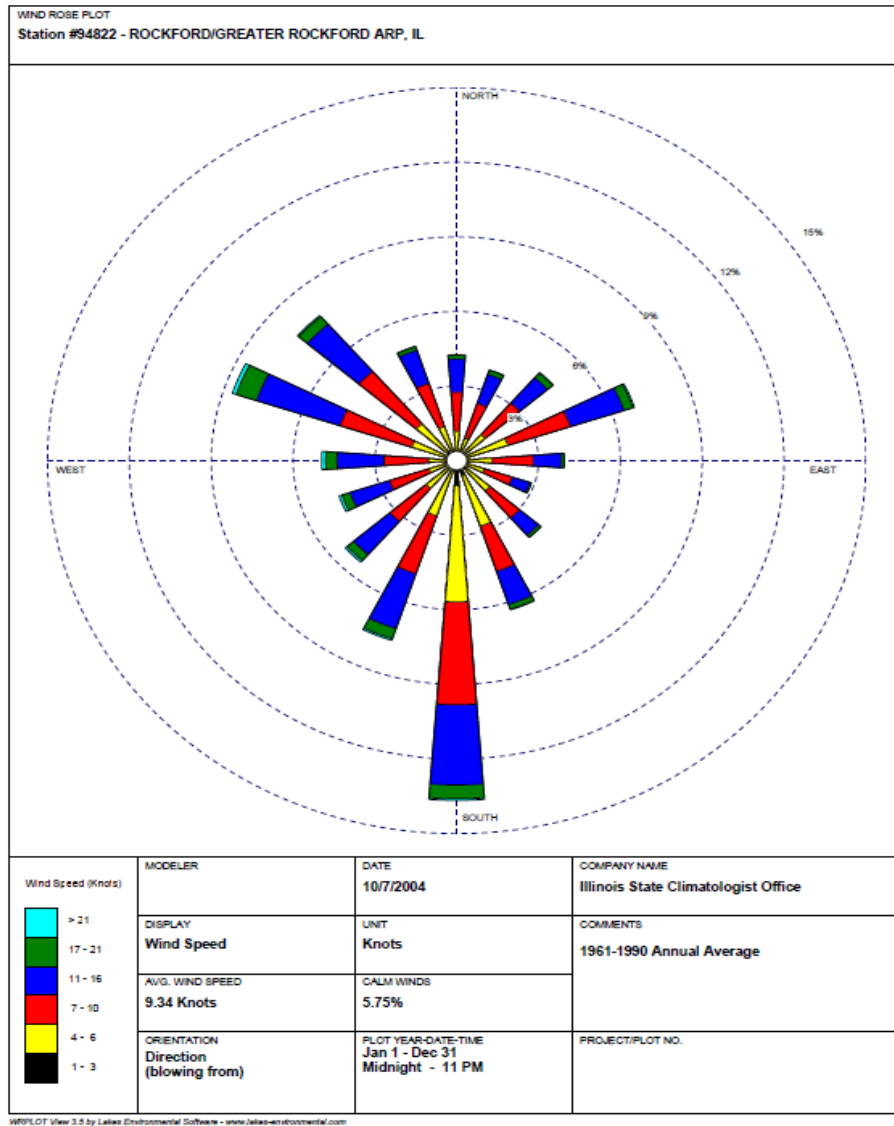


Figure 1 Rockford, Illinois Wind Rose (Illinois State Climatologist Office)

The wind rose shows that, of the wind that a given site will be exposed to, over 13% will be from the southerly direction. Knowing this, each site was assessed based on its southern exposure among other wind energy parameters. While most of the buildings and facilities evaluated near the downtown area of Beloit were blocked by trees and buildings, and those buildings located further from the central area of the city exhibited greater wind exposure from all directions as a result of fewer obstructions.

Three buildings and facilities were selected as potential wind sites. The Public Works Building, the Transit Building, and the Utilities and Engineering Facility are all located in the same industrial area of Beloit. Other sites outside of the scope of this project that are located in unobstructed locations should also be considered. For example, the area south of the Beloit

Wastewater Treatment Facility would serve as a good site for wind energy project and would also provide high visibility for a demonstration project.

### 2.1.2. Option A: Vertical Axis Turbines



Figure 2 Vertical Axis Turbines at Devon Bank of Wheeling, Illinois (Windspire Energy)

Option A is an analysis of the installation of eight vertical axis turbines (VAWTs), each with a capacity of 1.2 kW. The major benefit of VAWTs is that they do not require adjustment for wind exposure as their design allows for capture of wind energy from any direction. A large disadvantage of these systems is that they are generally mounted much lower than traditional turbines (i.e. similar in height to a flag pole) because of tower stresses related to the vertical blades. This multiple turbine setup can be arranged in such a way that compliments the current landscaping providing a visually appealing layout.

The following table is the energy and economic summary of the Option A vertical turbine installation. It is important to note that state of Wisconsin incentives are not available for this specific wind turbine, and as such, these incentives are not considered in the economic analysis. The limited list of turbine makes and models that are currently eligible for state of Wisconsin funding can be found on the [focusonenergy.com](http://focusonenergy.com) website.

Table 2.1 Vertical Axis Wind Turbine Energy and Economic Summary

<b>Implementation</b>	\$102,000
<b>Annual Energy Savings (kWh)</b>	8,969
<b>Annual Energy Savings</b>	\$987
<b>Grants Available</b>	Federal - \$30,600
<b>Simple Payback W/ Grants (yrs)</b>	72



### 2.1.3. Option B: Horizontal Axis Turbine



Figure 3 Horizontal Axis Turbines (Bergey 10kW and ReDriven 20 kW)

Option B is a proposal for the installation of one horizontal axis turbine (HAWT). The analysis looks at two possibilities; a 10 kW and a 20 kW turbine. Two typical HAWT power curves were used in this analysis. Both possibilities utilized a grid-tied system that with net-metering.

Horizontal turbines have several advantages over vertical axis turbines. A three blade horizontal turbine is the most cost effective design used to generate electricity via wind power. Because of its low torque, a horizontal turbine can be mounted much higher exposing it to higher wind speeds that are free of any surrounding obstructions. While a horizontal turbine may operate more efficiently at high mounting heights, it may be viewed as visually unappealing and could possibly draw local opposition.

The following tables provide the energy and economic summary for both of the Option B horizontal turbine installations. Both analyses assume a 60 ft hub height. An electricity rate of \$0.11/kWh was used to determine energy cost savings.

Table 2.2 10 kW Horizontal Wind Turbine Energy and Economic Summary

<b>Implementation</b>	\$92,340
<b>Annual Energy Savings (kWh)</b>	12,000
<b>Annual Energy Savings</b>	\$1,320
<b>Grants Available</b>	State- \$26,164 Federal- \$27,702
<b>Simple Payback W/ Grants (yrs)</b>	29

Table 2.3 20 kW Horizontal Wind Turbine Energy and Economic Summary

<b>Implementation</b>	\$130,000 (turnkey estimation)
<b>Annual Energy Savings (kWh)</b>	37,000
<b>Annual Energy Savings</b>	\$4,070
<b>Grants Available</b>	State - \$35,000 (max allowed) Federal - \$39,000
<b>Simple Payback W/ Grants (yrs)</b>	13.8

## 2.2. Solar- Photovoltaic Installation

Each of the ten buildings was also assessed for solar photovoltaic project potential. Photovoltaic, or PV, panels use the sun's radiated energy to create electrical current. One issue that has plagued the solar industry has been high capital costs. However, because of the recent push for more cost effective renewable energy installations, PV production and installation costs have decreased significantly. Local, state, and federal grants and incentives are also available for solar PV projects.

Installing a PV system on or near a facility requires the consideration of many factors. Much like a wind turbine's reliance on its exposure to unobstructed wind, PV projects rely greatly on their exposure to unobstructed sun in order to effectively produce energy. Two factors dictate how much light a PV panel will receive from the sun; the height at which they are mounted with respect to the surround area's obstacles (i.e. trees and buildings) and the angle at which the PV panels are mounted with respect to the sun's movement across the sky.

Several of the buildings and facilities evaluated ranked well regarding their exposure to the sun. For several reasons the City Hall/Police Headquarters is the best candidate of the evaluated buildings and facilities for a solar installation. First, when the building was initially designed, a section of the southern facing roof was angled and orientated towards the sun's path making it ideal for PV panels. The angle of the roof was unable to be measured at the time of the assessment but it was assumed that the design engineers properly angled the roof to achieve maximum solar energy. This specific section of roof is located high above any potential obstructions and, because the installation will be visible from the surrounding public roads, the installation will be highly visible. The following figure shows the roof section of interest.



**Figure 4 Roof Sectioned of City Hall Designed for PV Installation**

This section of roofing is ideal for photovoltaic laminate. PV laminate is a thin, flexible solar collector that is light weight and has the ability to be applied to almost any type of roofing material. Because the laminate is available in rolls of various widths and lengths, there are many mounting possibilities.



**Figure 5 Typical Laminate Solar Installation on Metal Roofing (Uni-Solar)**

The following table provides the energy and economic summary for a laminate, thin film system installed on sloped surface shown in Figure 5. It is assumed that 26, 144 W modules will be installed and an electricity rate of \$0.08/kWh was used to determine energy cost savings.

**Table 2.1 Solar Photovoltaic Assembly Energy and Economic Summary**

<b>Total System Capacity (kW)</b>	3.74
<b>Implementation Cost</b>	\$26,660
<b>Annual Energy Savings (kWh)</b>	4,214
<b>Annual Energy Cost Savings</b>	\$337
<b>Grants Available</b>	State - \$6,321 Federal - \$7,998
<b>Simple Payback w/ Grants (yrs)</b>	36.6

The City Hall/Police Department building also has a large area of open roof space that can be used for siting a PV installation. The system shown in Figure 6 is a modular system that requires no modification to the roof. This type of system consists of a PV module that is attached to an aluminum mounting system. To prevent this type of assembly from moving, cinder blocks are placed in aluminum plates to serve as ballast.



**Figure 6 Solar Panel Array Assembly**

Before installing anything on the roof of a facility, the structural integrity of the roofing should be assessed. Structural engineers should be consulted to determine if the current roof structure can safely bear the weight of the PV system.

The following table provides the energy and economic summary for a ballasted 30 kW PV system. An electricity rate of \$0.08/kWh was used to determine energy cost savings.

**Table 2.2 Solar Photovoltaic Assembly Energy and Economic Summary**

<i>Total System Capacity (kW)</i>	30
<i>Implementation Cost</i>	\$111,720
<i>Annual Energy Savings (kWh)</i>	33,807
<i>Annual Energy Cost Savings</i>	\$2,705
<i>Grants Available</i>	State - \$27,371 Federal - \$33,516
<i>Simple Payback W/ Grants (yrs)</i>	18.8

### **2.3. Solar- Domestic Water Heating Installation**

A solar thermal system uses the energy radiated by the sun to heat a liquid for domestic or process use. A basic system consists of several solar thermal panels installed which are orientated towards the sun and a pump that circulates a liquid inside the panels to provide heat to an exchanger located in the water storage tank. For colder climates the liquid is usually a glycol/water mixture used to prevent freezing. The diagram in Figure 7 illustrates the basic components of a solar thermal system.

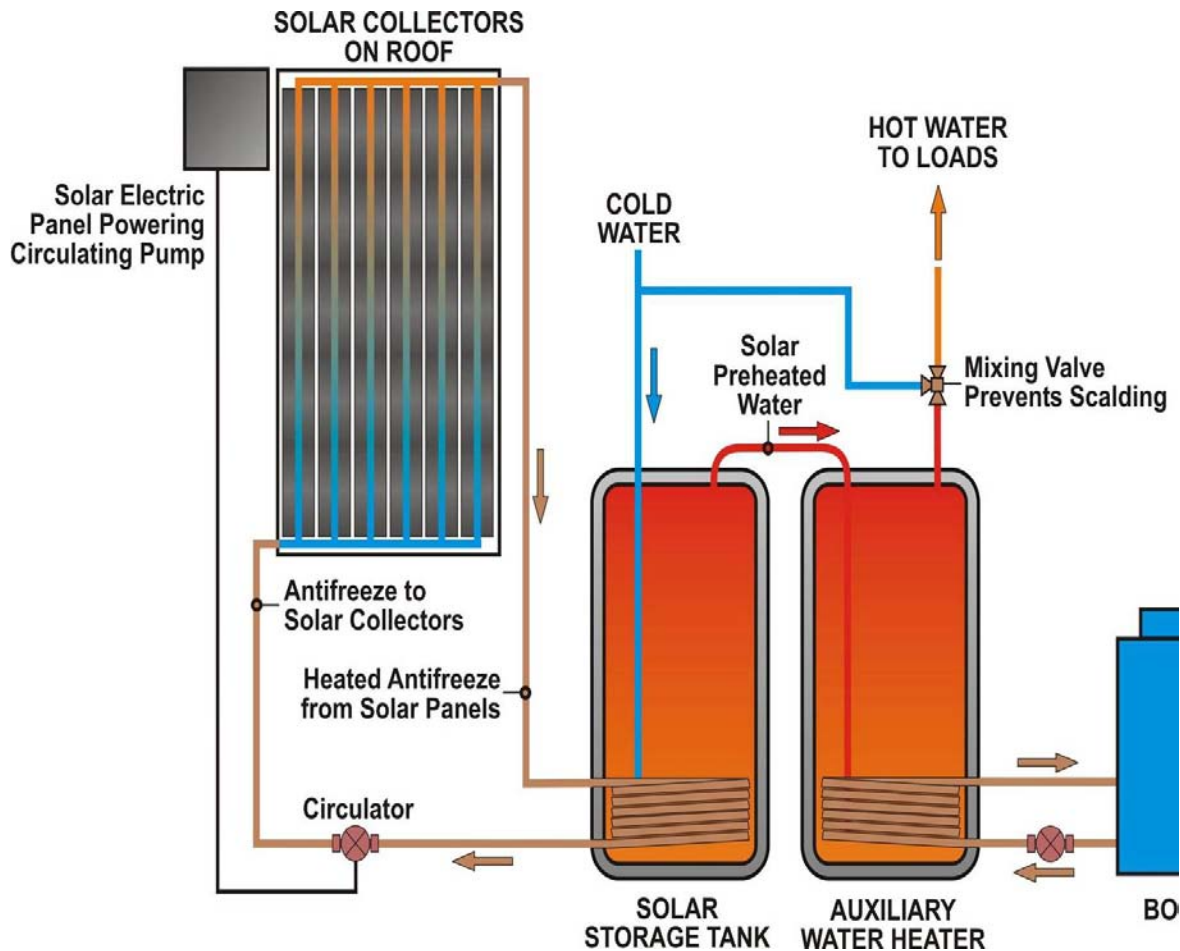


Figure 7 Solar Thermal Water Heating System

A solar thermal system should only be installed where domestic hot water or process heat is in high demand. Therefore, Shaw concentrated the evaluation on Fire Station #1 where there is a higher demand for hot water than the other buildings and facilities that were assessed. Fire Station #1 has good exposure to the sun and plenty of available roof space. Also, access to the water heater room from the roof should allow for a simple installation.

Below is the energy and economic summary of a solar thermal water heating system for Fire Station #1. The system considered will meet approximately 50% of the system demand assuming 150 gallons of 130°F water is needed per day. Similar to the PV panel installation, the building's structural integrity should be examined to ensure that it can safely bear the weight of such a system.

Table 2.3 Solar Thermal Assembly Energy and Economic Summary

<i>Capacity (kW)</i>	7.3
<i>Implementation</i>	\$15,000
<i>Annual Energy Savings (Therms)</i>	248
<i>Annual Energy Cost Savings</i>	\$248
<i>Grants Available</i>	State - \$3,000 Federal - \$4,500
<i>Simple Payback W/ Grants (yrs)</i>	30

### *3. Other Recommendation: Effluent “Tie In”*

During the site visit, Beloit staff made mention that the city’s effluent water system passes directly through the parking lot of the City Hall/Police Headquarters and is a consistent 54 degrees Fahrenheit year round. Beloit can potentially use this system as a type of “heat dump” during the cooling season. This project would require a number of building modifications to the City Hall/ Police Headquarters before the effluent can be effectively used.

A conceptual system description would require a conversion where the current DX coils in the two roof top units are replaced with chilled water coils. A central chiller would then be installed and the chilled water side of the unit would be connected to the cold water coils in the existing air handling units. The condenser side of the chiller will have water circulated through it from the wastewater plant effluent in an open loop configuration. Alternatively, a heat exchanger could be installed in the effluent stream and the condenser loop would then be closed loop system. Because of the low temperature of the effluent, the chiller would use much less energy than is typical.

This type of system has several advantages and disadvantages. Since the effluent is consistently 54 degrees Fahrenheit, the chillers operation can be optimized for this temperature. Most cooling towers are exposed to ambient air and their efficiency fluctuates with the temperature difference of the ambient air as compared to the condenser water. Because the effluent pipe is located below ground, the route the condenser water loop would take must be excavated which may be an expensive and time consuming project.

If such a system is desired, an in depth cooling load calculation should be done for the building to accurately size a chiller. In addition, the impacts of circulating the effluent through the chiller in the open loop system must be considered. For a closed loop system, access to the heat exchanger and corrosion of the heat exchanger are important considerations.



## ***4. Energy Audit Findings and Recommendations***

### **4.1. Beloit City Hall and Police Headquarters**

#### **4.1.1. Building Description and Envelope**

The City Hall and Police Headquarters building is a multi-story brick building constructed in the early 1980's. The City Hall side of the building operates five days a week from 8 am to 5 pm while the Police Station side operates at all times. The roofing is a built up type with gravel cover. Windows are double-pane with aluminum frames. General condition of the windows is good. The only exception noted is the window in the mail room, which has moisture between the two glass panes. Several windows where cold complaints occur in the winter were inspected to determine overall condition with specific focus on the window gaskets. The window gaskets in all cases appeared to be in very good condition, so it does not appear that cold air infiltration is the cause of complaints. A possible cause of uncomfortable conditions in those spaces may be the large surface area of windows where the complaints occur. Not only may the space temperature be lower near the windows due to conductive heat losses, but the radiant heat loss from the occupants near the windows may further reduce occupant comfort. Rebalancing the HVAC system to provide for greater air flow to those spaces should improve comfort. Additionally, insulated window shades can be used as an inexpensive solution to reduce conductive and radiant heat loss to the outdoors in particularly uncomfortable areas.

Recommendations:

- 1) In order to reduce the cooling load on the building, shading devices can be attached to the brick above the windows on the south side of the building. Architecturally attractive devices are available that will integrate well with the existing building design.
- 2) It is recommended that the mail room window be replaced.

#### **4.1.2. Lighting**

Lighting in the building is provided mainly by 4-ft, T8 and U-tube, T8 fluorescent lamps. Open office space lighting is controlled manually and is shut off at night by the cleaning staff after they have finished their work. Private office lighting is controlled via occupancy sensors. All exit signs use LEDs.

#### **4.1.3. HVAC Equipment**

The air distribution systems in the City Hall and Police Headquarters are variable air volume (VAV) systems. All VAV boxes and the two air handling units serving the building have all been converted to direct digital control in 2007. One serves the City Hall portion and one serves the police station portion. Each unit has a supply fan, DX coils, multiple compressors and condensers, and hot water coils. The supply fan motor is controlled by a variable frequency drive. The hot water coils are supplied by two modulating, high-efficiency Aerco 1 MMBtuh boilers. The hot water pump motors are controlled via VFDs.

### Problems and recommendations:

- 1) During the visit, the fan motor VFD was running at 100% speed, while the static pressure setpoint was reading 0.0" w.c. The static pressure setpoint for this unit is set to 1.8" w.c. There are two main problems with this. The first is that the 1.8" static pressure setpoint is slightly higher than what is typically seen in buildings. Typical values fall between 1.0" and 1.5" w.c. While this may be the original design pressure, in which case there is no issue, the original design documents should be verified. The second problem is related to the static pressure sensor and VFD. Since the fan is running at full speed, it is expected that the supply duct static pressure would be detectable by the pressure sensor. Since it is reading 0.0" w.c., it appears that the static pressure sensor is not functioning properly. If this is the case, the controller will keep increasing the VFD speed in order to reach the supply duct pressure setpoint. Since this pressure rise will never be detected, the controller will keep increasing the VFD speed until it reaches its maximum – as was recently observed. This is very wasteful because air is being unnecessarily circulated around the air distribution system and it is recommended that the sensor be replaced.
- 2) The outside air damper is showing that it is only 2% open. If this is a correct reading, then the building is probably not getting enough outside air. This situation can contribute to poor occupant health as it may lead to excess moisture and contaminant accumulation in the building's air. A more typical value for minimum outside air 15%. The control system settings and actual damper position need to be inspected to determine why the current value is so low.
- 3) The economizer enable setpoint is 60°F. A more appropriate value for Beloit's climate is 70°F based on ASHRAE 90.1-2007. This will allow the building to take advantage of free cooling for more hours of the year.
- 4) The supply air temperature setpoint is 50°F. This may be too low as a more typical value is 55°F. If the setpoint had been lowered because of difficulty in maintaining proper space temperature in the building, and the original design temperature is determined to be 55°F, insufficient air flow imbalance may occur. Fixing the air flow issue should address the comfort issues and will reduce energy costs.
- 5) Points of concern regarding the Police Headquarters air handling unit are the same as issues #3 and #4 above.
- 6) As a result of the change in use of the building spaces over time, increases in equipment loads and simply because of the age of the building it is recommended that the air flow be rebalanced to improve occupant comfort, potentially reduce energy use and ensure proper building pressurization.

#### 4.1.4. Domestic Hot Water

The domestic hot water heater was found to be in good condition and the water pipes to the unit were found to be well insulated. One issue was identified with the hot water heater. During the

visit it was noticed that the automatic flue damper on the unit was not working properly. It should close when the unit is not firing, but was found open. This open state allows heat to be transferred from the hot water to the air which is then vented to the outside. This automatic flue damper should be repaired or replaced. In addition, an insulating jacket can be added to the hot water heater to reduce standby heat losses.

#### 4.1.5. Printers and Computer Equipment

There are a large number of printers throughout the facility. The close proximity of identical printers with identical functions begs the question of why so many printers are necessary. Although it may be difficult to get employees to agree with such a plan, it is recommended that many of the personal printers be removed. Larger, high-volume printers located within a reasonable distance to those who require printing services are already in place and are preferred. For leased, high-volume printers, it is recommended that ENERGY STAR printers be used and energy saving features be enabled. That being said, it is not recommended that printers owned by the City be replaced simply for energy saving purposes as this does not make economic sense. When printers are being replaced, ENERGY STAR printers should be purchased

In addition to the printers, there are a large number of computers in the office spaces. Based on the discussion with the client, it was determined that there is no formalized, enforced policy regarding computer energy settings. ENERGY STAR settings are recommended. Management of power management settings via IT personnel ensures compliance to ENERGY STAR standards.

Benefits include:

- Cutting the electricity used by PCs roughly in half, saving \$25–75 per PC annually.
- Reducing office cooling loads, saving an additional \$5–10 per PC annually, and as much as \$10–25 or more in warm climates.
- Decreasing peak load demand charges levied by utilities.

ENERGY STAR defined efficiency levels and recommendations are as follows:

- Have computers enter system standby or hibernate after 30 to 60 minutes of inactivity.
- Have monitors enter sleep mode after 5 to 20 minutes of inactivity.
- Create a warning notification if screen savers are not disabled. If one is enabled, the wait timeout period should be less than the monitor sleep setting.

Some IT personnel may be hesitant to implement power management settings because they believe that they will interfere with software upgrades. There are several methods to deal with this issue and include:

- Configure client computers to apply software updates as soon as computers are connected on the network.
- Use the Microsoft Windows Task Scheduler to wake up computers to install software updates. Scripts that are deployed using Microsoft Windows Group Policy allow you to

centrally manage these scheduled tasks. For more information, go to (<http://go.microsoft.com/fwlink/?LinkId=121717>).

- Use Wake-on-LAN technology, to wake up computers in sleep mode at any time to perform on-demand software updates.

IT personnel can use the Microsoft Assessment Configuration Pack for ENERGY STAR Power Management for SC ConfigMgr 2007 to determine which computers meet the baseline parameters mentioned above. Open source and commercial software is available to administer the desired settings to ensure compliance. For more information, go to: ([http://www.energystar.gov/index.cfm?c=power\\_mgt.pr\\_power\\_mgt\\_enterprises](http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_enterprises)).

## 4.2. Golf Course Club House

### 4.2.1 Description and Envelope

The golf course club house is a one and half story, frame construction, wood-sided building with extensive single-pane windows on the East, West and North sides. The roof is sloped with asphalt shingles. Insulation on exterior walls is not known. Insulation below the roof in the mechanical area is R-11 fiberglass insulation. It is assumed that the entire building is insulated to this level.

It is recommended that the insulation below the roof be increased since much of the building has drop ceilings that can be removed for the purpose of adding extra insulation. In addition, it is recommended that a high-performance film be added to the windows. This can help in two ways. First, the film can increase the insulative value of the windows and, second, these films will reduce heat gain in the summer.

#### 4.2.1. Lighting

Lighting is provided mainly through compact fluorescent lamps. In the kitchen area, 8 foot, T12 lamps are installed. These fixtures can be retrofitted to use two, 4-foot lamps T8 in place of the 8-foot lamps. The existing ballasts must be replaced with electronic ballasts.

#### 4.2.2. HVAC Equipment

Heating to the building is provided by four Lennox Elite Furnaces with an AFUE of 92.1%. These units were installed 3 years ago. In addition, new evaporator coils and condenser units were installed at the same time. There are three programmable thermostats installed. Even though they are programmable, they were set to “hold” which indicates that the temperature setback schedule for the unoccupied periods will not be followed. It is recommended that the schedule be verified as reasonable given the operating hours of the building and that the schedule be enabled.

It was noticed that the ductwork running through the mechanical room is uninsulated. It is recommended that the ductwork be insulated with a rigid foam insulation to prevent heating and cooling of spaces that do not need to be. Some portions of the ductwork may be inaccessible, but those portions that can be accessed should be insulated.

#### **4.2.3. Domestic Hot Water**

The domestic hot water heater is a Rheem, 50 gallon, 38,000 Btuh, natural gas fired water heater. Potential for energy savings do exist. There is no automatic flue damper on the water heater which can be added to reduce standby losses through the flue when the unit is not firing. An extra insulating jacket should be added to the water heater to further reduce standby losses. The hot water pipe extending from the water heater should be insulated with properly sized pipe insulation in its entirety or at least the length of the pipe that is accessible. The first four feet of the cold water pipe extending from the hot water heater should also be insulated. The hot water and cold water pipes should be modified to prevent thermosyphoning. This requires that a portion of pipe be installed so that water must flow down against gravity and then back up before entering the facility's distribution system. This prevents hot water from naturally convecting up through the pipes and releasing heat to the ambient air. Lastly, the hot water heater should be shut off during the off season if this is not already being done.

### **4.3. Public Works Facility**

#### **4.3.1. Description and Envelope**

The Public Works facility is a 60,000 sqft, single floor building that serves as a dispatch center for garbage trucks, snow removal vehicles and other municipal service vehicles. In addition to the parking area, the building contains a vehicle servicing center and office space. There are three garage doors that serve the parking area and five garage doors that serve the vehicle repair area. The envelope is made of pre-cast concrete panels. Besides the office area there are very few windows in this facility.

Recommendations:

- 1) Since the parking area is heated during the colder months and vehicles are entering and exiting the facility fairly often, it is recommended that the high speed doors be installed as a replacement for the current doors. This will reduce the large loss of space heat that occurs when the doors open and cold air rushes in. Insulated, high-speed doors are available to reduce heat loss while the doors are closed as well.
- 2) Insulating the underside of the corrugated metal roof and concrete walls will also significantly reduce heating loads. Application-specific insulation is available for both

ceiling and wall systems. Insulation facing is available that will provide for a finished look after installation so that there is no added expense beyond the installation of insulation.

#### 4.3.2. Lighting

Lighting for the building is provided by 4 ft, T8 lamps in 4-lamp fixtures in the office areas and 6-lamp, high bay fixtures with mirrored reflectors in the service garage and parking areas. No lighting upgrades are recommended.

#### 4.3.3. HVAC Equipment

The HVAC equipment for the Public Works facility is listed in Table 4.1.

**Table 4.1 Public Works HVAC Equipment**

<b>Description</b>	<b>Capacity</b>	<b>Area Served</b>
Trane XE90 (2)	Unknown	Service Garage Office and Main Offices
Modine Direct Fired Air Heater Model QR122C	1.728 MMBtuh	Service Garage
Modine QR230	4.96 MMBtuh	Parking Garage

The fans in the two Modine make-up air units are 15 HP and 25 HP. While they could not be inspected during the visit, it is recommended that they be replaced if they are lower efficiency motors and if they operate more than half of the year. A more formal analysis should be done before replacement is decided upon. Depending on run time and efficiency of the rooftop exhaust fan motors, replacement of these units may be considered as well.

The Trane XE90 furnace serving the vehicle service office had a small leak between the furnace itself and supply duct and at joints between duct sections. These leaks should be sealed with UL181 rated mastic or UL181 rated tape.

#### 4.3.4. Domestic Hot Water

The domestic hot water heater is a 50 gallon, American Water Heater brand, natural gas fired water heater. An insulating jacket should be added to the water heater to reduce standby losses. The pipes extending from the water heater were well insulated. The hot water and cold water pipes should be modified to prevent thermosyphoning as described in the previous section. Lastly, it was observed that the hot water heater was set to a setpoint temperature of 160°F. This should be lowered to 120 to 130°F in order to reduce energy use and protect employees from scalding unless this water temperature is necessary for a specialized process.

### 4.3.5. Additional Equipment

A compressor with two, 15 HP motors are installed at this site for use by the pneumatic tools used in the vehicle repair area. The motors on this unit are rate at 87.5% efficiency. Motor replacement is not recommended, but disconnecting the compressor from the rest of the system at night is good practice to reduce the likelihood of air loss through leaky connections.

## 4.4. Edwards Activity Center

### 4.4.1. Building and Envelope Description

The Edwards Activity Center is a 31,500 sqft facility that houses a semi-enclosed ice rink, bathroom and showers, pro shop and offices. The roof of the rink is a non-insulated steel roofing structure. The building containing the lobby, bathrooms and pro shop is constructed of compact masonry units. The building operates from October to March.

### 4.4.2. Lighting

Fluorescent lighting provides lighting to the lobby, bathrooms and pro shop. Lighting in the ice rink is provided by 400 W metal halide lamps. Linear fluorescent, 4 foot, T12 lamps provide lighting to the mezzanine area. It is recommended that these lamps be replaced with T8 lamps and electronic ballasts. No lighting changes are recommended.

### 4.4.3. HVAC Equipment

HVAC equipment for this facility is listed in Table 4.2.

**Table 4.2 Public Works HVAC Equipment**

<b>Equipment Description</b>	<b>Capacity</b>	<b>Area Served</b>
Trane Air Handling Unit	160 MBtuh heating, 6.1 tons of cooling	Pro Shop
Reznor Make-up Air Units	No nameplate	Lobby and Locker Rooms
Electric Baseboard Heaters	No nameplate	Mezzanine
Exhaust Fans (6)	Unknown	Lobby and Locker Rooms

The make-up air units and air handling units are served by programmable thermostats. A temperature setback (lower temperature setpoint during unoccupied hours) is programmed for the make-up air units and a set-up (higher space temperature setpoint during unoccupied hours) is programmed for the thermostat controlling the air handling unit. Based on the size observations, no changes are recommended.

#### 4.4.4. Domestic Hot Water

Domestic hot water is provided by two 70,000 Btuh direct vent hot water heaters. This unit's pipes were not insulated. The pipes should be insulated and an insulation jacket could be added to these heaters. In the off season, one unit could be shut off if demand is low.

#### 4.4.5. Additional Equipment

A chilled glycol system is installed that keeps the ice for the ice rink at a setpoint temperature of 17°F. The compressor motors are very high efficiency motors with a nominal efficiency of 94.1%. The glycol pumps are driven by 7.6 HP motors with a nominal efficiency of 87.5%. No changes are recommended for this system.

### 4.5. Grinnell Memorial Hall

#### 4.5.1. Building Description and Envelope

The Grinnell Hall Facility is a 12,540 sqft, two-story senior activity center. The building was constructed in 1937. Along with a large dining area, the building has a library, an auditorium, gift shop and office areas. The building has mix of both the original single pane windows and newer double-pane windows with aluminum frames that were installed sometime in the 1970s. The walls are constructed of brick with plastered interior walls. There is no insulation between the brick exterior walls and plaster and no space exists to allow for the addition of insulation. The attic of the building recently underwent a large insulation upgrade in which the facility manager noted significant reductions in the heating energy consumption. The facility manager noted that the building is suffering typical weatherization problems

Based on site observations and discussions with the facility manager the following are recommended:

- 1) Replace all existing windows. The original single pane windows are well past their useful life with loose dividers between glass pieces. This allows for significant infiltration. The newer windows that were inspected did not slide properly in their tracks, making opening and closing difficult and allowing for infiltration. In addition, the aluminum frames most likely do not have thermal breaks. As a result, heat is easily conducted between the building space and the ambient air.
- 2) Replace the doors to the balcony on the second floor. These doors are leaky, with pieces of glass almost falling out of their frames.
- 3) The damper installed above the dishwasher is corroded and leaky. The fan is also well beyond its useful life. Install a new exhaust fan by the dishwasher. Install a new, motorized damper that interlocks with the fan so that it opens when the fan is in use and closes when it is not. This will prevent infiltration to the kitchen.



- 4) Install a damper in the stove exhaust duct in order to prevent cold air from entering the kitchen. If the exhaust fan is no longer necessary as a result of reduced cooking activity, the duct may be removed and the exterior wall sealed and insulated.
- 5) In order to reduce cooling loads in the summer, shading devices can be installed above the windows on the south facing side of the building.
- 6) In order to direct a larger portion of the radiator heat to the interior of the building, a thin sheet of rigid foam insulation can be adhered to the space between the radiators and the walls. A reflective layer attached to the insulation and facing inward can also be used to direct the radiant heat inward.

#### 4.5.2. Lighting

Lighting is provided by fluorescent lamps. Some lights are controlled by manual switches, but a large portion use motion sensors for control. Exterior lighting is controlled by a photocell and timer in order to minimize the use of lighting. There are no lighting recommendations for this facility.

#### 4.5.3. HVAC Equipment

The Grinnell facility is heated by radiators and baseboard heaters which are served by two hot water boilers. Two air handling units provide ventilation and heating to the auditorium and lunch room. Hot water pipes are well insulated throughout the building. A third air handling unit provides ventilation, heating and cooling to the entrance area of the building. Cooling is provided to limited spaces via six window AC units. This information is summarized in Table 4.3.

Table 4.3 Summary of Grinnell HVAC Equipment

Equipment Description	Capacity	Area Served
Air Handling Unit (2)	Unable to access nameplate	Auditorium and Lunch Room
Carrier 48GS Air Handling Unit	48.4 Mbtuh heating, 2 tons of cooling	Entrance
Weil-Mclain PFG-8-PI Boilers (2)	No nameplate information	Mezzanine
Window AC Units (6)	Unknown	Library, Offices, Veterans' Room

Recommendations for this site include:

- 1) Elimination of the window AC units and replacement with a high velocity cooling system. These systems are made for spaces with no existing ductwork. A single, high-efficiency condensing unit could replace several of these units. Additionally, removing

these units will reduce infiltration which exists as a result of their presence in the window as noted by facility manager.

- 2) Given Beloit's climate and age of the boilers, replacement of the existing boilers may be considered. The existing boilers have a nameplate efficiency of 79%. It is unlikely that the boilers are operating near this efficiency and it is more likely operating closed to 70% efficiency. New boilers are available with efficiencies up to 95%.

## 4.6. Transit Building

### 4.6.1. Building Description and Envelope

The Transit Facility serves as the main dispatch garage for the Beloit public transportation buses. The building is divided into office space, a bus maintenance area, and a garage space where the buses are parked. There are very few windows installed on this building except for the office area. The roofing for the building consists of corrugated metal decking, an insulative layer, plywood decking and a waterproof membrane.

Envelope Recommendations:

- 1) This bus parking area is heated during the winter months. Insulating the underside of the corrugated metal roof and concrete walls will reduce heating loads. Insulation with an attractive finish is available that will provide for a finished look after installation so that there is no added expense beyond the installation of insulation.
- 2) Currently, the roof above the office space is black. This dark color absorbs sunlight and increases cooling loads. A reflective coating should be applied to the roof above the office space to reduce cooling loads.

### 4.6.2. Lighting

Lighting in the office areas of this building is provided by four foot, T8 lamps in recessed fixtures. Lighting in the parking garage and bus maintenance area is provided by four foot, T8 lamps in six-lamp fixtures with mirrored reflectors. During the site visit, these high bay lights were off and the doors were open providing day light and outside air to the space. Based on the type of lighting and lighting controls installed, there are no lighting recommendations for this facility.

### 4.6.3. HVAC System

The office areas of the transit system are served by a Carrier 48TJE014---5010A roof top unit with a 200 MBtu maximum output. This unit is approximately 15 years old and in poor

condition. The system installed is a variable air volume system. The means of air volume control could not be identified. The VAV boxes are controlled by wall mounted thermostats. The system enters heating or cooling mode based on polling of the system thermostats. Depending on the number of thermostats calling for heating or cooling, the system will change its mode.

There are multiple problems with this system based on discussions with the staff at this facility. The staff at this facility was very displeased with the performance of this system and noted significant comfort issues. First, they noted that system air flow was not properly balanced initially as evidenced by a barometric damper that was installed in the plenum to allow the system to be balanced to specifications. This has since been eliminated and comfort has improved, but performance is not acceptable.

Second, the controls for this system do not appear to have been properly tuned. The building engineer noted that the system mode oscillates between heating and cooling mode. As a result, comfort issues arise. To address this, a switch was installed by the engineer at the building to force the system to only provide heating or cooling depending on the time of year. This eliminated the oscillatory behavior.

The system does have economizer control installed, but this feature has never worked since the unit was originally installed. Apparently, a part broke shortly after initial installation and instead of addressing the problem, the mechanical contractor simply disabled the economizer. This is a missed opportunity for energy savings.

For the VAV system, the following changes are recommended:

- 1) The air handling unit, based on ASHRAE median life expectancy, has approximately four years of useful life left. It is recommended that this air handling unit be replaced with a new unit. The new unit should have a variable frequency drive to vary air flow. In addition, it should have enthalpy based economizer control to allow for optimal use of outside air for space conditioning and to prevent excess moisture in the building space. Energy savings will result from the higher efficiency cooling system, economizer control and VFD-controlled fan.
- 2) The heating and cooling loads need to be recalculated since space usage type may have changed over the years. The air flows then need to be rebalanced properly.
- 3) If the original system type is not correct for the application (e.g. there is too much load diversity), VAV boxes with electric reheat may be recommended. This will not reduce energy use, but will provide for a more comfortable office building.

The parking garage is heated by ceiling mounted radiant heaters. The vehicle service area is served by two unit heaters and a large Heatex heat recovery ventilator. The ventilator is only used while buses are running in order to provide adequate ventilation to the garage. No changes to this equipment are recommended.

#### 4.6.4. Domestic Hot Water

The domestic hot water heater for this building is a new, very high efficiency unit. The cold and hot water pipes are well insulated. Thermosyphon traps can be added to reduce standby losses.

#### 4.6.5. Additional Equipment

A compressor with a 5 HP, 81.5% efficiency motor provides compressed air to tools in the garage area. The system has very little leakage according to the engineer that we spoke with. When leaving each day, the compressor is disconnected from the distribution system to minimize any chance of leakage during unoccupied hours. There are no recommendations for this equipment.

### 4.7. Fire Station #1

#### 4.7.1. Building Description and Envelope

Fire Station #1 is a 15,900 sqft facility that serves as one of the headquarters for fire fighters serving the Beloit area and is similar construction to Fire Stations #2 and #3. The building is split between an apparatus bay and living, office, and meeting areas. During the summer months, employees noted that the garage doors are almost always left open to allow for more ventilation inside the bay area. There are also six garage doors on each side of the bay area for Fire Station #1. The building envelope consists of a brick exterior with framed insulated walls on the interior. Employees noted that, along with Fire Stations #2 and #3, this building was experiencing significant moisture issues. The roof is an asphalt shingle roof. This building is occupied at all times throughout the year.

Although not directly related to energy use, the moisture problem does impact occupant comfort and health. Based on site observations, the problem does not appear to stem from excessive infiltration of moist air and does not seem to arise from an internal source. Moisture may be entering through the concrete floor directly from the ground underneath the concrete if a proper moisture barrier was not installed. Assuming that a proper vapor barrier was installed under the concrete slab, the only other potential source of moisture is the foundation wall. Moisture may be in the foundation, migrate into the slab and then be released into the building space. If this is the case, an exterior drain system will lower the water table surrounding the building and should reduce the amount of water coming up through the slab. This recommendation applies to Stations #2 and #3 as well.

#### 4.7.2. Lighting

Lighting is provided mainly by four foot T8 lamps and compact fluorescent lights. Occupancy sensors are used most areas. No changes are recommended to the existing lighting.

### 4.7.3. HVAC Equipment

Space conditioning and ventilation to the living quarters and office space is provided by five residential high-efficiency Lennox furnaces. The furnaces have evaporator coils installed to provide for cooling via the condenser units which are located outside. These units are all tied to programmable thermostats. Four of these units are tied to a Heatex heat recovery ventilator (HRV), which transfers heat to or from outside air in order to save on conditioning energy. The heat wheel inside the ventilator starts and stops based on the outside air temperature subject to an economizer temperature setpoint. This prevents the heat wheel from rotating when economizing is desired. The ductwork in this facility was all very well sealed and insulated.

A Modine make-up air unit provides warm air to the apparatus bay in addition to overhead radiant heat.

The only issue identified was very dirty air filters in the HRV. They were so dirty that they were crushed by the force of the air being brought into the building. Shortly after pointing out the problem, the filters were promptly replaced. Now that the staff is aware of their presence, filter replacement for this unit should be added to the regular maintenance schedule.

### 4.7.4. Domestic Hot Water

The domestic hot water heater for this building is a new, very high efficiency unit. The cold and hot water pipes are well insulated. Thermosiphon traps can be added to reduce standby losses.

## 4.8. Fire Station #2

### 4.8.1. Building Description and Envelope

Fire Station #2 is an 8,112 sqft facility. The building is split between an apparatus bay and living, office, and meeting areas. There are three garage doors on each side of the bay area for Fire Station #2. During the summer months, employees noted that the garage doors are almost always left open to allow for more ventilation inside the bay area. The building envelope consists of a brick exterior with framed insulated walls on the interior. Employees noted that this building was experiencing significant moisture issues as well. The roof is an asphalt shingle roof.

Please see the section describing moisture issues in the Fire Station #1 section for further recommendations.

### 4.8.2 Lighting

Lighting is provided mainly by four foot T8 lamps and compact fluorescent lights. Occupancy sensors are used in most areas. No changes are recommended to the existing lighting.

### 4.8.3 HVAC Equipment

Space conditioning and ventilation to the living quarters and office space is provided by three residential high-efficiency Lennox furnaces. The furnaces have evaporator coils installed to provide for cooling via the condenser units which are located outside. Furnaces are all controlled by programmable thermostats. The ductwork in this facility is all very well sealed and insulated. Table 4.4 provides more detailed information on the installed HVAC equipment.

**Table 4.2 Summary of Fire Station #2 HVAC Equipment**

<b>Equipment Description</b>	<b>Area Served</b>
Lennox Elite Series G26Q3-75-5 Furnace (3)	Office, Living Quarters
Lennox C26-31WFC-1 (2) and C26-26WFC-1 Cooling Coils	Office, Living Quarters
Lennox HS26-030-2P (2) and HS26-024-2P (1) Condenser Units	Office, Living Quarters
Reznor SCE350-6-SMZ Make-up air unit	Apparatus Bay

During the site visit, it was noticed that the outside air ductwork had been disconnected to all three furnaces. This was done previously in an attempt to address the moisture issue yet this approach was not effective as there is still significant moisture. In addition, no outside air is being provided to the building space which negatively impacts occupant health. In addition, the heat recovery ventilator installed in the mechanical room is in poor condition and was turned off when the outside air ducts were disconnected.

#### Recommendations:

1. Reconnect the outside air duct work to the furnaces.
2. Clean the HRV filters and heat exchangers according to the manufacturer's instructions and turn the unit back on. Verify that any interlocked dampers open as needed to allow for flow of outside air.

### 4.8.4 Domestic Hot Water

The domestic hot water heater for this building is a new, very high efficiency unit. The cold and hot water pipes are well insulated. Thermosyphon traps can be added to reduce standby losses.

## 4.9. Fire Station #3

### 4.9.1. Building Description and Envelope

Fire Station #3 is a 6,400 sqft facility. The building is evenly split between office, living, meeting spaces and the apparatus bay. There are three garage doors on each side of the bay. During the summer months, employees noted that the garage doors are almost always left open to allow for more ventilation inside the bay area. The building envelope consists of a brick exterior with framed insulated walls on the interior. Employees noted that during the humid months, the building has significant moisture issue. Evidence confirming this include raised carpet and musty air in the dorm area. The roofing is an asphalt shingled roof.

Please see the section of moisture issues in the Fire Station #1 section for additional recommendations.

### 4.9.2. Lighting

Lighting is provided mainly by four foot T8 lamps and compact fluorescent lights. Occupancy sensors are used most areas. The only changes recommended for this facility are based on comments by the occupants. It was mentioned that some of the occupancy sensors are placed such that when someone walks by the room in which the sensor is located, it is triggered and turns the lights on. The user would like to have control of the sensor so that the sensor is not inadvertently triggered.

### 4.9.3. HVAC Equipment

Space conditioning and ventilation to the living quarters and office space is provided by three residential high-efficiency Carrier furnaces. The furnaces have evaporator coils installed to provide for cooling via the condenser units which are located outside. Furnaces are all controlled by programmable thermostats. Outside air is routed directly to the furnace. The ductwork in this facility is all very well sealed and insulated. Table 4.5 provides more detailed information on the installed HVAC equipment.

**Table 4.3 Summary of Fire Station #3 HVAC Equipment**

<b>Equipment Description</b>	<b>Area Served</b>
Carrier 58MCA060---8112 Furnace (3)	Office, Living Quarters
Carrier 38CKC018340 Condenser Units (3)	Office, Living Quarters
Reznor Make-up air unit	Apparatus Bay

A heat recovery ventilator should be used in this facility since the facility is used 24 hours per day. These units are already installed in Stations #1 and #3 and will provide both heating energy and cooling energy savings.

#### **4.9.4. Domestic Hot Water**

The domestic hot water heater for this building is a new, very high efficiency unit. The cold and hot water pipes are well insulated. Thermosyphon traps can be added to reduce standby losses.

### **4.10. Utilities and Engineering Building**

#### **4.10.1. Building Description and Envelope**

The Utilities and Engineering building is an 18,000 sqft facility. The building is home to the utility and engineering municipal staff. It is constructed of compact masonry units with interior insulation. This building also has a large garage of similar construction without the interior insulation. This space is used for storing utility vehicles. Water metering calibration is also hosted in this building in a space similar to the garages. The roofing for the building consists of corrugated metal decking and a waterproof, black membrane.

Envelope Recommendations:

- 1) The utility vehicle parking area is heated during the winter months and insulating the underside of the corrugated metal roof and concrete walls will reduce heating loads. Insulation with an attractive finish is available that will provide for a finished look after installation so that there is no added expense beyond the installation of insulation.
- 2) Currently, the roof on this building is black. This dark color absorbs sunlight and increases cooling loads. A reflective coating should be applied to the roof above the office space to reduce cooling loads.
- 3) There are five windows facing west. It is recommended that shading devices be added to the exterior of the building to reduce solar heat gain and reduce cooling load.

#### **4.10.2. Lighting**

Lighting in this facility is provided by T8 fluorescent lamps. The lighting system is fully automated and tied in with the same system that controls the HVAC system. All lights in the facility automatically shut off at 5 pm on weekdays and the system scans for lights that are on an hourly basis during unoccupied hours and turns them off. No changes to the lighting system are recommended.



### 4.10.3. HVAC Equipment

The Utilities building is ventilated, heated and cooled with variable air volume air distribution system. There are 14 VAV boxes and three fan powered boxes that are equipped with hot water reheat. The supply fan is driven by a 10 HP, 90.2% efficient motor that is controlled by a VFD in order to maintain a supply duct static pressure of 1.0" w.c. Hot water circulates through a heating coil to warm the air being delivered to the building space. The hot water circulation pump is driven by a VFD-controlled motor. The water is heated by three, 140 MBtuh Weil Mclain boilers that are rated at 87.2 AFUE. Cooling is provided via DX coils that are tied to an air cooled condenser unit. The condenser unit is equipped with four fans, two compressors and two refrigerant circuits. All components are tied into an AutoLogic building automation system. All pipes, both water and refrigerant, are well insulated.

Control setpoint were reviewed on the building's building automation system. Most setpoints appeared correct and the system behavior appeared normal during the site visit. A few setpoint values should be reviewed. First, the outside air temperature must be 55°F or below for the economizer to be enabled. A more typical value for Beloit's climate is 70°F. Second, the hot water boilers and pump are enabled if the outside air temperature falls below 90°F. The building engineer should try to lower this setpoint by 5°F intervals and see if there are any comfort issues. If this can be done, this will reduce the amount of energy used by the circulating pump and to heat the space.

## *5. Conclusion*

The analyses completed in this report are high level and are to help guide decision makers to indentify cost-effective projects. With the information provided in this report and with the assistance of state and federal funding, Beloit has several cost-effective energy efficiency and renewable energy projects to pursue.

**RESOLUTION AFFIRMING LOCAL SUPPORT FOR HOUSING TAX  
CREDIT APPLICATION BY KEYSTONE DEVELOPMENT FOR  
REHABILITATION OF COUNTRYSIDE VILLAGE APARTMENTS**

**WHEREAS**, Countryside Village Apartments is an existing multi-family residential development located at 2101 Freeman Parkway in the City of Beloit; and

**WHEREAS**, Keystone Development has submitted an accepted Offer to Purchase the property located at 2101 Freeman Parkway and has developed a plan to rehabilitate the site, the interior of the units, the exterior of the buildings, and to construct a community center and detached garages; and

**WHEREAS**, Keystone Development intends to apply for Section 42 Housing Tax Credits to fund these improvements; and

**WHEREAS**, the City Council deems the availability of safe, attractive, and affordable housing to be in the public interest; and

**WHEREAS**, Keystone Development's letter to the City Manager dated December 17, 2010 and the development summary, scope of work, preliminary site plan, and preliminary elevations accompanying said letter describe and illustrate the rehabilitation of the Countryside Village Apartments into a safe, attractive, and affordable housing development; and

**WHEREAS**, the application requires the City affirm its support of the proposed plan.

**NOW, THEREFORE, BE IT RESOLVED THAT** the City Council does hereby affirm its support of the application by Keystone Development to the Wisconsin Housing and Economic Development Authority for Section 42 Housing Tax Credits to rehabilitate and enhance the Countryside Village Apartments located at 2101 Freeman Parkway as described and illustrated in Keystone Development's letter to the City Manager dated December 17, 2010 and the development summary, scope of work, preliminary site plan, and preliminary elevations accompanying said letter, and does hereby authorize the City Manager to execute any and all forms and letters expressing local support.

Adopted this 3<sup>rd</sup> day of January, 2011.

**BELOIT CITY COUNCIL**

---

Kevin D. Leavy, Council President

ATTEST:

---

Carol S. Alexander, WCPC/MMC, City Clerk

# CITY OF BELOIT

## REPORTS AND PRESENTATIONS TO CITY COUNCIL

---



**Topic:** Consideration of a Resolution Affirming Local Support for an Application by Keystone Development for Section 42 Tax Credits to Rehabilitate and Enhance the Countryside Village Apartments

**Date:** January 3, 2011

**Presenter:** Larry Arft

**Department:** City Manager

---

### **Overview/Background Information:**

Keystone Development has submitted an accepted Offer to Purchase the property located at 2101 Freeman Parkway (Countryside Village Apartments) and has developed a plan to rehabilitate the site, the interior of the units, the exterior of the buildings, and to construct a community center and detached garages by utilizing Section 42 Housing Tax credits from the Wisconsin Housing and Economic Development Authority (WHEDA). The application to WHEDA requires that the local government affirm its support for the project.

---

### **Key Issues (maximum of 5):**

- Keystone Development submitted a letter to the City Manager dated December 17, 2010 and a development summary, scope of work, preliminary site plan, and preliminary elevations that describe and illustrate the rehabilitation of the Countryside Village Apartments into a safe, attractive, and affordable housing development.
  - The Housing Services Division has issued the current owner of the subject property a plethora of citations for various property maintenance violations.
  - According to Keystone Development, the proposed improvements total approximately \$5.2 Million.
  - The City Council must review and approve a PUD – Master Land Use Plan and a Zoning Map Amendment to PUD, Planned Unit Development District, before the improvements described and illustrated in the attachments move forward. Following City Council approval of the PUD, Planning staff will review and approve detailed site and architectural plans.
- 

### **Conformance to Strategic Plan (List key goals this action would support and briefly discuss its impact on the City's mission.):**

- Consideration of this request supports Strategic Goal #4.
- 

### **Sustainability (Briefly comment on the sustainable long term impact of this policy or program related to how it will impact both the built and natural environment utilizing the four following eco-municipality guidelines.):**

- **Reduce dependence upon fossil fuels** – The rehabilitation and enhancement of an existing multi-family residential development that is located near goods, services, employment opportunities, and bus routes will reduce dependence upon fossil fuels.
  - **Reduce dependence on chemicals and other manufacturing substances that accumulate in nature** – N/A
  - **Reduce dependence on activities that harm life sustaining eco-systems** – N/A
  - **Meet the hierarchy of present and future human needs fairly and efficiently** – The proposed rehabilitation is expected to improve the quality and livability of this multi-family residential development, which will have a positive impact on current and future residents and the entire neighborhood.
- 

### **Action required/Recommendation:**

- City Council consideration and action on the proposed Resolution
- 

**Fiscal Note/Budget Impact:** No city funds are required for this project.

---

**Attachments:** Resolution, Keystone Development's Letter Dated December 17, 2010, and Supporting Documents

December 17, 2010

Mr. Larry Arft  
City Manager  
City of Beloit  
100 State Street  
Beloit, WI 53511



420 S. Koeller Street, Suite 230  
Oshkosh, Wisconsin 54902  
(920) 303-9404  
Fax: (920) 303-9444

**RE: Countryside Village Apartments  
2101 Freeman Parkway**

Dear Mr. Arft:

I am very pleased to provide you and the Common Council the enclosed information on our proposed redevelopment of Countryside Village in Beloit. Our proposal includes the 109 vacant units and the 3 separately owned condominiums which we have accepted offers to purchase.

Countryside Village would be rehabbed utilizing Section 42 Tax Credits. In return for the federal tax credits we agree to rent to individuals and families that are within 50% and 60% of the Rock County Median Income. With your support we will apply for the tax credits in February of next year. Your support in the form of letters and execution of the Local Official Notification Form is critical to our success in competing for a portion of the annual tax credits. Enclosed you will find a development summary, scope of work, color elevations, site plan, the Local Official Notification Form and a sample support letter.

Notification of the tax credit award will be in April of next year. At that time we will begin the formal site plan review and approval process. We understand that there are several steps and submission requirements prior to approval of the plans.

Please do not hesitate to contact me if you have any questions or need additional information prior to the meeting.

Sincerely,

A handwritten signature in blue ink, appearing to read "Callan L. Schultz".

Callan L. Schultz

# COUNTRYSIDE VILLAGE APARTMENTS

## DEVELOPMENT SUMMARY

### Location

2101 Freeman Parkway  
Beloit, WI

### PROPERTY DESCRIPTION

**Property Type:** 112-Unit Existing Apartment Community

**Site Size:** 10.25 acres

**Zoning:** R-3

**Building Stories:** 2 Stories

**Unit Mix:** 48 Two Bedroom Units  
64 Three Bedroom Units

### PLANNED REHAB SUMMARY (See Attached Scope of Work)

- Windows
- Doors
- Roofs (Pitched)
- Siding
- New Community Center
- Carpeting
- Cabinets
- Flooring
- Insulation
- Balconies/Patios
- Appliances
- Hydronic Heating
- Sidewalks
- Landscaping
- Playground
- Air Conditioning
- Mold Remediation
- Signage

### AMENITIES

#### Building Amenities

- Garages
- Community Room
- Fitness Center
- Internet Café
- Wireless Internet
- Playground
- Media Room

#### Unit Amenities

- All Appliances
- Washer/Dryer
- Walk-In Showers
- Air Conditioning
- Garages
- Heat/Water Included
- Intercom System

### RENTAL TYPE INDEX

	# Units	Square Footage	Rental Rate	LIHTC Rent Limit	Tenant Income Restrictions
<b>50% CMI</b>					
Two Bedroom	34	757 sq/ft	\$550	\$731	\$22,000-\$29,250
Three Bedroom	45	1,055 sq/ft	\$625	\$845	\$25,000-\$35,100
<b>60% CMI</b>					
Two Bedroom	10	757 sq/ft	\$595	\$877	\$23,800-\$35,100
Three Bedroom	15	1,055 sq/ft	\$695	\$1,014	\$27,800-\$42,120
<b>Market Rate</b>					
Two Bedroom	4	757 sq/ft	\$695	N/A	\$27,800-N/A
Three Bedroom	4	1,055 sq/ft	\$750	N/A	\$30,000-N/A
<b>TOTAL</b>	<b>112</b>				

Keystone Development, LLC 420 South Koeller Street, Suite 230  
Oshkosh, Wisconsin 54902 (920) 303-9404 Fax: (920) 303-9444



## Scope of Work

**Beloit, WI**  
**112 Units**

The subject site consists of 10 buildings, 3 – 16 unit buildings, 2 – 12 unit buildings, and 5 – 8 unit buildings.

All items per our site walk through and site visit.

### Site Improvements

- Remove existing and add new sidewalks at parking areas.
- Remove and replace existing asphalt and install new asphalt at parking area.
- Stripe parking lot.
- 2' maintenance border around all buildings.
- Repair grass areas disturbed during construction as necessary.
- Add new 2,000 Sq. Ft. community building.
- Landscaping Allowance \$60,000
- Remove existing garages
- Add 60 new garages

### Building Exteriors

- Replace and install new entry doors.
- Remove old windows and install new vinyl window and screens. Windows to be White, Low E, with argon gas, and meet Energy Star and egress requirements. All windows to be cased interior with wood extension jambs.
- Allowance for re-grout of masonry.
- Caulk exterior doors, windows, and trim.
- Remove balcony railings and replace with new aluminum railings and posts.
- Remove deck boards and support posts and replace with new wood posts and treated deck boards.
- Remove existing shingles and install new fiberglass shingles on pitched roofs.
- Remove and rework flat roofs with new trussed roof system.
- Allowance to replace deteriorating roof sheeting.
- Provide and install new aluminum fascia and soffit.
- Remove existing siding and replace with: new siding and trim and Tyvek vapor barrier.
- Add insulation baffles and 8" of blown insulation in attics.

### Corridors and Stairs

- Remove and replace carpet
- Remove base and install new 4" coved vinyl base.
- Paint walls and ceilings, with one coat of Kilz and one coat of paint.
- Replace existing light fixtures.
- Remove existing handrail and install new 1 ½" stained & varnished wood handrail along both sides of corridors.
- Remove and install new handrail system on steps.

## Scope of Work

**Beloit, WI**  
**112 Units**

- Provide and install smoke detectors and exit lights in corridors.

### Unit Interiors

- Demolition- Remove and Dispose of:
  - All interior doors and base
  - Existing appliances
  - All Kitchen cabinets, bathroom vanities and tops.
  - Existing bath tub surrounds
  - Carpeting
  - Existing Water Closets
  - Closet shelving
- Every unit will be tested by licensed mold remediation firm.
  - Dry wall will be removed by remediation firm's recommendations
  - Mold will be abated by remediation firm.
- Encapsulate and install new vinyl floor in kitchens and bathrooms.
- Paint walls and ceiling with one coat of Kilz and one coat of paint.
- Install new vanity with cultured marble vanity top.
- Install new surface mounted, lighted mirrored medicine cabinet.  
In WHEDA units, medicine chest to be at ADA height.
- Install new kitchen cabinets (beach flat panel door) and counter tops with 4" backsplash. In WHEDA units sink fronts to be removable.
- Install new 2 compartment stainless steel kitchen sinks with single lever handle faucets and goose neck spout.
- Install new appliances as follows:
  - 84 Ranges: self cleaning
  - 28 Ranges: with front control, self cleaning
  - 112 Refrigerators
  - 112 Garbage Disposals: 1/3hp Badger or equivalent with cord
  - 112 Range Hoods
  - 112 Grease Shields

All appliances are Energy Star rated, if available.
- Provide and install ¾" vinyl horizontal window blinds on all windows.
- Install new bedroom, closet and bathroom doors including jambs and casing – style to be flush, pre-finished Legacy doors, including hardware and lever handles.
- Install new 3" Legacy pre-finished wood base in all rooms.
- Install new bedroom and living room carpet.
- Install doors stops on all doors.
- Remove bath tub faucets and shower heads and replace new faucet and shower head in 112 units.
- Install new 3 piece fiberglass tub surrounds in 112 tubs.
- Install new comfort height, water saver, water closets with shut offs.



## Scope of Work

**Beloit, WI**  
**112 Units**

- In WHEDA provide and install new adjustable PVC coated shelving.
- Provide and install 112 air conditioners in existing sleeves.
- Replace existing base board heat as need.
- Replace unit entry doors with 20 minute rated pre-finished, flush Legacy doors with closer, peep hole, door sweep, hinges, smoke and sound seals.
- Install 30" grab bar behind water closets in WHEDA units with backing.
- Remove existing and install new bath exhaust fans.
- Install hard wired smoke detectors 1 each in the bedrooms, hallway and living rooms.
- Install new lighting.
- Install GFI outlets in bathrooms and kitchens.

### Existing Mechanical Rooms

- Install Anti-Scald devices on hot water heaters in mechanical rooms.
- Install new hydronic heating system including storage tank and controls for unit hot water.

**LOCAL OFFICIAL NOTIFICATION FORM  
DESCRIPTION OF DEVELOPMENT**

**Project Name:** Countryside Village Apartments  
**Address:** 2101 Freeman Parkway  
**City:** Beloit WI **ZIP:** 53511

**Total Development Units:** 112 **Total Set-Aside Units:** 108

**Unit Targeting:**  family  elderly  special needs  homeless  physically disabled  
 other: \_\_\_\_\_

Type of Building:	Number of Buildings:
<input checked="" type="checkbox"/> Row house/town house.....	<u>5</u>
<input type="checkbox"/> Detached two-family.....	_____
<input type="checkbox"/> Detached single-family	_____
Apartment:.....	_____
<input type="checkbox"/> Elevator building, number of stories:.....	_____
<input checked="" type="checkbox"/> Non-elevated building, number of stories:.....2.....	<u>5</u>

Number of parking spaces:	Covered:60	Uncovered:171
Rent per space per month:	Covered: \$35	Uncovered: \$0

Gross floor area (square footage) of buildings: 107,489 sq.ft.

Commercial space square footage (if any): \_\_\_\_\_

Intended commercial use: \_\_\_\_\_

**Set-Aside Units (rents do not include utility expense)**

Number of Bedrooms	Number of Baths	Number of Units	County Median Income Set-Aside	Monthly Rent per Unit	Average sq. ft. of Unit
2-bedroom	1	34	50%	\$550	757 sq. ft.
3-bedroom	1.5	45	50%	\$625	1,055sq. ft.
2-bedroom	1	10	60%	\$595	757 sq. ft.
3-bedroom	1.5	15	60%	\$695	1,055 sq. ft.
-bedroom				\$	sq. ft.
-bedroom				\$	sq. ft.
<b>Total:</b>		104			

**Market-Rate Units (rents do not include utility expense)**

Number of Bedrooms	Number of Baths	Number of Units	Monthly Rent per Unit	Average sq. ft. of Unit
2-bedroom	1	4	\$695	757 sq. ft.
3-bedroom	1.5	4	\$750	1,055 sq. ft.
-bedroom			\$	sq. ft.
<b>Total:</b>		8		

**The tenant will pay the following utilities:**

Utilities	Type of Utilities (Gas, Electric, Etc.)	0-bdr	2-bdr	3-bdr	-bdr	-bdr
Heating	Gas	\$	\$	\$	\$	\$
Cooking	Electric	\$	\$11	\$13	\$	\$
Hot Water	Gas	\$	\$	\$	\$	\$
Lighting		\$	\$32	\$39	\$	\$
Air conditioning		\$	\$	\$	\$	\$
Sewer		\$	\$	\$	\$	\$
Trash		\$	\$	\$	\$	\$
Total Tenant-Paid Utilities		\$	\$43	\$52	\$	\$

**Units include:**

**Set-Aside Units:**

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Range           | <input checked="" type="checkbox"/> Refrigerator          | <input checked="" type="checkbox"/> Disposal   |
| <input checked="" type="checkbox"/> Air conditioner | <input checked="" type="checkbox"/> Kitchen exhaust fan   | <input checked="" type="checkbox"/> Dishwasher |
| <input checked="" type="checkbox"/> Washer & dryer  | <input checked="" type="checkbox"/> Washer & dryer hookup | <input type="checkbox"/> Other:                |

**Market-Rate Units:**

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Range           | <input checked="" type="checkbox"/> Refrigerator          | <input checked="" type="checkbox"/> Disposal   |
| <input checked="" type="checkbox"/> Air conditioner | <input checked="" type="checkbox"/> Kitchen exhaust fan   | <input checked="" type="checkbox"/> Dishwasher |
| <input checked="" type="checkbox"/> Washer & dryer  | <input checked="" type="checkbox"/> Washer & dryer hookup | <input type="checkbox"/> Other:                |

**Targeted income ranges of tenants:**

County Median Income (CMI)	1-bdr	2 -bdr	-bdr
30%	\$ to \$	\$ to \$	\$ to \$
40%	\$ to \$	\$ to \$	\$ to \$
50%	\$22,000 to \$29,250	\$25,000 to \$35,100	\$ to \$
60%	\$23,800 to \$35,100	\$27,800 to \$42,120	\$ to \$
Market	\$27,800 to \$NA	\$ 30,000 to \$NA	\$ to \$

**IMPORTANT!**

**Please check one:**

- My office supports this development.
- My office has no position regarding this development.
- My office opposes this development.

**RETURN THE ORIGINAL SIGNED COPY OF THIS COMPLETED DOCUMENT TO WHEDA**

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
PHONE

Sample Support Letter

Date

Callan Schultz  
Keystone Development  
420 S. Koeller Street, Ste. 230  
Oshkosh, WI 54902

**RE:   Countryside Village  
      2101 Freeman Parkway, Beloit**

Dear Cal:

I am writing you in full support of your proposed tax credit development, Countryside Village, an existing 112-unit tax credit apartment community located in Beloit. The development of this property will help in our effort to provide safe, affordable housing for the residents in the community.

Sincerely,

Name  
Title



FRONT ELEVATION  
SCALE: 1/8" = 1'-0"

APARTMENT BUILDING TYPE 'A'

DECEMBER 15, 2010  
© FAYAT ENGINEERING, INC. 2010



FRONT ELEVATION  
SCALE: 1/8" = 1'-0"

TOWNHOUSE BUILDING TYPE 'C'

DECEMBER 15, 2010  
© FAYAT ENGINEERING, INC. 2010



SITE STATISTICS	
PROPOSED GARAGES	91
EXISTING SURFACE PARKING TO REMAIN	10
PROPOSED SURFACE PARKING	231
TOTAL SITE SURFACE & GARAGE PARKING	332
ADJACENT ACCESSORY STRUCTURE SETBACK FOR SITE B 11' 0" - MINIMUM	
CURRENT SITE SURFACE PARKING	10

BUILDING STATISTICS	
1 - BUILDING TYPE W/ 12 UNIT APARTMENTS	45
2 - BUILDING TYPE W/ 12 UNIT TOWNHOUSES	24
3 - BUILDING TYPE C/ 20 UNIT TOWNHOUSES	23
EXISTING DWELLING UNITS	112



**PRELIMINARY SITE PLAN**  
SCALE 1" = 40'-0"

**OWNER:**  
 DEVELOPMENT, LLC  
 420 S WISSELL STREET  
 OSHKOSH, WISCONSIN 54902

**PROJECT:**  
 AND BUILDING IMPROVEMENTS  
 WINCHESTER AND CHATSWORTH DRIVE  
 BELoit, WI

**PRELIMINARY PLAN DATE:**  
 12-7-19  
 12-19-19

**DATE:**  
**JOB NUMBER:**  
 1017180  
**SHEET**

**C1.0**

**RESOLUTION AUTHORIZING A TEMPORARY CHANGE IN THE  
HOUSING REHABILITATION LOAN PROGRAM**

**WHEREAS**, the City of Beloit operates a housing rehabilitation loan program which provides financial incentives to homeowners and landlords to upgrade their housing units; and

**WHEREAS**, the intent of the program is to increase the quality of housing stock owned and rented by low- to moderate-income households; and

**WHEREAS**, the current economic conditions are increasing the need for quality rental housing for low- to moderate-income households; and

**WHEREAS**, staff has identified a need for more rental rehabilitation loans.

**NOW, THEREFORE, BE IT RESOLVED** that the Housing Rehabilitation Loan Program is hereby modified from January 2011 to December 31, 2012 to allow rental borrowers to receive up to two loans in a twelve month time period and to allow up to 50% of available CDBG and HOME funds to be loaned for Rental Housing Rehabilitation loans.

Adopted this 3<sup>rd</sup> day of January, 2011

\_\_\_\_\_  
Kevin D. Leavy, City Council President

Attest:

\_\_\_\_\_  
Carol S. Alexander, WCPC/MMC, City Clerk

# CITY OF BELOIT

## REPORTS AND PRESENTATIONS TO CITY COUNCIL

---

**Topic:** Temporary change to the City's Housing Rehabilitation Loan Program

**Date:** January 3, 2011

**Presenter(s):** Julie Christensen

**Department(s):** Community Development

---

### Overview/Background Information:

The City of Beloit Housing Rehabilitation Loan program consists of four programs.

- a. Owner Occupied Low Interest & Deferred Payment Loans – this loan program provides loans to homeowners.  
Maximum Loan Amount: \$20,000  
Interest Rate: Deferred loans are 0 percent and installment loans are 3 percent.  
Term of the Loan: 10 years, with the ability of staff to extend the term to 15 years  
Number of loans closed in the first three quarters of 2010: 7 owner-occupied loans with HOME dollars
- b. Rental Housing Rehabilitation Loan Program – this loan program is available to property owners to rehab their rental properties. Each property owner can receive one rental rehab loan each year.  
Maximum Loan Amount: \$20,000 for a single-family; \$25,000 for a multi-family building and \$8,000 for each additional unit over two units  
Interest Rate: 3 percent  
Term: 10 years.  
Number of loans closed in the first three quarters of 2010: 2 Rental Rehab Loans for a total of 3 units (source of funds is CDBG program income).
- c. Distressed Property Loan Program – this loan program is an emergency loan program.  
Maximum Loan Amount: \$5,000  
Interest Rate: Deferred loans are 0 percent; installment loans are 3 percent  
Term of the Loan: 10 years
- d. Construction Loan Program – this loan program is available to a person who wants to rehab a house and then sell it to a low- to moderate-income homeowner. Only one loan is allowed each year. The loan payments are deferred for six months. If the property owner cannot sell the house after six months, they can rent the house but only to low- to moderate-income households.
- e. Lead Hazard Control Grants – this grant program is available to remove lead hazards from dwellings.  
Maximum Grant Amount: \$11,500  
Number of grants approved in the first three quarters of 2010: 4 Lead Grants for a total of 6 units. 2 of the grants (4 total units) were for rental housing.

The City's loan program is intended to provide financial incentives to help improve all housing stock rented or owned by low and moderate income households. All of the loan programs are important as they complement other neighborhood revitalization efforts going on in the City of Beloit.

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### Key Issues (maximum of 5):

Community Development staff is proposing a temporary change in the Rental Housing Rehabilitation Program that would allow us to provide more loans to improve the quality of rental housing in the City. This change is being proposed because of the current economic situation. As more and more households are losing their homes, there is a greater need for safe rental housing. To ensure that high quality rental housing is available, staff is requesting the ability to grant two loans to a rental housing borrower in one twelve month period. The loans would be for two different properties. Staff is also requesting the ability to loan up to 50% of available CDBG and HOME funds for Rental Housing Rehabilitation loans. If approved, this change request would be temporary and would start in January 2011 and would end on December 31, 2012. If any extension of this change in the program would be warranted, the request would come back before City Council for approval.

**Current Rule:** A rental housing borrower may receive one loan in a twelve (12) month period.

**Proposed Rule:** A rental housing borrower may receive two loans in a twelve (12) month period.

25% of available CDBG and HOME funds can be loaned for Rental Housing Rehabilitation.

50% of available CDBG and HOME funds can be loaned for Rental Housing Rehabilitation.



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**Conformance to Strategic Plan (List key goals this action would support and briefly discuss its impact on the City's mission.):**

This request conforms to Goal 4 of the Strategic Plan: Apply sound, sustainable practices to promote a diverse, high quality community through historic preservation, community revitalization and successful new development.

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**Sustainability (Briefly comment on the sustainable long term impact of this policy or program related to how it will impact both the built and natural environment utilizing the four following eco-municipality guidelines.):**

- **Reduce dependence upon fossil fuels**

Creates more energy-efficient housing units which will reduce our dependence on fossil fuels.

- **Reduce dependence on chemicals and other manufacturing substances that accumulate in nature**

This activity will remove lead and other hazardous substances from Beloit housing units.

- **Reduce dependence on activities that harm life sustaining eco-systems**

N/A

- **Meet the hierarchy of present and future human needs fairly and efficiently**

This activity will provide safe and healthy housing units.

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**If any of the four criteria are not applicable to your specific policy or program, an N/A should be entered in that space.**

**Action required/Recommendation:**

City Council approval of the recommended change in the Housing Rehabilitation Loan Program.

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**Fiscal Note/Budget Impact:**

These are CDBG and HOME funds, so this would have no impact on the general fund. There are adequate funds in both programs to accommodate the additional loans.