BOARD OF PUBLIC WORKS MEETING AGENDA
Monday, February 13, 2012 – 7:30 p.m.
(or immediately following previously scheduled meeting)
Lincoln Center – 1519 Water Street, Stevens Point, WI 54481

[A quorum of the City Council may attend this meeting]

1. Consideration and possible action to approve the 2012 Tree Trimming Project in the amount of $22,277.00 to Affordable Tree Service.
2. Consideration and possible action to award the 2012 Bituminous Patching Project #05-12 to American Asphalt of Wisconsin in the amount of $72,990.00.
3. Consideration and possible action to purchase eleven vehicles from Scaffidi Motors in the amount of $285,429.00 for the Police Department.
4. Consideration and possible action to purchase a Polaris 550 LXT from K&M Sales and Service out of Hancock, WI in the amount of $6,458.99 for the Parks Department for grooming the cross country ski trails.
5. Consideration and possible action to accept the December 2011 and January 2012 Airport Manager's Reports and place them on file.
6. Discussion and presentation of the draft technical memorandum related to stormwater utility financing.
7. Discussion and presentation of the Stevens Point Downtown Transportation Study (view the full traffic study on our website).
8. Consideration and possible action to accept the Director's Report and place it on file.
9. Adjournment

Any person who has special needs while attending this meeting or needs agenda materials for this meeting should contact the City Clerk as soon as possible to ensure a reasonable accommodation can be made. The City Clerk can be reached by telephone at (715) 346-1569, TOD #346-1556, or by mail at 1515 Strongs Avenue, Stevens Point, WI 54481

Copies of ordinances, resolutions, reports, and minutes of the committee meetings are on file at the office of the City Clerk for inspection during normal business hours from 7:30 A.M. to 4:00 P.M.

CITY OF STEVENS POINT

DEPARTMENT OF PARKS, RECREATION AND FORESTRY

February 1, 2012

To the Board of Public Works;

The City Forester is recommending approval of the 2012 Tree Care Operation Quote in the amount of $22,277.00 provided by Affordable Tree Service. The Forester solicited quotes from four tree vendors which have expressed interest in the project in the past. The Forester received one quote back. The Forester has reviewed the quote prices and found them to be acceptable based upon comparables in surrounding communities. The quote is within budget and includes tree removal, stump removal and pruning services to be conducted by December 31, 2012 or until funds are expended.

Staff recommendation is to approve the quote from Affordable Tree Service in the amount of $22,277.00.

Sincerely,

City of Stevens Point

Todd M. Ernster
City Forester

2442 SIMS AVENUE
STEVENS POINT, WI 54481-3100

PHONE (715) 346-1531
FAX (715) 346-1582

stevenspoint.com/parks

BID TAB
CITY OF STEVENS POINT
2012 BITUMINOUS PATCHING PROJECT #05-12
SEALED BIDS OPENED 11:00 A.M., February 2, 2012

				American Asphalt of WI		RC Pavers LLC	
ITEM NO.	**EST. QUAN.**	**UNIT**	**DESCRIPTION**	**UNIT PRICE**	**TOTAL PRICE**	**UNIT PRICE**	**TOTAL PRICE**
390.0203	1,500	S.Y.	Base Patching Asphaltic	$ 43.00	$ 64,500.00	$ 45.69	$ 68,535.00
SPV.0180.01	60	S.Y.	Base Patching Asphaltic (2-inch)	$ 41.50	$ 2,490.00	$ 40.00	$ 2,400.00
690.0150	2,000	L.F.	Sawcutting Asphalt	$ 3.00	$ 6,000.00	$ 2.50	$ 5,000.00
			Total		**$ 72,990.00**		**$ 75,935.00**

City of Stevens Point
1515 Strongs Avenue
Stevens Point, WI 54481-3594

Department of Public Works
Engineering
Phone: 715-346-1561
Fax: 715-346-1650

To the Board of Public Works,

The Police Department is in need of purchasing 11 total vehicle units. These vehicle units were broken down into 4 utility units and 7 sedans; some are needed with full police markings and some without. The one that was best suited for their needs is the 2013 Ford (NGPI) Next Generation Police Interceptor Vehicles. The city has received quotes from two different qualifying vendors, Scaffidi Motors of Stevens Point, WI and V&H Motors out of Marshfield, WI. The quotes are listed as follows:

1. 2013 Ford NGPI **Utility** units **with** full police markings.

Scaffidi Motors	$27,353.00 x 2 units = $54,706.00
V&H Motors	$27,493.00 x 2 units = $54,986.00

2. 2013 Ford NGPI **Utility** units **without** police markings.

Scaffidi Motors	$27,053.00 x 2 units = $54,106.00
V&H Motors	$27,193.00 x 2 units = $54,386.00

3. 2013 Ford NGPI **Sedans with** full police markings.

Scaffidi Motors	$25,201.00 x 6 units = $151,206.00
V&H Motors	$24,960.00 x 6 units = $149,760.00

4. 2013 Ford NGPI **Sedan without** police markings.

Scaffidi Motors	$25,411.00 x 1 unit = $25,411.00
V&H Motors	$24,922.00 x 1 unit = $24,922.00

The totals came in as follows:

Scaffidi Motors	$285,429.00
V&H Motors	$284,054.00
Difference	$ 1,375.00

Staff is requesting approval to purchase these vehicles from Scaffidi Motors for a total amount of $285,429.00 to be covered by 2012 borrowing.

Sincerely,

CITY OF STEVENS POINT

Bruce A. Peplinski
Assistant Street Superintendent/
Fleet Maintenance Supervisor

City of Stevens Point
1515 Strongs Avenue
Stevens Point, WI 54481-3594

Department of Public Works
Engineering
Phone: 715-346-1561
Fax: 715-346-1650

To the Board of Public Works,

The Stevens Point Parks and Recreation Department is in need of a new snowmobile for the grooming of the cross country ski trails within our parks system.

After analyzing many different makes and models, it was decided that the 2012 Polaris 550 LXT was the most appropriate machine for our needs.

Pricing has been gathered from three different vendors and they are as follows:

- K & M Sales & Service, Hancock, WI $6,458.99
- Country Sports Inc., Wisconsin Rapids, WI $6,532.00
- Power Pac Inc., Marshfield, WI $6,705.00

We are requesting approval for the purchase of this machine from K & M Sales & Service in the amount of $6,458.99. This purchase was included in the 2012 operating budget.

Sincerely,

CITY OF STEVENS POINT

Bruce A. Peplinski
Assistant Street Superintendent/
Fleet Maintenance Supervisor

December 2011

Airport Activity

- *1 Student Solo flights.*
- *Am I High Aviation – Private Pilot Ground School Dec 3/4.*
- *PAPI Glideslope Lights repaired Rwy 03.*
- *SPPA Mtng December 5.*
- *SPPD EVOC training Txwy B Dec 12.*

Aircraft Movements

Activity logs are on file and available for viewing at the airport

- ***132** Aircraft were logged during hours of operation for the month.*

Aircraft Type	#	Passengers Enplaned/Deplaned
Single Engine Private	63	81
Multi-Engine Private	3	7
Single Engine Buisness	40	62
Multi-Engine Buisness	6	15
Jet	16	31
Helicopter	4	0

Previous Yr. / Present Yr. fuel sale quantities by month. All quantities are U.S. Gallons.

2010	**100LL**	**Jet-A**	***2011***	**100LL**	**Jet-A**
January	1392.27	2524		949.82	3357
February	1044.86	3249		831.91	2644
March	3502.29	5788		1832.48	5989
April	2263.8	4889		1625.86	5435
May	3017.66	2961		3197.82	8162
June	3918.22	6615		2818.73	6629
July	5002.67	5180		5870.17	7942
August	3391.19	6071		4896.08	9390
September	3037.99	5877		2774.72	9057
October	2271.81	7218		2652.40	5330
November	2093.34	5724		1690.34	2855
December	807.97	5719		1264.47	3578
Total	31744.07	61815		30404.8	70368
Average	2645.33917	5151.25		2533.73	5864
High Month	5002.67	7218		5870.17	9390
Low Month	807.97	2524		831.91	2644

This report was completed by Jason Draheim. Questions concerning the report or any other related issues can be answered by contacting Jason Draheim by telephone at 345-8989, or by e-mail, jdraheim@stevenspoint.com.

Hangar Rentals/Availability

Airport Hangars are currently occupied at full capacity.

Aircraft Rentals/Instruction Given

Am I High Aviation (Conducted 56 hrs Dual Instruction)

Airport Maintenance/Projects (Proposed/Completed)

- *Airport AWOS system scheduled to be upgraded late February 2012.*
- *Fuel Farm catwalk project completed.*

Fuel Dispensed/Month

100LL 1264.47 gal.
Jet-A 3578 gal.
Total 4842.47 gal.

January 2012

Airport Activity

- *2 Private Pilot Checkride flights(certificates granted).*

Aircraft Movements

Activity logs are on file and available for viewing at the airport

- ***152** Aircraft were logged during hours of operation for the month.*

Aircraft Type	#	Passengers Enplaned/Deplaned
Single Engine Private	74	82
Multi-Engine Private	5	9
Single Engine Buisness	41	60
Multi-Engine Buisness	16	24
Jet	15	32
Helicopter	1	1

Previous Yr. / Present Yr. fuel sale quantities by month. All quantities are U.S. Gallons.

2011	**100LL**	**Jet-A**	***2012***	**100LL**	**Jet-A**
January	949.82	3357		1369.58	3561
February	831.91	2644			
March	1832.48	5989			
April	1625.86	5435			
May	3197.82	8162			
June	2818.73	6629			
July	5870.17	7942			
August	4896.08	9390			
September	2774.72	9057			
October	2652.40	5330			
November	1690.34	2855			
December	1264.47	3578			
Total	30404.8	70368			
Average	2533.73	5864			
High Month	5870.17	9390			
Low Month	831.91	2644			

This report was completed by Jason Draheim. Questions concerning the report or any other related issues can be answered by contacting Jason Draheim by telephone at 345-8989, or by e-mail, jdraheim@stevenspoint.com.

Hangar Rentals/Availability

Airport Hangars are currently occupied at full capacity.

Aircraft Rentals/Instruction Given

Am I High Aviation (Conducted 32 hrs Dual Instruction)

Airport Maintenance/Projects (Proposed/Completed)

- *Airport AWOS system scheduled to be upgraded February 28 2012.*
- *Streets Dept Trenching and boring for fiber-optic connectivity throughout airfield.*

Fuel Dispensed/Month

100LL 1369.58 gal.
Jet-A 3561 gal.
Total 4930.58 gal.

AECOM
200 Indiana Avenue
Stevens Point, WI 54481
www.aecom.com

715 341 8110 tel
715 341 7390 fax

Draft Technical Memorandum

To	Joel Lemke
Subject	Stevens Point Stormwater Financing AECOM Project 60222439
From	Kurt Schoen
Date	February 3, 2012

Background

The City of Stevens Point's Department of Public Works currently manages storm water for the municipality. This involves all planning, design, construction management, inspection, and operation and maintenance associated with the collection, treatment, storage, conveyance, and discharge of storm water. The general revenue fund, supported by property tax assessments, currently funds the storm water management program. AECOM (fka, Earth Tech) completed a storm water utility study in 2008 that considered a storm water utility as an alternative funding mechanism for storm water services.

Rather than collecting revenues based on the assessed value of a property, a storm water utility collects a user fee from customers based on the amount of service provided to them by the city. The most commonly used mechanism for establishing a fee structure in Wisconsin is referred to as the equivalent runoff unit (ERU). In this methodology, the level of service provided to each customer is based on the amount of impervious area on their property. A value of 1.0 ERU's represents the square footage of impervious area present on the average single-family residential parcel. Nonresidential received a bill directly proportional to the amount of impervious area on their property.

The previous AECOM study established the ERU value for the City of Stevens Point as 3,364 square foot of impervious area. That report also delineated the impervious area for nonresidential parcels within the city based on aerial photographs taken in 2002 and 2005.

Establishing an ERU rate structure requires two pieces of data, the number of ERU's in a municipality and the required budget to support storm water services. Dividing the budget by the number of ERU's determines the fee charged for each 1.0 ERU of impervious area. This is the fee paid by single-family residential homeowners and the fee used to calculate charges for nonresidential customers.

This project updates impervious area measurements for potential nonresidential customers to reflect construction that has occurred since the 2005 aerial photograph was taken. It also reevaluates the budget and level of services required to manage the city's storm water.

Objectives

The objectives of this project are to:

1. Update impervious area measurements to reflect construction that has occurred since the 2005 aerial photo.

2. Update the cities storm water financing requirements to identify the level of funding to be provided by a potential storm water utility.

3. Provide the city with an ArcGIS feature class with updated impervious area delineations.

4. Calculated ERU totals for 20 sample properties selected by AECOM and the city.

Methods

This project includes two independent efforts, identifying the storm water budget to be supported by a potential stormwater utility and updating the impervious area calculations. The budgeting process was a collaborative effort between the AECOM and city staff, with significant input from the Director of Public Works. The impervious area delineation update did not require as much direct input from city staff.

Stormwater Budget Update

Stormwater services are currently housed in the Department of Public Works; under a stormwater utility configuration, they could share the same facilities as the water/wastewater departments. This would allow the utilities director flexibility with staffing for field operations. This flexibility would improve workforce efficiency by balancing workloads so all maintenance activities have sufficient staffing and no maintenance personnel are without focused productive activities.

Impervious Area Update

Stevens Point provided AECOM an aerial photo taken in 2010 and a list of nonresidential building permits submitted since the date of the 2005 aerial photograph. AECOM reviewed each property on the building permit list and modified the impervious area delineations as appropriate. Using the listed building permits, city staff identified impervious area changes that occurred after the 2010 aerial photograph was taken. They determined the impervious area measurements for these properties by reviewing application submittals.

AECOM GIS staff not involved with the impervious area delineation update performed a quality control review of the updated spatial data.

Some of the impervious area delineation line work appears to be incorrect due to the difference in aerial photographs. The location and elevation of the airplane housing the camera affect the apparent viewing angle of the photograph. Because the photographs were not taken from the exact same elevation and location, the city appears to be viewed from different angles. This has minimal impact on delineations of impervious areas located at ground surface elevation, such as parking lots

and sidewalks. Building rooftops appear to exist in different locations when viewed from different angles, and the taller the building the more dramatic the apparent difference in location. This variation in perspective causes impervious area delineations for rooftops and other elevated areas to appear inaccurate, because the line work overlaid on the aerial photograph is offset from the apparent roof location. Despite this appearance, the actual square footage of impervious area is correctly measured.

The following sets of images depict two locations to demonstrate this perspective difference. In each case, the first image contains the 2005 aerial photograph with brown lines establishing the edge of impervious areas and purple outlines for pervious areas surrounded by impervious area. The second photograph contains the same line work placed over the 2010 aerial photograph.


Photo 1A


Photo 1B

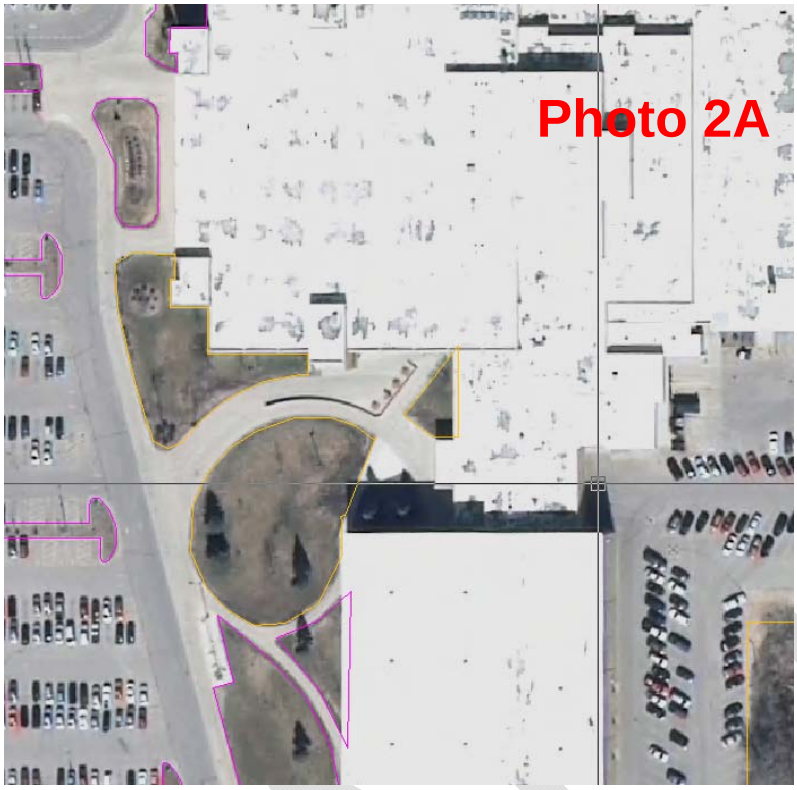


Photo 2A


Photo 2B

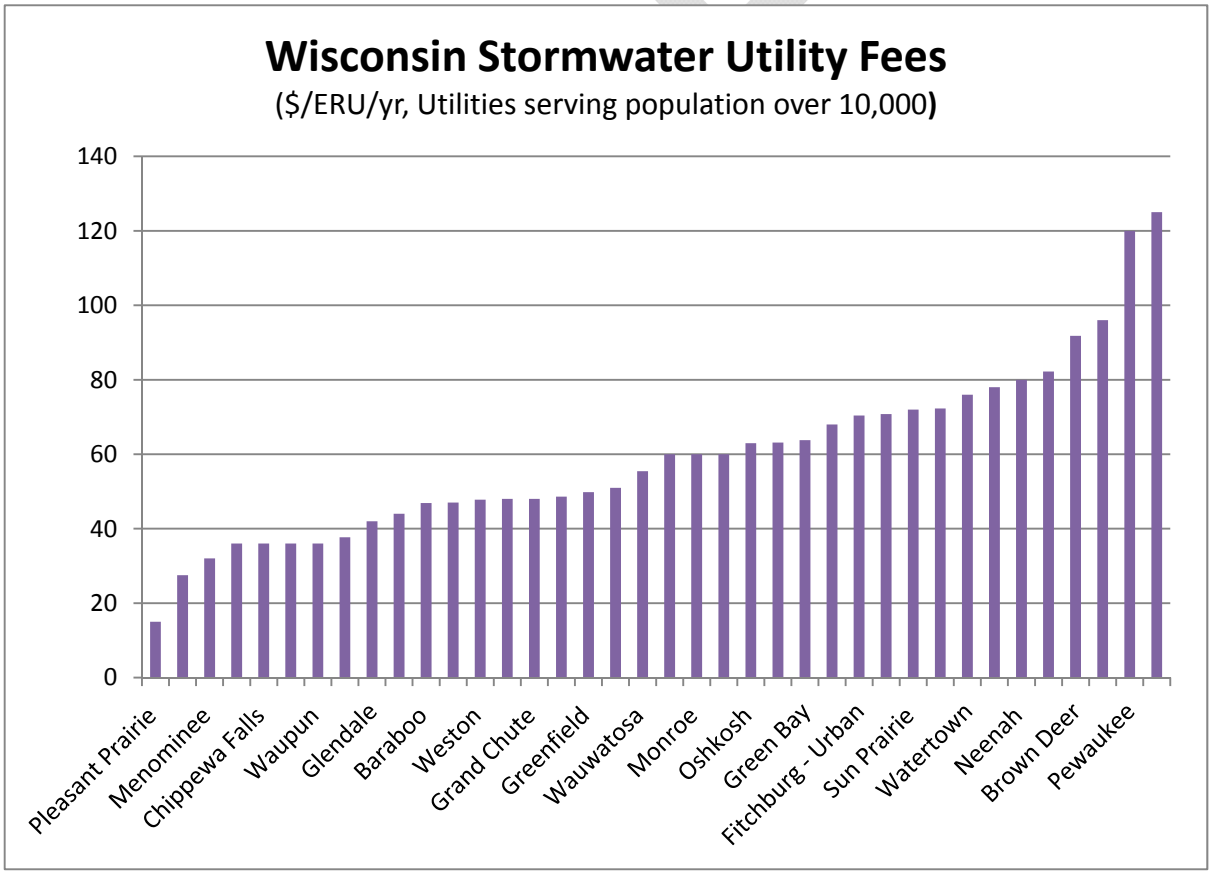
Results

There are now an estimated 16,169 ERUs for non-residential customers and an estimated 8,800 for residential (single-family, duplex and triplex) for a total of 24,969. The final ERU number would probably change slightly during finalization of a utility billing database.

The following table summarizes the city's stormwater budget:

Staffing	$ 425,000
Administrative	$ 45,000
Operations and Maintenance	$ 475,000
Construction	$ 530,000
Total	$ 1,475,000

A budget of $1.475M supported by 24,969 ERUs would result in an annual fee of $59.07 per ERU. For comparison, the following chart summarizes ERU charges for Wisconsin communities with stormwater utilities and populations greater than 10,000 as of 2011.



Recommendations

Should the city choose to go forward with a utility, implementation would require the following actions:

1. Adopt a stormwater utility implementation ordinance.
2. Develop and adopt a credit policy.
3. Establish the user fee rate structure.
4. Compile the stormwater utility billing database.
5. Inform the public.

Ordinance Adoption

The City would need to adopt a city ordinance establishing the utility. Ordinance adoption would also establish a stormwater utility board, policies, and administrative procedures. AECOM can provide a draft utility implementation ordinance, and work with city staff to tailor it to local needs, but the draft ordinance should be finalized by Stevens Point corporate counsel prior to adoption.

Credit Policy

Utility customers need to be given an opportunity to reduce their user fee; with a water or electric utility, reduced consumption results in a lower fee. Reducing the level of service required for a stormwater utility is more complex. There are generally two categories of customers potentially entitled to a stormwater utility fee credit, customers who have implemented stormwater best management practices (BMPs) and those who have impervious area that is not served by the City's Municipal Separate Storm Sewer System (MS4).

Stormwater BMPs are available to reduce the runoff rate, volume, and pollutant load. Infiltration units, wet and dry detention ponds, underground storage, and swales all accomplish some reduction in stormwater impacts. Each of these practices, if properly designed, constructed and maintained by a customer, is capable of reducing the level of service required by the customer. This reduction in level of service then results in a commensurate reduction in the customer's stormwater fee.

Several areas within the city limits are not served by the city MS4. Riparian properties along the Plover and Wisconsin Rivers may drain at least a portion of their runoff directly to Waters of the State. As these customers place a reduced demand on the city's conveyance system, they would pay a reduced user fee.

Adoption of a credit policy involves several policy decisions; these include the maximum amount of credit a customer can receive and what metrics will be used to determine the level of credit. Certain stormwater management activities are independent of the physical demands placed on the conveyance system. Street sweeping, leaf pickup, activities required by the Wisconsin Pollutant Discharge Elimination System (WPDES) permit and technical review of proposed development plans all occur independently of conveyance demands. The fraction of revenue dedicated to these activities is often exempted from credit, meaning that a customer receiving the maximum available fee reduction would still pay some fee to the stormwater utility.

Establish User Fee Rate Structure

The stormwater utility rate would need to be established, either via ordinance or resolution, and the city would need to decide how to structure rates for residential customers. Single-family residential homes can all be assigned the same user fee, set at 1.0 ERUs, or they can be separated into a tiered rate structure where larger homes receive a higher fee than smaller homes. The simplest viable method for this is a three tiered structure, with most single-family residential customers falling into the middle tier and being charged 1.0 ERUs. The very largest and very smallest homes would be assigned a larger and smaller rate, such as 1.2 and 0.8 ERUs. A tiered structure such as this for single-family residential homes has the advantage of a more fair distribution of charges, but the disadvantage is a much more cumbersome system to manage. Establishment of the tiered system would require measurement of the impervious area for all single-family residential properties in the city. It would also require ongoing monitoring of impervious area for residential homes; expansion of a home or addition of a hard surface patio would require checking to see if the customer had moved into a different rate tier.

Compile the Stormwater Utility Billing Database

Accurate collection of stormwater utility revenues requires bring together two separate databases. The impervious area measurements for nonresidential customers exist in a spatial geo-database which needs to be assigned to the appropriate utility billing account. A parcel identification field from the existing water utility billing database would be matched with the parcel number from the impervious area database. The most straightforward type of connection between these two databases is a single water utility billing account that matches with one parcel containing impervious area. This cross-reference would create the majority of the nonresidential stormwater utility. Other combinations require significant input from local staff to accurately result the database. These include:

- Parcels with multiple water utility accounts.
- Water utility accounts serving multiple parcels.
- Water utility accounts serving parcels with no impervious area.
- Parcels containing impervious area but not assigned to a water utility account.

An accurate completed billing database also requires resolution of other circumstances, such as making decisions on how to build condominiums and clarifying potential errors in the database. For example, municipally owned properties may be listed as owned by "City of Stevens Point" or "Stevens Point, City of".

Discuss with the Public

Following the adoption of a new utility, cities adopting stormwater utilities generally engage in some level of outreach to allow heavily impacted customers to budget and plan for the utility fee before billing commences. Regardless of the level of outreach, there'll also be a spike in calls to the utility department as bills are initially sent out.

AECOM **Transportation**

Prepared for:

City of Stevens Point
Public Works Department
1515 Strongs Avenue
Stevens Point, WI 54481

Prepared by:

AECOM
1350 Deming Way, Suite 100
Middleton, WI 53562

Stevens Point Downtown Transportation Study

City of Stevens Point, Wisconsin
AECOM No. 60213573

February 6, 2012

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List of Exhibits

9. Intersection LOS Summary
10. Crash Summary
11. Typical Sections
12. Proposed Street System with Traffic Signals (150 scale)
13. Proposed Street System with Roundabouts (150 scale)
14. Improvement Cost Estimates
15. Required Right of Way

List of Appendices

A. City of Stevens Point Designated Routes Maps
   - Truck Routes
   - Green Circle Trails
   - Bike Routes
   - Bus Route

B Traffic Count Data (on CD)

C Improvement Alternatives (on CD)

PROJECT REPORT

DOWNTOWN TRANSPORTATION STUDY

CITY OF STEVENS POINT

EXECUTIVE SUMMARY

AECOM has completed a Transportation Study of the Central Business District (CDB) in Stevens Point, Wisconsin, for the City of Stevens Point Public Works Department. The overall objective of this study was to determine street system improvements to support currently proposed development and address existing transportation operational, safety, and access issues. A Complete Streets approach was used with the objective of providing mobility and traveling safety for all users, including motorists, pedestrians, bicyclists, and public transit.

The downtown transportation system has a significant number of operational and safety issues. The streets carrying STH 66 through the downtown have significant excess capacity for the projected future traffic volumes. Barriers exist to easy and safe pedestrian and bicycle usage in the downtown. CenterPoint Drive and Water Street effectively are barriers to pedestrians walking into the downtown area. Crashes over the last five years are generally related to the unneeded lanes and excessive width on CenterPoint Drive and Water Street. Other geometric and traffic control issues have also contributed to crashes.

We developed two alternative improvement scenarios to address the existing and projected traffic flow and safety needs in the downtown. Alternative 1 includes traffic signals at all controlled intersections. Alternative 2 includes roundabouts at the two major intersections of Clark Street & Water Street, and CenterPoint Drive & Water Street/ First Street/ Second Street. The alternative layouts are attached as Exhibits 12 and 13.

Both Alternative 1 and Alternative 2 appropriately address all the operational, safety, and access issues identified in this Downtown Transportation Study. Alternative 1 is a more cost effective and operationally sound solution than Alternative 2. We recommend the City upgrade the traffic signals on Clark Street, Water Street, and CenterPoint Drive; install fiber optic or wireless radio communication between the signals and City Hall; and install a Traffic Management System in City Hall.

Full recommendations and cost estimates for the proposed improvements are included in the report.

INTRODUCTION

The City of Stevens Point is anticipating significant redevelopment within the CBD. As part of the redevelopment, the City desires to improve the CBD transportation system. This project consists of a transportation system study and future needs assessment in downtown Stevens Point. The northern project limit is Portage Street, the eastern project limit is Rogers Street, the southern project limit is Clark Street, and the western project limit is the Wisconsin River. A project location map is included as Exhibit 1.

PROJECT OBJECTIVES

Project objectives include determining the transportation impacts of proposed development, evaluating the existing and proposed street system for its ability to serve downtown transportation needs, and recommending street system and intersection operational and safety improvements. A Complete Streets approach was used with the objective of providing mobility and traveling safety for all users, including motorists, pedestrians, bicyclists, and public transit.

EXISTING CONDITIONS

Existing Roadway Layout and Traffic Control

The CBD transportation network consists of two major east-west roadways functioning as a one-way pair to carry STH 66 through the downtown area, superimposed on the original local street grid system. Until recently, USH 10 was routed on this one-way pair. USH 10 now follows a route north of the City and USH 10 thru traffic has been removed from the CBD. CenterPoint Drive carries westbound STH 66 and eastbound STH 66 is on Clark Street. In addition to STH 66, the primary access streets to the CBD are Main Street from the east; 2nd Street from the north; and Water, Third, and Church Streets from the south.

When CenterPoint Drive and the CenterPoint Mall were constructed in 1984, several streets of the original grid system were closed and some streets were converted to one-way traffic flow. The CenterPoint Mall is now closed, except for ShopKo and Regis Salon on the east end of the mall. The mall is proposed for partial removal and redevelopment. In June 2010, Main Street from the Public Square to Strongs Avenue was converted to angle parking on the south side of the street. In spring 2011, the Public Square at the intersection of Main Street and Second Street was reconstructed with a plaza and a one-way loop running counter-clockwise around the square. These conversions have been well received by the public.

The existing intersection lane layouts are shown in Exhibit 2. The following 15 intersections were evaluated for traffic flow in the CBD.

INTERSECTION	INTERSECTION TRAFFIC CONTROL
1. CenterPoint Drive and First Street/ Second Street/ Water Street	Pretimed Traffic Signal and Stop Sign on First Street
2. CenterPoint Drive and Third Street	Stop Sign
3. CenterPoint Drive and Union Street	Stop Sign
4. CenterPoint Drive and Church Street	Pretimed Traffic Signal
5. CenterPoint Drive and Rogers Street	Stop Signs
6. Main Street and Water Street	Stop Sign
7. Main Street and Third Street	Stop Signs
8. Main Street and Strongs Avenue	Stop Sign
9. Main Street and Church Street	All-Way Stop Signs
10. Clark Street and Water Street	Semi-Actuated Traffic Signal
11. Clark Street and Third Street	Stop Signs
12. Clark Street and Strongs Avenue	Pretimed Traffic Signal
13. Clark Street and Church Street	Pretimed Traffic Signal
14. Water Street and Crosby Avenue	Semi-Actuated Traffic Signal
15. Portage Street and Second Street	Stop Signs

There is no official traffic signal coordination plan for the signals in the CBD. Informally, the three signals on Water Street from Clark Street to CenterPoint Drive have been coordinated with time based coordination using time clocks in each intersection's signal controller.

The pretimed signal operation and the lack of formal coordination plans cause significant delay and driver frustration. Electrical power outages disrupt the time clocks causing the signals to lose coordination, resulting in significant increased delay. The most noticeable location for unnecessary delay from the traffic signals is on CenterPoint Drive at Church Street. It is common for drivers to leave the Division Street signal and arrive at Church Street on a red light.

Pedestrian, Bicycle, and Bus Transit

Officially designated bicycle and truck routes run through the downtown area. The truck routes follow STH 66, 2nd Street to the north of CenterPoint Drive, and Church Street between Clark Street and CenterPoint Drive. Semi-trailer trucks making business deliveries were observed on several of the streets in the CBD.

There are two on-street bicycle routes running north-south through the CBD and no routes running east-west. One route follows Third Street/ Main Street/ Public Square and Crosby Street through the CBD. The other route follows Church Street/ Main Street/ Prentice Street. The Green Circle Trail runs along the Wisconsin River on the west side of the CBD. The Truck Route, Green Circle Trail, and Bike Route maps are in Appendix A.

There is significant pedestrian activity in the CBD, especially along Main Street and in the Public Square. Major pedestrian crossing locations outside of Main Street include all the signalized intersections, and the Clark Street and Third Street intersection. Jaywalkers were observed crossing Clark Street between Third Street and Strongs Avenue. The Green Circle Trail leads users directly to Clark Street (STH 66) approximately 200 feet west of the signalized Clark Street/ Water Street intersection, but there is no marked crossing at that location. Although the official path crossing is at the signalized intersection, persons have been observed crossing Clark Street at the unmarked location.

All four of the City's fixed bus routes, the Campus Shopping route, and the late night routes serve the downtown area. The bus Transfer Center is on the west side of Strongs Avenue just north of Main Street. A bus route map is included in Appendix A. The City Transit Manager indicated they are satisfied with the current bus routes. The routes will be reassessed as development occurs downtown to determine if it would be beneficial to change the routes. The only current significant street system issues affecting bus service in the downtown area are on Main Street between the Public Square and Strongs Avenue. Improperly parked cars and trucks parked for unloading narrow the travel lane so that a bus cannot get by.

Access

Access was controlled by Wisconsin Department of Transportation (WisDOT) on CenterPoint Drive and on Water Street between Clark Street and CenterPoint Street when those streets were built to carry state highway traffic. The only access points on Centerpoint Drive within the project limits are public streets, the two CenterPoint Mall entrances, and one driveway on the north side just west of Third Street. Water Street has two access points at public street intersections and three driveway access points on the east side of Water Street just north of Clark Street. All other streets in the study area have periodic street intersections and driveways.

CenterPoint Drive, Water Street, and Clark Street (STH 66) have been classified by WisDOT as Tier 4 access control within the project limits. The goal of Tier 4 is to balance traffic movement and property access. Access points meeting safety standards are allowed.

PROPOSED DEVELOPMENT

The City Community Development Director provided information on projected development within and adjacent to the CBD. Exhibit 3, Projected Land Use Map, shows the projected development locations and types used in this study. The exhibit also shows the new street system between Main Street and CenterPoint Drive as proposed by the City to support the redevelopment of the CenterPoint Mall.

TRAFFIC DATA

Existing Traffic

Traffic Counts

AECOM completed Noon and PM peak hour turning movement traffic counts at the 15 major intersections listed in the Existing Conditions section of this report. The noon counts were completed between 11:00 am and 1:00 pm. The PM counts were completed between 2:30 and 5:30 pm. All counts were completed on a weekday, except Friday, and included pedestrians, bicycles, buses, articulated trucks, and non-articulated trucks.

Traffic Engineering Services, Inc. completed tube traffic volume counts at 13 locations in the CBD. The counts lasted approximately 48 hours from which a typical 24-hour Average Daily Traffic (ADT) volume was determined. These volumes were supplemented with 2008 Annual Average Daily Traffic (AADT) volumes on Clark Street and Water Street obtained from the WisDOT.

Traffic Volumes

The existing 2011 traffic volumes are shown in Exhibit 4. The traffic count data is included in Appendix B.

Forecasted Traffic

Trip Generation and Traffic Projection

The number of trips anticipated to be generated by the proposed development during the noon and PM peak hours were calculated using trip rates from the Institute of Transportation Engineers manual *Trip Generation, 8th Edition.* All of these trips were assumed to be vehicular trips. The trips were distributed to the CBD street system and the total projected traffic volumes were calculated. The City Engineer provided the future years background traffic growth of 0.5%. Given the removal of USH 10 traffic from the downtown area, 0.5% is considered an appropriately conservative estimate. Adding together existing traffic volumes, background traffic growth, and forecasted new development trips resulted in the 2022 traffic projection used in this study for future capacity analysis. The above information is shown in Exhibits 5, 6, and 7.

EXISTING AND NO-BUILD EVALUATION

Operational Analysis

Traffic flow patterns were observed for weekday noon and PM traffic conditions.

Methodology and Analysis Criteria

In this study, the methodology used for evaluating traffic operations at intersections is based on the criteria set forth in the Highway Capacity Manual, 2000 (HCM). Synchro software, which has the option to emulate the HCM methodology, was used for the analysis. Stevens Point provided existing loop detector layouts and traffic signal timing. We completed field verification of current lane designations, signal phasing, speed limits, and other traffic conditions. The model was calibrated to represent traffic conditions observed in the field.

Level of Service (LOS) is a measure describing operational conditions within a traffic stream. In this case, the LOS is a measure of delay a driver experiences at an intersection. LOS is measured on a scale from A to F, with A being the best and F being the worst. According to WisDOT's Facilities Development Manual (FDM) the LOS threshold for design year capacity on Wisconsin facilities is LOS D for principal arterials, minor arterials, and collector routes in rural and small urban areas. If the LOS does not meet this level, improvements will be necessary to improve the system. LOS is explained in more detail in Exhibit 8.

Traffic Behavior

During each traffic count and during site visits, we observed signal operation, traffic flow, and queue lengths for major movements.

Queue lengths at the intersections within the network were typically short and in some cases were nonexistent. We observed the signal coordination along CenterPoint Drive was out of synchronization and was encouraging drivers to travel above the posted speed limit in order to reach the next signal on green. The signals throughout the network are time base coordinated. The time clocks frequently get out of synch causing the signal coordination to operate ineffectively.

Driver behavior varied based on the roadway they were using within the network. Drivers on CenterPoint Drive tended to travel at speeds above the posted speed limit. Drivers on Clark Street, Church Street, and Water Street tended to travel at speeds close to the posted speed limit. Drivers on Main Street tended to travel at speeds equal to or lower than the posted speed limit.

Several other observations relating to traffic flow and safety were made during the traffic counts and field reviews:

- The wide, uninhibited geometry of CenterPoint Drive makes the roadway seem more like a highway than an urban roadway through a downtown area. This allows drivers to feel comfortable traveling at a speed faster than the posted speed limit.
- Some drivers seem uncertain about the one-way street system in the CBD. We observed driver errors that indicate drivers are either unaware they are on a one-

way street or are simply not correctly driving the one-way streets. For example, on CenterPoint Drive, drivers turn left from the center lane or stop in the center lane to let traffic by before changing lanes to make a turn.

- On Main Street, the traffic flow changes from one-way to two-way and back to one-way without any significant change in street section. Two sideswipe crashes at the Main Street and Strongs Avenue intersection were caused by drivers making a left turn from the right lane because they thought they were on a two-way street.

- At the CenterPoint Drive and First/Second/Water Street intersection, we observed drivers making a westbound left turn into the northbound lane of oncoming traffic.

- At the Third Street and Clark Street intersection, there were several instances where vehicles making a southbound left turn could not see eastbound vehicles and would creep into the roadway to improve their vision.

- At the Third Street and Clark Street intersection, there were several instances where vehicles on the southbound approach and vehicles in the northbound approach were unsure which vehicle had priority, causing driver indecision and near-miss accidents.

Operational Analysis Results

Traffic capacity analyses were completed using existing and no-build roadway and intersection control conditions to determine the LOS for the current year 2011 and design year 2022 for all 15 intersections throughout the network. The current roadway conditions, signal timing and coordination, and signal phasing were used for the 2011 existing analysis and the no-build conditions for 2022 analysis. The no-build scenario analyzes future 2022 traffic volumes with proposed development on the existing system to determine the impacts on the CBD street system if no improvements are made. The analysis scenarios were each run for the weekday noon and PM peak hours. Exhibit 9 presents the LOS for each intersection and analysis scenario.

In 2011, traffic operated at LOS C or better during the noon and PM peak hours for all 15 intersections in the CBD. With the increased 2022 traffic volumes, the existing street system will continue to operate at LOS C or better for all 15 intersections in the CBD. In 2022, the Clark Street and Church Street intersection will have one approach (southbound) operating at the unacceptable LOS E during the PM peak if no street or traffic signal improvements are made.

The entire CBD street system has excess capacity today and will be able to adequately carry the projected traffic volumes in 2022 with the proposed downtown development. Three streets, CenterPoint Drive, Water Street, and the 1st Street/ 2nd Street one-way pair, will continue to have significant excess capacity in 2022.

Safety Analysis

Crash Analysis

A crash analysis was performed for streets and intersections within the project limits. Crash data was obtained from the WisTransPortal database for January 2006 through December 2010. We determined crash rates, trends, and deficiencies along the corridor. A total of 121 crashes occurred on the streets in the study limits from 2006 through 2010,

an average of 24 crashes per year. There were no fatalities and 20% of the crashes resulted in personal injury. An injury related crash is broken down into four subcategories: Type C (apparent injury), B (moderate injury), A (incapacitating injury), and K (fatal) crashes. The injury types are noted on the crash diagrams.

Sideswipe crashes were the predominant crash type, accounting for 44 of the 121 crashes, while angle crashes accounted for 29 of the 121 crashes. Most of the crashes in the corridor occurred at intersections. Crash diagrams of the corridor and the high volume crash intersections are shown in Exhibit 10.

CenterPoint Drive and Church Street had the highest number of crashes. Fourteen of the 121 crashes occurred at this intersection. The predominant crash type was sideswipe crashes due to drivers attempting to make a westbound left turn from a lane other than the leftmost lane at the intersection. This sideswipe crash trend exists at all CBD intersections with one-way streets and can be attributed to lack of driver awareness of proper one-way street operation and the excess lane on CenterPoint Drive and Water Street.

The Clark Street and 3rd Street intersection had the highest number of crashes for unsignalized intersections, with 12 crashes. The crash trends at this intersection included sideswipes on Clark Street, bicycle crashes, and angle crashes between southbound left turning vehicles and northbound thru vehicles.

There were 10 crashes involving bicycles or pedestrians on the CBD street system, with persons injured in all 10 crashes. Six of the injuries were type B (moderate injury) and four were type C (apparent injury).

Safety Deficiencies

Based on the crash data and our review of the CBD street system, we have identified the following transportation safety deficiencies:

1. Unneeded driving lanes exist on CenterPoint Drive and on Water Street. This extra capacity allows drivers to speed and contributes to the observed driver uncertainty about whether or not they are driving on a one-way street or a two-way street. This uncertainty is related to the identified crash trend of drivers turning left from a lane other than the leftmost lane.

2. On the ¾ mile stretch of CenterPoint Drive, between Water Street and Division Street, there is only one controlled location for pedestrians and bicyclists to cross CenterPoint Drive – the traffic signal at Church Street. CenterPoint Drive is 40 feet wide and presents a challenge for most persons to safely cross without the aid of a signal.

3. First Street in the CBD area is one-way southbound and is controlled by a stop sign at the Water Street intersection. Drivers tend to run this stop sign. The excess system capacity, the added southbound lane on Water Street, and the geometry of the intersection do nothing to discourage this stop sign running.

4. The pedestrian crosswalk across Water Street at the Main Street intersection is not aligned from the east side of Water Street to the west side, requiring pedestrians to move to the right or left while crossing Water Street. This is effectively a midblock

crosswalk from the perspective of southbound drivers and there are no crosswalk warning signs.

5. The Green Circle Trail leads users directly to Clark Street (STH 66), approximately 200 feet west of the signalized Clark Street/ Water Street intersection, but there is no marked crossing at that location (See Figure 1). Although the official path crossing is at the signalized intersection, pedestrians have been observed crossing Clark Street at the unmarked location.

Figure 1 – Green Circle Trail at Clark Street

6. The north side of Clark Street between 2nd Street and 3rd Street is marked for 15-minute and loading zone parking. Vehicles are frequently seen parked at the curb in that location (See Figure 2). These vehicles impede sight distance to the west for southbound drivers at the 3rd Street and Clark Street intersection, contributing to observed driver hesitancy and crashes.

Figure 2 – Clark Street and Third Street

7. Most of the traffic signals in the CBD are not in a coordinated signal system, and those that are in coordination are dependent on time based coordination using time clocks. Electrical power outages often disrupt coordination. When signals are out of coordination, the result is increased delay, unexpected stopping, and driver frustration. This increases the potential for rear-end and sideswipe crashes.

8. In the proposed improvements, both Strongs Avenue and Third Street would be rebuilt as streets between Main Street and CenterPoint Drive. The existing parking lots north of CenterPoint Mall and north of ShopKo would connect to the new streets only 50 feet south of CenterPoint Drive. This short distance will be a significant safety issue. The parking lots need to connect to the new streets far enough from CenterPoint Drive to be past any northbound queues from CenterPoint Drive and to allow southbound traffic to turn left into the driveways without creating a backup that extends into CenterPoint Drive. If connecting the parking lots this far south is not physically possible, then left turns must be prohibited from the parking lots onto the streets and from the streets into the parking lots.

Access

With all the commercial development throughout the CDB, access is abundant. Access points increase traffic conflicts by generating turning, entering, exiting, and crossing traffic movements. When there are too many access points, there is a decrease in the mobility, LOS, and safety of the corridor. By minimizing the number of access points, conflicts will be reduced, fewer crashes will occur, and traffic operations will improve.

Access is a potential safety issue in the CBD for the three driveways on the east side of Water Street, just north of Clark Street; and for the driveway on the north side of CenterPoint Drive, just west of 3rd Street. These driveways are within the functional area of the major intersections on Water Street and should be closed when the opportunity arises, to prevent future crashes. Since the public street intersections are closely spaced in the CBD, new driveways should not be allowed on any streets carrying STH 66 traffic to prevent future operational and safety problems.

IMPROVEMENT ALTERNATIVES

Street system improvements in downtown Stevens Point are warranted to serve the proposed development, improve mobility in the CBD, and address identified safety issues. Based on the operational, safety, and access evaluations completed in this study, we developed the two alternative improvement scenarios attached as Exhibits 12 and 13. The proposed typical street sections are in Exhibit 11. Both alternatives have the same street system and roadway improvements, except for the layout and traffic control at two of the Water Street intersections. Alternative 1 includes traffic signals at all intersections. Alternative 2 includes roundabouts at the Clark Street & Water Street intersection and at the CenterPoint Drive/ Water Street/ First Street/ Second Street intersection.

It is not required for both of the above intersections to have the same traffic control. It is feasible to have a roundabout at one of the intersections and a traffic signal at the other. While it is preferred to build the intersections as shown on the exhibits, it is possible to add an additional street connection to the west of the CenterPoint Drive/ Water Street/ First Street/ Second Street intersection. In Alternative 1, this could be connecting First Street to the intersection, or leaving First Street as shown and adding a new street to the west. In Alternative 2, the potential fifth intersection leg is shown in dashed lines.

Major Elements of the Proposed Improvements

The proposed improvements have several major elements:

1. The redevelopment of CenterPoint Mall provides the opportunity to reestablish some of the grid street system in the downtown area. The reconnection of Third Street and Strongs Avenue between Main Street and CenterPoint Drive greatly improves access to the downtown and shortens travel times for many drivers. The inclusion of a new east-west street between Third Street and Strongs Avenue, and the designation of an east-west travel way between Second Street and Third Street will improve circulation in the downtown and provide relief for Main Street.

2. Removing a thru travel lane on CenterPoint Drive and on Water Street will bring the capacity of those streets in line with the actual need. This will go a long way toward lowering speeds, reducing uncertainty concerning the proper lane to be in, and reducing the existing trend of sideswipe crashes. On CenterPoint Drive, we propose to use the former travel lane for bicycles, bus stops, and right turns. On Water Street, in addition to adding bike lanes, the street width reduction has two major benefits: shorter pedestrian crossings and the opportunity to improve aesthetics by providing more right-of-way width for landscaping.

3. Converting the First Street and Second Street one-way section between CenterPoint Drive and Portage Street back to a two-way section on Second Street will greatly simplify this complex and confusing street segment, and reduce travel time for southbound drivers on Second Street by eliminating the jog to First Street.

4. At the Clark Street and Third Street intersection, there are two significant safety and operational issues: 1) confusion between northbound and southbound traffic over who has the right of way to enter the intersection, and 2) poor sight distance for southbound drivers. To alleviate these issues we propose to install a traffic signal at this intersection. The intersection meets the Manual on Uniform Traffic Control Devices (MUTCD) traffic signal Warrant 6, Coordinated Signal System, for maintaining smooth traffic flow in a coordinated signal system. Since Clark Street is a one-way street, the coordinated signal system will have minimal delay for drivers on Clark Street and greatly improve operations and safety for drivers and pedestrians on both Clark and Third Streets.

5. Implementing actuated and coordinated traffic signal systems on Clark Street, CenterPoint Drive, and Water Street will smooth traffic flow, decrease delay, and reduce crashes. Installing fiber optic cable or wireless radio to provide communication between traffic signals and City Hall will ensure the traffic signals stay properly interconnected during power outages and will allow effective adjustment of traffic signal timing in response to fluctuations in traffic volumes.

6. Designing all the proposed improvements to facilitate both bicyclists and pedestrians will improve biking and walking safety and mobility, and bring the streets into compliance with current accessibility standards. Among other things, this includes providing bike accommodations on STH 66, well marked crosswalks at all locations, and pedestrian hybrid beacons at major crosswalks across STH 66, where it is not feasible for pedestrians to utilize a signalized intersection.

Signalized Intersections Alternative

CenterPoint Drive currently intersects Second and Water Streets on a curve for both CenterPoint Drive and Second/ Water Streets. This geometric layout created a large intersection that encourages high speed westbound left turns. The signalized intersections alternative would eliminate the curve on CenterPoint Drive and convert the one-way pair on First and Second Street to a two-way movement on Second Street. This would reduce the intersection size and complexity, and improve safety by eliminating the existing high speed left turn. The existing separated right turn would be realigned close to the intersection to provide adequate sight distance to the left for drivers. It would be controlled by a stop sign to improve safety, especially for pedestrians. This alternative would require the purchase of right of way.

The intersection improvement at this intersection, as shown in Exhibit 12, shows a 3-legged intersection with First Street as a cul-de-sac. This intersection layout is preferred as it provides

the simplest layout for drivers and pedestrians, and has the best operations. However, it is physically and operationally possible to add a fourth leg to this intersection if it is necessary to improve access to the property to the west. This could be a realigned First Street or a continuation of CenterPoint Drive to the west.

The goal of the signalized intersection alternative at Clark Street and Water Street would be to create a safer intersection for both drivers and pedestrians, while maintaining operational efficiency for vehicles. In this alternative, the number of northbound thru lanes at the intersection would be decreased to one lane, a single southbound right turn lane would be provided, and an island would be added to separate the channelized eastbound right turn lane from thru traffic. A pedestrian hybrid beacon would be added west of the intersection to provide users on the Green Circle Trail a safe place to cross the roadway. This alternative may require the purchase of a small strip of right of way on the southwest corner.

Roundabout Alternative

The roundabout alternative at CenterPoint Drive and First/Second/Water Street, as shown in Exhibit 13, would provide traffic calming for drivers entering the downtown and create an attractive gateway into the downtown. The westbound right turn movement would be separated from the roundabout to decrease the volume of traffic entering the roundabout. The safety of pedestrians crossing the streets would be no different than crossing at a signalized intersection. However, some pedestrians are uncomfortable crossing a major street without the benefit of a pedestrian signal. This alternative would require the purchase of right of way.

The roundabout alternative at Clark Street and Water Street would decrease intersection crash severity, provide traffic calming for drivers entering the downtown, and create an attractive gateway into the main part of the City. The southbound right turn movement would be completely separated from the roundabout to decrease the volume of traffic entering the roundabout. A pedestrian hybrid beacon would be added on the west approach to the roundabout to provide users on the Green Circle Trail a controlled location to cross the roadway. The pedestrian crossings of the other intersection legs would be uncontrolled. It would be necessary to close the first two driveways on the east side of Water Street, north of Clark Street. This alternative would require the purchase of right of way.

Discussion of Alternatives

Capacity Analysis

Traffic capacity analyses were completed using full build out roadway and intersection control conditions for both the signalized and roundabout alternatives. The analysis was used to determine the LOS for the anticipated full build out year of 2022 for the 15 major intersections. The improved roadway conditions, signal timing and coordination, and signal phasing were used for both the signalized and roundabout alternatives. The analysis scenarios were each analyzed for the weekday noon and PM peak hours. The results of the capacity analysis of the full build out roadway system are shown for each approach in Exhibit 9 for both alternatives.

The capacity analysis results indicate that traffic in both improvement alternatives will operate at an acceptable LOS C or better in 2022, with the proposed development and increased traffic volumes. The southbound approach at the Clark Street and Church Street

intersection currently operates at LOS D and it will continue to be LOS D during the peak hours in the future.

Comparison of Traffic Signals and Roundabouts

CenterPoint Drive and First/Second/Water Street Intersection

The roundabout and the traffic signal have the same overall intersection LOS. The northbound and southbound approaches on the roundabout have a better LOS, but the most important movement of STH 66 traffic, from westbound CenterPoint Drive to southbound Water Street, has a worse LOS with the roundabout. In addition, this primary movement requires driving three-quarters of the way around the roundabout to complete.

Roundabouts decrease the severity of crashes at the intersection. However, there is not a history of severe crashes at this intersection and this advantage would have little benefit.

The roundabout would provide traffic calming for southbound drivers on Second Street entering the downtown area.

The roundabout would provide a central area for landscaping and an entry feature.

Both the roundabout and the traffic signal alternative can provide access to First Street. The roundabout can also provide direct access to the property to the west of the intersection by adding a fifth leg. However, the fifth leg on the roundabout would create wide pavement areas in the roundabout, which could result in driver uncertainty, more conflicts, and added crashes. It also would require the primary STH 66 movement from westbound CenterPoint Drive to southbound Water Street to pass by three departures before exiting to the correct street. This could be confusing for drivers unfamiliar with the area or drivers unfamiliar with navigating a roundabout.

With the traffic signal alternative, the intersection could be operated in coordination with the adjacent signals at both CenterPoint Drive and Third Street, and at Water Street and Crosby Street, allowing traffic to flow smoothly and efficiently through the intersection. With a roundabout, traffic flow would be interrupted and coordination would be very difficult. A roundabout could also increase delay for southbound traffic at the Water Street and Crosby Street intersection.

The traffic signal alternative requires some right of way to construct. The roundabout requires more right of way and the purchase of the building between First Street and Second Street.

Construction of a roundabout would cost over $900,000 more than the construction of a traffic signal.

Conclusion: a traffic signal has several advantages over a roundabout at this intersection and no significant disadvantages. The roundabout is significantly more costly to build.

Clark Street and Water Street Intersection

The roundabout and the traffic signal have the same overall intersection LOS. The northbound approach on the roundabout has a better LOS. The most important movement of STH 66 traffic, from southbound Water Street to westbound Clark Street, has the same LOS with both alternatives.

Roundabouts decrease the severity of crashes at the intersection. However, there is not a large history of severe crashes at this intersection and this advantage would have little benefit.

The roundabout would provide traffic calming for eastbound drivers on Clark Street entering the downtown area. However, excessive speed for drivers coming off the bridge is not a documented safety problem.

The roundabout would provide a central area for landscaping and an entry feature.

With the traffic signal alternative, the intersection could be operated in coordination with the adjacent signals at both Clark Street and Third Street, and at Water Street and Crosby Street, allowing traffic to flow smoothly and efficiently through the intersection. With a roundabout, traffic flow would be interrupted and coordination would be very difficult. This could also increase delay for eastbound traffic at the proposed signal at the Clark Street and Third Street intersection.

The traffic signal alternative requires no right of way purchase to construct, although a sliver of land from the City-owned open space in the southwest quadrant is required. The roundabout requires right of way on all four quadrants of the intersection and will reduce parking for the Chase Bank.

Construction of a roundabout would cost over $200,000 more than the construction of a traffic signal.

The draft Public Right of Way Accessibility Guidelines (PROWAG) will require multilane approaches and departures to be signal controlled. If these guidelines are approved, the City could be required to install a HAWK (High-intensity Activated crossWalK) signal on the east and north legs of the roundabout, in addition to the HAWK signal on the west approach. A HAWK signal, as seen in Figure 3, is a traffic signal used by pedestrians. The pedestrian beacon will stop traffic to allow pedestrians to safely cross the roadway. This could add up to another $200,000 to the construction cost, and negatively affect roundabout operations and safety.

Figure 3 – HAWK Pedestrian Signal

Conclusion: a traffic signal has several advantages over a roundabout at this intersection and no significant disadvantages. The roundabout would offer traffic calming and a downtown entry feature, but would be significantly more costly to build.

IMPROVEMENT COST ESTIMATES

Planning level cost estimates for the proposed street system improvements are in Exhibit 14. These estimates include construction and engineering, but do not include any pre-engineering tasks such as traffic analysis, environmental reports, public involvement, and agency coordination. The cost estimate shows Alternative 1 to be approximately $3.9 million and Alternative 2 to be $5.1 million dollars. Exhibit 15 shows the right of way that is estimated to be needed for the construction of each alternative.

Most of the proposed transportation improvements in this study are needed to improve existing operational and safety issues. A portion of operational and safety improvements to existing streets in the vicinity of new development could be allocated to the new development as those improvements will benefit the development. The majority of costs for streets, new access, and operational improvements that will be built to serve new development could be allocated to that development.

RECOMMENDATIONS

We recommend the street system improvements as shown in Alternative 1, Street Layout With Signals, be constructed. These improvements appropriately address all the operational, safety, and access issues identified during this Downtown Transportation Study. There are significant disadvantages with the roundabouts in Alternative 2, including more than $1,200,000 additional construction costs and greater impacts to adjacent properties.

The proposed alternatives include a defined two-way street along the south side of the Stevens Point Journal building. The current available width, utility installations, and parking usage of this space do not allow a defined two-way street at this time. This street connection is very important to the traffic circulation in the downtown as it is the only location where drivers can go east, without going down to Clark Street. It is also important in reducing the westbound thru traffic on Main Street. We recommend this segment initially be defined as one-way eastbound and be upgraded to a two-way street when the opportunity arises.

The proposed improvements for CenterPoint Drive were designed to minimize the cost of moving curbs. When it is time to reconstruct CenterPoint Drive, we recommend the typical street section be reduced to the optimum width to provide travel and bike lanes.

We recommend the City complete a traffic signal coordination evaluation of the traffic signals on Clark Street, Water Street, and CenterPoint Drive, and install the following improvements:

- Upgrade all traffic signals to run actuated or semi-actuated.
- Install fiber optic or wireless radio communications between all traffic signals and to City Hall.
- Install a traffic management system in City Hall. For the existing EPAC signal controllers this system would be Siemens TACTICS.
- Install coordinated traffic signal timing and run the downtown signals in coordination.

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Engineering
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February 8, 2012

DIRECTOR OF PUBLIC WORKS REPORT
Joel Lemke

1. Engineering Department

- **Transit Facility**
  - The design of the transit facility is complete. We have bid documents in our possession and are currently expecting to award the contract at the March Board of Public Works meeting.

- **2012 Construction projects (to date)**

  - Engineering and Streets staff are working on design and planning efforts for many different construction projects for 2012. Below is a highlight of those projects as are currently expected to take place.

    - Michigan Ave. from Main St. to Stanley St. (Full Reconstruct)
    - Carol's Ln. from Country Club dr., east to end. (Full Pavement)
    - Frontage Rd. project with reconfiguration of intersection at Academy Ave.
    - Reserve St. widening and change to two-way, Main St. to Portage St.
    - Hoover Ave. from CTH HH to approx. Coye dr. (mill and overlay)
    - Blain St. from Rice St. to Heffron St. (Full Pavement)
    - CTH HH and Hoover Ave. intersection reconstruction (with Plover and County)
    - A selection of streets will be chipsealed
    - A selection of streets will receive black knight treatement
    - Annual sidewalk repair will take place
    - Annual concrete street repair will take place

- **Business 51 RFP**

  - Work continues on the beginning stages of this project.

- **Hoover Avenue at CN Railroad Grade Separation**

  - A Public informational meeting is scheduled for Feb 23 to be held at the Lincoln Center (1519 Water Street). A press release and official notice will be sent out for this meeting.

- **City Wide Relamping Project**

  - This project was completed in March of 2011. DPW staff will bring back a report on findings after approximately a year of usage. I expect to have a report to the Board at the May meeting.

- **Wisconsin River Seawall Project**

  - Our conversations on this project have been redirected to the Army Corp of Engineers. Our engineer on the project (AECOM) is in contact with ACOE working on what the formal submittal requirements will be for the project.

- **Additional Ongoing Director \ City Engineer \ City Surveyor Projects**

  - Right of way work permits review and approval.
  - Storm water permits review and approval.
  - Work on dredging permits for the McDill channel.
  - Signalized intersection automation and connectivity.
  - Advanced warning beacon on Country Club Drive for the railroad crossing.
  - Redesign of GIS and application development within the City GIS.

January 1, 2011

2. Streets

- **Street work**

  - Continued Garbage and Recycling operations.
  - Sign work continued.
  - Street lamp maintenance continued.
  - Pit operations continued.
  - Patching continued.
  - Cleaning and repairing catch basins continued.
  - Vacuumed water in problem areas as needed.
  - Shouldering as needed.
  - Brush cutting as needed.
  - Brine Shed Project
    - Plumbing nearing completion.
    - Electrical nearing completion.
  - Holiday decorations maintained.

- **Equipment maintenance/garage**

  There were a total of 164 repair orders generated in the month of December. When broken down by department there were;

Engineering	2
Inspection/development	0
Police	28
Parks	14
Fire	6
Streets	109
Water/Waste water	5

Other activities include; Delivery of the new quad axle dump truck has been delayed due to unforeseen issues at the body builders shop. We expect to

have it before mid January. A new venue is being tried for disposal of the cities old or used equipment. It is a web based auction system and is free to the City of Stevens Point; all fees are paid by the purchaser whereas in the past the broker we were using took his commission out of the sale price.

- **Signs, posts, barricades, and flags**

  - 34 signs were replaced or added, 4 because of accidents, 13 for usual maintenance, 2 signs were moved, 14 new signs were put up and 1 because of vandalism.
  - 7 poles were replaced or added, 5 because of accidents and 2 new poles were put up.
  - Currently installing No Firearms signs in city buildings.

- **Garbage/recycling/yard waste/drop-off**

  - Garbage and recycling carts repaired/replaced/distributed as needed.
  - Regular and holiday solid waste collection completed.
  - Regular and holiday recycling collection completed.
  - City drop-off operations were completed.

- **Leave**

  - 47 days of vacation, 35 days 6 hours sick, 9 floating holidays and 1 day 1.75 hours workers compensation were utilized.

February 1, 2011

2. Streets

- **Street work**

  - Continued Garbage and Recycling operations.
  - Sign work continued.
  - Street lamp maintenance continued.
  - Pit operations continued.
  - Patching continued.
  - Cleaning and repairing catch basins continued.
  - Vacuumed water in problem areas as needed.
  - Shouldering as needed.
  - Brush cutting as needed.
  - Brine Maker to be operational in February.
  - Began removal of holiday decorations.
  - Christmas tree pickup completed.
  - Airport conduit project in progress.
  - Snow/Ice operations as needed.

- **Equipment maintenance/garage**

  There were a total of 165 repair orders generated in the month of January. When broken down by department there were:

Engineering	4
Inspection/development	0
Police	36
Parks	15
Fire	5
Streets	102
Water/Waste water	3

  Other activities include; Delivery of the new quad axle dump truck was taken in it has been placed into service. A vehicle that was seized by the Police Department as part of an investigation was sold via online auction. Quotes were gathered for replacement of eleven Police Department vehicles and a snowmobile for grooming cross country ski trails In the Parks Department both will be presented to the Board of Public Works at the February meeting.

- **Signs, posts, barricades, and flags**

  - 34 signs were replaced or added, 15 because of accidents, 7 for usual maintenance, 4 new signs were put up and 8 because of vandalism.
  - 5 poles were replaced or added, 4 because of accidents and 1 because of vandalism.
  - Repaired mailboxes and streetlights.

- **Garbage/recycling/yard waste/drop-off**

  - Garbage and recycling carts repaired/replaced/distributed as needed.
  - Regular and holiday solid waste collection completed.
  - Regular and holiday recycling collection completed.
  - City drop-off operations were completed.