CITY OF BILLINGS

CITY OF BILLINGS VISION STATEMENT:

"THE MAGIC CITY – A VIBRANT, WELCOMING PLACE WHERE PEOPLE FLOURISH AND BUSINESS THRIVES."

AGENDA

COUNCIL CHAMBERS **June 24, 2013** **6:30 P.M.**

CALL TO ORDER: Mayor Hanel

PLEDGE OF ALLEGIANCE: Mayor Hanel

INVOCATION: Mayor Hanel

ROLL CALL: Councilmembers present on roll call were:

MINUTES: June 10, 2013

COURTESIES:

PROCLAMATIONS:

ADMINISTRATOR REPORTS - TINA VOLEK

PUBLIC COMMENT on "NON-PUBLIC HEARING" Agenda Items: #1, #9, and #10 ONLY. Speaker sign-in required. (Comments offered here are limited to one (1) minute. Please sign in at the cart located at the back of the council chambers or at the podium. Comment on items listed as public hearing items will be heard ONLY during the designated public hearing time for each respective item. For Items not on this agenda, public comment will be taken at the end of the agenda.)

1. **CONSENT AGENDA** -- Separations:

   A. **Mayor Hanel recommends that Council confirm the following appointments:**

      1.

	Name	Board/Commission	Term	
			Begins	Ends
1	No Applications	Animal Control Board	01/01/13	12/31/16
2	No Applications	Animal Control Board*	01/01/13	12/31/13
3	No Applications	Board of Appeals - Electrical	01/01/13	12/31/13
4	No Applications	Board of Appeals - Builder	01/01/13	12/31/15
5	No Applications	Housing Authority Res Comm	01/01/13	12/31/13
6	Walt Donges	Human Relations Board*	01/01/13	12/31/15
7	No Applications	Human Relations Board*	01/01/13	12/31/15
8	No Applications	Human Relations Board	01/01/13	12/31/16

9	No Applications	Mayor's Homelessness Lending	01/01/13	12/31/16
10	Randall Swenson	Mayor's Homelessness Econ Dev	01/01/13	12/31/16
11	Barb Perzinski	Mayor's Homelessness Econ Dev*	01/01/13	12/31/14
12	Tom Rupsis	Parks, Recreation & Cemetary Brd*	06/24/13	12/31/13
13	Tabitha Frasca	Parking Advisory Board*	06/24/13	12/31/13
14	Joni Harman	Parking Advisory Board*	06/24/13	12/31/13
15	No Applications	Parking Advisory Board*	06/24/13	12/31/14
16	Clint Peck	Soil Conservation Board*	06/24/13	06/30/15
17	Ginny Hart	Tourism BID	06/30/13	06/30/17
18	Joyce Bratland	Tourism BID	06/30/13	06/30/17

2. Unexpired term of Solomon Neuhardt
6. Unexpired term of Malcolm Bailey
7. Unexpired term of Claudia Stephens
11. Unexpired term of Bruce MacIntyre
12. Unexpired term of Paul Chinberg
13. Unexpired term of Margy Bonner
14. Unexpired term of Tami Kelling
15. Unexpired term of Drew Smith
16. Unexpired term of Bruce Simon
17. Unexpired term of John Moorhouse

B. <u>Bid Awards:</u>

1. **Airport Terminal Building Concourses Interior Painting.** (Opened 6/11/13) Recommend High Roller Painting, $86,855.

2. **W.O. 13-08, 58th and Grand Storm Drain Improvements.** (Opened 6/11/13) Recommend Springline Construction, Inc., $91,981.75.

C. Billings Public Library Furniture Purchases

1. **Bid Award for new library open line furniture.** (Opened 6/11/2013) Recommend 360 Office Solutions, $215,725.24.

2. **Approval** of State-approved, pre-competed contracts for new library furniture and furnishings; 360 Office Solutions - $172,677.04; Dundas Interiors - $79,916.41.

D. **Contract** for W.O. 13-09, City-Wide Traffic Signal Controller Upgrade, Intermountain Traffic, LLC, $77,630.

E. **Amendment #1, W.O. 12-14: Integrated Water Plan Implementation, Wastewater Collection System Study,** Professional Services Contract, DOWL HKM, $50,000; and **Extension of Contract Term** to March 31, 2014.

F. **Amendment #2, W.O. 12-16: Integrated Water Plan Implementation, Water Distribution System Study,** Professional Services Contract, Morrison-Mairele, Inc., $80,000; and **Extension** of Contract Term to March 31, 2014.

G. **Approval** of use of EBURD TIF funds to develop a cost estimate for Exposition Gateway Infrastructure Improvements, $10,000.

H. **Drainage Way Easements** with Steven Kienitz and Maureen Kienitz, Lot 22; and Kathryn McLain, Lot 23, Block 5, Wilshire Heights Subdivision.

I. **Acknowledging receipt of petition to vacate** a 10' right-of-way between Lots 10 and 11, Block 5, Wanigan Subdivision; and setting a public hearing for 7/22/13.

J. **Resolution** approving City Administrator's signature authority for home repair loan subordinations.

K. **Resolution** authorizing closure of SID/Sidewalk Bond Debt Funds 8630 and 8990 to the SID Revolving Fund.

L. **Second/Final Reading Ordinance** amending the boundaries of Ward I to exclude recently de-annexed property in De-Annexation #13-05: approximately 6.64 acres of undeveloped land described as Lot 20, Block 3, Rolle Subdivision, generally located between Alkali Creek Road and Highway 3 (Airport Road); Robert Honaker, owner.

M. **Resolution** transferring a portion of Bitterroot Heights Park to Public Works for W.O. 12-05: a sanitary sewer lift station and access road; compensation from Public Works to Parks, Recreation, and Public Lands - $75,000.

N. **Second/Final Reading Ordinance** expanding the boundaries of Ward III to include recently annexed property in Annexation #13-06: approximately seven acres of land described as Lot 5, Block 2, and Lot 1, Block 3, Titan Subdivision, generally located on the north and south sides of Interstate Avenue just east of the intersection of Interstate Avenue and Mullowney Lane; Origer Enterprises, Inc. and TNC Development, LLC, owners.

O. **Preliminary Major Plat** of Bitterroot Heights Subdivision, 2nd Filing, generally located on the west side of Bitterroot Drive, north of Mary Street; BCJM, LLC, subdivider; Interstate Engineering, agent; conditional approval and adoption of the findings of fact.

P. **Preliminary Major Plat** of High Sierra Subdivision, 7th Filing, generally located on both sides of Benjamin Boulevard, west of High Sierra Boulevard; High Sierra II, Inc., subdivider; Sanderson Stewart, agent; conditional approval and adoption of the findings of fact.

Q. **Final Plat** of Trails West Subdivision, 2nd Filing.

R. **Cancellation** of Checks and Warrants.

S. **Bills and Payroll:**

1. May 28, 2013
2. June 3, 2013

REGULAR AGENDA:

2. **PUBLIC HEARING AND FIRST READING ORDINANCE FOR ZONE CHANGE #910:** a zone change from Residential Manufactured Home (RMH) to Highway Commercial (HC) on Lots 10 and 11, Block 5, Wanigan Subdivision, a 22,082 square foot parcel of land, located at 1005 Main Street. Gerald Watson, owner; Darryl Wilson, River Crossing Real Estate, agent. Zoning Commission recommends approval and adoption of the findings of the 10 criteria. (Action: approval or disapproval of Zoning Commission recommendation.)

3. **PUBLIC HEARING AND FIRST READING ORDINANCE FOR ZONE CHANGE #911:** a zone change from Neighborhood Commercial (NC) to Community Commercial (CC) on Lots 1 through 8, including Lots 6 & 7 as C/S 1716, Block 15, Central Heights Subdivision, 5th Filing, located at 109 S. 24th Street West. Rimrock Mini-Mall, LLC, owner; Marshall Phil, P.E., Blueline Engineering, agent. Zoning Commission recommends approval and adoption of the findings of the 10 criteria. (Action: approval or disapproval of Zoning Commission recommendation.)

4. **PUBLIC HEARING AND FIRST READING ORDINANCE FOR ZONE CHANGE #912:** a zone change from Residential 5,000 (R-50) and Public (P) to Residential Multi-family-Restricted (RMF-R) and Public (P) on portions of Lots 1A and 2A, Block 1, Western Sky Subdivision, generally located west of the intersection of 44th Street West and south of King Avenue West. King Meadows, LLC and Pemberton LLC, owner; Marshall Phil, P.E., Blueline Engineering, agent. Zoning Commission recommends approval and adoption of the findings of the 10 criteria. (Action: approval or disapproval of Zoning Commission recommendation.)

5. **PUBLIC HEARING AND SPECIAL REVIEW #906:** a special review for a beer and wine license with gaming in a Controlled Industrial (CI) zone on a 1.32 acre parcel of land described as: Lot 5A1, Block 3, Midland Subdivision, 3rd Filing and located at 900 S. 24th Street West. Marshall Phil, P.E., Blueline Engineering and Rob Veltkamp, agents. Zoning Commission recommends conditional approval. (Action: approval or disapproval of Zoning Commission recommendation.)

6. **PUBLIC HEARING AND ADOPTION** of Exposition Gateway Concept Plan as part of the 2008 Growth Policy. Staff recommends approval. (Action: approval or disapproval of staff recommendation.)

7. **PUBLIC HEARING AND RESOLUTION** approving and adopting Fourth Quarter budget amendments for Fiscal Year 2012/2013. Staff recommends approval. (Action: approval or disapproval of staff recommendation.)

8. **PUBLIC HEARING AND FIRST READING ORDINANCE** revising Section 5.01 of the Billings Charter; providing for advisory boards, commissions, and committees of the City to have administrative authority if allowed by state or federal law or interlocal agreement, and submitting the proposed amendment to the electors of the City as provided by law. Staff recommends approval. (Action: approval or disapproval of staff recommendation.)

9. **APPROVE CANCELLATION OF LEASE AGREEMENT** with the Billings Community Youth Foundation, Inc. for an amateur ice arena in the southeast portion of Centennial Park due to breach of the agreement; and **REQUEST** that Parks, Recreation and Cemetery Board consider proposals for other uses and make recommendation to City Council. Staff recommends approval. (Action: approval or disapproval of staff recommendation.)

10. **RESOLUTION** approving the Transfer Agreement of the Billings cable television franchise and local cable system from Cablevision to Charter Communications Operating LLC. Recommendation to be made at June 24, 2013, Council meeting.

EXECUTIVE SESSION - PENDING LITIGATION

PUBLIC COMMENT on Non-Agenda Items -- Speaker Sign-in required. (*Restricted to ONLY items not on this printed agenda. Comments here are limited to 3 minutes. Please sign in at the cart located at the back of the council chambers or at the podium.)*

COUNCIL INITIATIVES

ADJOURN

Additional information on any of these items is available in the City Clerk's Office.

Reasonable accommodations will be made to enable individuals with disabilities to attend this meeting. Please notify Cari Martin, City Clerk, at 657-8210.

Consent **1. A. 1.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Boards & Commissions Appointments
PRESENTED BY: Tina Volek
Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

The Mayor is requesting that the City Council confirm appointments for Board and Commission positions that are vacant due to resignations and positions at term end.

ALTERNATIVES ANALYZED

Council may:

- Confirm the proposed appointments; or
- Not confirm the appointments.

FINANCIAL IMPACT

The proposed action has no financial impact.

RECOMMENDATION

Mayor Hanel recommends that Council confirm the following appointments:

	Name	Board/Commission	Term	
			Begins	Ends
1	No Applications	Animal Control Board	01/01/13	12/31/16
2	No Applications	Animal Control Board*	01/01/13	12/31/13
3	No Applications	Board of Appeals - Electrical	01/01/13	12/31/13
4	No Applications	Board of Appeals - Builder	01/01/13	12/31/15
5	No Applications	Housing Authority Res Comm	01/01/13	12/31/13
6	Walt Donges	Human Relations Board*	01/01/13	12/31/15
7	No Applications	Human Relations Board*	01/01/13	12/31/15
8	No Applications	Human Relations Board	01/01/13	12/31/16
9	No Applications	Mayor's Homelessness Lending	01/01/13	12/31/16
10	Randall Swenson	Mayor's Homelessness Econ Dev	01/01/13	12/31/16
11	Barb Perzinski	Mayor's Homelessness Econ Dev*	01/01/13	12/31/14
12	Billie Parrott	Mayor's Homelessness Civic/Bus*	06/24/13	12/31/16
13	Tom Rupsis	Parks, Recreation & Cemetery Brd*	06/24/13	12/31/13

14	Tabitha Frasca	Parking Advisory Board*	06/24/13	12/31/13
15	Joni Harman	Parking Advisory Board*	06/24/13	12/31/13
16	No Applications	Parking Advisory Board*	06/24/13	12/31/14
17	Clint Peck	Soil Conservation Board*	06/24/13	06/30/15
18	Ginny Hart	Tourism BID	06/30/13	06/30/17
19	Joyce Bratland	Tourism BID	06/30/13	06/30/17

2. Unexpired term of Solomon Neuhardt
6. Unexpired term of Malcolm Bailey
7. Unexpired term of Claudia Stephens
11. Unexpired term of Bruce MacIntyre
12. Unexpired term of Paul Chinberg
13. Unexpired term of Margy Bonner
14. Unexpired term of Tami Kelling
15. Unexpired term of Drew Smith
16. Unexpired term of Bruce Simon
17. Unexpired term of John Moorhouse

APPROVED BY CITY ADMINISTRATOR

Consent **1. B. 1.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Bid Award for the Painting of theTerminal Building Concourses
PRESENTED BY: Tom Binford
Department: Airport

Information

PROBLEM/ISSUE STATEMENT

The Airport's approved Capital Improvement Program includes painting the Terminal Building Concourses A and B. The concourse walls have not been painted since 2001. Being in a heavy traffic facility, the existing multicolored paint has become difficult to maintain and the constant cleaning has deteriorated the surface causing the colors to fade in some areas. This project includes wall patching and repair, the application of an "orange peel" texture, priming, and the application of a single colored paint. The project work will be completed during the weekends when the Terminal Building is empty due to the Runway 10L/28R Paving Project in July and August. This project was advertised in the *Billings Times* on May 23, 30, and June 6, and posted on the City's Web site. In spite of the advertising effort, the City received one bid:

CONTRACTOR	BID
High Roller Painting	$86,855

ALTERNATIVES ANALYZED

The City Council may:

- Award a contract for painting the Terminal Building Concourses to High Roller Painting; or
- Reject the bid and delay the project.

FINANCIAL IMPACT

The total cost of painting of the Terminal Building Concourses is $86,855. Sufficient funds are available in the Airport's Capital Improvement fund.

RECOMMENDATION

Staff recommends that the City Council accept the low bid for painting the Terminal Building Concourses from High Roller Painting, for the amount of $86,855.

APPROVED BY CITY ADMINISTRATOR

Consent **1. B. 2.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Bid Award: W.O. 13-08; 58th and Grand Storm Drain Improvements
PRESENTED BY: David Mumford
Department: Public Works

Information

PROBLEM/ISSUE STATEMENT

W.O. 13-08, 58th and Grand Storm Drain Improvements, will fix an existing storm drainage problem at 58th Street West and Grand Avenue by installing a pipe from that intersection to the Birely Drain.

The project was advertised on May 30th and June 6th in *The Billings Times* and on the City's Website. Bids were opened on June 11, 2013, and the City received two bids. Springline Construction, Inc. submitted the lowest responsible bid.

ALTERNATIVES ANALYZED

The Council may:

- Award Work Order 13-08, 58th and Grand Storm Drain Improvements to Springline Construction, Inc. in the amount of $91,981.75; or
- Not award Work Order 13-08. If not awarded, an existing drainage problem will persist and would need to be fixed at a later time.

FINANCIAL IMPACT

The following bids were received and evaluated:

Contractor	Total Bid
Springling Construction, Inc.	$91,981.75
Western Municipal	$269,915.00

The funding for this project was budgeted in FY13 and the source is Stormwater Operations and Maintenance.

RECOMMENDATION

Staff recommends that Council award the contract for W.O. 13-08, 58th and Grand Storm Drain Improvements to Springline Construction, Inc. in the amount of $91,981.75.

APPROVED BY CITY ADMINISTRATOR

Consent **1. C. 1.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Bid Award - Library Open Line Furniture
PRESENTED BY: Bill Cochran
Department: Library

Information

PROBLEM/ISSUE STATEMENT

The new library building is scheduled to open in the late fall of 2013 and requires purchasing suitable new furniture and furnishings. A portion of the specialty furniture will be purchased through pre-competed government contracts. The remainder of the furniture and furnishings are available from open line manufacturers and will be purchased through the sealed bid process.

The Invitation for Bid for the open line furniture was advertised in The Billings Times May 16, 23, and 30, 2013, and posted on the City's website. Bids were opened on June 11, 2013, and the City received two bids. Arizona Furnishings submitted a bid, however, it was delivered to another department and was not forwarded to the City Clerk in time for the sealed bid opening. The City Clerk, Purchasing Agent and a Library representative reconvened on June 12, 2013 to review the third bid. The bid was found incomplete and deemed non-responsive due to the fact that not all items listed on the Invitation for Bids tabulation form were included in the bid. 360 Office Solutions submitted the lowest responsible bid.

ALTERNATIVES ANALYZED

The Council may:

- Award the open line furniture contract to 360 Office Solutions in the amount of $215,725.24; or
- Reject all bids.

FINANCIAL IMPACT

The following bids were received and evaluated.

Contractor	Total Bid
360 Office Solutions	$215,725.24
Peterson Quality Office	$227,932.35
Arizona Furnishings	Non-responsive

RECOMMENDATION

Staff recommends that the City Council accept the low bid for open line furniture from 360 Office Solutions in the amount of $215,725.24

APPROVED BY CITY ADMINISTRATOR

Consent **1. C. 2.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Furniture Procurement for the New Library
PRESENTED BY: Bill Cochran
Department: Library

Information

PROBLEM/ISSUE STATEMENT

The new Library building is scheduled to open in the late fall of 2013. Furniture and furnishings suitable for the new state of the art building must be purchased. The furniture and furnishings procurement is in two parts; 1) participation in State approved, pre-competed contracts and 2) City competitive bidding.

Specialty furniture will be purchased through pre-competed government contracts, specifically a Haworth furniture package through US Communities Contract pricing and a Herman Miller package with Western States Contracting Alliance (WSCA) pricing. The contracts are:

Contractor	Furniture Package	Contract Pricing
360 Office Solutions	Haworth Furniture Package	$172,677.04
Dundas Interiors	Herman Miller Package	$ 79,916.41

The remainder of the furniture and furnishings are specified products from open line manufacturers, are available to all furniture dealers and will be purchased through a City administered competitive bidding process.

ALTERNATIVES ANALYZED

The City Council may:

- Approve the purchases from 360 Office Solutions and Dundas Interiors
- Decline to approve the purchases with 360 Office Solutions and Dundas Interiors. Council would need to provide purchasing guidance to staff.

FINANCIAL IMPACT

Funding for the project is available through the Library bonds, supplemented by Library reserves.

RECOMMENDATION

Staff recommends the City Council approve purchasing new Library furniture and furnishings from 360 Office Solutions for $172,677.04 and Dundas Interiors for $79,916.41.

APPROVED BY CITY ADMINISTRATOR

Consent **1. D.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: W.O. 13-09: City-Wide Traffic Signal Controller Upgrade
PRESENTED BY: David Mumford
Department: Public Works

Information

PROBLEM/ISSUE STATEMENT

The City's existing traffic signal system is out-dated (including the controllers with aftermarket parts and maintenance is no longer available) and is due for maintenance upgrades. City staff issued a Request for Proposals (RFP) to upgrade the system and responses were received from traffic signal suppliers on W.O. 13-09 City-Wide Traffic Signal Controller Upgrade on May 15th, 2013. The proposals outlined each vendor's equipment (including cost), software, implementation plan, training capabilities, experience, and on-call support. The project will include installation of a new software program to maintain the signal controllers. In addition, the supplier will provide training for both the signal controllers and software. The first phase of this project will include training, software, and signal controller upgrades for the signals on 32nd Street West from King Avenue West to Grand Avenue. An annual upgrade project will continue in the coming years.

The purpose of the RFP process and the resultant contract was to determine the most qualified supplier of one signal controller and software system. By selecting one signal supplier and their equipment allows the signal controllers the capability of enhanced communication and functionality to increase the efficiency of traffic signal system. Having common controllers is critical to the communication between each individual controller and the software package such that the traffic signals can be fully utilized to integrate more complex traffic solutions. In addition, having a singular controller supplier will allow our technicians to become “experts” of the product and eliminate unnecessary spare parts for other controller systems. This allows the controllers to become more interchangeable and easier to maintain. Overall, by selecting a single signal supplier, the traffic signal system becomes more efficient, easier to maintain, and will decrease traffic delay time, lower gas emissions, and lower travel commute times for the general public. Public Works has budgeted funds over the next several years to do full replacement of the approximately 110 City owned traffic signal controllers. Our existing signal controllers have been in place for 40 years, and this purchase could represent a fifteen (15) year, or more, commitment to this computer software and signal controller system.

The City received four proposals for this project. The selection of the supplier was based on criteria developed for the project and weighted by importance. While cost was a factor, it is not possible to compare the costs directly due to the fact that while the RFP asked for a cost based on a predetermined list of items, this cost is for the initial

equipment, not for the entire system. Staff needed to select a system that would meet the City's operational needs and be competitively priced for equipment over the upcoming years. This proposal included the up front cost of the main system and software in addition to five signal controllers. In the future, additional controllers and software upgrades will need to be purchased. Therefore, selecting a reputable firm with the appropriately priced system that meets the City's needs is important. The following suppliers submitted proposals:

Aegis/Econolite
Intermountain Traffic LLC
Peek
Western Systems

ALTERNATIVES ANALYZED

The Council may:

• Award the contract W.O. 13-09 to Intermountain Traffic LLC in the amount of $77,630.00; or
• Reject all proposals and do not award the contract for W.O. 13-09.

FINANCIAL IMPACT

The budget for this project is $100,000 and will be funded with Gas Tax. Based on the selection of Intermountain Traffic, LLC, the cost for the project is $77,630.

RECOMMENDATION

Staff recommends that Council award the contract for W.O. 13-09 City-Wide Traffic Signal Controller Upgrade to Intermountain Traffic LLC in the amount of $77,630.00.

APPROVED BY CITY ADMINISTRATOR

Attachments

Purchase Agreement
Exh. A - Intermountain Proposal

PURCHASE AGREEMENT

THIS AGREEMENT is made and entered into this 24th day of June, 2013, by and between the **CITY OF BILLINGS, MONTANA**, a municipal corporation organized and existing under the laws of the State of Montana, P.O. Box 1178, Billings, Montana 59103, hereinafter referred to as "City," and, Intermountain Traffic, LLC, P.O Box 11159, Reno, NV 89510-1159, hereinafter referred to as "Seller."

In consideration of the mutual covenants and agreements herein contained, the receipt and sufficiency whereof being hereby acknowledged, the parties hereto agree as follows:

1. PRODUCT PURCHASED: Seller agrees to sell and City agrees to purchase the goods ("Product") as described per written City's specifications in the project's Request for Proposals and Seller's proposal attached hereto as Exhibit "A," which are incorporated into this agreement by this reference. The Product being purchased consists of:

Item	Price
Trafficware ATMS.now software	$30,000.00
980 ATC TS2 Type 2 Controllers (7 total)	$20,300.00
Factory Training	$12,500.00
Sixnet Switch for Server	$2,435.00
Sixnet Switch for Controllers	$1,375.00
Single Ethernet Radio (6 total)	$7,920.00
Dual Ethernet Radio	$1,575.00
200' PoE Cable	$1,225.00
PoE Power Supply Cable for Single Radio	$240.00
PoE Power Supply Cable for Dual Radio	$60.00

2. Price: The City agrees to pay Seventy-seven thousand six hundred thirty and 00/100 Dollars ($77,630.00) as the purchase price. All prices DO NOT INCLUDE any applicable local, state or federal taxes that may be applied to the product to be purchased. The purchase price is free on board at the place of delivery and Seller may not impose any additional, shipping, delivery or storage charges.

3. Delivery and Payment: Seller agrees to deliver the above-described goods or product to City within 120 days of receipt of City's order unless otherwise provided in this Agreement. Delivery will occur at 4848 Midland Road, Billings, MT 59101 or at a place otherwise selected by City. Upon delivery, City may inspect the goods or product to ensure that it meets City specifications, and Seller may obtain specifications from City upon request. If the Product meets City specifications, City shall tender the purchase price stated above to Seller

through the City's normal claim process.

4. Specifications: Seller agrees that this Product complies with the City's specifications provided to Seller and with the Seller's proposal thereto as accepted by the City. Unless otherwise agreed to by the City, the City's specifications govern and control in the event of inconsistencies with the Seller's response to the same.

5. Nondiscrimination: Seller agrees that all hiring by Seller of persons performing this Agreement will be on the basis of merit and qualification and will not discriminate on the basis of race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability, or national origin.

6. Default and Termination: If Seller fails to deliver the goods or product as set forth in Paragraphs 2 and 3 above, or violates any provision of this Agreement, or if the goods or product fails to meet City's specifications, City may, at its option, declare the Seller in default and immediately cancel and rescind this Agreement. Thereafter, City may procure substitute goods or product to replace the goods or product described herein. In such event, Seller is liable to City for the difference between the price set forth herein and the price paid by City for replacement goods or product. Additionally, the City may pursue any other remedy it has at law or in equity.

7. Warranty: Unless superseded or supplemented by an express warranty, Seller represents and warrants that the Product are covered by implied warranties for merchantability and fitness for the particular purpose for which they have been purchased.

8. Assignment: Seller may not assign this Agreement or any of its rights hereunder without the express written consent of City.

9. Entire Agreement: This Agreement, including its appendices, if any, is the entire understanding between the parties relating to the subject matter contained herein. No agent or representative of either party has authority to make any representations, statements, warranties or agreements not herein expressed and all modifications or amendments of this agreement, including the appendices, must be in writing and signed by an authorized representative of each of the parties hereto.

10. Governing Law and Venue: This Agreement shall be construed and enforced in accordance with the laws of the State of Montana. Venue for any suit between the parties arising out of this Agreement shall be the State of Montana Thirteenth Judicial District Court, Yellowstone County.

IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year first above written.

CITY OF BILLINGS, MONTANA

By_____
CHRISTINA F. VOLEK
City Administrator

APPROVED AS TO FORM

By_____
BRENT BROOKS, City Attorney

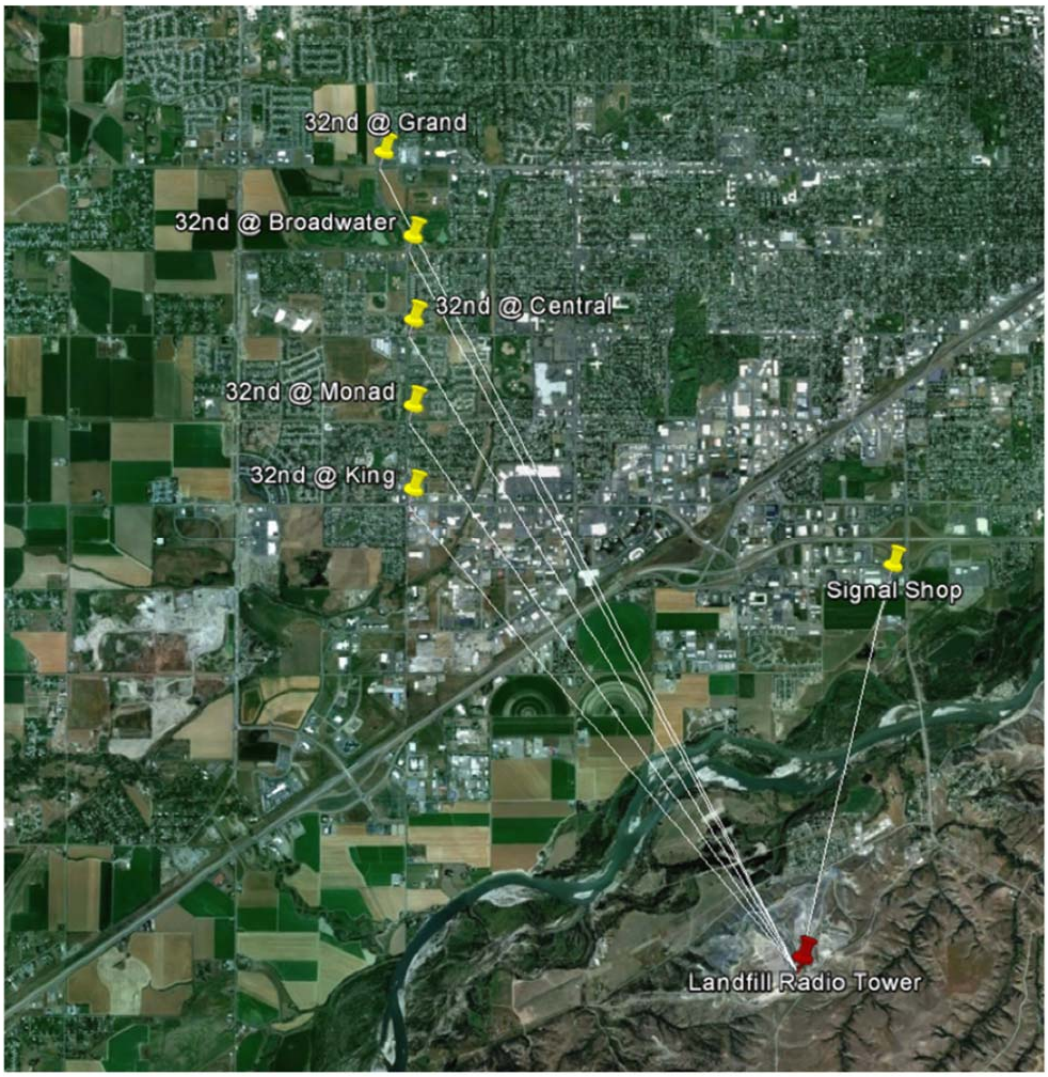
Intermountain Traffic, LLC, Seller
(Print Seller's Name Above)

By_____
(Print Name & Title) _____

_____

_____
(Write Phone Number for Orders Above)

Response to City of Billings W.O. 13-09: City-Wide Traffic Signal Controller Upgrade







Intermountain Traffic LLC

May 15, 2013

Intermountain Traffic LLC

PO Box 11159
Reno, NV 89510-1159
Tel: (775) 322-6887
Toll Free: (866) 677-7828
Fax: (970) 776-1697
info@intermountaintraffic.com

May 15, 2013

Office of the City Engineer
ATTN: City-Wide Traffic Signal Controller Upgrade
2224 Montana Avenue
Billings, MT 59101

RE: W.O. 13-09 City-Wide Traffic Signal Controller Upgrade - Including Addendum No. 1

Dear Mr. Erin Claunch and Members of the Selection Committee:

Intermountain Traffic appreciates the opportunity to participate in this solicitation for the City of Billings. We are the exclusive dealer for Trafficware (the recently merged entity of Trafficware, Ltd. and Naztec, Inc.) in the state of Montana. Trafficware is the only traffic signal hardware engineering, manufacturing and software development firm that performs ***all*** activities in the United States. We proudly support jobs in America and take further pride in contributing to the recovery of our economy. In addition to our industry-leading technical expertise, our demonstrated commitment to "Made in America" clearly separates us from every competitor proposing on this project. We are hopeful the evaluation team considers this criterion, rebuilding America, in the proposal evaluation process.

We are excited to offer the City of Billings a turn-key solution utilizing Trafficware's fully-developed, commercial off-the-shelf, Advanced Traffic Management System Central Software, *ATMS.now* and ATC controllers. The following are the major items we are proposing to supply:

- ATMS.now Advanced Traffic Management System Software
- Dell Server – Can be either purchased directly or furnished by Intermountain Traffic, LLC
- 980 ATC NEMA TS2 Type 2 Controllers
- "D" Interface cables – ONLY if needed
- Mountain Secure Systems Ethernet Radios – Optional part of this RFP
- Integration, Installation, Training, Configuration & Verification

Intermountain Traffic has more than 100 years combined industry experience supplying and integrating Traffic Signal Devices such as Signal Cabinets/Controllers, Emergency Vehicle Preemptions Systems, Loop Detection Systems, Video Detection Systems, and Closed Circuit Television (CCTV) into Traffic Management System Software using a wide range of communications mediums and devices. Trafficware's hardware products (Naztec Engineered) have been refined and perfected based upon 33 years of experience in designing, engineering, and manufacturing all three levels of products that are critical to the success of the ATMS.

I certify that I am formally submitting this Proposal on behalf of Intermountain Traffic, LLC. I am Scott Meyerhoff, Project Manager and partner at Intermountain Traffic. I certify that we meet all requirements of this RFP. A review of our proposal will demonstrate our project team has the ***qualifications, experience, capacity and desire*** to successfully complete your system upgrade on time and within budget.

We are looking forward to being selected for further evaluation and discussion. If there are any questions or you require additional information, please do not hesitate to contact me directly via Email at smeyerhoff@intermountaintraffic.com, or cell phone at (775) 313-5854.

Sincerely,

Scott Meyerhoff
Project Manager

Intermountain Traffic, LLC

PROJECT IMPLEMENTATION PLAN

Existing Controller Upgrade on 32nd St West Corridor

Hardware

- Dell PowerEdge R710 Server with Rack Bundle
  - This can be furnished by Intermountain Traffic or by the City of Billings
  - Specification of Server Attached
- Windows based Client connected to server (City of Billing Supplied)
- Trafficware/Naztec 980 ATC Controllers
- Ethernet Radios
- Ethernet Switches

Communication

Trafficware has implemented Ethernet support in the ATMS.now as a "virtual serial port", so RS-232 and Ethernet hardware devices can be integrated into the system together. This communication system fully supports the NTCIP protocol.

Ethernet communication is the communication method for today and the foreseeable future and is our recommended communication method for the City of Billings. As we have discussed with the City of Billings Traffic departments and IT departments, this Ethernet communication network can be either a separate traffic network or be part of the existing IT department network. Ethernet communication can be accomplished using radios, fiber-optic, twisted pair or a combination of several mediums. As fiber-optic communication is currently unavailable on the 32nd Street phase, radio connectivity is recommended and included with our response.

For the initial phase of deployment using Ethernet radio communication, we propose to first establish a communication link with radios between the server location and the radio tower at the top of the City of Billings landfill. At the radio tower, a dual radio will be installed to establish communication to the radio at the TMC and the first five locations identified on 32nd Street. Radios installed at each of the five intersections and the TMC will have line of site links to the radios at the landfill tower. We are confident in this communication network at the City of Billings **as we have proven it with our ATMS.now and radio demonstration using this existing radio tower at the landfill.**

Deployment

Intermountain Traffic proposes a controlled system upgrade approach that reduces the complication and disturbance to the public. This is accomplished by proper planning on our part with review and sign off by the City of Billings.

Deployment Preparation and Radio Installation

- City of Billings furnishes GIS Arcview files to Intermountain Traffic to be loaded on supplied configured server
- Intermountain schedules training dates compatible with City of Billings staff after delivery of the server
- Intermountain conducts Field Evaluations
- Surveys for Radios – and access to City of Billings Network
- City of Billings installs Ethernet radios furnished by Intermountain Traffic, LLC who will be on hand to provide technical assistance

Integration week with Training

- Prior to training week, the ATMS.now Comm configured Server and Administrator programs delivered. It will come pre-installed with City of Billings supplied GIS files
- ATMS.now Central System Server installed at City of Billings
- Install software & verify connectivity on City of Billings furnished workstations/laptops
- One week of training will be conducted by Al Bonificio from Trafficware per the training outline described in this response. Our experience shows training prior to the implementation is beneficial so that Billings personnel and our personnel make informed decisions together about the implementation process. The 5 controllers will ultimately be deployed in the field so we utilize them in the training. The controllers will leave the classroom programmed, verified, and ready for intersection deployment

Upgrading of Existing Controllers

- Create controller database template specific for the City of Billings
- Transfer signal timing data into five new controllers
- Verify controller programming
- Intermountain and City of Billings installs five new controllers into existing cabinets
- Verify functionality of controller itself as well as coordination, preemption, etc.
- Verify functionality of ATMS.now system server, clients and communication to controllers
- Intersection Graphics for 5 intersections on GIS interface are created

Complete System Upgrade

After phase one, Intermountain Traffic, LLC will continue to provide controller and ATMS training. A stepped method of deployment and continual training mixes field experience and classroom training to create a thorough learning process.

The second part of the plan is to upgrade the remainder of the controllers in the City of Billings. After initial training and deployment, typically, most of our customers take on the responsibility of converting the controller databases, adding additional communication links, and controller replacements with their own staff. With ATMS.now, installing additional controllers is quick, seamless and user intuitive. Intermountain Traffic, LLC currently makes frequent visits to the City of Billings. During these visits, we will assist the City of Billings with any implementation issues at no charge to the City.

Support and Maintenance

For the City of Billings, Intermountain Traffic is the point of contact for support and maintenance for all Trafficware products. Intermountain Traffic will perform all maintenance and support services in a professional manner, consistent with industry standards. Any software upgrades or required modifications will be provided to the City of Billings at no extra cost for the life of the system, which we assume is 10 years.

Intermountain Traffic office hours are Monday through Friday, 8:00 AM to 5:00 PM Mountain Time. We provide full maintenance and support twenty-four (24) hours per day, seven (7) days per week. Intermountain Traffic will provide technical support via multiple avenues:

- **On-site support:** Intermountain Traffic will make every effort to provide **same or next day on-site support, as needed**.
- **Telephone support**: Intermountain Traffic will provide unlimited phone support.

- **Text messaging**: Intermountain Traffic will provide unlimited text messaging support.
- **VPN support:** Intermountain Traffic will provide unlimited support through VPN access.
- **Personal Visits:** On-site training continues as we cultivate our goal of ***total customer satisfaction***.
- **Quarterly visits**

Software Operating System and Networking

ATMS.now will be installed on Windows Server 2008 supported by SQL Server communicating to the field via Ethernet and/or serial communications.

Warranty Statement

Naztec, Inc. (dba "Trafficware") warrants that all products manufactured by the company will be shipped from its place of manufacture in merchantable quality, and that it will, at the company's option, either replace or repair such products found to be defective in materials or workmanship within 18 months from the date of shipment, unless expressly quoted otherwise. Damages or defects incurred after the product has left the company, or while in transit to the customer, are not encompassed by the warranty. All company warranties are expressly conditional based on proper installation, operation, and maintenance by the purchaser.

Integration with Future Traffic Management Center

If Traffic Management Center integration is needed, there are several ways to accomplish this of which the first would be to install a network connection to the City of Billings ATMS.now server and add a Traffic Management Center client. Naztec/Trafficware also has a variety of C2C (center to center) success implementations across the country. We are confident we can meet C2C connectivity requirements of the City of Billings as well as other agencies when defined.

TRAINING PLAN

The City of Billings can expect comprehensive training on controllers and system software as proposed in this RFP by both Trafficware and Intermountain Traffic personnel. This training will address the needs of Traffic Engineering, System Operators, Traffic Signal Technicians and IT Personnel. We will provide an outline which will be helpful for City staff to determine whether or not they want to attend portions of the training that pertains to their role. For instance, the IT department does not benefit from attending coordination training. The training will be conducted during a week long course and is unlimited to the number of attendees from the City of Billings.

Training Courses

There are two primary "hands on" training courses that will be covered during training week, Trafficware ATMS.now and Trafficware Controller.

Trafficware ATMS.now

This course will go over the ATMS.now and upon completion, students can expect to be able to navigate ATMS.now, setup Intersections and upload and download to controllers.

Course Outline:

I. Introduction and General Overview: Goals and Objectives of Training Session

II. ATMS.now – System Architecture and Components

- System Architecture
- System Components

III. ATMS.now – Overview

- Starting ATMS.now
- ATMS.now layout
- Pane layout
- ATMS.now Views
- ATMS.now Modules

IV. ATMS.now - Intersection Setup

- Define a Controller
- View a Controller
- Edit a Controller
- Copy/Paste by row, columns, table, or entire database
- Using filters and tab folders
- Controller Online/Offline

V. ATMS.now – Database Management

- Database File System
- Database Upload
- Saving Upload file to Standard and Permanent
- Database Download
- Download with Verify
- Download No Verify
- Database Compare
- ATMS Partner Synchronization

Trafficware Controller

This course will take approximately 2 days and cover controller programming, coordination and preemption.

TRAINING PLAN

Course Outline:

I. General Overview of Training Course

II. Overview of Controller Operational Features

- Naztec Controller Platform Types
- Major Controller Highlights

III. Interface & Navigation

- Controller Menu Simulator
- Front Panel Connectors
- Navigating the Keyboard & Menus
- Controller Unit Electronics

IV. Database Initialization

- Run Timer
- Overview of the process of initializing controller database

V. Controller Operation

- Pre-timed Mode
- Semi-Actuated Mode
- Full-Actuated Mode
- Rings, Sequences & Concurrency
- Phase Times - Definitions & Illustrations
- Phase Options - Definitions & Illustrations
- Utility to Copy Phases and Timing

VI. Detection

- Vehicle Parameters/Illustrations
- Pedestrian Parameters/Illustrations
- Detector Configuration
- Detector Delays and Extensions
- Detector Calling and Sourcing
- Detector Status Screen, Definition and Interpretation of Terms
- Detector Diagnostics—Interpretation of Fault Messages and How to Correct

VII. Channel Outputs and Mapping

- Channel Types
- Channel Flash Parameters
- Channel I/O Parameters
- MMU Permissive
- Misc Channel programming
- SDLC Device programming
- Clearing Critical SDLC Faults
- SDLC Status Display

VIII. Unit Parameters and Ring Sequences

- Unit Parameters
- Ring Sequence

IX. Time-Base Scheduling

- NTCIP Time of Day Scheduler
- Theory of Operation

- Programming Time/Date
- Advanced Scheduler
- Easy Scheduler
- Day Plan Table
- Action Table
- Time Base Parameters
- Time Base Status
- Special Function Programming

X. Coordination

- Theory of Coordination
- Type of Coordination
- NTCIP Coordination
- Coordination Modes
- Coordination Mode Source Hierarchy
- Pattern Definitions
- Split Definitions
- Transition
- Coordination Status Display
- Coordination Diagnostics and Faults

XI. Hands-On Exercise

- Programming a Controller – Example Problem and Data Entry

XII. Preemption

- Theory & Definition
- Operation
- Preemption Times
- Preemption Phases
- Options
- Functions & Features
- Parameters
- Low Priorities

SUPPLIER BACKGROUND & EXPERIENCE

BACKROUND

Intermountain Traffic, LLC

Intermountain Traffic LLC

P.O. Box 11159
Reno, NV 89510-1159
Tel: 866.677.7828
Fax: 970.776.1697

Tax ID: 51-0578730

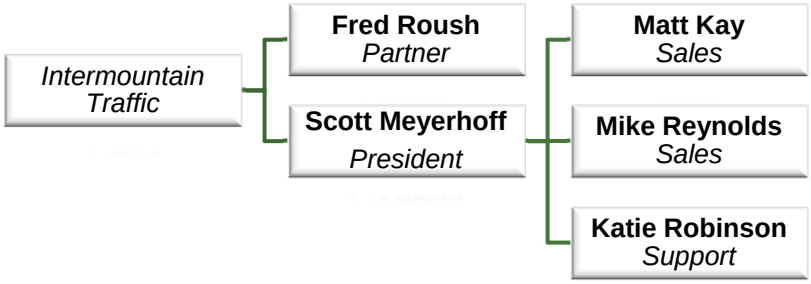
Founded by Scott Meyerhoff and Fred Roush in 2006, Intermountain Traffic boasts over 100 years of combined industry experience in Advanced Traffic Management Systems, Actuated Traffic Signal Controllers, Video and Loop Detection, Emergency Vehicle Preemption, CCTV Systems, Pedestrian Safety and Traffic control equipment. This expertise enables us to do our own system integration and offer multifaceted traffic solutions to our clients. Intermountain has experience interfacing with end-users in all aspects of traffic control products from design consultation, field installation, system implementation and software and maintenance training.

The technical expertise of our staff is the backbone of our success. Our philosophy is to create and maintain very close working relationships with our customers, cultivating our goal of total customer satisfaction by providing unparalleled customer service and support.

As the exclusive authorized distributor for Trafficware in six (6) states, including Montana, Intermountain Traffic has successfully implemented and maintains multiple ATMS.now systems communicating with thousands of devices.

Dedicated to the traffic signal system business in our territory, Intermountain Traffic opened a second office in Colorado in 2011. To further enhance customer support, a test lab was built to simulate any questions our customers may have. This lab includes a fully functioning ATMS.now system, controllers (2070, NEMA, TS2 and ATC), cabinets, etc. As a system integrator, this lab is essential for us to support and train our customers. Our staff even has 24/7 VPN access to the ATMS.now system.

As a distributor, we are a vital link in the traffic industry, bringing tangible benefits to both the manufacturers and end-users of ATMS products. **What sets us apart is we will provide the City of Billings deployment expertise and provide long term supply and technical support for your system.**



Trafficware, Inc

Trafficware
Engineered by Naztec

522 Gillingham Drive
Sugar Land, TX 77478
Tel: 281.240.7233
Fax: 281.240.7238
www.trafficware.com

Trafficware is an engineering and manufacturing firm providing ATMS systems and components meeting the needs of transportation agencies in North and South America. Since 1979, the company has been providing high-quality electronic product development services to engineering firms. Trafficware currently employs engineering, research and development, and manufacturing staff at the Sugar Land plant located in Southwest Houston. With over 90,000 square feet of combined manufacturing and engineering office space, the headquarters location has sufficient resources to handle numerous high technology projects. All of Trafficware's hardware products are designed, manufactured, tested, and shipped from this facility. Furthermore, their extensive suite of software solutions, including Synchro, SimTraffic, and SynchroGreen, are developed in house by an elite team of traffic engineers.

PROJECT TEAM

Intermountain Traffic's Scott Meyerhoff will act as the responsible party, your go-to person to answer all your questions and respond to all your needs. He will ensure his team coordinates, integrates and implements a successful system deployment, while verifying reliable and predictable results.

Our Project Manager Scott Meyerhoff, Deputy Project Manager Katie Robinson, and other Intermountain Traffic personnel will work closely with City staff to implement the upgrade and direct the project to completion.

The primary business success and focus of both Intermountain Traffic and Trafficware is our integration, deployment, and support of our ITS and ATMS systems. Because this is our core focus, we have the experienced and knowledgeable staff for effective and efficient project management.

The core contributors of this project each have 30 years of experience developing and deploying over 200 ATMS systems. This is of value to the City of Billings as we will quickly integrate and deploy this system. This organization of people will effectively work to establish the requirements of the City's ITS and ATMS systems and successfully put these plans in place, setting a clear path for Billings signal system upgrade.

Our staff has the expertise to easily identify challenges and effectively find solutions based on many lessons learned from previous implementations. Our staff also has the expertise to integrate at all levels of your ATMS, and all have experience installing controllers in environments similar to that of Billings

PROJECT ROLES & RESPONSIBILITIES

Intermountain Traffic

Intermountain Traffic will be responsible for project management and integration.

- **Scott Meyerhoff:** Scott's technical background is the backbone of his success in the traffic signal industry. Scott has installed numerous controllers, cabinets, closed loop systems and central systems throughout the world. Scott has instructed many classes on controllers, cabinets and systems training to technical staff and engineering staff on design, setup and programming.

  With over 33 years of experience in the traffic signal industry, Scott started his career as an end-user. While working for distributors and manufacturers, he interfaced with end-users in all aspects of traffic control products from design consultation, field installation, system implementation and software/maintenance training. This experience added to his knowledge of the working needs of the everyday user of system software and products. Scott brings experience in systems, detection, preemption and traffic control equipment, as well as production, operations, distribution management, sales, marketing, customer relations and support expertise. Scott has worked closely with Ada County, Reno, Loveland and Douglas County who are all listed in our references.

- **Katie Robinson:** Katie will provide extensive networking and project management experience. She will be responsible for equipment procurement, project scheduling and server/client installation. With 12 years of system administration and project management experience, Katie will be a valuable asset in managing this project from start to finish.

  Not only has Katie worked alongside Scott in the implementations of Loveland and Douglas County, but has also supported Ada County and Reno throughout her employment at Intermountain Traffic.

- **Mike Reynolds:** Mike will facilitate Technical Support supporting both Katie and Scott from Intermountain Traffic.

SUPPLIER BACKGROUND & EXPERIENCE

Trafficware

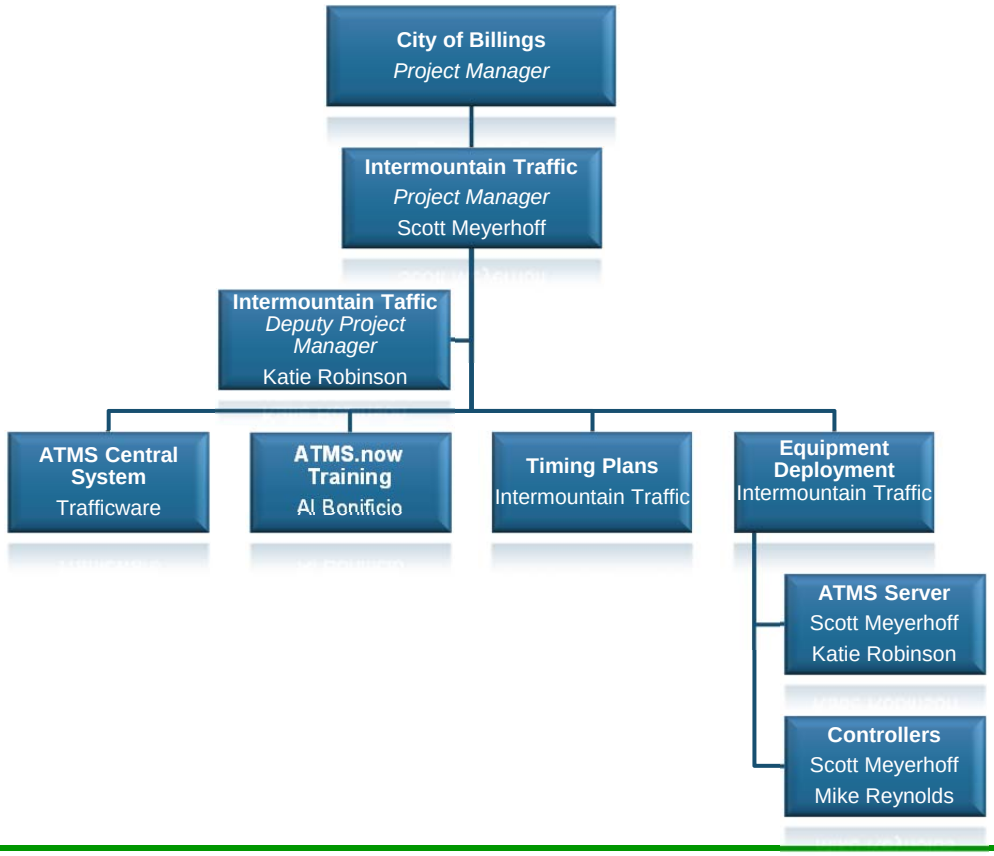
Trafficware will be responsible for supplying the ATMS.now software, server configuration, and ATMS.now training. Available to Intermountain Traffic and the City of Billings is a number of staff at Trafficware; however we are highlighting Al Bonificio.

- **Al Bonificio**: Al has been assigned as Project Manager from Trafficware for this ATMS.now deployment. Al brings over 30 years of progressive experience in system design, development, integration, and management experience to this assignment. He has gained extensive knowledge and experience through training field personnel in traffic control, signal coordination, and field troubleshooting for various agencies throughout the US and Canada. For 10 years, he supervised the NYSDOT Traffic Signal Laboratory, the central acceptance, repair, and design facility for New York's State's Traffic Operations hardware and software, which includes over 6,000 intersections. As a result, Mr. Bonificio has represented New York State as an AASHTO representative for the Advanced Transportation Controller (ATC) on the Joint AASHTO/ITE/NEMA National Committee. Here he also served as a member of the ATC Controller Working Group and as an AASHTO Representative on the NTCIP Profiles Standards Committee.

  As Trafficware's project manager on the Intermountain Traffic team, Al will be an integral part of the server installation and configuration, and he will as conduct the ATMS.now training. Supporting Al is team of staff at Trafficware to ensure this ATMS.now deployment is a smooth transition for the City of Billings.

MANAGEMENT APPROACH

At Intermountain Traffic, support is our number one priority for all of our customers. Our customer service



philosophy is exceeding expectations before, during and after the sale. What does great customer service look like? For us, it's all about the customer experience and the success of their project whether it be a small pedestrian project or a large system upgrade. Our efforts are **always** rewarded with customer loyalty.

Being a distributor, we have to be well versed in many technologies that are constantly evolving. We don't manufacture and offer one product line, instead we are experts in many product lines. In addition to deploying different types of systems, we are continually being provided with factory training in different technologies from each respective supplier. We learn the competitions features and benefits, in addition to our own, and keep a pulse on our ever changing industry with pinpoint accuracy.

Furthermore, having the right person for the different aspects of a project is where Intermountain excels. We have the right person for every aspect of this job. Katie Robinson has a degree in IT and is our systems expert. Katie can handle all aspects related to networking and proliferation of IT Devices over a network. Scott Meyerhoff began as a signal technician and has been in the signal industry for over 30 years. He is well versed in systems, cabinets, controllers and virtually every aspect of what goes on inside the signal cabinet and at the intersection. Mike Reynolds prides himself on excellent customer follow up and service. He excels at being available and coordinating service and processing requests. A good team needs an expert at every position and Intermountain strongly believes having the right personnel for each aspect of this job is crucial to a successful system deployment in Billings.

REFERENCES

Five ATMS.now references are listed below, four of which are references of both Intermountain Traffic and Trafficware. Palm Beach County is one of Trafficware's largest system deployments.

Ada County Highway Department, Idaho - *Largest Idaho Deployment*

ACHD
Committed to Service

Jim Larson, Congestion Management Supervisor
Ada County Highway Department
3775 Adams Street
Garden City, ID 83714
Tel: 208.387.6196
Fax: 209.387.6219
jlarsen@achdidaho.org

Originally deployed with serial communications, Ada County upgraded their Streetwise system in 2008 to Ethernet based ATMS.now. Ada County has over 400 TS2 Type 1 controllers on line and is in the process of implementing Transit Signal Priority and Adaptive.

Reno, Nevada - *Recent Intermountain Traffic Deployment*

BIGGEST LITTLE CITY IN THE WORLD
CITY OF RENO

Steve Bunnell, Traffic Engineer
City of Reno
1 East 1st Street, 9th Floor
Reno, Nevada 89501
Tel: 775.334.2333
Fax: 775.334.1226 bunnell@ci.reno.nv.us

SUPPLIER BACKGROUND & EXPERIENCE

In April 2007, Intermountain Traffic supplied and integrated ATMS.now in the City of Reno. With the new system in place and Naztec TS2 Type 2 NEMA Controllers, the City upgraded their serial communications to Ethernet, and now uploads complete databases for approximately 200 online controllers in less than a minute.

Loveland, Colorado - *Recent Intermountain Traffic Deployment*

Bill Hange, *Traffic Engineer*
City of Loveland
105 West 5th Street
Loveland, CO 80537
Tel: 970.962.2528
Fax: 970.962.2907
hangeb@ci.loveland.co.us

In February 2010, the City of Loveland chose Intermountain Traffic to supply and integrate ATMS.now with Naztec 970 controllers for their signal system upgrade.

During 2010, ATMS.now and the first set of controllers were deployed. Over the next few years, the city continued their upgrade and currently has over 60 controllers on-line.

Douglas County, Colorado - *Recent Intermountain Traffic Deployment*

Mark Zink, *Signal Supervisor*
Douglas County Government
100 Third Street
Castle Rock, CO 80104
Tel: 303.663.6167
Fax: 303.663.2063
mzink@douglas.co.us

In early 2011, Intermountain Traffic's customer Douglas County, Colorado began their upgrade to ATMS.now. Currently, the Douglas County system not only manages over 140 2070 controllers, but also their emergency vehicle preemption.

Palm Beach County, Florida - *Established ATMS.now installation*

Giri Jeedigunta,Signal Systems Manager
Palm Beach County
2300 N. Jog Rd - 3rd Floor East
West Palm Beach, FL 33411
Tel: 561.684.4168
Fax: 561.478.5770
GJeedigu@pbcgov.org

Trafficware's ATMS.now controls 1,200+ signalized intersections using Naztec controllers, 15,000 devices over Ethernet via two separate command centers, and VPN remote access for 36 of the 38 Municipalities.

COST PROPOSAL

Qty	Item	Price Each	Total Price
REQUIRED ITEMS:			
1	Trafficware ATMs.now Professional Software License * Does NOT include Server Hardware	-	$ 30,000
5	980 ATC TS2 Type 2 Local Controller	$ 2,900	$ 14,500
1	Factory Training - 5 Days	-	$ 12,500
5	Database Conversion/configuration	INCLUDED	
5	Intersection Graphics	INCLUDED	
	Integration Services	INCLUDED	
	On-Site Installation & Configuration	INCLUDED	
	Detection Monitoring	INCLUDED	
	Alarm Logging & Configuration	INCLUDED	
	Signal Timing Split Monitoring	INCLUDED	
	Verification	INCLUDED	
TOTAL			**$ 57,000**
OPTIONAL ITEMS:			
1	Dell R710 Server	$ 8,000	$ 8,000
1	Dell Server Rack	$ 2,000	$ 2,000
1	Sixnet EL228-AA-1 Switch for Server - 28 ports, 4 Gb + 6 10/100MB ports populated, managed *The above 3 items can be purchased separately, however they are required for system functionality	$ 2,435	$ 2,435
5	Sixnet SLX-5ES-1 Switch, 5 ports; unmanaged *One per Traffic Signal Cabinet	$ 275	$ 1,375
6	Ethernet Radio, Single, 5.8Ghz *One per Traffic Signal Cabinet and Signal Shop	$ 1,320	$ 7,920
1	Dual Ethernet Radio *Landfill	$ 1,575	$ 1,575
7	200' PoE Cable	$ 175	$ 1,225
6	PoE Power Supply, for Single Radio	$ 40	$ 240
1	PoE Power Supply, for Dual Radio	$ 60	$ 60
5	"D" Interface Cable	$ 150	$ 750
TOTAL			**$ 25,580**
GRAND TOTAL			**$ 82,580**

Pricing for controllers listed on the cost sheet of this response shall remain unchanged through May 15th, 2015 (a period of two years). Additional controllers can be purchased at the same price as listed on our cost proposal for this two year period.

The CPI (Consumer Price Index) is designed to protect the consumer from being forced to pay unreasonable price increases. Escalation agreements often use the CPI—the most widely used measure of price change—to adjust payments for changes in prices. Intermountain Traffic assures the City of Billings that after May 15th, 2015, if applicable, price increases on controllers will not exceed the CPI index.

We would like to reference the City of Loveland, Colorado, who implemented a Trafficware system in April, 2010. Loveland has yet to experience a price increase in over 3 years.

Intermountain Traffic understands it may take several years to complete the upgrade beyond May 15th 2015. We agree to not increase the cost of controllers beyond the Consumer Price Index.

CONTROLLER SPECIFICATIONS

TABLE OF CONTENTS

Model 980 ATC Traffic Controller with Ethernet & USB

Traffic Responsive Master/Secondary

The Series 900 ATC Traffic Signal Controller is designed using state of the art electronics for reliability, long life, and superb performance in all signal control applications.

Design of the Series 900 ATC Controller is based on the ATC and NEMA TS2 standards and includes advanced functionality for complex phasing, detector processing, coordination, preemption, communications, adaptive timing, and systems operation as a master or a secondary controller.

The advanced LCD display and menu driven software provide a user-friendly approach to programming and access. Built-in diagnostics permit rapid evaluation of operational status. The on-board Flash File System allows software upgrades without PROM replacements. The front panel mounted USB port facilitates the upgrade process and file access with ease. The Ethernet-enabled controller allows communication across a TCP/IP network.

Distributed by: Intermountain Traffic, LLC
PO Box 11159
Reno, NV 89510-1159
info@intermountaintraffic.com

Toll Free: 866.677.7828
Fax: 970.776.1697

Naztec, Inc.
ATMS Solutions

Model 980 ATC Traffic Controller with Ethernet & USB

FEATURES

FLASH FILE SYSTEM	**The Series 900 Controller is easily configured to various firmware versions by the utilization of Flash File System which eliminates the need for obsolete EPROM technology. A complete traffic controller firmware update requires only seconds. No hardware changes or EPROM replacements are required.**
MASTER/SECONDARY	**Operation in a Closed Loop System requires only one Series 900 Controller to be located at the master cabinet. Both the master and secondary functions are simultaneously provided by a single controller.**
DISPLAY	**A back-lighted 8-line by 40-character LCD display provides full menu screens for ease of data entry. Optimum contrast and brightness are automatically maintained by temperature-compensating circuitry. The menu-driven format and context sensitive help screens eliminate the need for special codes or front panel identification characters.**
EASILY SERVICED	**The modular design of the Series 900 Controller allows quick sub-assembly level problem isolation. Printed circuit board components are clearly labeled with silkscreen. No special tools or extender cards are needed for troubleshooting**
REAL-TIME CLOCK	**The real-time clock maintains accurate timing by utilizing a "super capacitor" and crystal controlled circuitry which allows accuracy of 0.005%.**
BARRIERS	**Unique to the Naztec traffic controller product line is the flexibility of user programmable barriers. Four (4) separate barriers allow programming for applications from one (1) to eight (8) phases in each barrier.**
KEYBOARD	**A custom 23-key keypad containing 4 red function keys, 10 white numeric keys, 7 cursor and menu navigation keys, and 2 LCD contrast adjustment keys. Each key has a tactile feedback built-in to provide user-friendly enhanced data entry.**
DIAGNOSTICS	**Built-in diagnostics provide for improved maintenance and easier repairs. It allows operator tests on all input and output signals, RAM devices, memory, LCD, keypad, etc.**
COMMUNICATIONS	**Four EIA-232 ports are available. These ports are keyboard programmable with selectable baud rates up to 115K with full and half duplex options. Various communication configurations allow the user multiple interfaces to other cabinet devices: conflict monitor, preemption equipment, detectors, WWV clocks, modems, notebooks, printers, etc.**
ETHERNET	**10/100 Mbps port with LED indicators. TCP/IP supported.**
USB	**Ordinary USB memory devices can be inserted into the port for software upgrades, configurations, and file retrievals.**

Voltage:	89 to 135 VAC
Frequency:	60 +/- 3 Hz
Temperature:	-30^0 to 165^0 F
Humidity:	5 to 95 percent
Dimensions:	Height: 10.50"
	Width: 14.75"
	Depth: 8.38"

Intermountain Traffic LLC

Distributed by: Intermountain Traffic, LLC
PO Box 11159
Reno, NV 89510-1159
info@intermountaintraffic.com

Toll Free: 866.677.7828
Fax: 970.776.1697

SPECIFICATION FOR ATC CLASS CONTROLLER (980 ATC)

Hardware Requirements

1. Shall be compliant with NEMA Standard TS2-2003.
2. Shall incorporate an "Engine Board" as the main processing element that shall be compliant with the hardware requirements of the ATC Standard, version 5.2b.
3. The Engine Board processor shall be a Freescale PowerQUICC processor of the 82xx or 83xx families.
4. The Engine Board processor shall be rated at 500 MIPs minimum at the CPU clock rate used. The main memory (DRAM) shall be zero-wait-state and full-bus-width.
5. The Engine Board shall have a minimum of 64MB DRAM.
6. The Engine Board shall have a minimum of 128MB Flash Memory storage.
7. The Engine Board shall include and use the Linux operating system
8. All serial communication ports shall be integral to the controller. ATC/2070 Communication slots shall not be utilized or provided.
    a. NEMA TS2 serial ports P1 and P2 shall be provided.
    b. NEMA TS2 serial port P3 shall be supported. An asynchronous FSK modem shall be available as an option that is internal to the controller chassis. The FSK modem option(s) shall support up to 9600 baud. The FSK modem shall be hardware-configurable to be attached to serial ports SP1 and SP2 of the Engine Board.
    c. An EIA-232 connector shall be available for serial port P3 in lieu of the FSK option. If the FSK modem is installed, the EIA232 connection may still be used. The controller shall sense when an appropriately wired cable is attached to the EIA232 connector and automatically disable the internal FSK modem.
    d. Two additional EIA232 ports shall be provided for interfacing to other devices. These shall be routed to SP2 and SP8 of the Engine Board.
9. The controller shall provide a 10/100 Ethernet port with status indicators for Link/Activity and 10/100 speed. The LED indicators shall be water-clear and high-brightness with a minimum luminosity of 90mcd for visibility in high-ambient-light conditions.
10. The controller shall provide a USB port for Memory Storage Device support per the ATC v5.2b standard. It shall support USB 2.0 Full-Speed operation.
11. The display shall be an LCD type and shall provide a minimum of 8 lines by 40 characters. It shall incorporate a backlight.
12. The display contrast shall be temperature-compensated and adjustable by use of two dedicated keypad keys. One key shall lighten the contrast, the other shall darken it.
13. The keypad shall provide, inherently, both tactile and audible feedback ("click") when keys are pressed. Spacing between key centers shall be 0.6 inch minimum for operation keys and 0.5 inch minimum for contrast adjust keys. Membrane style keypads shall not be provided.
14. Both NEMA TS2-1 and TS2-2 configurations shall be available.
15. For the NEMA TS2-2 configuration, the "D" connector shall be a 57 pin circular connector that mates with AMP (Tyco) part number 206437-1.

Naztec Inc.

Submittal

For

Apogee Actuated Signal Controller Software

These specifications describe the features of Apogee software and the functional requirements of a 2070N Actuated Signal Controller running Apogee software.

Table of Contents

Scope

This specification sets forth the minimum requirements for a sixteen-phase full-actuated traffic signal controller unit with internal Time-Based-Coordination (TBC), railroad/fire/transit emergency vehicle preemption, and closed loop secondary operation. The traffic signal controller unit shall fully comply with the latest publicized draft for NTCIP Object Definitions for Actuated Signal Controllers. Prior to acceptance of the proposed controller, the vendor shall demonstrate full NTCIP compliance for the Object Definitions using independent 3rd party NTCIP Device Testing Software at the contractor's expense.

All 2070 and NEMA TS-2 actuated traffic controller units provided shall meet or exceed the latest draft requirement for the following National Transportation Communications for ITS Protocol (NTCIP):

- NTCIP 1101 (formerly TS 3.2)—Simple Transportation Management Framework (STMF).
- NTCIP 1201 (formerly TS 3.4)—Global Object Definitions.
- NTCIP 1202 (formerly TS 3.5)—Objects for Actuated Traffic Signal Controllers.
- NTCIP 2001 (formerly TS 3.3)—Class B Profile

Interpretation and definition of compliance to this specification shall be at the sole discretion of the City of Avondale.

2070L CONTROLLER SPECIFICATIONS

The controller shall be the "lite" version Model 2070L (Caltrans Rack Mount type) ATC traffic controller per California Department of Transportation's (Caltrans) specification, and shall conform to the Transportation Electrical Equipment Specifications (TEES) dated November 2002 or later. http://www.dot.ca.gov/hq/esc/ttsb/electrical/TEES.pdf

The controller shall be equipped with the following modules:

2070-1B	CPU with Ethernet Port
2070-2A	I/O Module for 332 cabinets
2070-3B	8x40 Line Display
2070-4B	Power Supply
2070-7A	Dual Serial Port Card

- **2070-1B**

  The 2070-1B shall be equipped with an Ethernet port. The controller software operating on the 2070-1B shall be capable of utilizing the Ethernet port for data transfers. The operating system shall allow the user FTP and Telnet access via the Ethernet port.

- **2070-7A**

  The 2070-7A shall conform to the latest TEES specification. The 2070-7A shall be optically isolated and capable of asynchronous serial communication for ports C215 and C225. On-board jumpers shall be provided to allow either DCE or DTE operation for each port.

- **2070-4B**

  Power supply must have high-side and low-side monitoring on all DC output voltages

- **EEPROM Socket**

  An EEPROM socket must be available to reload a unit to factory defaults

- **Operating System**

The 2070 controller shall operate on the 2070-1B using Microware OS9 v3.2 or higher. The operating system shall be field proven (not less than 150 intersections) while communicating using Ethernet. The controller shall operate trouble free in an IP storm environment. Upon request the controller manufacturer shall provide references to substantiate proficient operation in the aforementioned environment. It shall be the controller hardware manufacturers' responsibility to remedy any performance issues relating to compatibility between the operating system, any related hardware drivers, and the intersection control software.

- **Testing**

  Prior to delivery, each controller assembly shall be configured and tested by the supplier. The controller shall be "plug and play" ready for the City's existing 332 cabinets.

- **Installation and Training**

  A factory certified representative for the manufacturer shall be on-site during signal turn-on for support.

  A factory certified representative for the manufacturer shall be on-site for installation and support on the intersection control software.

  The supplier shall provide a maximum of four hour of technical training for City staff within four weeks after controller delivery.
  The Actuated Signal Controller manufacturer must be a registered Cisco Partner with experience exceeding 150 intersections of Cisco series 2955 equipment and 12 intersection of 3200 series wireless equipment. The Actuated Signal Controller supplier must also be located in the Phoenix metropolitan area and also be a registered Cisco partner.

- **Warranty**

  The controller assembly shall be warranted by the manufacturer against mechanical and electrical defects for a period of 1 year.

  The supplier shall correct any defects in design, workmanship or material during the warranty period at no cost to the City. All cost of labor, parts and transportation shall be borne by the supplier for the duration of the warranty period.

  The vendor shall provide all revisions to any equipment furnished under these specifications, at no cost to the City.

Functional Requirements for Free Operation

Phase Timing

NTCIP Requirements for Phase Timing

The following NTCIP objects related to phase timing are mandatory requirements under this specification and shall be demonstrated by using an independent 3rd party software. The definition and range of each parameter (minimum and maximum value) are specified under the NTCIP specifications.

1) Minimum Green
2) Gap, Extension (or Passage Time)
3) Maximum 1
4) Maximum 2
5) Yellow Clearance
6) Red Clearance
7) Walk

8) Ped Clearance
9) Red Revert Time (programmable on a per phase basis)
10) Added Initial
11) Max Initial
12) Time Before Gap Reduction (TBR)
13) Cars Before Gap Reduction (CBR)
14) Time to Reduce (TTR)
15) Reduce By (optional gap reduction method to TTR)
16) Minimum Gap
17) Dynamic Max Limit – this parameter serves as an upper limit to the current maximum setting (Max 1 or Max 2)
18) Dynamic Max Step - the dynamic max may grow or shrink by the dynamic max step value programmed for each phase

Additional Requirements for Phase Timing

The following additional functions related to phase timing are mandatory requirements under this specification:

1) Ped Delay – this phase feature shall delay the pedestrian WALK interval by a programmable amount (0-99 seconds) after the vehicle Min Green interval begins timing
2) Green Delay– this phase feature shall delay the vehicle Min Green interval by a programmable amount (0-99 seconds) after the pedestrian WALK interval begins timing
3) Omit Yellow Display – this phase feature shall omit the yellow display output when a specified phase is timing yellow clearance
4) Redirect Pedestrian Outputs – this phase feature shall allow the pedestrian outputs of a phase to be redirected to another phase
5) Start Yellow, Next Phase – this phase feature shall control the next phases serviced after the controller start-up sequence returns to the yellow interval of the specified startup phases
6) Bicycle Clearance Time – this feature holds the programmed phase in Red until the Bike Clearance time expires.
7) Alternate Phase Timing

   A minimum of five (5) additional complete and separate Alternate Phase Timing tables shall be provided to vary phase time parameters by time-of-day. This time-of-day operation shall be accomplished by associating the table with a pattern as described in Section 6. The minimum number of Alternate Phase Time parameters varied per table shall include:

   Minimum Green

   Gap, Extension (or Passage Time)

   Maximum 1

   Maximum 2

   Yellow Clearance

   Red Clearance

   WALK

   Ped Clearance

Bike Clearance

Phase Options

NTCIP Requirements for Phase Options

The following NTCIP objects related to phase options are mandatory requirements under this specification. The definition and range of each parameter (minimum and maximum value) defined in this Section, 3.2.1, are also specified under NTCIP.

1) Enable Phase (a phase that is not enabled is omitted)
2) Min Recall
3) Max Recall
4) Ped Recall
5) Soft Recall – a recall is placed on a phase only when a true detector call exists
6) Detector Lock Calls (also called "memory on")
7) Auto Flash Entry Phases
8) Auto Flash Exit Phases
9) Dual Entry Phases
10) Enable Simultaneous Gap-out
11) Guaranteed Passage Time
12) Rest-in-Walk
13) Non-Actuated Ring 1
14) Non-Actuated Ring 2
15) Added Initial Calculation - this phase option shall allow added initial to be summed for all detector inputs calling the phase or to be calculated using the greatest number of actuations of each detector calling the phase.

Additional Requirements for Phase Options

The following additional functions related to phase options are mandatory requirements under this specification:

1) Phase Reservice – this phase option shall allow a phase to be conditionally reserviced after the phase has left to conditionally service another phase.
2) Pedestrian Clearance Through Yellow - this phase option shall allow the end of pedestrian clearance to time with the yellow clearance interval.
3) Skip Red if No Call During Yellow Clearance – this phase option shall allow all-red clearance to be skipped if no vehicle calls are issued to the phase during the yellow clearance interval.
4) Red Rest – this phase option shall enable red rest for individual phases on a phase by phase basis
5) Max II – this phase option shall allow Max II to be enabled on specified phases when Max I timing is in effect.
6) Pedestrian Delay – this phase option causes the Walk to be delayed after green by the Green/Ped delay time.
7) Green/Ped Delay – this phase option allows selection of time to delay Walk-after-Green or Green-after-Walk.
8) Conflicting Phases – defines a phase that is otherwise concurrent to conflict with selected phase.
9) Omit Yellow/Yellow Phase – allows yellow of this phase to be omitted when in yellow of the entered phase.

10) Pedestrian Output/Overlap – allows for an overlap of the Pedestrian movement for the phase selected, which must be the next phase in the ring sequence.

11) Start Yellow/Next Phase – when a phase is set to start up in yellow, this allows the selection of which phase the controller will enter next.

12) Call Phases - this phase option shall allow phase calls on one phase to indirectly call another phase. Each Actuated Signal Controller (ASC) phase shall assign a minimum of four Call Phases. When the assigned phase is green and applying a min or max recall or receiving a detector extension, a call shall be indirectly sourced to each of the Call Phases.

13) Inhibit Phases – this feature shall apply a software omit on all programmed Inhibit Phases when the program phase is timing green, yellow or all-red clearance.

14) Redirect Phase Calls – this phase option redirects phase calls from one phase to another phase when the programmed phase is green and the phase called is red.

15) Alternate Phase Options

A minimum of eight (8) separate Alternate Phase Options tables shall be provided to vary phase option parameters by time-of-day. This time-of-day operation shall be accomplished by associating the table with a pattern as described in Section 6. The minimum number of Alternate Phase Options parameters varied per table shall include:

Assign Channel to Phase

Lock Calls

Soft Recall

Dual Entry

Enable Simultaneous Gap-out

Guaranteed Passage Time

Rest-in-Walk

Conditional Service

Reservice

Non-actuated 1

Non-actuated 2

Green/Ped Delay Inhibit

Conflicting Phases

16) A minimum of two alternate tables shall be provided to vary the call phase, inhibit phase and redirect phase call phase options by time-of-day. This time-of-day operation shall be accomplished by associating the table with a pattern as described in Section 6.

17) The Actuated Signal Controller (ASC) shall provide a minimum of two auxiliary outputs to drive a flashing display for an advance-warning beacon. These outputs shall become active whenever a phase assigned to the output has timed out a value initiated at the start of green for that phase. This feature may be used to provide a flashing display in advance of the yellow clearance interval to warn approaching drivers with limited visibility of the signal display.

Ring, Phase Concurrency and Sequence Programming

1) Each Actuated Signal Controller (ASC) shall provide sixteen (16) phases assignable to one (1) to four (4) separate rings.

2) Phase concurrency definitions shall control the compatible phase groups in each ring establishing a barrier between phases that are not concurrent.

3) A minimum of 16 phase sequences shall be provided to vary the sequence of concurrent phases in each ring.

4) Each phase sequence shall allow a maximum of eight (8) sequential phases to be programmed in each of the four rings. A maximum of 16 sequential phases may be assigned to ring 1 if rings two (2), three (3) and four (4) are not used.

Vehicle and Pedestrian Detection

1) Each Actuated Signal Controller (ASC) shall provide 64 separate vehicle detectors and eight (8) separate pedestrian detectors with separate program features applied to each detector.

2) The actual hardware detector inputs may be provided in a variety of ways based on the controller specification selected in Section 2 and the target cabinet (or terminal facility) configuration.

3) The requirements in this section shall govern the features required for vehicle and pedestrian detection.

NTCIP Requirements for Detection

The following NTCIP objects related to detection are mandatory requirements under this specification. The definition and range of each parameter (minimum and maximum value) defined in this Section, 3.4.1, are also specified under NTCIP.

1) Call Phase – each vehicle and pedestrian detector shall specify a single call phase

2) Switch Phase – each vehicle detector shall provide the capability of switching the call to the specified switch phase when the switch phase is green and the call phase is red.

3) Delay Call – a constant vehicle detector call may be delayed by this setting in increments of 0-25.5 seconds for a call detector

4) Extend – a vehicle detector call may be extended a programmed amount (0-25.5 seconds) while the call phase is being serviced for each extend detector

5) Queue – extension for a vehicle detector call may be inhibited after the specified queue time expires. The queue time is measured from the beginning of the Min Green interval.

6) Vehicle and Pedestrian Detector Diagnostics

   These diagnostics shall be performed for each vehicle and pedestrian detector. A zero value programmed for any diagnostic effectively disables that diagnostic for the detector specified.

   a) No Activity – this detector diagnostic shall fail when the specified No Activity period (0-255 minutes) expires before a detector call is received

   b) Maximum Presence – this detector diagnostic shall fail when a constant call applied to the detector exceeds the Maximum Presence time (0-255 minutes)

   c) Erratic Count – this detector diagnostic tests for an erratic count input (or chattering detector). Erratic if the number of detector counts per minute exceeds the Erratic Count parameter, this diagnostic will fail.

   d) Fail Time – this detector diagnostic parameter controls the minimum recall placed on a phase called by a failed vehicle detector. A value of zero shall prevent a failed detector from calling the phase (even if the detector has failed due to a constant call). The Fail Time value (1-255 seconds) extends the called phase by the greater of the Fail Time value or the Min Green time.

7) Each detector may be individually programmed to call and/or extend the call phase.

8) Added Initial shall be enabled or disabled for each detector.

9) Lock Calls shall be enabled during the red or yellow or both red and yellow intervals of the phase called by the detector.

10) Volume and occupancy sampling may be individually enabled or disabled for each detector.

11) The Actuated Signal Controller (ASC) shall provide a real-time status display of each vehicle call input and each alarm condition (set when any of the NTCIP detector diagnostics fails for that detector).

12) The Actuated Signal Controller (ASC) shall display the delay and extend timers for each detector.

13) The detector sample period shall be programmed in seconds or minutes as required by NTCIP.

14) The Actuated Signal Controller (ASC) shall display the real-time volume and occupancy accumulators for each detector for the current sample period.

Additional Requirements for Detection

The following additional functions relating to vehicle and pedestrian detection are mandatory requirements under this specification:

1) Occupancy-on-Green/Yellow/Red MOE – this measure of effectiveness allows the occupancy for each detector to be sampled during the green interval, yellow interval, red interval or any combination of these intervals of the phase called by the detector.

2) Delay Phases – a minimum of two phases may be specified to limit the vehicle detector delay feature by applying the delay only when these phases are green.

3) Alternate Detector Modes

   a) The **NORMAL** mode setting of a vehicle detector shall apply standard NTCIP mode features

   b) The **STOP_A** mode shall allow a detector to extend the call phase until the Extend parameter times out or until a gap-out occurs. After the Extend timer expires, the detector input shall be ignored. However, once the detector gaps out, the detector cannot be reset.

   c) The **STOP_B** mode shall allow the Extend parameter to serve as a secondary gap timer for the detector. If the Extend timer expires before a detector call resets the timer, the detector will be disabled for the remainder of the green interval.

   d) The **Normal Red Rest** mode shall modify the Delay time assigned to the detector. Once the Delay time expires, the controller shall move to a red rest condition for one second before servicing the next phases called in the sequence.

   e) The **Bike** mode resets the bicycle extension time for each actuation when the call phase is green.

   f) The **Q-Alarm** mode sets a queue alarm if an actuation exceeds time in queue.

4) Detector Input Source – this feature shall allow a vehicle detector to be sourced by another vehicle detector input. A Detector Input Source of 0 shall imply that an active hardware input is associated with the detector. A Detector Input Source of 1-64 shall imply that the detector is indirectly sourced by the hardware input of another active detector 1-64.

5) Alternate Detector Parameters

   A minimum of three (3) separate Alternate Detector Parameter tables shall be provided to vary detector parameters by time-of-day. This time-of-day operation shall be accomplished by associating the table with a pattern as described in Section 6. The minimum number of Alternate Detector Parameters varied per table shall include:

   Call Phase (vehicle and pedestrian detector)

   Switch Phase

   Delay Time

   Extend Time

   Queue Time

   No Activity Diagnostic (vehicle and pedestrian detector)

   Maximum Presence Diagnostic (vehicle and pedestrian detector)

   Erratic Count Diagnostic (vehicle and pedestrian detector)

Fail Time Parameter (vehicle detector)

Occupancy-on-green measure

Delay phases

Detector type/Mode

Detector input source

6) Alternate Detector Options

A minimum of three (3) separate Alternate Detector Option tables shall be provided to vary detector options by time-of-day. This time-of-day operation shall be accomplished by associating the table with a pattern as described in Section 6. The minimum number of Alternate Detector Options varied per table shall include:

Call /Disable Call Detection

Enable/Disable Extend Detection

Enable/Disable Queue Detection

Enable/Disable Added Initial

Enable/Disable Red Locking

Enable/Disable Yellow Locking

Enable/Disable Volume Measurement

Enable/Disable Occupancy Measurement

7) A Volume/Occupancy collection function shall be provided for a programmable collection period.

8) A Speed Detector function shall provide for sixteen (16) dual detector configurations for measuring speed.

9) A copy function shall be provided to copy the existing detector programming from one detector to another.

10) Any detector inputs of the Actuated Signal Controller (ASC) may be used as a system detector by a closed loop master controller. The ASC shall record volume and occupancy counts based on a user-selectable time period for each detector and report this data as requested by the master controller.

Overlap Operation

1) Each Actuated Signal Controller (ASC) shall provide a minimum of 16 separate overlaps.

2) Each overlap may be assigned to any output channel by a software assignment associating the overlap number with the channel number.

3) Overlaps are typically serviced along with their programmed included phases. Programmed modifier phases shall alter the overlap operation depending on the overlap type.

4) Each Actuated Signal Controller (ASC) must provide separate yellow clearance, all-red clearance and green extension timing for each overlap and allow clearance times to time with the included phase(s) as an option.

5) A status display shall be provided to show the timing of the active phases and the green, yellow and all-red intervals for each of the 16 overlaps in the unit.

NTCIP Requirements for Overlap Operation

The following NTCIP objects related to overlap operation are mandatory requirements under this specification. The definition and operation of each overlap type defined in this Section, 3.5.1, are also specified under NTCIP.

1) Normal Overlap Type – This overlap type is serviced when included phases are on or next. The

overlap outputs are dark when the programmed modifier phase is timing a green, yellow or all-red interval.

2) Green/Yellow Type – this overlap type is serviced when the included phases are on or next, but will go to red as soon as the programmed modifier phase is green.

Additional Requirements for Overlap Operation

The following additional functions related to overlap operation are mandatory requirements under this specification:

1) Permitted Left-turn Type - this overlap type is serviced when the included phases are on or next; however, when both through phases are assigned as modifiers, the beginning of the overlap is suppressed until the adjacent through phase turns green.

2) Flashing Red Type – this overlap type is serviced when the included phases are on or next; however, the red output will flash when the overlap green and yellow are not active, the modifier phase is green and not timing walk or ped clearance.

3) Fast Flash – this overlap type flashes green at 60-180 per minute for Canadian left-turn indication.

4) Right-turn Type - this overlap type is serviced when the included phases are on or next; however, the overlap changes from green to red (without yellow clearance) when an included phase that is also a modifier turns green

5) Pedestrian Overlaps - this overlap type services pedestrian outputs when two sequential included phases time their walk and ped clearance intervals sequentially.

6) The Actuated Signal Controller (ASC) shall provide conflicting programming for each of the 16 overlaps that inhibits the overlap from being serviced or terminates an active overlap when a conflicting vehicle or pedestrian phase or another overlap is serviced.

Unit Parameters

Unit parameters are program features that apply to all operational modes of the Actuated Signal Controller (ASC) and which may not be modified by the Time Base Scheduler or programmed by a pattern.

NTCIP Requirements for Unit Parameters

The following NTCIP objects related to unit parameters are mandatory requirements under this specification. The definition and range of each parameter (minimum and maximum value) defined in this Section, 3.6.1, are also specified under NTCIP.

1) Start-up Flash Parameter - The Start-up Flash Parameter (0-255 sec) shall determine the duration that the controller remains in a flashing condition following a power interruption or after initializing the unit. During start-up flash, the Fault Monitor and the Controller Voltage Monitor outputs shall be inactive.

2) Unit Red Revert Time - The Unit Red Revert Time (0-25.5 sec) shall determine the minimum time for red revert on all phases. Each phase may override this parameter with an individual red revert time if it is larger than the unit red revert time. The red revert time is the minimum amount of red indication time following a yellow interval and prior to the next display of green on the same phase.

3) Backup Time Parameter – The Backup Time shall be the maximum amount of time, in minutes, that the controller waits before declaring its system supervisor to be offline. A system supervisor is either an on-street master controller or a central computer system. The value programmed in the backup time is used to reset the backup delay timer every time a communications message is received. When the backup timer expires, the controller shall consider the system device to be offline and reverts to its internal time based scheduler as its operating mode.

4) Automatic Pedestrian Clear Parameter - This option shall determine the behavior of the pedestrian clearance interval for the controller when manual control is enabled. When enabled, the pedestrian clearance interval shall not be terminated by the Interval Advance input.

Additional Requirements for Unit Parameters

The following additional functions related to unit parameters are mandatory requirements under this specification.

A unit parameter shall be provided to turn off all outputs from the device prior to parameters being changed that would leave the operation in an unknown state under service. The parameter shall deactivate the outputs whenever the phase mode is changed, the unit is initialized or when a new firmware program is flashed to EEPROM.

1) Hardware Station ID - this parameter shall cause the controller to use the Address inputs of the Terminal and Facilities to establish the unit's Station ID for system communications.
2) Local Flash Start – when enabled, this feature shall cause the controller to automatically perform an "External Start" when the Local Flash input signal transitions from active to inactive.
3) Red Revert – allows minimum time to be set for Red Revert
4) Backup Time – this entry sets a period of time for no communication before declaring system supervisor offline.
5) Auto Pedestrian Clearance – allows pedestrian clearance to be terminated by Initial Advance during Manual Control.
6) Unit Phase Mode – the Actuated Signal Controller (ASC) shall provide an operator selectable phase mode to default the phase sequence and concurrencies to standard 8 phase, quad sequential, 8 phase sequential or a user defined phase mode. The ring, sequence and phase concurrency shall be automatically programmed at start-up for standard 8 phase, quad sequential and 8 phase sequential operation.
7) Local Flash Start – sets external start when returning from local flash.
8) Start Red Time – this parameter shall apply when power is applied to the unit or when an applicable SDLC fault is cleared. The Start Red Time value shall be used when the programmed startup phases are set for RED CLR (red clearance at startup).
9) Enable Less Than 3 Sec Yellow Clearance – this entry shall allow yellow clearance to time less than the 3-second minimum prescribed by the MUTCD. If set to OFF, entries of 0 to 2.9 seconds are not accepted for any active phase in the Actuated Signal Controller (ASC).
10) Allow Skip Yellow - this feature must be enabled in order to use the Omit Yellow phase option.
11) Disable Initial Ped – allows start-up without pedestrian movements.
12) Free Ring Sequence – allows choice of ring sequence when coordinator is Free.
13) Stop Time Over Preempt – allows stop timing to have priority over preempt.
14) Invert Rail Input – allow for inverting preempts #1 and #2, #1 only, or neither.
15) Tone Disable – this parameter shall disable audible tones for keyboard operations when set to ON. When set to the default value, OFF, the tone sequences that provide audible feedback will be sounded as appropriate.
16) TS2 Detector Faults – allows detector BIU's faults to log events
17) SDLC Retry Time – allows time to be set to clear SDLC fault retry counter for terminal facility BIU's or MMU.
18) Cycle Fault Action – allows programmed response in event of cycle fault.
19) Max Seek Track – allows entry for expected Max time for rail preempt to track clearance
20) Max Seek Dwell – allows entry for expected Max time from track clearance to preempt dwell.
21) A unit parameter shall be provided to set the TS2 I/O mode required to vary the input/output definitions of any ABC connectors called for under the TS2 (Type2) or 2070N specifications.

Flash Operation

1) Whenever the Automatic Flash input is activated, the controller insures that the minimum green and ped clearance time of the current phase is satisfied and moves to the programmed Automatic Flash Entry Phases as quickly as possible without skipping any phases in the sequence waiting to be serviced.

2) Whenever the Automatic Flash input is deactivated, the controller times a separate set of yellow and all-red clearance intervals programmed for flash operation.

3) The unit shall then return to the Automatic Flash Exit phases and resume normal stop-and-go operation.

NTCIP Requirements for Flash Operation

The following NTCIP objects related to flash operation are mandatory requirements under this specification. The definition and range of each parameter (minimum and maximum value) defined in this Section, 3.7.1, are also specified under NTCIP.

1) Channel Flash Parameters – the Channel Flash Parameters shall allow each output channel (or load switch) to be flashed red, yellow or dark during Automatic Flash.

2) Alternating Flash Outputs – a flash parameter shall be provided to control whether the flash output occurs on the positive or negative half of the 1-second flash duty cycle

Additional Requirements for Flash Operation

The following additional functions related to flash operation are mandatory requirements under this specification:

1) Flash Mode – a flash mode setting shall determine whether the flash operation is programmed through the channel settings, the phase/overlap programming or the volt-monitor (cabinet flash).

2) Input Source – a parameter shall be provided to select the input source for Automatic Flash from the D-connector, TEST A or TEST B.

3) Phase/overlap programming shall be provided to program the yellow flash output for each phase and overlap. All other phases and overlaps not programmed to flash yellow shall flash red.

Startup Sequence

1) Upon restoration of power, a vehicle call (as a minimum) shall be placed on all phases in use by the current configuration.

2) The start-up sequence shall be programmable to start at the beginning of the green or yellow interval of any selected phase or non-conflicting phase pair.

3) Unless otherwise stipulated in the contract documents, the start-up sequence shall begin with the major street (movements 2 and 6) green interval and serve in preferential sequence, all phases with at least a minimum recall or the summation of pedestrian walk and clearance interval. The start-up sequence shall end with the beginning of the major street left turn green interval (movements 1 and 5), at which time the controller unit shall operate as an actuated controller or respond to system commands if present.

Channel Settings and I/O Mapping

Output channels (or load switch) programming shall allow any phase, pedestrian or overlap output to be assigned to a maximum of 24 output channels as determined by the terminal facility (cabinet) configuration.

NTCIP Requirements for Channel and I/O Mapping

The following NTCIP objects related to channel settings are mandatory requirements under this specification. The definition and range of each parameter (minimum and maximum value) defined in this Section, 4.1, are also specified under NTCIP.

1) Channel Source Parameters – The Channel Source Parameter and Channel Control Type shall combine to define each load switch output. This feature shall allow any phase, ped or overlap output to be mapped to any hardware output channel. Valid entries shall be 1-16 corresponding with phase, ped or overlap outputs 1-6. An entry of "0" shall make the channel inactive (all channel outputs shall be dark).

2) Channel Control Type – The Channel Source Parameter and Channel Control Type shall combine to define each load switch output. The Channel Control Type parameter shall indicate the type of Control Source. The Control Source Type may be a Vehicle phase, Pedestrian phase, or an Overlap (VEH, PED, OLP). The Channel Control Type shall correspond with the Channel Source Number defined for each channel.

3) Channel Dim Parameters – The Channel Dim Parameters shall allow the green, yellow and/or red outputs of each channel to be dimmed independently. A separate parameter shall control on which half of the AC duty cycle (+ or -) the output is dimmed.

Additional Requirements for Channel and I/O Mapping

The following additional functions related to channel settings are mandatory requirements under this specification:

1) A parameter shall be provided to set the default configuration of any D-connector called for in the equipment specification

2) Alternate Terminal Facilities BIU Mapping – allows the selection of alternate BIU mapping.

3) I/O Modes – allows the selection of up to seven (7) alternate I/O modes.

4) 2070 I/O Modes shall be software programmable. These modes shall provide user selections to program the individual inputs and outputs of the C1 connector and any ABC and D-connector harnesses specified for the unit.

5) Preempt/External Coordinator Outputs – allows the selection for external coordination or preemption outputs through the D connector.

Functional Requirements for the System Time Base

1) The System Time Base shall use the sixty (60) Hz power line frequency as time base when AC power is present over the 89-135 VAC range defined by TS-2 §2.1.2. A super capacitor shall maintain the time-of-day clock and digital data during a power outage lasting up to 2 consecutive days. The use of batteries is unacceptable as means of compliance with this section.

2) The System Time Base shall be maintained to within ± 0.005 % at 20° C and to within a ± 0.02 % over the full specified operating temperature range, as compared to Coordinated Universal Time (WWV) standard for a period of thirty days, during periods when AC power is not applied.

3) The System Time Base shall be easily set to the year, month, day of month, day of week, hour, minute, and second.

4) The Actuated Signal Controller (ASC) shall adjust the system time base for US Daylight Savings Time without operator intervention. A parameter shall be provided to enable or disable Daylight Savings as required by NTCIP.

5) The Actuated Signal Controller (ASC) shall perform an automatic calendar adjustment for leap year.

6) The Actuated Signal Controller (ASC) shall provide a Day Plan database copy feature.

7) The Actuated Signal Controller (ASC) shall allow for a manual change to the local Day Plan operation for Pattern, Auxiliary Functions, and Special Functions.

8) The Actuated Signal Controller (ASC) shall perform a time sync reference from a local GPS time reference and display a GPS/WWV time sync status.

Functional Requirements for Scheduled Operations

1) The NTCIP Time Base Scheduler shall automatically select a time-of-day schedule for the current date and time (system time base) of the Actuated Signal Controller (ASC). The definition of the Time Base Scheduler provided in this Section 6 is also specified under NTCIP.

2) Each Actuated Signal Controller (ASC) shall provide a minimum of 100 time-of-day schedules per unit with each schedule providing a minimum of 16 time-of-day events. The ASC shall provide the ability to expand the number of time-of-day entries in each schedule to 32 entries per day plan schedule by combining schedule tables.

3) Each time-of-day schedule shall provide 16 independent action events called by time-of-day event. A minimum of 100 time-of-day actions shall be provided with each Actuated Signal Controller (ASC).

4) Each time-of-day action shall call a pattern and select any (or all) of the three (3) auxiliary and eight (8) special function outputs provided by the Actuated Signal Controller (ASC). This feature shall allow time-of-day actions to vary the state of the auxiliary and special function outputs independent of the pattern.

5) Free Patterns and Coordination Patterns activated by the Time Base Scheduler shall be used to vary the following minimum set of functions of the Actuated Signal Controller (ASC) by time-of-day:

   a) Alternate Phase Times listed in Section 3.1.2 – 6)

   b) Alternate Phase Options listed in Section 3.2.2 – 9)

   c) Alternate Detector Parameters and Options listed in Section 3.4.2

   d) Overlap Deactivation – overlaps one thru eight may be individually inhibited by pattern

   e) Call to Non-Actuated (CNA) Operation

   f) Max 2 Enable

Functional Requirements for Coordination

NTCIP based coordination shall be based on a pattern having a fixed cycle length and a designated coord phase used to reference the pattern offset to a system time reference.

NTCIP Requirements for Coordination

The following NTCIP objects related to coordination are mandatory requirements under this specification. The definition and range of each parameter (minimum and maximum value) defined in this Section, 7.1, are also specified under NTCIP.

1) NTCIP based coordination shall provide a minimum of 48 patterns each defined in the pattern table by an individual cycle length and offset (in seconds), a split table index and a phase sequence index. The phase sequence index shall reference the sequence table specified in Section 3.3 of this specification.

2) NTCIP based coordination shall provide a minimum of 32 individual split tables referenced by index 1-32 in the pattern table. Each split table shall designate split times (in seconds) for each of the 16 phases and allow any phase to be programmed as a coordinated phase. A phase omit or recall (min, max, ped or ped+max) may be applied to any phase in the split table overriding the normal recall mode of the phase when the pattern is in effect.

3) NTCIP calls for three force-off methods – FIXED, FLOAT and OTHER. The FIXED force-off method shall apply any unused split time acquired from a non-coordinated phase to the next phase in the sequence. The FLOAT force-off method shall insure that unused split time from the non-coordinated phases is provided to the beginning of the coord phase programmed for the pattern.

4) NTCIP based coordination shall provide a per unit selection to select LONG way or LONG / SHORT way as the offset correction method. Each pattern in the Actuated Signal Controller (ASC) shall provide a shortway % parameter, a longway % parameter and a dwell parameter to select the transition method and correction applied during transition.

   During shortway transition, each phase shall be shortened by the programmed shortway % parameter.

   During longway transition, each phase shall be lengthened by the programmed longway % parameter.

   During dwell transition, the coord phase shall dwell for the programmed dwell time when force-off and repeat this dwell extension each cycle until the programmed offset is in synch.

5) NTCIP based coordination shall provide a Maximum setting that controls whether Max 1 timing or Max 2 timing is in effect, or whether all max timers are inhibited during coordination.

6) NTCIP based coordination shall provide a Return Hold parameter for each pattern that places a hold on the coord phase until it is forced-off.

7) NTCIP based coordination shall provide an Early Yield parameter for each phase that controls when a coord phase may yield to the non—coordinated phases if the Return Hold is not set for that pattern. This feature shall allow a coord phase to gap-out prior to the force-off point to service non-coordinated phases.

8) Coordination Diagnostics shall be provided to insure that the sum of the split times in each active ring equals the programmed cycle length. In addition, the coordination diagnostic shall insure that the split times provided are adequate to service the minimum vehicle and pedestrian times programmed for each phase. The coordination diagnostic shall also insure that the sums of the split times on the same side of the barrier in each ring are equal. These coordination diagnostics shall consider all programming features applicable to the minimum phase time requirements including shortway% and any features allowing the minimum pedestrian time to be violated.

9) A free pattern shall be defined as Pattern 0, Pattern 254 or any Pattern 1-48 having a zero second cycle length. Free patterns may be called by the Time Base Scheduler to modify the alternate phase times and options and detector features attached to the pattern.

10) Each Actuated Signal Controller (ASC) shall provide a manual pattern override mode via keyboard entry to override the active pattern and any future pattern called by the Time Base Scheduler or closed loop system.

Additional Requirements for Coordination

The following additional functions related to coordination are mandatory requirements under this specification:

1) The NTCIP force-off parameter defined as OTHER shall provide additional force-off methods that are manufacturer specific. Any OTHER methods provided in addition to FIXED and FLOAT shall allow patterns to be specified in terms of force-offs, yield points and permissive windows within the cycle.

2) A parameter shall be provided on a per pattern basis to reference the offset to either the beginning or end of the specified coord phase for that pattern.

3) It shall be possible to disable a maximum of four phases from shortway transition on a pattern-by-pattern basis. This feature shall control the exclusion of the shortway% correction on a phase-by-phase basis.

4) A parameter shall be provided to disable coordination diagnostics related to minimum pedestrian time requirements. In no case shall this feature defeat the minimum pedestrian times programmed for any phase. Programmed walk, ped clearance, yellow clearance and all-red clearance times shall always be serviced based on the programmed phase times applied to the Actuated Signal Controller (ASC).

   This coordination feature shall allow an occasional pedestrian actuation to overrun the split time programmed for a phase and provide a quick transition method to resynchronize the programmed offset and re-enter coordination within one cycle .

5) The Actuated Signal Controller (ASC) shall provide the ability to select phases that rest-in-walk during coordination such that the ped clearance times for those phases end at either the beginning or end of yellow clearance. This operation shall be provided with or without an external Walk-Rest-Modifier input applied to the unit to allow the coordinated phase(s) to rest-in-walk.

6) The Actuated Signal Controller (ASC) shall have an Early Yield setting to allow NTCIP modes to yield prior to the coordinated phase force-off point.

7) The coordination Offset reference point shall reference the End-of-Green or Beginning-of-Green.

8) During coordination, the WALK indication is not reserviced if a pedestrian recall is applied to the phase unless a conflicting phase is serviced. Therefore, the Actuated Signal Controller (ASC) shall provide a Walk Recycle parameter that controls the recycling of the WALK interval of the coordinated phase. This feature shall allow the WALK to be recycled immediately or inhibit the recycle during the time in the cycle allocated to phases 3478 or 1526.

9) The Actuated Signal Controller (ASC) shall provide a dynamic split adjustment that allows specified split times to grow or shrink based on whether these phases gap-out or max-out during the signal cycle. Any excess slack time from the phases that gap-out shall be applied to the end of the specified coord phases.

10) The Actuated Signal Controller (ASC) shall provide 48 additional Alternate Pattern Tables that can call any unique coordinated phase, phase times (split) table, detector group, call or inhibit phases, disable Overlaps,

Max 2 enable, and enable Diamond Mode by Time-of-Day.

11) External coordination shall be provided through the D-connector inputs (if called for in the hardware specification). These external inputs shall be associated with offset and plan numbers that are correlated with an NTCIP pattern through a lookup table programmed in the unit.

Functional Requirements for Preemption and Priority

1) The internal preemptor supplied shall be user programmable for priority preemption in the minimum sequences outlined in the following order: railroad (2 train sequence), emergency vehicle (4 high priority sequences), and bus/transit (4 low priority sequences). Each preemption sequence shall have separate timing intervals. A decoded input to the controller shall be provided to discriminate the priority level. A steady state low level input is defined as a high priority signal, and a pulsing low level input is defined as a low priority signal.

2) Phases shall be selectable such that a limited signal sequence may be operational during preempt (PE). It shall be possible to add phases to this special limited sequence which are not in the intersection sequence, without needing to add external logic.

Preemption Interval Definitions and Timing

8.1.1 NTCIP Requirements for Preempt Intervals

The following minimum preempt intervals shall be provided using the timing ranges specified by NTCIP for each interval. While in preemption, a controller status display will clearly identify each interval as it is timed. Yellow and red clearances from the phase timings may be utilized in place of the clearance intervals shown as a program option.

The preemption intervals below are listed in sequential order following the receipt of a preemption call.

1) Delay - This time shall start immediately when the preempt command is received. It shall not affect the normal operation of the controller unit until the delay time out occurs. This interval may be used for emergency vehicle (fire lane) preemption delay. If 0 (zero) time is set, the interval shall be omitted.

2) Minimum Duration - The preempt sequence shall not terminate until the preempt input signal is removed and the Minimum Duration time has expired.

3) Maximum Presence – The maximum amount of time that an active preempt input is considered valid.

4) Minimum Green - Any vehicle signal that is Green at the time this interval becomes active shall not terminate unless it has been displayed for at least the time programmed in this interval. If 0 (zero) time is set, the interval shall be omitted.

5) Minimum Walk - Preempt Minimum Walk Time in seconds. A preempt initiated transition shall not cause the termination of a Walk prior to its display for this period.

6) Ped Clearance - At the time of preempt call, WALK indications shall immediately change to Pedestrian Clearance interval. The Pedestrian Clearance interval shall not terminate unless it has been displayed for at least the time programmed in this interval. If 0 (zero) time is set, the interval shall be omitted.

7) Track Green - Signals programmed as track (or fire lane) signals shall remain Green or be changed to Green. All other signals shall be red. This interval shall be optionally programmable to zero during emergency vehicle PE.

8) Minimum Dwell Time - This parameter controls the minimum timing for the dwell movement. The phase(s) allowed during the Dwell interval shall be selectable to include all phases that do not cross the track. The Dwell interval shall not terminate prior to the completion of Preempt Duration Time, Preempt Dwell Time, and the call is no longer present. Each signal shall be keyboard programmable for red, red flash, yellow flash or Green. As an alternative, a limited cycle shall be programmable for use with railroad preempts.

8.1.2 Additional Requirements for Preempt Intervals

The following additional minimum preempt intervals shall be provided using the timing ranges specified for each interval. While in preemption, a controller status display will clearly identify each interval as it is timed. Yellow and red clearances from the phase timings may be utilized in place of the clearance intervals shown as a program option.

The preemption intervals below are listed in sequential order following the receipt of a preemption call.

1) Exit Ped Clear - Preemption Exit Pedestrian Clear Time in seconds. This parameter controls the pedestrian clear timing for a Walk signal transition to the Exit Phase(s).

2) Exit Yellow - This interval shall provide a solid yellow clearance for indications that were green or flashing yellow. Red and flashing red displays shall display solid red.

3) Exit Red Clearance - This interval shall be an all red clearance in preparation for return to the normal cycle. Return phases shall be programmable from the keyboard.

4) Max Call - This interval is the amount of time that a preempt call may remain active and be considered valid. When the preempt call has been active for this amount of time, the controller shall return to normal operation. The preempt call shall be considered invalid until the call is no longer active.

Requirements for Preemption

NTCIP Requirements for Preemption

The following NTCIP objects related to preemption are mandatory requirements under this specification. The definition and range of each parameter (minimum and maximum value) defined in this Section, 8.2.1, are also specified under NTCIP.

1) Preempt sequences shall be selectable using external inputs. Preempt priority shall be assigned with #1 being the highest. If a higher priority preempt input is received during a preempt sequence, the controller unit shall immediately transition to the new sequence, subject to the constraints of PE Minimum Green and PE Minimum Walk. Provisions shall be made to clear two conflicting track phases from a single preempt input. This may be provided by two track clearance phases for a single preempt, or by combining two preempts.

2) Preempts #1 and #2 shall be reserved for priority railroad preempts. If more than two preempts are provided, it shall be possible to delete the priority override for all but the railroad preempt. If a lower priority preempt is activated during another preempt cycle, the one in progress shall continue through its entire cycle. If the second preempt input is still active when the first one is completed, the controller unit shall then initiate the low priority preempt. When all preempt inputs are removed, the controller unit shall proceed through the normal sequence to Return Red Clearance (Interval 10).

3) Once the controller unit has entered the first timed interval following Preempt Delay (Interval 1), the sequence shall continue to the end even if the preempt call is dropped. If the call returns and extends beyond the Minimum Preempt Duration (Interval 2), the controller should reinitiate track green and complete the preempt sequence.

4) The controller unit shall be programmable to be in flash, or in limited sequence. If flash is specified, the phases shall flash yellow or red, as user programmed. Flash shall be implemented by simultaneously flashing the appropriate channel driver outputs. If limited sequence is selected, all phases shall be programmable, even if not normally used in the intersection sequence.

5) Should a preempt command be present, after power restoration following an electrical outage, the controller shall power up in cabinet flash operation and remain in such state until the PE command is removed.

6) Overlap phases shall begin and terminate with the parent phases, as described in TS-2. If the PE call occurs during yellow or red displays between parent phases, the overlap phase shall display a minimum of three (3) seconds of yellow and a minimum of one (1) second of red clearance.

7) Don't Walk shall be displayed throughout the preempt sequence unless a limited cycle is run.

During a limited cycle (Interval 7), the pedestrian heads may be programmed to be dark.

8) Preempt routines shall have priority over all controller functions.

9) The controller shall be programmable to allow multiple track clearance phases either within a single preemption sequence, or by mapping multiple preempts together in all modes of operation.

10) The controller will have an entry that allows it to coordinate during limited sequence operation. When operating in this mode, the controller will perform a soft transition to the preemption return phases.

Additional Requirements for Preemption

The following additional functions related to preemption are mandatory requirements under this specification:

1) Priority Type – this feature shall allow two preempts to be activated from the same preempt input using the standard adopted by 3M Corporation and Tomar Inc. for high priority / low priority emergency vehicle preemption. A constant low input shall indicate a high priority on this input pin, while an oscillating input source shall indicate a low priority preempt.

2) Output - this feature allows the preemption output to be programmable based on three separate marks:

   - TS-2 Mode – sets the output to be active from the end of the call delay period until the preempt is complete.
   - Delay Mode – sets the output to be active from the beginning of the delay period until the preempt is complete.
   - Dwell Mode – sets the output to be active when the preempt dwell state is reached.

3) Max 2 – this feature sets the exit phases to reference the Max 2 timing.

4) Skip Track if Override – this feature allows track clearance to be skipped if this preempt is overriding a lower priority preempt input.

5) Pattern – this feature allows a specific coordination pattern to be called by a preempt input instead of a specific preempt phase(s). This pattern will operate for the duration of the preempt input including the dwell interval.

6) Coord + Preempt – this feature shall allow the controller to return to coordination in synch without having to go through a transition or offset correction period. The controller shall maintain a background cycle during coordination allowing the Actuated Signal Controller (ASC) to return to the phases currently being serviced in the background cycle, without violating any Minimum times, rather than return to the Exit phases specified in the preempt sequence.

7) Voltage Monitor Flash – this feature shall allow the controller to flash during preemption through the cabinet by dropping the power applied to the conflict monitor, thus transferring the flashing operation to the cabinet flashers.

8) Return Max / Min – this feature sets the exit phases to reference the Min or Max timing.

9) Overlaps Plus - It shall be possible to select individual overlaps to service simultaneously with track phases and dwell phases or to be inhibited during preemption when the included phases defining the overlap are being serviced. This extended preempt feature shall be provided for each preempt.

10) The Actuated Signal Controller (ASC) shall provide for a preempt to initiate a higher priority preempt after timing clearance.

11) The Actuated Signal Controller (ASC) shall provide a preempt output signal using the auxiliary outputs to drive a confirmation display alerting the driver of the emergency vehicle that the preempt input has been received.

Requirements for Transit Priority

NTCIP Requirements for Transit Priority

The following NTCIP objects related to transit priority are mandatory requirements under this specification. The definition and range of each parameter defined in this Section, 8.3.1, are also specified under NTCIP 1211.

1) Transit Priority service shall be provided within the coordination programming and shall be performed while in coordination, without any transition.

2) Transit Priority programming shall be provided for each of the 16 phases. Each phase shall have the capability to program Reduction or Extension time on a phase-by-phase basis.

3) Eight (8) Strategy Tables shall be provided which allow for assignment of transit priority phase(s) and for the selection of any combination of Phase(s) or Ped(s) to be omitted for each strategy table. The Strategy Table shall be bound to the standard Split Tables, which can be called by Time-of-Day.

4) Each Split Table shall allow for the selection of a Strategy Table for each of the four low priority input channels. The Strategy Table shall reference the Transit Signal Priority (TSP) phases to be served for that channel, and which phases or peds to omit. The Split Table shall provide for programming of Time of Service Desired and Time of Estimated Departure for each of the four low priority input channels.

5) Time of Service Desired (TSD) – this is the arrival time of the transit vehicle at the stop-bar after it is first detected via the low priority signal. The TSD includes any dwell time to discharge and load passengers at a nearside stop and any expected congestion delay in the estimate of the arrival time.

6) Time of Estimated Departure (TED) – this is the time required for the transit vehicle to clear the intersection after it is first detected.

Additional Requirements for Transit Priority

The following additional functions related to transit priority are mandatory requirements under this specification:

1) Low Priority Type – this parameter shall allow the user to select the preemption type for preempt channels 7-10 (low priority channels). Each channel shall be able to programmed for any of the following types:

    - Emergency – this allows any of the channels to be programmed for high priority emergency vehicle preemption
    - Transit Priority - this sets the preemption channel to serve the low priority input to be served as programmed without skipping phases
    - Transit Preemption – this sets the preemption channel to serve the low priority input to be served immediately after the active phase has terminated normally.

2) Transition % - this method enables the user to enter a shortway% and longway% to be applied to all phases for a low priority input. The Shortway% sets the percentage of the split that will be shortened to service the requested phase. The Longway% sets the percentage of the split that will be lengthened to service the requested phase. Shortway% and Longway% will never override the controller's programmed Min or Max times.

3) Transit Preemption – this parameter allows the active phase to complete and terminate normally when a low priority input call comes in. After the active phase terminates by Gap Out, Max, or Force Off, all other phases will be skipped and the low priority call phase will be serviced next.

Functional Requirements for System Communications

The functional requirements for System Communications shall conform to the mandatory hardware

requirements of the specification selected in Section 2. In addition to these mandatory requirements, the following requirements are also mandatory if applicable to the hardware specification in Section 2:

1) The Actuated Signal Controller (ASC) shall support the NTCIP protocol as well as manufacturer specific protocols

2) The RS-232 asynchronous data communication port shall provide a maximum programmable baud rate of 57.6 Kbaud (full or half-duplex).

3) Laptop computers and Palm O/S devices shall be used to upload/download the controller database, flash the controller firmware program (stored on EEPROM) and set the System Time Base of the Actuated Signal Controller (ASC).

4) Internal and external FSK modems shall be supported providing a minimum data transfer rate of 9600 baud over twisted pair.

5) The controller shall support an internal Ethernet port if applicable under the hardware specifications. The controller with on-board Ethernet support shall provide two programmable TCP/IP addresses, subnet mask address and gateway address. Menus shall be provided to set these addresses from the controller keyboard as part of the controller database. The TS-2 controller shall also provide for the added security of a fixed host IP address and subnet mask.

6) Auxiliary RS-232 communication ports shall be provided by the Actuated Signal Controller (ASC) to interface the conflict monitor, temperature alert devices, optical phase discriminator cards, and GPS time-based antennas. The controller shall be capable of converting communication between these auxiliary RS-232 devices within the cabinet and Ethernet with no additional media converter devices. The auxiliary communication port shall allow data logs from these external devices to be uploaded to the area wide ATMS through the Actuated Signal Controller (ASC).

Functional Requirements – Closed Loop/Traffic Responsive Operation

1) Closed loop operation shall consist of one primary master per sub-system capable of addressing up to 32 secondary controllers and/or sub-masters. Each sub-master controller shall be capable of addressing an additional 32 secondary controllers and/or sub-masters.

2) A primary master or sub-master controller shall operate combined within an Actuated Signal Controller (ASC) unit controlling an intersection. The primary master or sub-master shall maintain two distinct databases each identified in the ATMS system by a unique Station ID address.

3) The primary master or sub-master may be included within the control hierarchy of an area ATMS or operate independently supervising the secondary controllers and sub-masters defined in the sub-system. The primary master or sub-master shall exert control over the closed loop system under one of the following modes of operation (these operation modes are listed in priority order):

    a. System Override Mode – the operator may manually force every controller in the closed loop system to a specified pattern (including flash or free operation) from the master keyboard

    b. System Failure Mode – the closed loop system shall detect failure conditions (including communication and system detector failures) and provide a fall-back response from the primary master based on programming features and thresholds customized by the user.

    c. System Time Base Schedule Mode – the System Time Base Schedule in the primary master database shall be independent of each secondary Time Base Schedule in the subsystem. The System Time Base Schedule shall drive the operation of all secondary controllers and sub-masters defined in the closed loop system. The System Time Base Schedule shall be capable of placing the sub-system in flash or free operation, a specified pattern, traffic responsive operation or isolated operation by time-of-day.

    d. Local Control Mode – in this mode, the master serves only as a communications hub between the secondary controllers and the area-wide ATMS. The master is still responsible for updating the System Time Base and gathering event and alarm status for the sub-system; however, all control is performed at the local level from each secondary Time Base Scheduler.

4) The primary master or sub-master shall collect volume and occupancy data from a minimum of 48 system detectors sampled by the Actuated Signal Controllers (ASC) within the master's sub-system. The volume and occupancy data may be uploaded to the area wide ATMS or processed by the master to calculate traffic responsive parameters used to select a pattern for the system under traffic responsive mode.

5) The traffic responsive calculations related to the sampled volume and occupancy data shall be as follows.

   a) Each system detector shall be assigned to an inbound, outbound or cross street detector group.

   b) The volume and occupancy of each detector shall be individually smoothed based on a programmable weighted average of the previous sample.

   c) The smoothed volume and occupancy data shall be weighted against full-scale volume and occupancy values provided by the user to produce Vol% and Occ% for each detector.

   d) The Vol% and Occ% values shall be combined for each detector group (inbound, outbound and cross) using operator supplied scalers that allow Vol% and Occ% to be weighted differently for each detector. This calculation shall produce a combined V+O value for the inbound, outbound and cross street detector group.

   e) The V+O values for each detector group shall be used to calculate Cycle, Offset and Split parameters that shall be used to select a traffic responsive pattern for the closed loop system using lookup tables and matrices defined by the user. These lookup tables may be customized by the user to favor an inbound/outbound pattern selection, an arterial/cross street preference, or a pattern selection that only varies cycle length.

6) It shall be possible to configure the traffic responsive system such that the default operation of the closed loop system is based on the operation called for in the local Time Base Schedules unless the traffic responsive calculations determine that a traffic responsive action is necessary to service the volume and occupancy conditions within the system.

Functional Requirements for System Events and Alarms

The ASC controller shall provide for the logging of intersection alarms and events. Events are specific conditions stored in the events buffer of the Actuated Signal Controller (ASC) and uploaded to the supervisory master or ATMS (if present in the system). The controller shall be capable of storing at least 50 events. Alarms are special events that are reported as soon as possible to the supervisory master or ATMS depending on the communication method deployed and the polling rate of the system. The controller shall provide for a minimum of 128 alarms. The Actuated Signal Controller (ASC) shall tag each event and alarm with the date and time based on the System Time Base of the unit.

Mandatory Requirements for Events and Alarms

The following are deemed mandatory events and alarms recorded by the Actuated Signal Controller (ASC):

1) Power Up / Power Down
2) Stop Timing
3) Cabinet Door Open
4) Coordination Failure
5) External Alarm #1
6) External Alarm #2
7) External Alarm #3
8) External Alarm #4
9) External Alarm #5
10) External Alarm #6
11) Manual Control Enable

12) Coordination Free Switch Input
13) Local Flash Input
14) Cycle Fault
15) Cycle Failure
16) Coordination Fault
17) Controller Fault - Intersection in Flash
18) Local Detector Failure
19) Request Database Download From Field
20) Preempt 1 Input
21) Preempt 2 Input
22) Preempt 3 Input
23) Preempt 4 Input
24) Preempt 5 Input
25) Preempt 6 Input
26) Preempt 7 Input
27) Preempt 8 Input
28) Preempt 9 Input
29) Preempt 10 Input

Additional Requirements for Events and Alarms

The following are deemed mandatory events and alarms recorded by the Actuated Signal Controller (ASC) if the specific event and alarm applies to the hardware defined under these specifications.

1) Closed Loop Disabled
2) MMU Flash Input
3) MMU Fault
4) Detector SDLC Failure
5) MMU SDLC Failure
6) Critical SDLC Failure
7) SDLC Response Frame Fault
8) EEPROM CRC Fault
9) Temperature Alert #1 - temp/status
10) Temperature Alert #2 - temp/status

Functional Requirements for Local Status Displays

Local status displays are important features of any Actuated Signal Controller (ASC) because they provide display information needed to interrogate the device and interpret the current operation.

An areawide ATMS will typically provide remote status displays of each Actuated Signal Controller (ASC) provided in the system. However, the local status displays listed in this section shall be accessed from a keypad and display device provided on the face of the Actuated Signal Controller (ASC) unit.

Requirements for Local Status Displays

The following are deemed mandatory status displays required for the Actuated Signal Controller (ASC):

Phase Timing Display

1) Intervals and phase timing for the two primary rings
2) Active and next status for all 16 phases in the unit
3) Local counter display
4) Vehicle, pedestrian call and pedestrian recall, and extension status for 16 phases
5) Minimum and maximum recall status
6) Phases that are not enabled shall be displayed as omitted phases
7) The current status of the unit (flash, free or coord status)
8) The current sequence table and phase mode in operation

Coordination Display

1) The current active pattern and next pattern to be serviced
2) The current status of the active pattern indicating coord or free status
3) The source of the current active pattern
4) The current pattern sourced by the closed loop system, local time base schedule, manual override and remote ATMS control
5) The current cycle length and offset referenced by the active pattern from the pattern table
6) The active local cycle counter and system cycle counter
7) The current offset error and correction method being used to transition the unit if it is not in SYNC
8) The current system time base in hours, minutes and seconds
9) Transit Priority counter

Coordination Diagnostic Displays

1) Coordination diagnostic displays shall indicate if the next pattern to be serviced has failed any of the diagnostic tests
2) Status displays shall indicate the cause for any diagnostic failure and the specific phase causing this failure if possible
3) Coordination failures resulting from a vehicle or pedestrian call not being serviced for more than three (3) cycles shall be clearly indicated along with an indication of the phases that were skipped.

Alarm and Event Status

The real-time status of each alarm and event provided by the unit shall be clearly indicated.

Com Port Status

The real-time status of each communications port shall provide as a minimum an indication of the separate transmit and receive activity on each active port.

Detector Status

The controller shall display the following detector status:

1) The real-time status of each detector input and alarm condition for each of the 64 detectors in the unit.
2) The real-time volume and occupancy measure for each of the 64 detectors in the unit.

Overlap Status

The controller shall display the following overlap status:

1) The real-time status of the timing interval of each of the 16 overlaps in the unit
2) The current phase and interval of each of the four rings in the unit shall be simultaneously displayed with the overlap intervals to correlate overlap operation with the state of the included (or parent) phases defining each overlap.

Volume, Occupancy and Speed Status

The controller shall provide a status report function to gather Volume, Occupancy, and Speed data for a sample period of time.

MMU Status

The controller shall provide real-time and history event status from the MMU.

1) The controller shall store MMU fault logs.
2) The controller shall store MMU trace reports.
3) The controller shall provide current MMU on line status.

Phase Inhibit Status

The controller shall provide a status screen that displays which phases are inhibited by the following:

1) Coordination – shows which phases are inhibited by the coordinator
2) Preemption – shows which phases are inhibited by a preempt sequence
3) Auxiliary Inputs – shows which phases and peds are omitted by auxiliary input

Calculation Status

The controller shall provide a status screen with the current calculations for the active coordination pattern, displaying the following:

1) Primary Force-Off Point
2) Secondary Force-Off Point
3) Vehicle Yield – point in the cycle that a vehicle call can be serviced
4) Vehicle Apply – point that the coordinator applies an inhibit to the call until the next cycle
5) Ped Yield – point in the cycle that a pedestrian call can be serviced
6) Ped Apply – point that the coordinator applies an inhibit to the call until the next cycle
7) Float Max – displays force-off points when Float Max is utilized
8) Ped Leave – displays the end of the Rest-In-Walk period

Additional Status Displays

1) Status displays showing all internal force-off and yield calculations of the active pattern. These calculations shall be automatically performed by the unit under NTCIP force-off methods FIXED and FLOAT and used for diagnostic purposes.
2) Status displays showing the internal software inhibits used to inhibit phases during coordination and preemption
3) Status of the 8 hold, phase omit and ped omit inputs defined under the TS-2 specifications
4) Status of external temperature devices.

SOFTWARE SPECIFICATION

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Trafficware
Engineered by Naztec

ATMS.now

Trafficware's Advanced Transportation Management System (ATMS) is a TCP/IP client/server application that provides a multi-user ATMS over Windows NT/95/98/2000/XP networks. Over 250 systems and over 25,000 controllers have been deployed since 1994. This long track record has given Trafficware the opportunity to hear ideas and suggestions from users around the country.

We have considered every single client request and built an **ATMS.now** platform that performs unlike any other ATMS. Using simple to use screens, **ATMS.now** offers complete traffic and data management including real-time reporting, integration with Crystal Reports™, XML data exchange, GIS interface, and hundreds of other features.

ATMS.now brings together all of your traffic network data into a single repository for a completely integrated, 360-degree view of your ATMS operation. Featuring high-performance parallel database technology, a full suite of data access and management tools, and robust data mining capabilities, Trafficware's **ATMS.now** delivers powerful performance.

Feature	Description	Benefit
Multi-Edit Capability	**ATMS.now** enables users to select multiple intersections simultaneously and edit them as a set. This includes every activity from simple intersection definition to controller parameter database management.	Traffic engineers and signal technicians can get more done in less time with reduced potential for error.
Scalability	**ATMS.now** is built as a multithreaded transactional system that takes advantage of available hardware resources to meet capacity demands.	Customers can protect their investment by purchasing hardware that can expand as their needs grow.
Availability	Using SQL Server and IIS, **ATMS.now** can take advantage of redundant installations such as database clustering and network load balancing to provide maximum system uptime.	Agencies of any size can design a deployment configuration that meets their needs. The system can be deployed on any hardware platform ranging from a laptop to a datacenter. Datacenter hardware is engineered for fail-over redundancy and data integrity.
Open Architecture	**ATMS.now** implements a Web Services interface (SOAP, XML). The underlying database can be deployed using simple dBase files or on SQL Server 2000.	Promotes interoperability with a wide range of software applications and tools.
Presentation Quality Reports	**ATMS.now** includes Crystal Reports™-based reporting features.	Reports are easy to use and can be presented to a wide audience.
Real-Time Updates	Splits, alarms, and user edits are broadcast in real time to workstations.	Workstations are instantly updated without degrading server or client performance.
Integrated Time-Space Diagram	**ATMS.now** includes a time-space diagram based on real-time split information. The diagram is easy to set up and can span an arbitrary number of intersections.	Users can instantly visualize the actual progression performance of intersections.
Asset Management	**ATMS.now** incorporates a module to track inventory deployed in the field or stored in a warehouse, plus enables the user to track repair events associated with the inventory items.	Users have instant access to equipment information and repair history.
GIS Navigation	**ATMS.now** renders an intersection network based on geographic information and can incorporate multiple layers as needed, including aerial images.	Users can intuitively navigate their traffic network and observe patterns immediately.

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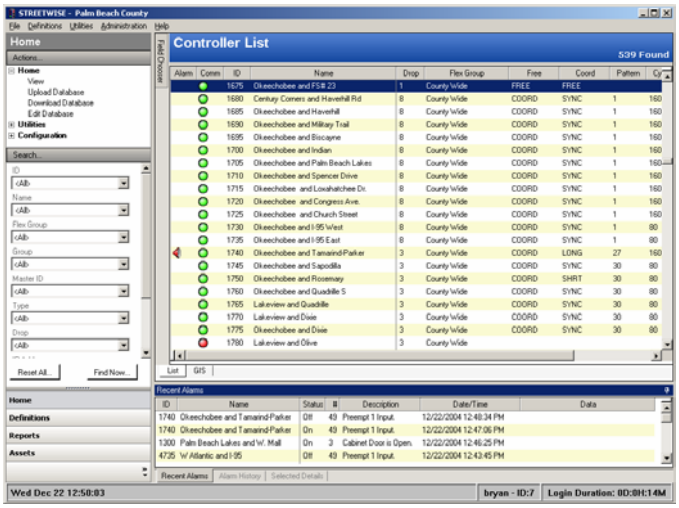
Some examples of the **ATMS.now** enhanced system features are provided below.

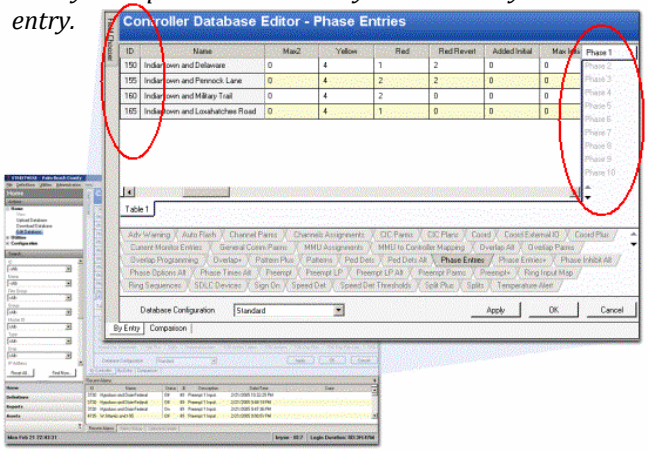
Default Home Page View—The user is presented with a real-time view of alarm, pattern, cycle, coordination, and split information of all intersections in the network.



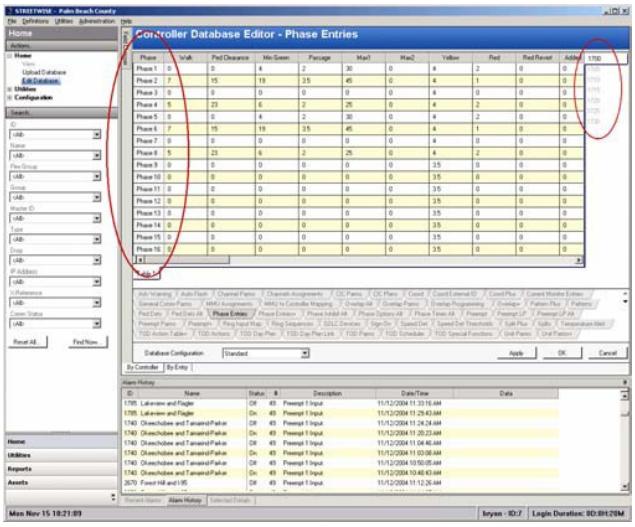
The main view provides a summary of the current network state. The docking views in the lower portion of the screen display detailed alarm information and contextual controller information including splits, alarms, and time-space plot.

The navigation tools to the left enable the user to choose actions to perform on sets of selected controllers, filter the list of controllers, and navigate between modules.

The system provides the ability to edit many controllers by entry.

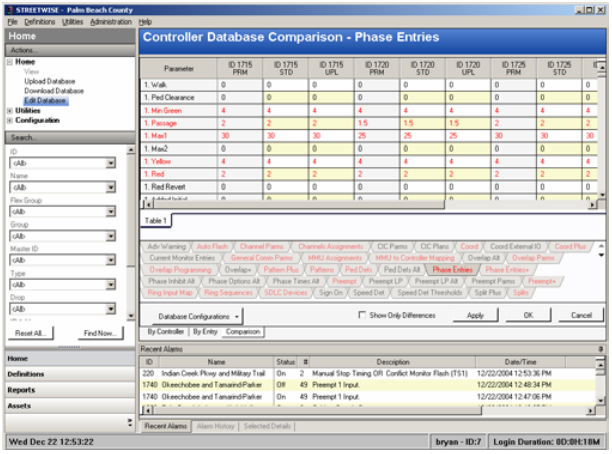


The following feature allows database changes per ID of all entries in one screen. Notice the list of selected controllers, allowing the user to quickly copy/paste from ID to ID. The user can copy and past cells, rows, columns, and grids. Users navigate between entries using tabs on the right.

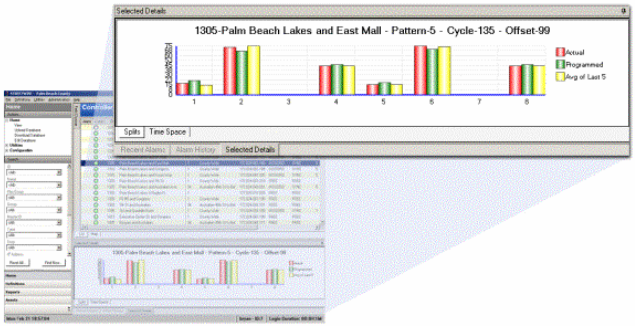


The user can jump from one view to another, then download only the edited cells to strictly the edited controllers with one click.

Controller Database Comparison—This screen compares across multiple configurations and controllers simultaneously.



Real-Time Split Screen—This screen provides the user with a single intersection's real-time split information in graphical form. Both the tabular data in the main view and graph near the bottom of the screen will update as the split data changes.



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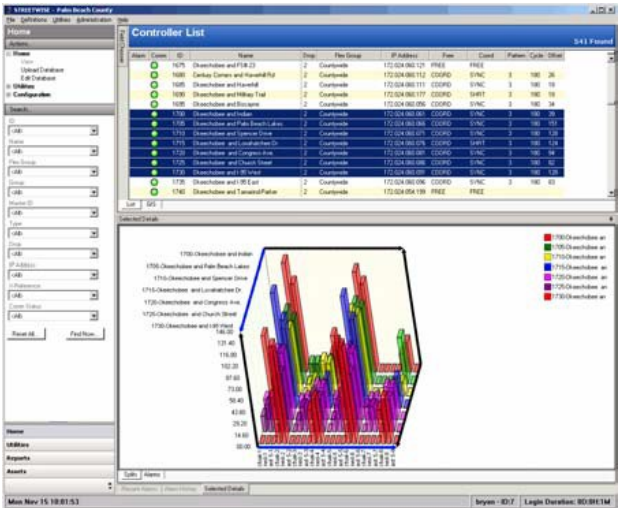
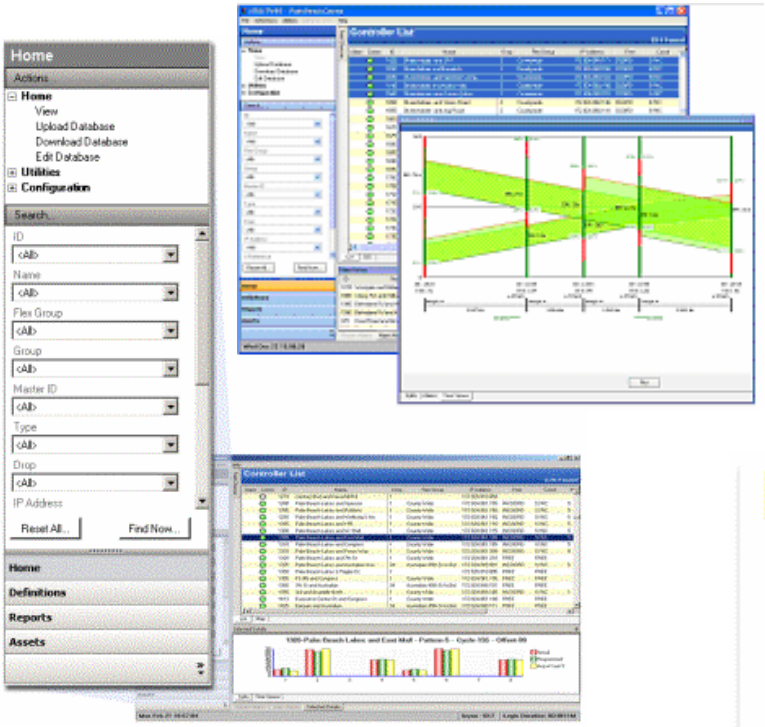
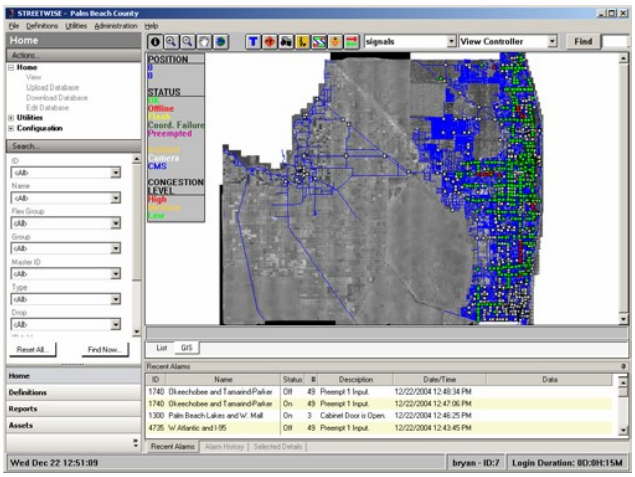
Another feature provides for multiple selected intersections and plots a 3-D graph of splits for all selected. This view is useful in comparing relative values across intersections.



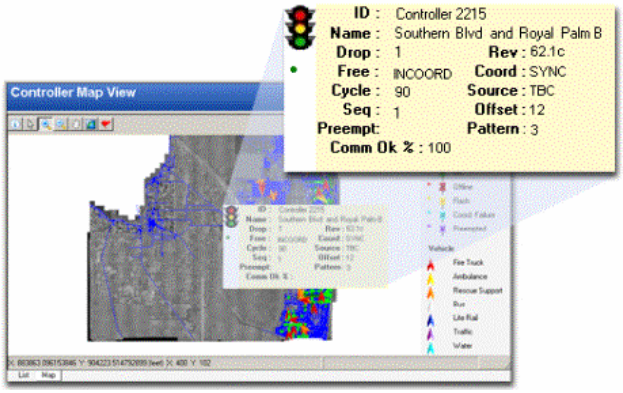
Time-Space Diagram—The user can plot a real-time time-space diagram by selecting a group of controllers. The resultant diagram shows split times, offset times, bandwidth values, speed, and a few other enhancements. The split data used in the diagram is obtained in real time.



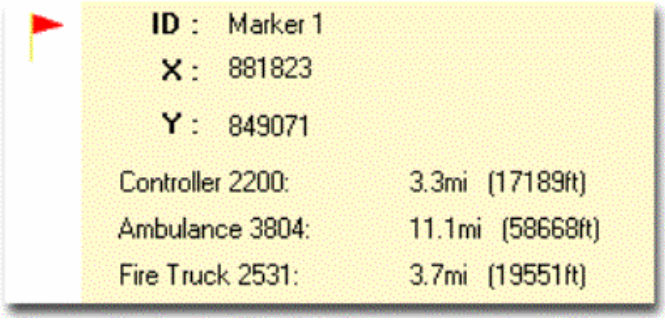
Sample GIS View—A complete system network can be displayed, including multiple layers and images.



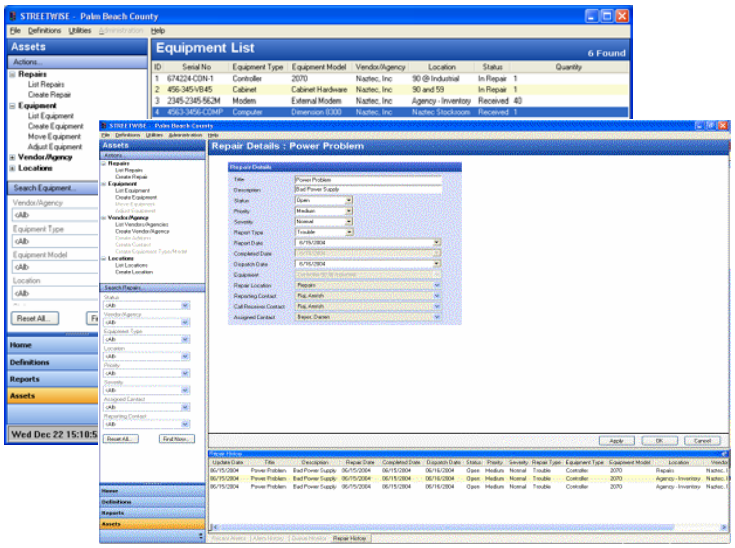
Controller Data Updates in Real-Time—By placing the cursor over a particular controller, the user is presented with detailed current information.



Distance Marker—The user can designate a point of interest by placing a marker on the map. The system will calculate the distance from market to the nearest instrumented objects in the network.



Asset Management Module—The user can track equipment inventory and repair history.

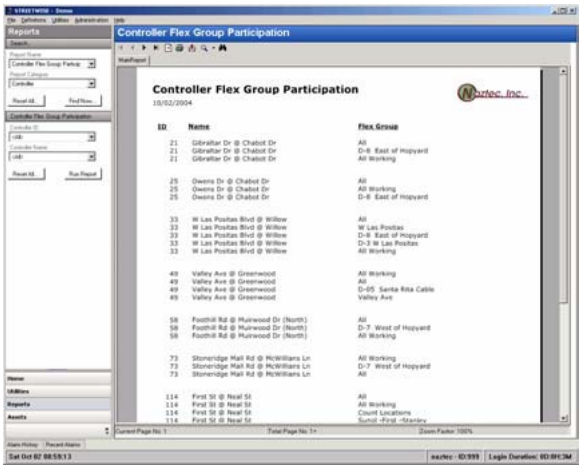


Crystal Reports™ Integration

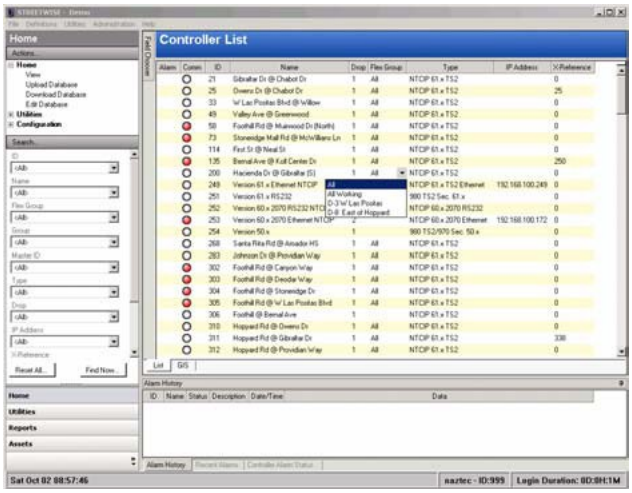
Through the integration of Crystal Reports™, the user can transform system data into presentation-quality information to make better operating decisions, with compelling views of key features and characteristics created easier and faster than ever before. Through this interface, the user now has the ability to:

- Design reports quickly and easily
- Create the right report
- Build compelling data views
- Maintain a seamless flow of data
- Share information
- Integrate smoothly

The figure below shows a report that can be run to determine a controller's Flex Group(s) participation.

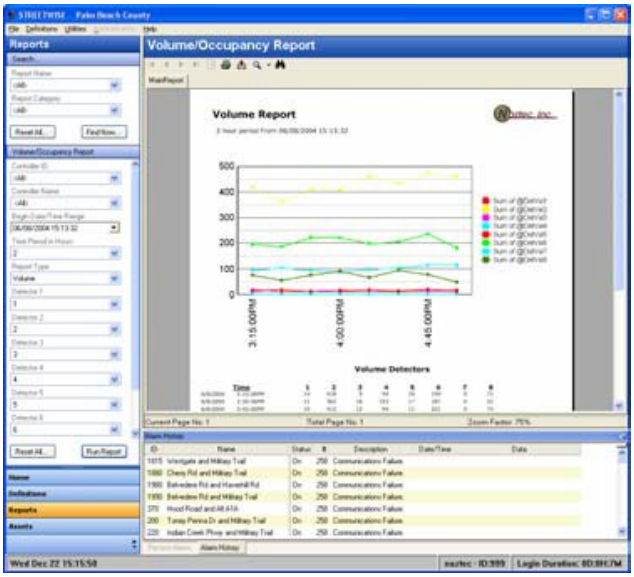


The next figure shows the complete list the user would be working from. The user can just click on the Flex Group(s) for a controller and the screen will display all of the controller's assigned Flex Group(s).



Users can also reduce the list of controllers by using "Flex Group" as a search criterion. The user is then able to edit/upload/download these controllers together. Reports can be exported to RTF, PDF, or Excel format.

The following report contain data presented in graphical format.



Functional Software Specification

For

ATMS.now™

Advanced Traffic Management System (ATMS)

September 2011

Published by:

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1.0 General System Requirements Overview

This specification sets forth the minimum requirements for an Advanced Traffic Management System "ATMS" Central Software package. The ATMS shall be capable of monitoring and controlling ten thousand of intersection controllers using state-of-the art architectures including TCP/IP and NTCIP. The system shall consist of a TCP/IP based client/server application providing multi-user access to all ITS field devices from an ATMS center and also center-to-center.

The communications system interfacing the ATMS with the field devices is not covered in this specification. However, the ATMS shall be capable of supporting any combination of FSK (Serial), Wireless, Dial-Up, DSL, and Ethernet based data communications that comply with current NTCIP specifications.

The primary ITS field devices supported by this specification shall include Actuated Signal Controllers (ASC) that comply with NEMA TS1 and TS2 specifications, 170 and 179 based controllers upgraded with TS2 compatible prom modules, 2070 and 2070N specifications. The ATMS shall support the functional requirements of these devices incorporated into the system. The following specifications shall be mandatory to the intent of these specifications and shall be considered part of the basic ATMS Central Software product without the required purchase of additional software modules.

The ATMS software and controller(s) shall conform to all corresponding Federal NTCIP sections as listed below:

NTCIP 1101, NTCIP Simple Transportation Management Framework (STMF)

NTCIP 1102, NTCIP Octet Encoding Rules

NTCIP 1201, Global Object Definitions

NTCIP 1202, NTCIP Objects for ASC

NTCIP 2001, NTCIP Class B Profile

NTCIP 2102, NTCIP Sub-network Profile – PPP / RS-232

NTCIP 2104, NTCIP Sub network Profile – Ethernet

NTCIP 2301, NTCIP Application Profile – STMF

NTCIP 2301, NTCIP Application Profile – TFTP

NTCIP 2301, NTCIP Application Profile - FTP

These documents may be ordered from:

NEMA
1300 North 17th Street, Suite 1847
Rosslyn, Virginia 22209
(703) 841-3200

or

Institute of Transportation Engineers

1099 14th Street, N.W., Suite 300 West

Washington, DC 20005-3438

(202) 289-0222mum Required System Performance

The primary system objectives shall be as follows:

1. System-wide signal coordination
2. Coordination backup
3. Continuous once-per-second full status monitoring of all controllers via NTCIP
4. Unlimited number of workstations attached to user interface network
5. Central system transmits and receives data (once-per-second) to all local controllers simultaneously over multiple communications formats
6. Operational failure logging, indicating control and communications failures by date, times of occurrence and location of failure
7. Measures of Effectiveness (MOE) summaries obtained from local system detectors and stored for historical reference in the central database system
8. Real-time full status received continuously on a once-per-second basis from local controllers
9. System Map level status display with real-time information in GIS layer format for all intersections and system devices.
10. Intersection status displays with real-time information in multiple, simultaneous graphic formats for operator selected intersections. Displays shall include real-time signal status as a GIS layer, General Information, Detector Status, Alarm Status, Controller Front Panel display, and Controller Coordination Display for each selected intersection
11. Manual or automatically-generated uploading and downloading of all local timing data parameters to/from field controllers via the communications network
12. Dynamically re-configurable sections based on operator command or schedules
13. Automatic reporting of failures and malfunction to users and designated administrators
14. Controller data base management for a minimum of eight (8) databases per controller
15. The workstation software shall be able to run natively in Windows XP, 2003, Vista and Windows7
16. The server software shall be able to run natively on Windows Server 2003 or Windows Server 2008, and utilize Microsoft SQL Server 2000/2005, or newer, both on dedicated hardware or Virtual Machine “VM” platform

1.1 ATMS Components and Options

The ATMS shall offer a software solution that supports the following within the core product:

- School Zone Flashers
- *Alpha* BBS Integration
- Integrated *Traficon* Video Detection
- *Opticom* Optical Preemption Systems
- Real-Time Split Monitor and Time-Space MOE's
- *Trafficware* Synchro 7/8 and SimTraffic Integration
- Incident Detection and Triggering
- Road Temperature Sensor Detection
- *Jamar* Counter File Integration

The ATMS shall offer the following enhanced software solutions, available as additional modules:

- CMS, VMS Signs
- CCTV Surveillance
- Light Rail Control Systems
- Transit Priority System with Automatic Reporting
- Traffic Responsive with Central ATMS Master
- Traffic Adaptive with Central ATMS Master
- Traffic Adaptive with SynchroGREEN Master
- HOV Lane Control
- Reversible Lane Control Signals
- Freeway Management
- Public Information Web Interface

1.2 System Architecture

1) The overall architecture of the system shall be a client/server design based on distributed open architecture concepts. Processing shall be distributed and "open" communications protocols shall be used for all interfaces, such as NTCIP and AB3418/E.

2) The system shall be implemented using standard, commercially available Personal Computer (PC) hardware.

3) The software shall be portable across multiple hardware platforms and shall be designed to integrate with off-the-shelf PC software. For example, the standard ATMS software shall provide the ability to exchange files with common Geographic Information Systems (GIS), databases, Computer Aided Design (CAD), and spreadsheet products.

4) The ATMS software shall be built upon Microsoft .NET Framework and utilize XML Data Exchange.

5) Intersection controllers shall be microprocessor based and shall include coordination, time-based control, preemption, and communications capability. The system shall be capable of managing up to 9,999 controllers.

6) Control modes shall be provided to allow the system user the ability to control the system at multiple levels.

7) Controller level control modes shall be provided for Traffic-responsive, time-of-day, manual, failed, off-line, and flash.

8) Central level control modes shall be provided for Traffic-responsive, time-of-day, manual, and central-flash.

9) System Level control modes shall be provided for Off-Line and On-Line intersections.

10) System design shall provide backup capabilities to allow continuation of a satisfactory level of coordinated operation should a central office, communications hub, communications link, or intersection controller failure occur.

11) At the central office, a local area network (LAN) shall support the distributed client/server architecture. Client workstations shall access network computers that perform traffic management, database management, and real-time traffic control functions. Field communications processing shall be distributed between the central server, optional communication hubs, and local controllers without the use of network drive sharing within the agency or between the ATMS software and the Client workstations.

12) System operation shall be performed by the system user(s) to:

    a) Generate and display real time GIS-based maps for full System, Regional, and Intersection level views.

    b) Issue manual commands to the intersection controller(s).

    c) Provide intersection controller data base management as follows:

- Upload database from controllers
- Edit database and save on disk
- Download database to controllers
- Compare controller databases
- Copy controller databases, partial or whole.
- Retrieve detector logs and event logs from local controllers

d) Generate reports from system data directly from the field or server.

e) Provide eight (8) complete databases for each intersection controller definition.

13) The system shall be designed to enable expansion without redesign of any of the system components. Expansion shall require only the addition of hardware components, software replication, and expanded database creation.

1.3 Local Area Network (LAN) Compatibility

The system software shall be capable or operating in the public agency's LAN configuration with a minimum of one server computer and unlimited workstations. The LAN shall provide the capability of having multiple users and multiple workstations working simultaneously on a common database. The ATMS server shall provide a bi-directional, web-based data transaction with the Client workstations, without the need for mapped network drives, folder shares, or file shares.

1.4 Software Installation and Updates

The ATMS system software shall be loaded into the specified server computer hardware by the supplier and operationally verified by the supplier. A web-based, menu driven installation program shall be provided for loading each ATMS Client to the workstation computer(s). The use of CD's, DVD's, or Floppy Disk Media will NOT be accepted to load the server or the workstation client software.

The furnishing supplier of the ATMS software shall provide a site wide software license to the agency for its use on all computers within the agency. Standard software upgrades, corrections or required modifications for proper system operation per this specification shall be furnished to this agency at no additional cost for the life of the system. All ATMS updates shall be applied only to the server, and each ATMS client shall automatically update when the next login occurs for each workstation location. No other methods of applying ATMS Client updates will be accepted.

2.0 Main-Home Interface

2.1 Graphical User Interface "GUI"

All traffic system reports, graphic displays, and dialogues shall be functions of the user interface software running on individual workstations. Each workstation shall access data as needed from the ATMS Communication/Database server(s). The operator shall access system functions using GIS map-based graphical displays.

1) The ATMS software interface shall be comprised of three main sections: 1) Main Interface (Home), 2) Systems Definitions, and 3) Report Generation.

2) Graphical icons shall be used on the graphical displays as layers to represent system devices within the GIS mapping system. The icons shall provide easy access to traffic control data and timing, real-time signal status, congestion LOS information, Cameras, DMS/CMS signs, Network Switches, and general device control.

3) All workstation user interface functions shall be implemented using a MS Window-based graphical user interface (GUI) concepts conforming to Microsoft Windows standards. Proprietary software framework and tools will not be accepted.

4) The GUI shall use pictures, symbols, line graphs, and multiple fonts in conjunction with a pointing device (e.g. a mouse or track ball) to interact with and allow an operator to enter decisions, draw graphics, issue commands, and receive information from the system.

5) Graphical symbols (icons) shall maintain its precise coordinates and proportional map size as the GIS map view is zoomed in and out.

6) The graphic map shall act as a system selection palette enabling the operator to make a selection by pointing to a particular system object (i.e. controller, camera, changeable message sign, etc.). When that system object is selected, it shall be uniquely identified by being "highlighted" or a secondary marking such as a "pin" marker, and a more detailed status window shall be capable of being displayed from the selection.

7) The GUI shall utilize Microsoft "Tool Tip" to display real-time status for all devices represented on the GIS system map. The "Tool Tip" shall appear when the cursor is placed over the device icon on the map corresponding to its activation on the GIS Legend.

8) The GUI shall provide access to all monitoring and control options from a single point. As a result, all operator actions shall be immediately visible as graphical status changes and on screen display windows. All status or programmed changes to the system shall be immediately visible to all other users logged on the system, without a manual refresh or required re-login into the system.

9) The GUI shall allow for navigation between all system functions from within a single visual windowing framework. All functions will be accessible through tab-style menu navigation, with the principle screen area used for the current task at hand. The user interface shall also allow for real-time alerts to be visible at all times regardless of the application context. Secondary screens and "pop-up" windows for main system navigation, editing screens, and system control will NOT be accepted.

10) The GUI shall enable moving from one task to another given a user-selected set of intersections without the need to re-select the intersections in between tasks.

11) Controlling actions within the GUI shall be achieved via standard mouse control, “right-clicking” and by a fixed menu, each offering the identical menu of control.

12) The GUI shall provide two primary control interfaces, a tabbed “List” view and a GIS map-based view. Each interface shall provide the identical real-time status information and control. Controller selection from one format (List or GIS map) shall immediately display the same selection criteria on the other format, meaning that List and GIS map shall be completely corresponding with each other in navigation, selection and function.

13) The GUI (List or GIS map) shall provide real-time at-a-glance intersection status information including

    a. TBC
    b. Local Counter
    c. Cycle
    d. Offset
    e. Phase Sequence
    f. Preempt Status
    g. Controller Firmware Revision
    h. Free and Coord Status
    i. Current Operating Mode
    j. Current Split Index
    k. Last Data/Time from Intersection
    l. Total Number of Communication Transactions
    m. Number of Successful Communication Transactions
    n. Percentage of Successful Communication Transactions
    o. Number of Failed Communication Transactions
    p. Percentage of Failed Communication Transactions
    q. Current Communications Status
    r. Current Alarm Status

14) The GUI shall provide a search engine filtering mechanism to quickly navigate the List or GIS map view to a specific, targeted group of controllers. The search engine shall provide look up by the following criteria:

    a. Intersection ID

b. Intersection Name
c. Group assignment
d. Master Intersection
e. Controller Type
f. Communication Port
g. IP Address
h. Communication Status
i. Current Pattern
j. Flash
k. Coordination Failure
l. Preempted
m. Current Cycle
n. Alarm Status

15) The GUI shall enable intersection operations to be performed against multiple intersections simultaneously within one window. This includes:
    a. Controller Database Editing
    b. Controller Database Viewing
    c. Controller Database Uploading
    d. Controller Database Downloading
    e. Controller Database Comparison
    f. Controller Coordination Diagnostics
    g. Viewing of Real-time Metrics, including
        i. Phase 1 – 16
        ii. Overlap 1-16
        iii. Call 1-16
        iv. Ped Phase 1-16
        v. Ped Call 1-16
        vi. Controller Firmware Revision
        vii. Current Pattern
        viii. Current Preempt

ix. Successful Communications Percentage

x. Ring 1-4 Min

xi. Ring 1-4 Max

xii. Ring 1-4 Ped

xiii. Current Cycle Length

xiv. Current Phase Option

xv. Current Time Based Counter

xvi. Current Offset

xvii. Current Phase Time

xviii. Current Local Counter

xix. Current Split Number

xx. Current Detector Group

xxi. Current Transition

xxii. Current Sequence

xxiii. Current Free

xxiv. Current Call/Inhibit

xxv. Current Source

xxvi. Detector Calls 1-64

xxvii. Controller Front Panel Display

xxviii. Real-time Dynamic Graphics Displays

1. Show dynamic layout against a GIS background
2. See Dynamic Graphics Displays below

h. Instant Pattern

i. Instant Preemption

j. Download of System Time

k. Conflict/MMU Reporting

l. Opticom Reporting

m. Coordination Failure

n. Clear Alarms

o. Edit Controller Definition

i. Name

ii. IP Address/Communications Port

iii. Master Controller Identity

iv. Group Assignment

p. Phase/Detector Lane Assignment

q. Linkage to Adjacent Controllers

r. Congestion Level Specifications

s. Customized Detector Groups

16) The GUI shall provide interactive viewing filter to enable each system user to customize the viewing screens and amount/type of dynamically displayed data. The ATMS shall store the viewing preferences of each user and present the specific, customized view for each user upon next login.

17) The GUI shall provide for an optional window that actively tucks away or can be set to format within the main active window. This optional window shall provide for the display of select controller status windows such as General Information, Alarms, Detector status, Coordination status, and Front Panel. This window shall also provide auxiliary system display for information such as temperature, etc.

2.2 List Interface

The List view interface shall provide full real-time status information and control for each intersection. The List view shall provide organization of data in a user-defined set of columns and rows. The controller status information, which shall be displayed in columns, shall display based on each user's selected preferences for displayed fields. The ATMS shall remember the display preferences for each user. The List view shall provide for the user to re-arrange any of the data columns in a specific order, and maintain that order for all subsequent logins for that user.

The List view shall display the controllers based on search engine filtering and/or GIS map selection. All ATMS system control and edit actions shall be available through the List interface.

The List view shall display all dynamically-collected data objects from the controllers as the system collects it.

2.3 GIS Map Interface

1) The GIS Map view shall provide a real-time, GIS-based, status map display of all of the system elements. All standard GIS zoom functions and layer actions shall be integrated in the GIS map. The user shall be able to select any combination of GIS layers to be displayed at any time. The specific controllers that are displayed on the GIS Map view shall be directly controlled by selection activity from both the Search Engine and the GIS Map.

2) The GIS Map view shall offer a Legend, which shall enable the user control over the displayed layers on the map. Each data type, such as Controllers, Events, Congestion, Switches, Cameras, CMS signs, Bus Routes, Light Rail, Fire Stations, etc, shall be displayed as a distinct layer on the map. Layers that represent devices that dynamically change status such as Controllers and Congestion shall be updated in real time as per the scheduled ATMS system programming. The real-time condition of each object on the map shall be color-coded according to the Legend.

3) The ATMS shall provide for direct integration to third-party software interfaces such as Cisco, Traficon Video Detection, Actelis Networks, Core-Tech, and Industrial Video & Control. These interfaces shall be accessed directly through their respective layer on the GIS Map interface. Selection of the device icon shall launch the products' distinct software program without interruption to the ATMS operation.

4) The ATMS software shall provide a Microsoft "Tool Tip" window when placing the cursor on a specific object. This window shall provide vital object information such as status and location. For the Traficon Camera interface, the "Tool Tip" shall initiate a request for video feed, and display a full-streaming camera image within the window instead of numerical status.

5) The GIS Map control shall be offered from a GIS toolbar for the following functions:

   a) Information – Selecting this function will provide real-time information of the active layer using a "Hover Balloon", by placing the mouse over the desired map object. The hover balloon displays real-time status for any of the active layers on the GIS map, including Controllers, Congestion, Cameras, CMS signs, Switches, etc.

   b) Select – Selecting this function enables the user to "Wrap-Around" the desired object or group of objects to launch control. When this is used to select Controllers, the user can "Right-Click" to open a small Action pane window on the GIS map.

   c) Zoom-In – Selecting this function will allow the user to click on a point on the map and wrap around a desired area to zoom.

   d) Zoom-Out – After selecting this, clicking once on the map will zoom out 1 measure of extent.

   e) Pan – This enables the user to "grab" the map and slide it in any direction.

   f) Full Extent – By clicking this icon, the GIS map will zoom out to the fullest extent.

   g) Marker – The user can place a marker anywhere on the map to calculate distances to nearest system components.

   h) Event – This shall enables the user to select an exact point on the GIS map, create an Accident, Construction Zone, or Slow Zone, and place it directly on the GIS map in real-time or can be scheduled for activation at a future date. This action shall add the newly-created Event to the "Events" layer on the GIS map at the programmed activation time. At the time of creating this Event, the user can program the ATMS for date and time of Event activation, and de-activation, which includes placing and removing the Event icon on the GIS map. The Event shall also have the ability to be indefinite, requiring manual removal.

   i) Create GIS Preset – This function shall enable the user to create any number of preset views on the GIS mapping system, with the full zoom value reached within one action. The GIS preset shall allow for the view to be specific to a creator or all system users.

j) Previous View – This shall enable the user to quickly navigate the map back to the previous view.

k) Preset View List – The GIS toolbar shall display a list of all available pre-programmed presets for the logged-in user. By selecting a preset the GIS will automatically navigate to the programmed view.

2.4 GIS Legend

A GIS Legend shall provide layer view and layer-based element control on the GIS map to enable the user to control the amount of displayed information. The layer-based element control shall enable the user to exercise system control of a specific ATMS device type where there are many ATMS objects represented on the map, navigating directly through to the desired object. The Legend shall offer two separate layer control check boxes, one to activate the layer for viewing on the map, the second to activate the layer for communication and control. Each distinct layer shall be capable of toggling "ON" or "OFF". Any combination of views shall be offered at any time, and the layer views shall be adjustable in real-time.

The GIS Legend shall be able to be "tucked-in" or "pinned-up" by using the Push Pin, just like the Field Chooser screen. The layout of the GIS Legend, layer display, and information columns shall be memorized by the ATMS on a user-by-user basis, creating real-time system preferences for the next log in session.

2.5 Detailed System Information

1) The ATMS software shall display real-time secondary system information and tools for the user, including detailed alarm information, weather updates, split monitoring, time-space monitoring, Opticom event reporting, currently logged-in users, monitor reporting and viewing of indexed document information by intersection. In sections that display multiple types of categories, such as alarm information, a customized data filter shall be provided to control the types of displayed information by user. The portion of the screen that this detailed information is displayed shall be re-sizeable and provide an option to "tuck-away" behind the edge of the screen.

2) Incoming Alarms shall be displayed with a time, date, intersection, alarm type, and alarm state. The system shall provide a view of the most recent alarms during the logged-in session and a brief historical list of the 100 most recent system alarms. All alarm descriptions shall be capable of being customized by the user. All system alarms shall be stored in the ATMS database and capable of being searched in the Reports section of the ATMS. All incoming alarms shall be able to be forwarded to agency personnel via paging, text messaging, or e-mail alert.

3) The Opticom system information shall be real-time discriminator log information retrieved from Opticom model 752 and 754 discriminator cards. The ATMS shall capable of retrieving the most recent EVP information from the appropriate Opticom card within a maximum of 5 seconds of the local EVP event. The ATMS shall initiate a retrieval of the full pre-emption event from the discriminator card via the traffic controller communications, and display all of the Opticom event information including time, date, EVP channel, emitter ID code, activation time, emitter range, etc. A historical database of all Opticom preemption events shall be stored in the ATMS database and a report template shall be provided to generate an Opticom report based on date, time, and intersection.

4) The Split information shall be provided both graphically and numerically in real time. The split monitors shall track split information for the current cycle as well as historically during the active pattern. The

historical tracking shall provide running calculations of number of Force-Offs, Max-Outs, and Gap-Outs, as well as percentage of split time utilization. All information shall be provided for each operating phase.

5) The Notes and Documents indexing capabilities shall be fully integrated with third-party applications such as Adobe Acrobat, AutoCAD, Notepad, Word, etc. All Notes and Documents shall be stored and displayed by their assigned intersection for easy indexing and retrieval.

6) The ATMS shall provide real-time weather report information that actively monitors National Weather Service alerts for the agency's region. The ATMS shall provide audible, visible and paging alerts to specified users.

7) The ATMS shall monitor and provide a real-time list of users that are logged on to an ATMS Client at any time.

8) The ATMS shall be capable of retrieving and storing all CMU/MMU logs by intersection and by system. The logs shall be easily accessed though the main list and displayed through a web-browser interface upon selection.

9) The ATMS shall be capable of interfacing with a GPS logging device for the purposes of overlaying travel-time information within the system's Time-Space diagram to evaluate progression performance.

2.6 System Actions

1) The ATMS shall be capable of instantly editing, viewing, uploading, downloading, comparing, or performing coordination diagnostics simultaneously on multiple controllers. These functions shall be performed within the main view without "pop-up" windows. The user shall have the ability to download a minimum of seven (7) distinct databases to the field at any time, without data loss to the other databases. The download function shall offer an optional verification utility for database integrity, that performs and initial field upload and compare/check prior to performing the download to the field.

2) The coordination diagnostics shall match the diagnostic logic in the controller(s), and shall specifically identify any parameter within the timing database that will prohibit the coordination pattern from properly operating. The coordination diagnostics shall be capable of being simultaneously performed on multiple controller databases.

3) The ATMS shall provide the ability to copy selected data parameters or complete databases from one controller to another through a simple navigation and selection process.

4) The ATMS shall store a time-stamped copy of each database into a dedicated archive folder each time the ATMS downloads a new database. The archived database shall include information regarding the date and user that performed the action. Each archived shall be available to compare against any other database to determine field changes and the person performing them.

5) The ATMS shall provide real-time intersection information in multiple display formats for one or more intersections simultaneously. This information shall launch a dedicated window that can be moved to a dedicated monitor without disrupting the main ATMS user interface operation. The real-time intersection information shall provide windows for General Information, Detector status, Alarm status, Coordination status, GIS aerial view with indications, and the Front Panel of the controller display.

6) The ATMS shall be capable of instantly downloading a user-selected Pattern, Preempt, or Special Function to a controller or group of controllers. The instant function shall immediately override the active pattern or function for a corresponding duration of time. The user will select the intersection or group of intersections, choose the desired operation and download to the field.

7) The ATMS shall be capable of manual and system generated controller time synchronization from the server.

8) The ATMS shall provide a CMU/MMU event, trace, and programming reports retrieval for users to upload the NEMA monitor information via the controller's communications port. The monitor information shall be sent to the server database, where a specific log can be viewed manually or generated in the Report section.

9) The ATMS shall be capable of downloading the server's time to any Opticom unit that is connected to the selected controller(s). This will enable a constant time reference to be used by both the controller and the Opticom units, and enable the Opticom logs to display accurate event data.

10) The ATMS shall provide a utility to upload the results of the controller coordination diagnostics from the selected controller at any time, for evaluation.

11) The ATMS shall provide a utility to reset any coordination diagnostic failures (errors), so that the controller can attempt to transition back into coordination while the same pattern is active.

12) An alarm-clearing selection shall be available for users to clear the real-time alarm data from a controller, group or flex group of controllers.

13) The ATMS shall provide a Time of Day Schedule printout, which presents a printable calendar of coord data. This data shall be displayed and printed in Daily, Work Week, Weekly, or Monthly formats.

14) The ATMS shall provide for system notes and documents to be assigned to specific controllers for indexing and organized archiving.

15) The ATMS shall provide an import and export utility with Trafficware Synchro 7/8 signal timing optimization software. The ATMS shall have full UTDF database integration between Synchro7/8 and the ATMS SQL database. The Synchro Import/Export utility shall provide the ability to Export traffic counts and FREE timing as a combined ".csv" file (native format) to Synchro for processing and optimization. The Import function shall provide the ability to import a combined ".csv" file which includes a combined Phasing and Timing tables from the Synchro7/8 program directly into a controller database file. Synchro 7 combines the "Timing.dat" and "Phasing.dat" files into a single ".csv" file.

16) The ATMS shall provide for the ability to send a text message to other users logged into the ATMS system.

17) The ATMS shall provide an Export utility that directs controller database parameters directly into a user-defined Excel file.

18) The ATMS shall provide for the ability to send a time synchronization directly to the controller or its Opticom cards through a simple, manual command.

19) The ATMS shall provide for controller creation, editing, and delete functions.

20) The ATMS shall provide the user to define and edit an intersection's Turning/Phase Movement definitions for the purposes of proper report generation. The *Turn/Phase/Directions* section shall take incoming controller detector count and preemption information and associate it with the correct phases and directions for proper report generation.

21) The ATMS shall provide the user to define and edit an intersection's approach speed and distancing definitions for the purposes of proper Time-Space Diagram generation. The intersection link and speed shall be used to associate the controller's active pattern and offset information and associate it with the current cycle timer by providing the necessary approach information for the intersection. This information includes Intersection at the other end of the approach leg, approach Speed, and Distance between intersections.

22) The ATMS shall provide congestion level programming that will enable the user to define and edit an intersection's congestion level definitions for the purposes of proper display on the "Congestion Level" layer of the GIS map. The ATMS shall take inbound traffic counts from each controller and classify the value against the Congestion Level thresholds for LOW (Displayed in GREEN), MEDIUM (Displayed in ORANGE), and HIGH (Displayed in RED) for that collection period. Congestion level calculations shall be provided based on volume counts and occupancy.

23) User Defined Detector Groups shall enable the user to define custom groups of detector assignments for the purposes of customized report generation. The User Defined Detector Groups create special detector group sets within the ATMS. A user shall define up to four different groups of any combination of ten detectors.

2.7 Database Management

1) Database management shall allow programming of intersection controller databases. Each intersection controller shall have separate database programming pages. These pages shall contain all the programming options unique to each intersection. Each intersection shall have a permanent database, the current field copy (the uploaded file), a working-edit copy and five additional complete databases that the user can edit, modify and download for any reason. The ATMS shall have a total of eight databases for each intersection.

2) All database parameters shall be based on their NTCIP data type. The NTCIP ObjectID and parameter name shall be available from within the database editor of the ATMS.

3) All programming entries shall be represented using values consistent with their NTCIP data type. Integral values shall be depicted and validated as integers. The validation shall also enforce the upper and lower bound as specified by the NTCIP definition. Likewise, decimal data types shall be depicted and validated as decimal numbers. String data types shall enforce the appropriate string length. Enumerated data types shall display all possible data types as appropriate for the controller type.

4) During program entry, the new data shall overwrite the old data. If the data is in error, changes shall not be permitted and the error shall be highlighted on the screen.

5) The GUI shall enable printing of all or some of the controller database information. The user shall be able to choose which database information to print.

6) The GUI shall enable exporting of the database information into Excel format

7) The GUI shall permit simultaneous editing of an unlimited number or controller databases. The database editor shall enable the user to see all entries for a single controller or the same entry across multiple controllers.

8) The GUI shall enable the user to select which data fields are to be displayed for any given data category.

9) The GUI shall enable the user to simultaneously maintain all eight different database configurations and allow comparisons between them.

10) The GUI shall be able to represent the physical turning movement and/or lane assignment of phases and vehicle detectors from within the database editor.

11) The GUI shall enable copying of parameter data between cells, entries, categories, and controllers. The GUI shall enforce applicable NTCIP rules for parameter information when copying.

12) The GUI shall provide a navigational filter to display the targeted data types for editing and viewing.

13) The GUI shall provide a compare utility with the ability to feature only differences between selected databases.

2.8 Uploading and Downloading of Databases

1) All controllers shall use upload/download for database programming from the ATMS.

2) Upload/download shall transfer the entire programmable data base from/to the selected intersection controller(s).

3) All upload/download data shall use block transfer techniques and be verified. Non- verified data shall cause termination of the upload/download with no data transfer taking place. It shall not be possible to load erroneous interval and configuration information to the controller.

4) Upload techniques shall not cause the section or intersection controller to go off-line. Traffic control operation shall remain intact in all respects.

5) Following an upload, it shall be possible to compare the database of any intersection controller to the database on file. The compare function shall be executed by a simple menu selection or keyboard technique and shall identify any differences between uploaded and file data. The system operator shall be able to correct, use, or substitute data values and proceed with further comparison.

6) The user shall be able to perform downloads based on parameters that have most recently changed in lieu of performing a complete database download.

7) The upload function shall allow the user to direct the database upload directly to the record copies in the ATMS, or to only the “upload” copy for comparison.

8) All upload and download functions shall provide progress bars with percentage complete status.

9) The ATMS shall provide two different download functions. The first shall generate an upload and database comparison, then download upon verification that only proper, known changes will occur. The second download type shall download and overwrite the controller database without employing check and balances. Any of the databases shall be capable of being downloaded using either method, given proper user permissions.

10) The ATMS shall provide an interface for Palm PDA database storage and transfer. The Palm PDA shall be capable of “Hot-Sync” utility that compares most current controller file dates and transfers the most current files between the ATMS Server and Palm PDA. The Palm program shall be capable of storing the official databases for all controllers within the ATMS system. For file integrity protection, the PDA shall not provide editing capability to the controller databases.

3.0 System Definitions

1) The ATMS shall provide a dedicated section for defining ATMS system parameters outside of primary controller definition. The system definitions section shall include, at a minimum, definition parameters and utilities for the following:

    - Alternate Alarm Description
    - Alarm Notification
    - Controller, Camera, and CMS Incidents
    - Camera Tours
    - Controller Grouping
    - Database Backup and Archiving
    - GIS Shape File and Layer Editing
    - Incident Triggers
    - Jurisdictions
    - Messages for CMS/DMS
    - Real-Time Status Layer Builder
    - Report Criteria Templates
    - System Scheduler
    - System Devices
    - Users and User Groups
    - JAMAR Road Tube Counter Import

2) Where applicable, each category of the system definitions shall provide for “List”, “Create”, “Create From”, “Edit”, and “Delete” of the items within the category. All functions that are displayed within the ATMS shall be permitted for the user that is logged in. An unauthorized action shall not be displayed, grayed-out or otherwise, if it is not allowed for the specific user.

3) The system definitions section shall provide a search engine for easy navigation where navigating though large data sets is required.

4) The ATMS shall provide for the user to create an alternate naming system for all of the controller alarms. These alternate names shall appear in all locations that display incoming alarms, including reports and notification messages.

5) The ATMS shall provide for Alarm Notification setup. This shall enable the user to create a system-generated notification schedule to send a page, e-mail or web message to a specified user when certain alarms are detected by the system. The notification shall be customized by user, alarm type, and time-of-day.

6) The ATMS shall provide for controller-initiated system behavior of other controller(s). This shall be system-generated controller actions based on a reported alarm input from a single controller. These

local inputs shall cause a pre-programmed reaction of another controller or group of controllers. An example of this would be to cause a complete coordinated arterial to automatically transition to "FREE" operation if a critical intersection in that arterial issued a "Coord Fail" alarm to the ATMS. Each event shall be logged in the ATMS database for future report generation and reference.

7) The ATMS shall provide a utility to enable the user to perform SQL and controller database backup through the ATMS while the system is running. The Archive shall store all a copy of the entire systems SQL database with the SQL data and log files, as well as all of the controller databases in a zipped format. All backups shall be copied to a user-programmed file or server location.

8) The ATMS shall provide a utility to archive the SQL database within a user-defined amount of time. This utility shall cut and eliminate the SQL database that does not fit within the programmed date in order to reduce the size of the overall SQL database on the server.

9) The ATMS shall provide the ability to assign controllers to On-Line and Off-Line status. This function shall allow the user to limit the communication of information to only those devices that are actually "online" and communicating to the central server. By designating controllers that are offline, the user can isolate the controllers that are not ready for communication from the controllers that are operational and need to communicate to the ATMS.

10) The ATMS shall provide for Controller or Congestion Level-initiated camera and CMS behavior. This function shall provide system-generated Camera and/or Changeable Message Sign behavior based on an incoming field alarm from a controller or congestion level thresholds for a specific intersection approach. Upon the receiving the alarm the ATMS shall launch the camera view interface and PTZ to a pre-programmed preset view, and the CMS sign shall display the assigned pre-programmed message. Each event shall be logged in the ATMS database for future report generation and reference.

11) The ATMS shall provide camera tour integration with Industrial Video & Control. The camera tour feature shall provide for a pre-programmed "Touring" of selected camera sites and preset views. Each preset view is to be programmed for a dwell time before going to the next camera view. This feature shall be used to save time by eliminating the need to manually launch multiple cameras and navigate to a desired PTZ location.

12) The ATMS shall provide for the user to create secondary ATMS system devices. The integration with the system devices shall provide the ability to communicate and control additional system Devices through the main control interface. The ATMS shall incorporate various hardware devices, such as cameras, network switches, CMS signs, sensors, etc. After they are created, the user shall be able to place each device on the GIS map for direct control. At a minimum, the ATMS shall communicate with the following devices:

- Cisco Switches
- Actelis Switches
- Traficon Video Detection Cameras
- IP Cameras
- IV&C Cameras
- Core-Tech Video Encoders
- ALPHA & ADDCO brand CMS signs
- IP Temperature Sensors
- Alpha BBS

13) The ATMS shall provide the user a GIS shape file editing utility for the purposes of adding or moving system devices (Controllers and Devices) and Events on the GIS map. This is performed by enabling the user to define a geo-reference value of Latitude and Longitude for any System Device or Event in the database. A full GIS-based tool set shall be incorporated within the ATMS software to enable real-time layer modification.

14) The ATMS shall provide for any combination of controller grouping.

15) The ATMS shall provide the ability to create agency or system events directly though the GIS navigation toolbar, or through the system definition section. The system definition method shall enable the user to manually Create, Edit (including activating and de-activating), and Delete each event.

16) The ATMS shall provide the ability to import complete GIS shape files, providing an easy method for updating of the controller list from an ESRI-compatible ".shp" file that contains signal points, into the GIS mapping system. This function shall offer a single-step alternative to manually creating a controller definition and manually assigning it a geo-referencing value, and shall be available within the application.

17) The ATMS shall provide a utility to export GIS information from controllers, devices and events into Microsoft Excel.

18) The ATMS shall provide for jurisdictional assignment to limit access, editing, and control privileges for departmental grouping within an agency or within an inter-agency architecture. This is a way to enable multiple agencies to safely share the same database. This feature shall enable a user to be assigned to multiple Jurisdictions for enhanced levels of control to multiple sets of controllers. A controller shall be capable of being assigned to multiple Jurisdictions.

19) The ATMS shall provide a utility to create, edit, and delete messages for CMS/DMS signs. The message center shall provide 3 full ASCII capable message lines and be stored in the ATMS database. The messages shall be sent through the CMS layer of the GIS map interface.

20) The ATMS shall provide a utility for creating line segments on the GIS map for color-coding incoming detector counts. This utility shall provide a full tool set for creating and editing the congestion layer of the GIS map interface by drawing parallel lines to the GIS centerlines displayed in the Editor. This editor shall also provide the ability to create routes within the GIS, enabling the GIS mapping system to display recommended alternative routes for the public.

21) The ATMS shall provide a utility to create a new layer by hand to dynamically display real-time status conditions on the GIS map. This display shall offer the user the ability to select which inputs and outputs are dynamically displayed on the GIS layer, as well as their icon parameters. The utility shall allow the user copy and paste selected objects or full intersection layout from one intersection to the next. The utility shall offer a full complement of data point editing, moving and re-sizing tools. This layer shall be capable of real-time GIS status display and having a selectable view on the map.

22) The ATMS shall provide an automated system administer that performs pre-programmed, automated tasks such as full controller status, data collection, time synchronization, database verifications, etc. This utility shall be easily programmed to save staff time and have accurate information ready or more easily accessible for the user. The collected information shall be stored on the server and be available for retrieval at any time. All automated functions shall be available to the user to manually generate without waiting to be performed at its scheduled time. The ATMS shall offer the following manual and automated tasks:

    a) Alarm Polling

    b) ATMS Master Polling

    c) CRC Database Calculations (for 7 databases)

d) Database Compare (for 7 databases)

e) Detector Event Polling

f) Diagnostics Report

g) Download Database w/No Verification (for 7 databases)

h) Download System Time

i) Download Database w/Verification (for 7 databases)

j) Field Master Polling

k) Full Status Polling

l) GPS Time Synchronization

m) Local Event Polling

n) Local Volume & Occupancy Uploads

o) Monitor Report Uploads

p) Real-Time Compare with Field

q) Set Opticom Time

r) Speed Trap Data Collection

s) Split History Data Collection

t) Sync Controller Time to Server

u) Temperature Check

v) Time Synchronization from Internet

w) Time Synchronization from Dial-Up

x) Upload Database (for 7 databases)

23) The ATMS shall provide for the assignment of system users with specific control for each. The users section shall allow the system administrator to define and edit user privileges and control to ATMS system devices, databases, information and other security functions. Any ATMS function shall be enabled or disabled on a function-by-function basis for each user. Each user shall be capable of being assigned to jurisdictions through the user setup utility. All specific user information such as passwords, e-mail address, etc, shall be maintained through this function. This utility shall also provide for the ability to create a new user from the information of another user.

24) The ATMS shall provide for the creation or user groups. A user group shall have a full set of system privileges and permissions, which will serve as the primary rules for each member user, regardless of the user's individual settings. There shall be no limit to the number of user groups in the system. A user shall only be allowed to be a member of one user group.

25) The ATMS shall provide an import utility for count data from third-party road tube counters such as JAMAR, into the ATMS database. This utility shall convert the count data file to Microsoft SQL format and make this data available from the ATMS system reports section in a pre-designed Crystal Report template.

4.0 System Reports

The ATMS shall come with a reports section, which provides the user the ability to generate reports from a library of pre-formatted report templates from the ATMS database. The ATMS server shall store all imported and system-generated data into the system's main SQL database, and make it available for future report generation. The reports section shall offer a "dual" search engine utility to search and generate reports in the ATMS system. The first search engine shall provide for quick navigation and selection of a specific report or report type. The second shall provide for report parameters for the selected report.

The use of reports shall be programmable and allowed on a user-by-user basis within the user property setup of the ATMS software.

1) The reports section shall offer pre-defined report templates from the following database categories:
    a) Controller Data (Inventory, Groups, Alarms, Volume/Occupancy, Coordination Reporting, etc)
    b) Users (Log-In reporting, Upload/Download activity, etc)
    c) Timing Sheets
    d) GIS (Incident Reporting)

2) The following report templates shall be available with the ATMS software:
    a) CMS Report-Daktronics
    b) Compare Controller Database Configurations
    c) Conflict Monitor & MMU Reports
    d) Controller Communication Errors
    e) Controller Logins
    f) Controller Pattern Changes
    g) Controller Preemptions
    h) Database Comparisons
    i) Field Alarms
    j) Flex Group Listings
    k) Inventory by Communication Drop
    l) Inventory by Controller Group
    m) Inventory by IP addresses
    n) Inventory by Master
    o) Inventory by Controller Type
    p) Level-of-Service Average by Day
    q) Level-of-Service Hourly Graph
    r) Level-of-Service Multi-Day Graph

s) Opticom History Log Report

t) Real-Time Status Changes

u) Real-Time Congestion Data

v) Split History by Controller

w) Turning Movement Volume & Occupancy-Graphical

x) Turning Movement Volume & Occupancy-Data

y) Volume & Occupancy per Day-Graphical

z) Volume & Occupancy per Lane-Graphical

aa) Volume & Occupancy per Lane-Data

bb) Volume & Occupancy per Multiple Days-Graphical

cc) Volume & Occupancy by Controller (1 day)

dd) Weekly Road Tube Detector Output

ee) GIS Incident Report

ff) User Logins to ATMS

gg) User Transactions on ATMS

The ATMS shall provide the ability for the user to create Report templates for any of the system reports so they can be individually named and quickly re-created again at another time.

3) The report section shall offer the following print and navigational tools:

a) Page Forward/Backward – Selecting the corresponding arrow will navigate to the next page of the report when a multiple-paged report is generated.

b) First Page/Last Page – Selecting the corresponding arrow will navigate to the first or last page of the report when a multiple-paged report is generated.

c) Go To Page – Allows specific page navigation when a multiple-paged report is generated.

d) Print – Allows the report to print to a printer(s) that are configured to the computer.

e) Export – Allows the report to be saved as a .pdf, .xls, .doc, or .rtf document.

f) Zoom – Allows controlled sizing of the report.

g) Find Text – Allows a user to search for key words in the report.

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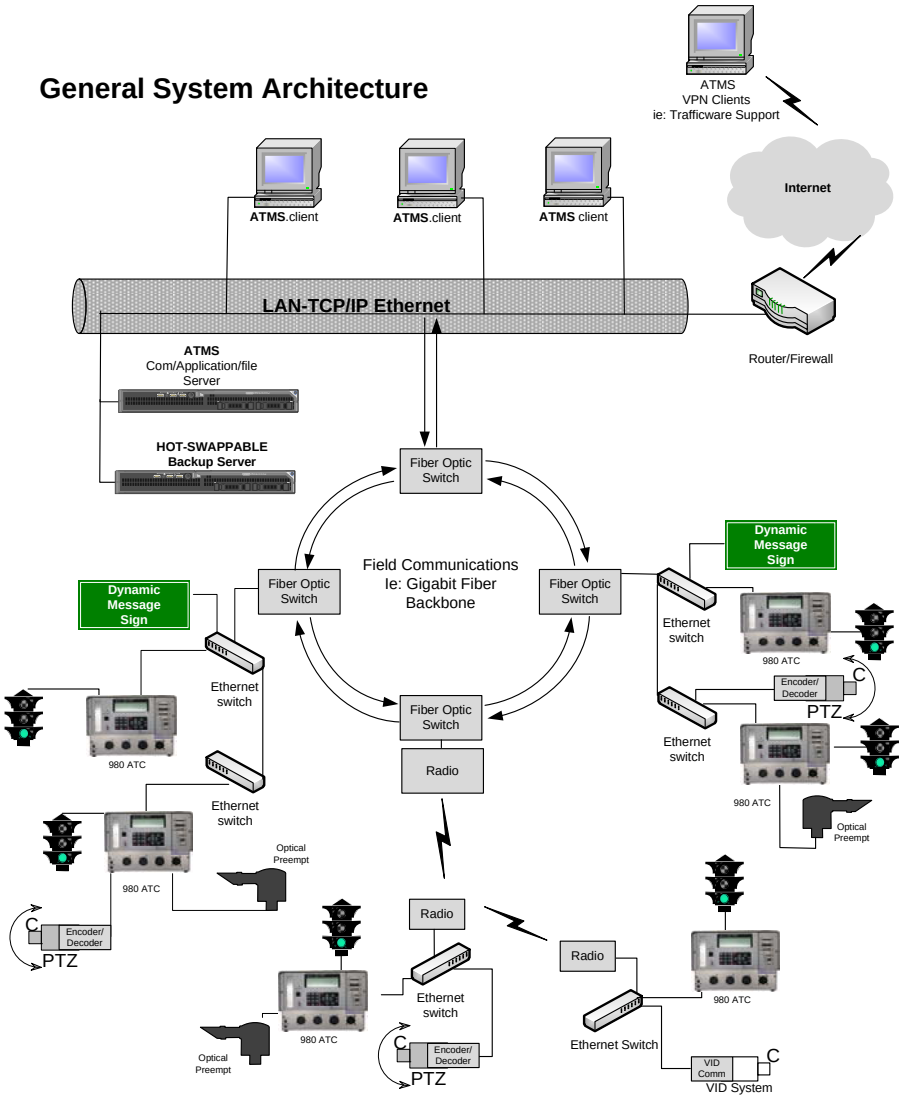
TRAFFICWARE'S ATMS.NOW

Trafficware has considered every single client request and built ATMS.now on a platform that performs unlike any other ATMS. Utilizing easy-to-use screens, ATMS.now offers complete traffic and data management, including real-time reporting, integration with Microsoft SQL server, .Net, Internet Server Services (ISS), Crystal Reports™, XML data exchange, ESRI & Mapguide-based GIS interfaces, AutoCAD, and hundreds of other 3rd party applications.

ATMS.now brings all traffic network data into a single repository for a completely integrated, real-time, 360-degree view of all ATMS operations. Featuring high-performance parallel database technology, a full suite of data access and management tools, robust data-mining capabilities, Trafficware's ATMS.now is a powerful performance and engineering tool.

ATMS.now is capable of handling up to 9,999 intersections and up to 64 detectors per controller, or a total of 64 x 9,999 = 639,000+ detectors.



SYSTEM DESCRIPTION

HARDWARE

ATMS.now is a multi-threaded transactional system that takes advantage of available hardware resources to meet capacity demands and is a distributed multi-user client-server application built on TCP/IP, communicating with field devices using RS-232 (serial) or TCP/IP (Ethernet) protocols.

Trafficware system software has been successfully installed on over 200 systems using a variety of hardware platforms and Microsoft operation systems.

Minimal Server Requirements:

- Microsoft Windows Server 2003 or greater
- Internet Information Services with Microsoft .NET 1.1
- Microsoft SQL Server 2005 or greater

GIS Requirements:

- Signal Shape File with the Controller ID as one column, in state plane coordinate system in feet
- Roads/Centerlines Shape File with a unique Segment ID as one column, in state plane co-ordinate system in feet.
- Background Aerial in MrSid format

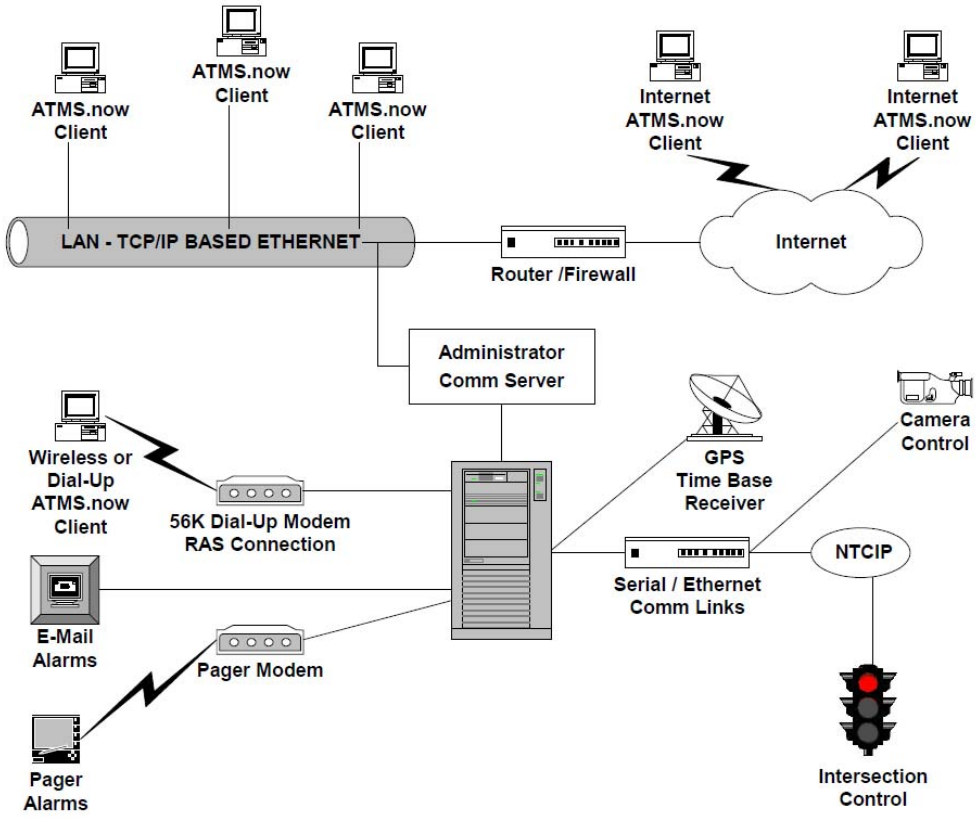
To ensure high availability and redundancy, Intermountain Traffic proposes the installation of a second server which will act as a real-time backup and eliminate downtime from any type of hardware failure. This second server will be an exact replica of the first.

ATMS.now' s communication infrastructure uses an Open Systems Interconnection (OSI) communications model utilizing TCP and UDP at layer 4, IP at layer 3 and Ethernet at layer 2. This allows real-time status to be received continuously on a once per second basis from local controllers with true Ethernet interfaces. Real time information includes phase status, current timing plan, mode of operation and equipment status. This infrastructure enables all communication and transaction processing to be done on a single hardware server.

System communication may be point-to-point from the central server or distributed using on-street masters embedded in TS2 and 2070-based controllers. In addition, central based masters can support dynamic group assignment by time-of-day over multiple communication channels.

The ATMS.now system communication utilizes a hybrid of communication channels including twisted pair, fiber, wireless radio, Ethernet, dial-up, etc.

SOFTWARE



ATMS.now consists of the following three software components:

1. *Communications Server*
   The Communications Server, or "Comm Server", provides access to all field controllers. The Comm Server receives communication requests from the Administrator and Client and retrieves the requested data from the field. The Comm Server is capable of taking mixed communication methods and speeds (forms of serial and IP), and sorting them by "Drops". The different types of data flow seamlessly into the user interface (Client) without being obvious to the user. ATMS.now currently offers up to 200 definable drops.

2. *Administrator*
   The Administrator is the system component that replies to requests from multiple (multi-user) clients, as well as handles programmed system tasks from the "Scheduler". If the data necessary to respond to the request is already available, then a report is immediately generated and returned to the client. If the requested data is not available, then the Administrator forwards the request to the Communications Server, which gathers the requested data from the field and returns it to the client.

ATMS.now Communication and Administrator Servers

3. *Client*
   The Client provides a graphical user interface (GUI) for multiple workstations distributed across a TCP/IP network. The Client allows the user(s) to view the current status of the system, exercise system control, and generate reports from historical data.

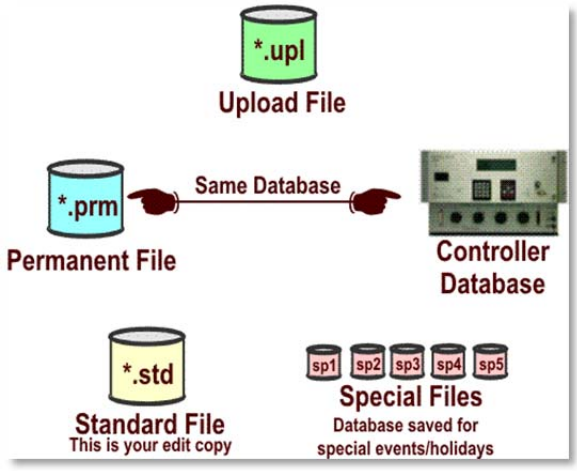
FILE SYSTEM

Database Recovery

ATMS.now provides a database utility for backup and recovery that will automatically compress and back-up the database on an operator-specified time-of-day, or upon operator commands; and restores the back-up copy of the database.

File Structure

ATMS.now maintains several file copies of the controller database in the server directory /nazserv/data. This section explains the purpose of each of these files and how ATMS.now maintains a copy of the field controller database in the Permanent File. Understanding the file system is the key to understanding upload/download procedures and how StreetWise Partner performs a hotSync between the Palm Pilot and the ATMS.now database.



The standard file is the users edit copy of the controller database. This is often referred to as the "working" database file. Typically, the user edits the Standard File and downloads the edited copy to the controller. After a successful download, ATMS.now saves the Standard File to the Permanent File. ATMS.now saves a copy of the uploaded controller database to the

upload file. This file system insures that the edited copy of the database is separated from the permanent copy residing in the controller.

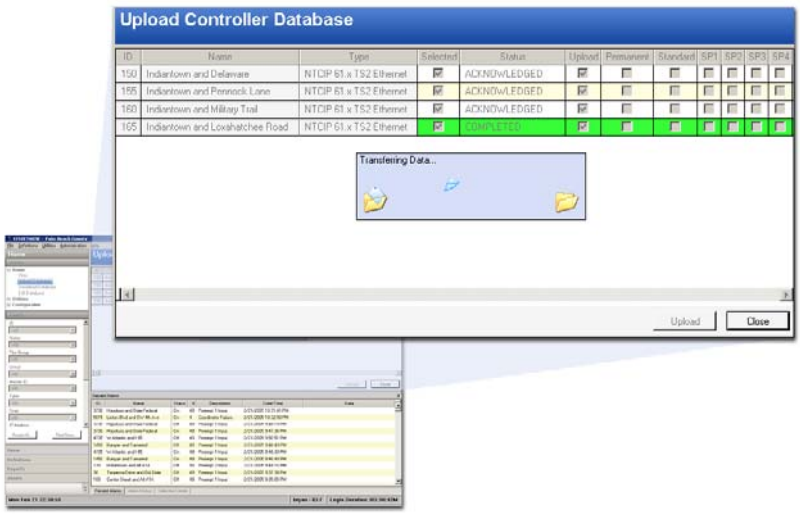
Special files are edited copies of the controller database saved for some specific purpose. For example, the user can name special files with descriptive titles such as “Christmas shopping period,” “football game day,” etc. that make them easy to identify. Five special files are provided for each controller defined in the system.

ATMS.now allows the user to edit the standard and special files. The permanent and upload database may only be viewed or copied to the standard file. This structure preserves the integrity of the last successful download to each controller.

Included within ATMS.now are over 20 report viewing templates for viewing statistical movement and lane counts for individual intersections, or entire arterials in several different styles and formats. The reporting function combines Microsoft SQL database with Seagate Crystal Reports engine to offer a comprehensive library of built-in report utilities or allow the user to generate their own custom report templates with ease.

Upload/Download

Any of the aforementioned files can be downloaded to a controller or Flex Groups of controllers as a complete database, groups of timing parameters, or as individual timing parameters. Furthermore, individual or groups of timing parameters can be downloaded to multiple actuated signal controllers. An example would be, edit all your Yellow Clearance Intervals for selected phases and download this to multiple controllers in a Flex Group that represent an arterial.



To accomplish this, all mandatory and manufacturer specific NTCIP objects had to be developed for the Actuated Signal Controller. Upload/download uses dynamic objects to transfer entire databases. This reduces data transfer overhead and uses the constituent Mandatory or Manufacturer Specific Objects when individual timing parameters are transferred.

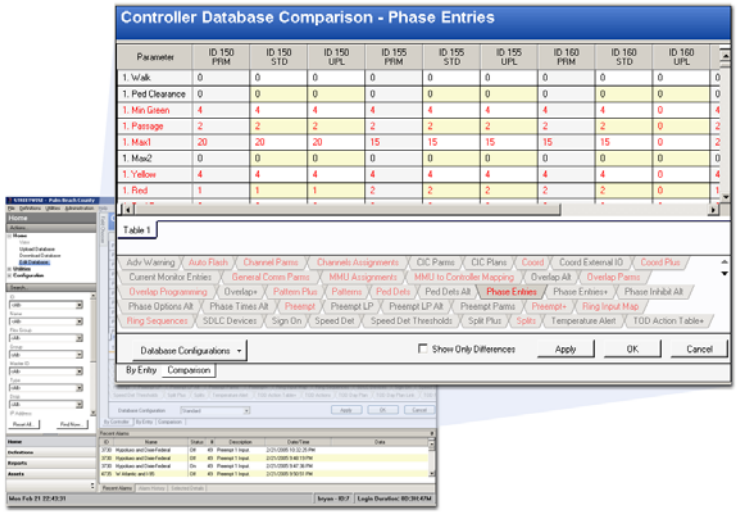
Trafficware fully supports NTCIP as the communications and database standard for all ITS field devices. Trafficware has made a major investment in developing and testing NTCIP for all TS-2 and 2070 products and the emerging ATC controller standard. The Protocol Analyzer and Object Tester built into Trafficware’s StreetWise ATMS ensure compatibility with the 12,855 NTCIP objects and MIB's currently implemented in the Trafficware family of ITS devices. Trafficware ensures future enhancements to NEMA standards and its own MIB objects are fully tested and supported.

SYSTEM DESCRIPTION

Trafficware's Signal Controllers have true 10 Mbps Ethernet. Trafficware does not employ internal serial to Ethernet conversion in the Controller, as it limits the communication speed common to serial transfer rates of 19.2 kbps.

ATMS.now uploads and downloads all Mandatory and Trafficware Manufacturer Specific objects that represent timing parameters in the Actuated Signal Controller including, but not limited to the following data:

- Intersection timing parameters
- Detector data from at least 64 detectors per intersection controller
- Controller and cabinet alarm data
- Event data
- Universal date and time
- Controller date and time; and others specified elsewhere in these Functional Requirements.



The user has the ability to compare any combination of the eight databases in ATMS.now. This feature allows for identification of database differences necessary for maintaining database integrity and comparing records against the file copy (permanent). ATMS.now identifies differences by color coding each database category tab and the corresponding database parameter in RED.

ATMS.now allows multiple intersection database editing of controller parameters within a single window.

Flex Groups

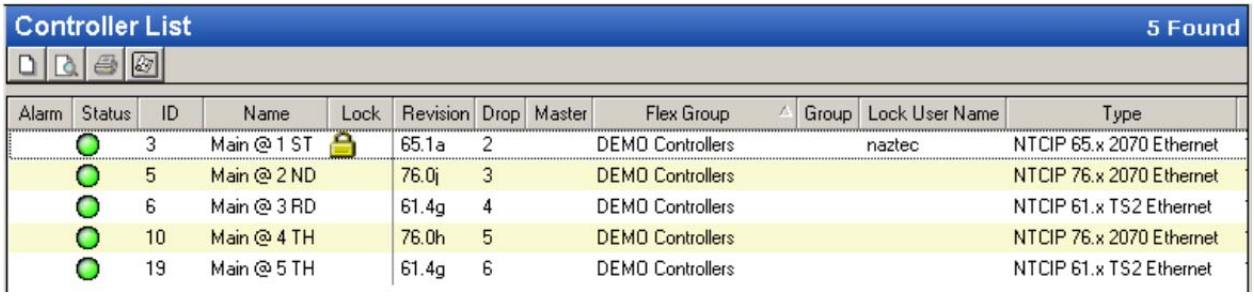
Flex Groups allow controllers to be identified with multiple groups of intersections, allowing more system flexibility and control. ATMS.now also contains *Groups* if desired by the user; however, they are a legacy feature that has the limitations of single group membership.

Controllers can be grouped in anyway desired regardless of physical location or communication drop in what we call *Flex Groups*. We allow controllers to be a member of more than one "Flex Group". All actions on intersections/detectors can be performed on a *Flex Group* basis either manually or TOD using the Scheduler.

ATMS.now has no limitations on the number of *Flex Groups*.

Database Lock

An added safeguard in ATMS.now is the Lock User Feature. This feature prevents multiple users from simultaneously editing the same database.



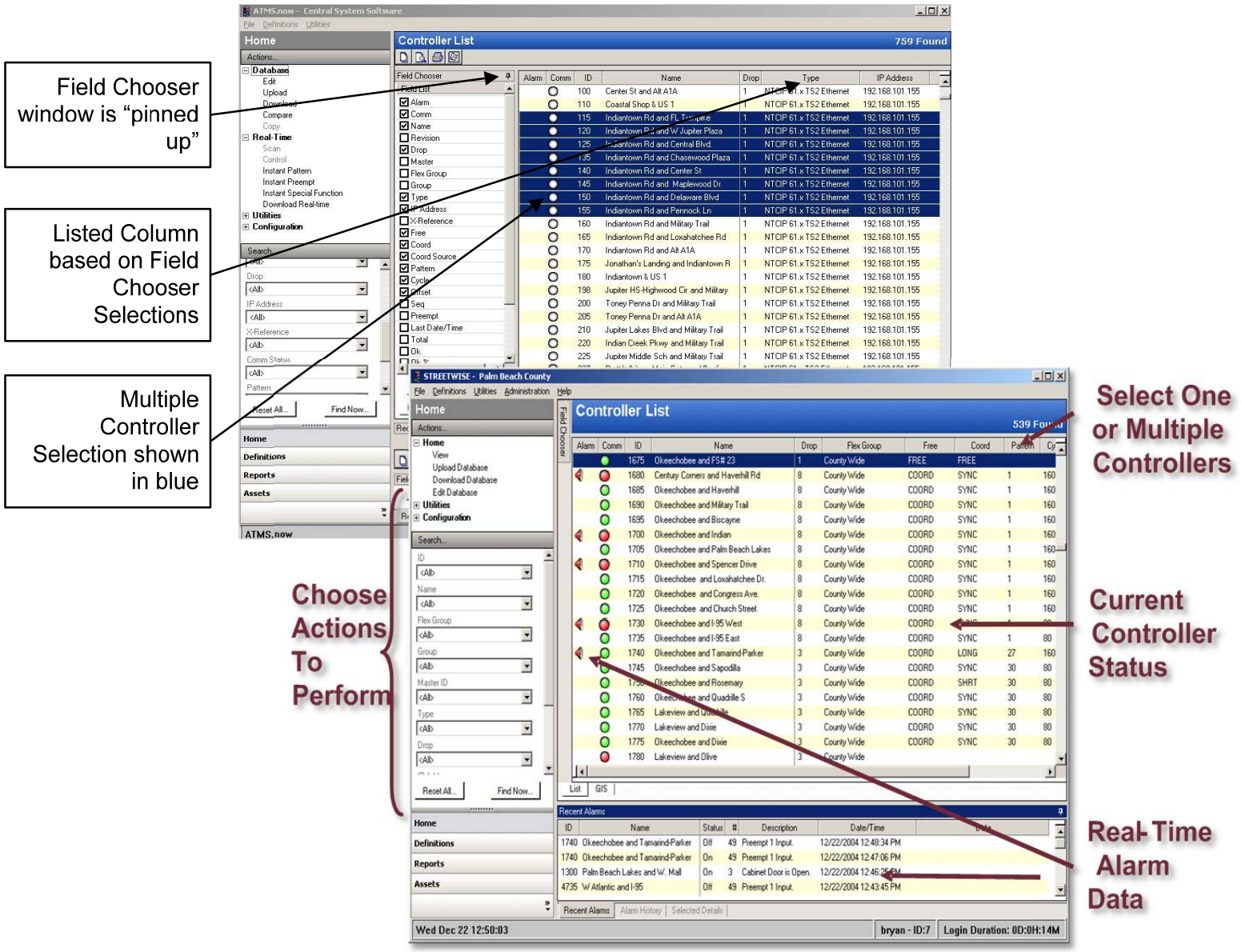
Alarm	Status	ID	Name	Lock	Revision	Drop	Master	Flex Group	Group	Lock User Name	Type
		3	Main @ 1 ST		65.1a	2		DEMO Controllers		naztec	NTCIP 65.x 2070 Ethernet
		5	Main @ 2 ND		76.0j	3		DEMO Controllers			NTCIP 76.x 2070 Ethernet
		6	Main @ 3 RD		61.4g	4		DEMO Controllers			NTCIP 61.x TS2 Ethernet
		10	Main @ 4 TH		76.0h	5		DEMO Controllers			NTCIP 76.x 2070 Ethernet
		19	Main @ 5 TH		61.4g	6		DEMO Controllers			NTCIP 61.x TS2 Ethernet

USER INTERFACE

ATMS.now uses re-sizable “Pane” windows within a single Client screen to allow the user to create the desired screen space for each work area. This eliminates older-style “Pop-Up” screens when working on standard operations. ATMS.now does still operate “Pop-Up” screens for real-time “Scan” windows and video windows when camera feeds are launched.

List View

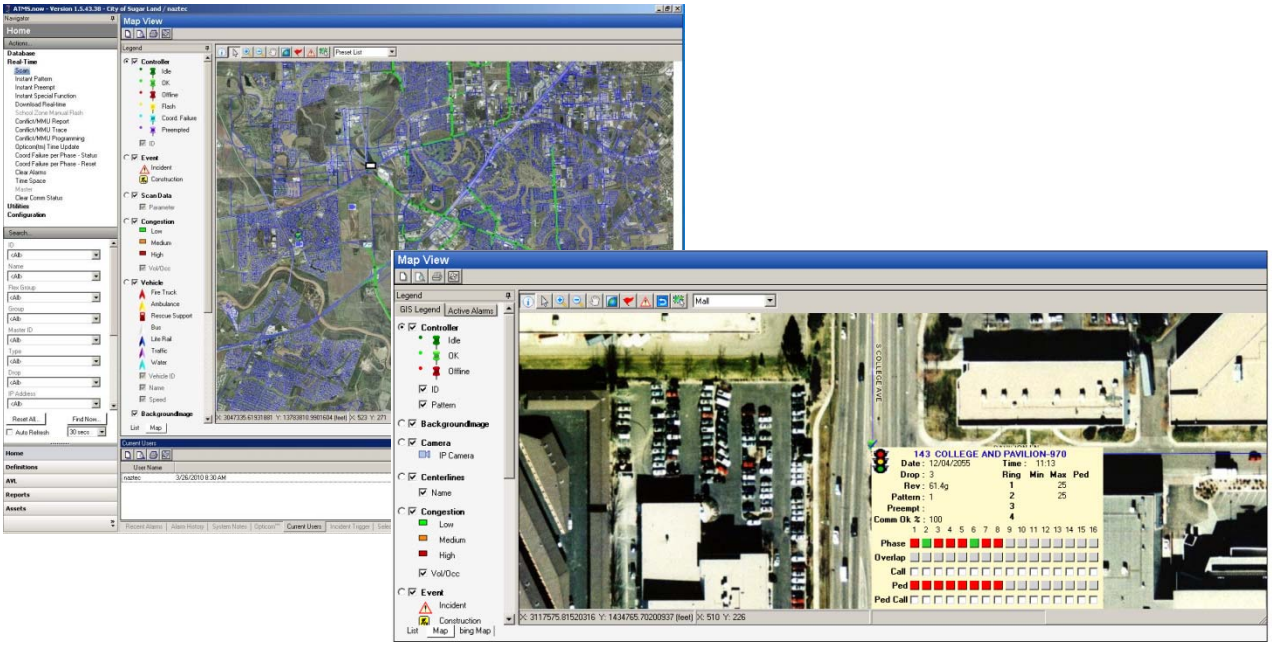
Real-time information such as active pattern, communication status, controller/group configuration, coordination status, real-time R/Y/G status, and detector input status is shown for each controller on the *List View.*



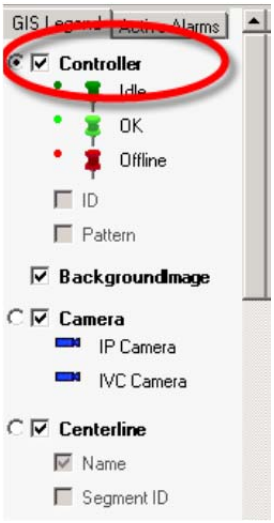
Map View

The GIS Map view provides a real-time, GIS-based, status map display of all of the ATMS.now system elements. The base map utilizes GIS files provided by the City and shows the roadway centerlines of arterials and collector streets, freeway centerlines, rail lines, and major landmarks.

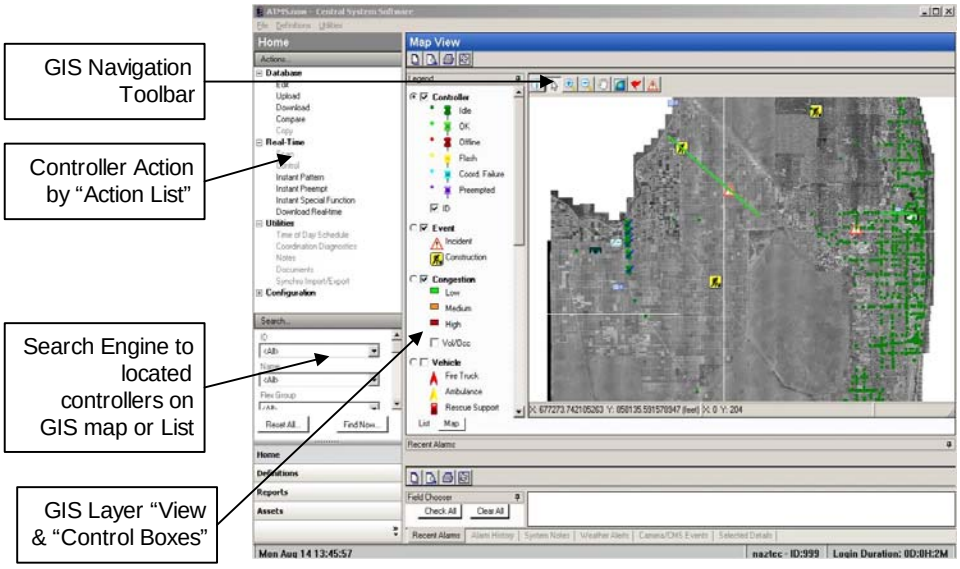
All standard GIS zoom functions and layer actions are integrated into the map and the user can select any combination of GIS layers to be displayed at any time. The specific controllers that are displayed on the GIS Map can be directly searched, identified, and controlled. Further functionality is provided by right-clicking the controller on the GIS Map tab.



The GIS Map view offers a filtering legend, which allows the user to toggle on or off viewing the layers on the map. Each data type such as Controllers, Scan Data, Events, Congestion, Switches, Cameras, BBS, CMS signs, Light Rail, Fire Stations, etc., can be displayed as a distinct layer on the map. Layers representing devices that dynamically change status, such as Controllers and Congestion, are updated in real time through the Scheduler programming. The real-time condition of each object on the map is color-coded according to the Legend and displays the corresponding color to the “Status” column of the List View tab.

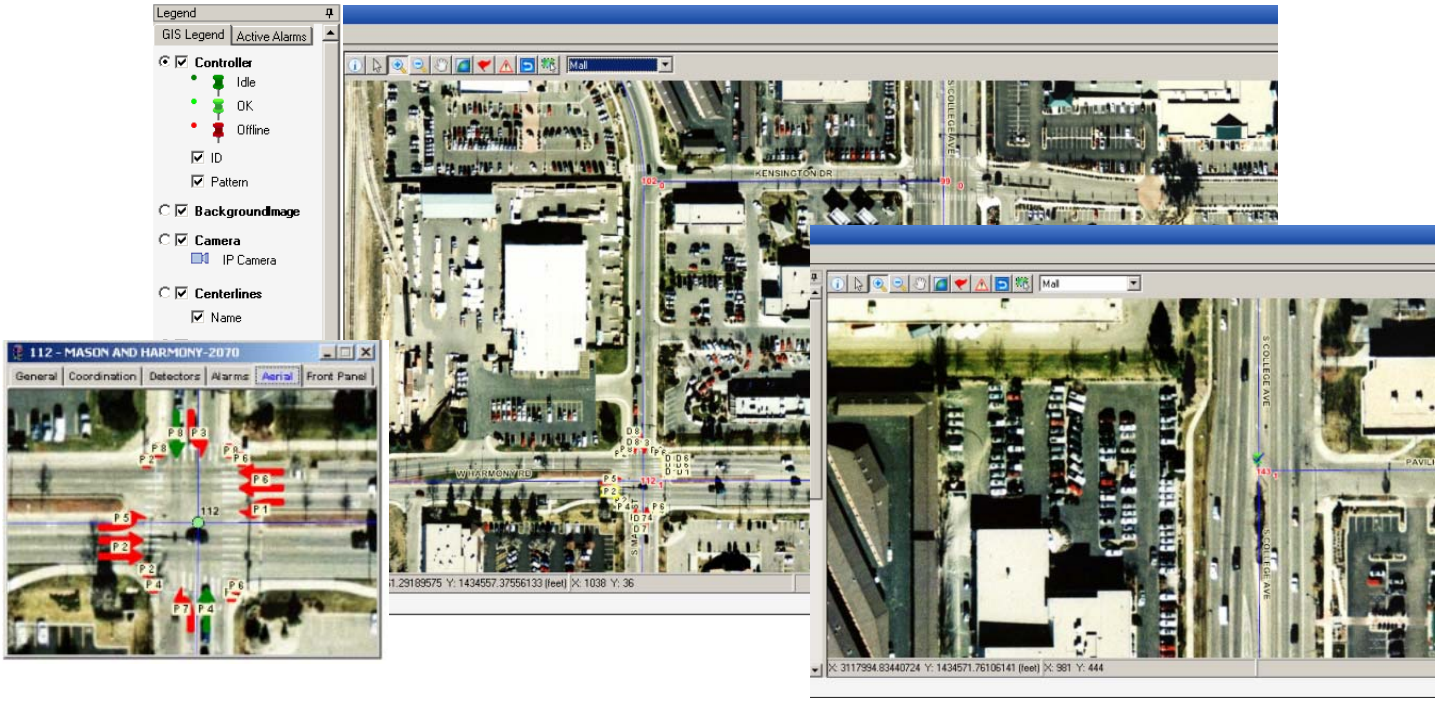


SYSTEM DESCRIPTION



The signal system GUI provides an easy to use intersection add utility that allows the administrator to easily add devices to the system through the use of templates and drag and drop items. Once created the system user can simply drag and drop onto the map. No line entries in the database or programming are needed.

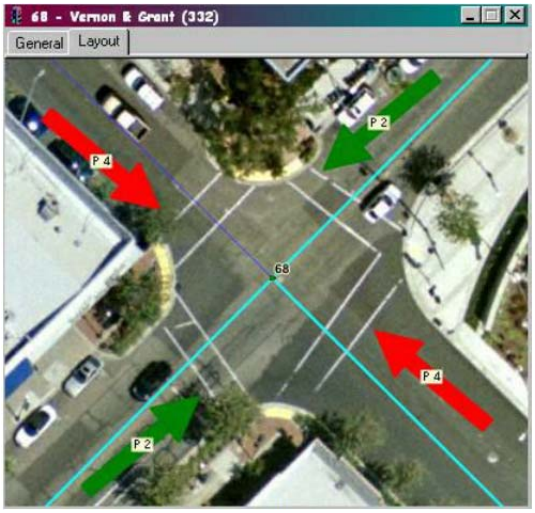
Standard zooming capabilities are provided in ATMS.now map views. Users can zoom in to specific points on a map or zoom out by increments of one measure of extent. By zooming in to a selected intersection, users can get a more detailed view, including the controller ID or Pattern number.



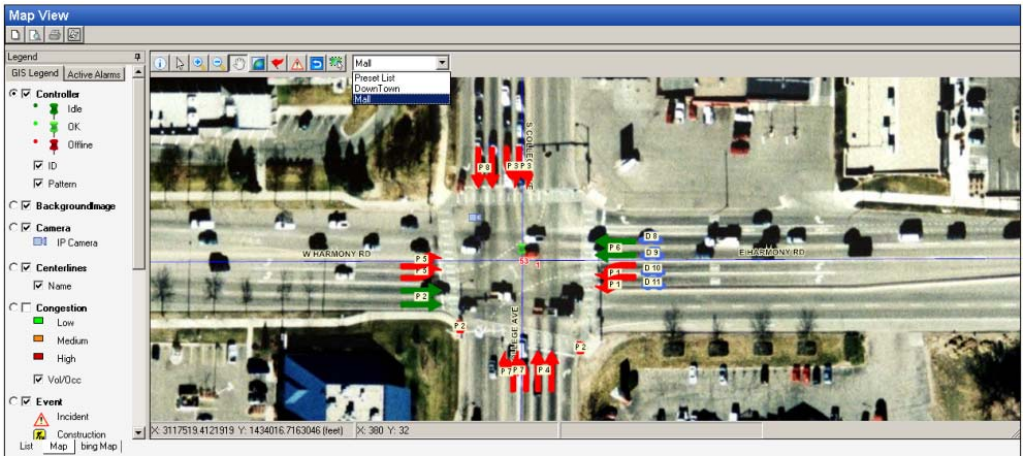
All layers represented on the Legend are actively monitoring and provide control capability from the GIS Map. The viewing state of each distinct layer can be toggled on or off, controlling whether or not it is displayed at that moment. ATMS.now tracks the user preferences on the GIS Map view with the “stickiness” feature, displaying the last active layers when returning back to the GIS Map tab. Each layer can be enabled for view and control by turning it on or off.

An example of a status-only layer is the “Scan Screen” layer. ATMS.now takes the real-time polling information and enables the system to display programmed signal, pedestrian, and detector information on a “Scan Screen” layer on the GIS Map. When set up for each intersection, the “Full Status” polling will continue collecting. The information is collected and ready within ATMS.now, whether or not the Scan Screen is programmed, or an actively displayed layer. This real-time status can be displayed for single or multiple intersections. If the “Parameter” box is checked, the phase or detector value will appear on each scan point, such as “P2” for Phase 2, etc. The picture shown below is what can be seen when the “Scan Screen” layer is active for an arterial view.

When a Controller Hover appears, you can double-click on it to make it permanently “Pin Up” as a dedicated window. The picture to the right shows that a pinned hover offers two view options, the General Information and Layout (GIS) view tab.



One of the GIS map tools allows users to save presets. Presets enable the user to zoom to a saved view on the GIS map. To select a specific “Preset View” for navigation, users simply select the drop-down menu on the GIS toolbar. A list of the available Preset Views for that user will display. Upon selection of the desired Preset View, ATMS.now will automatically navigate and zoom to the programmed GIS view. The figure below shows a sample of a preset view.



Dynamic Displays

System Map

When maximized, graphical views return to the scale at which they were displayed immediately prior to being minimized.

Zoom/Pan

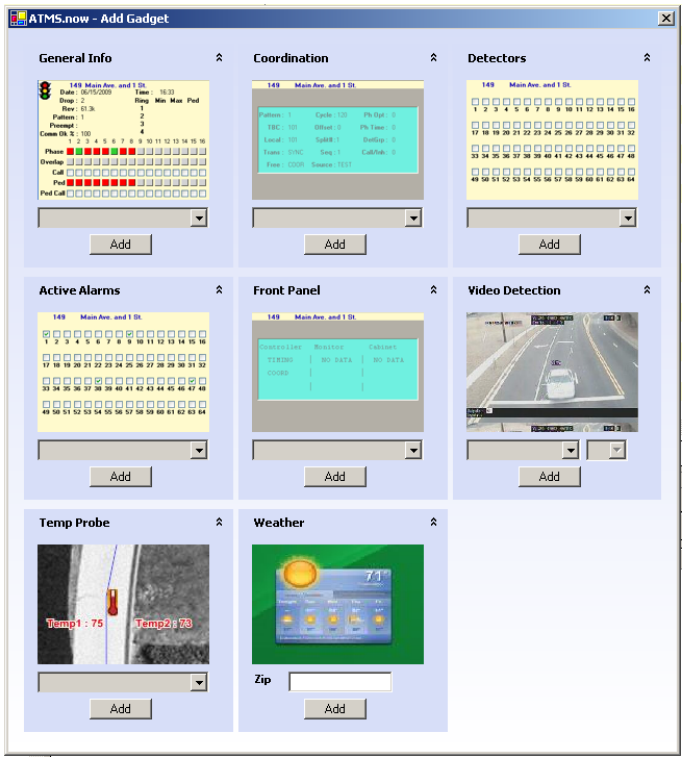
Dynamic mapping incorporates full pan/zoom capability. The operator has the ability to set up both dynamic and static informational layers that are displayed at different view scale levels by defining these levels in a zoom level set-up configuration database table. By setting the zoom scale range and appropriately enabled/disabled layers, the operator is able to control which layers display at different zoom scales

Global Parameter Changes

ATMS.now allows Global changes to be made on a system-wide, section, or intersection basis without requiring the operator to enter data one intersection at a time.

Gadgets

ATMS.now enables users to quickly access devices through the Gadget pane. This provides users with the ability to group together targeted items that need to be monitored into one window within the main workspace. The Gadget pane displays real-time information such as weather, video feeds, road temperatures, and controller screens. By default, the Gadget pane is “tucked-in” and can be “pinned up” for constant viewing. Each user creates their own Gadget view arrangement and ATMS.now will remember the unique settings for each person by user login.



ATMS.now allows users to organize the system’s displays on the Gadget pane, which is designed to give the user the ability to monitor targeted items within the main workspace. The Gadget pane displays controller screens such as general information, detectors, alarms, Coord status, etc. By default, the Gadget pane is “tucked-in” on the upper right side of the Overview pane. It can be “pinned up” for constant viewing.

Each user creates their own *Gadget* view arrangement and ATMS.now will remember the unique settings for each person by user login. Populating the Gadget window is very simple and can be done by selecting the desired gadget from a drop-down menu.

Additional Displays

Device Status

Various methods are built into ATMS.now for viewing real-time status updates of many device types. By using the GIS Map view, users can view a real-time, GIS-based, status map display of all of the ATMS.now system elements. All standard GIS zoom functions and layer actions are integrated into this GIS map view. The user can select any combination of GIS layers to be displayed at any time. In addition, details can be accessed in other areas, allowing users to view information of the active layer, including real-time status for Controllers, Congestion, Cameras, CMS signs, Switches, etc. Additional methods for viewing real-time status updates include:

- Real-time status report: displays the current real-time status of controllers.
- Scan Screens: displays the real-time status from one or more intersections.
- Coordination status tab: displays the same coordination status as displayed on the controller and any alternate phase time tables, phase option tables, alternate detector groups or call/inhibit tables associated with the active pattern.
- Detector status scan tab: displays real-time detector channel inputs for up to 64 channels.
- Vehicle Trigger Status Report: provides a report of vehicle trigger status.

Current Users

The Current Users tab displays all of the users that are actively logged onto the system. This feature is useful in a variety of situations, such as to assist in determining which users can be contacted through the Broadcast Message feature, or who is logged in to the system when the server needs to be shut down for updates. ATMS.now also provides reports of logins, which will display a history of the dates and times users logged on to a controller and on to the server.

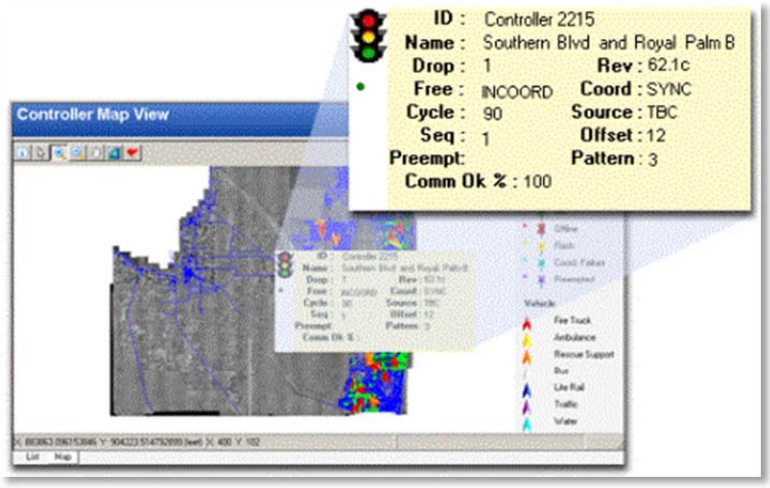
Alerts

ATMS.now enables users to view real-time details on the number of open alerts and the importance of each alert. The Alarm History log displays a full history of the most current 100 system alarms and controller Alarms and Events as programmed in each controller. Both cleared, or “acknowledged”, and un-cleared alarms will appear in this tab. As discussed in “Maintenance Malfunction and Notification,” alerts are categorized using a customizable color-coded priority system. This allows the user to indicate the importance of an alert.

GREEN	RED	YELLOW	CYAN	PURPLE	GREY
On Line and communicating	Off Line and should be communicating	Intersection is in Flash	Intersection has reported a Coordination Failure	Intersection is in Preemption	Off Line and not being polled for status

Intersection Display Hover View

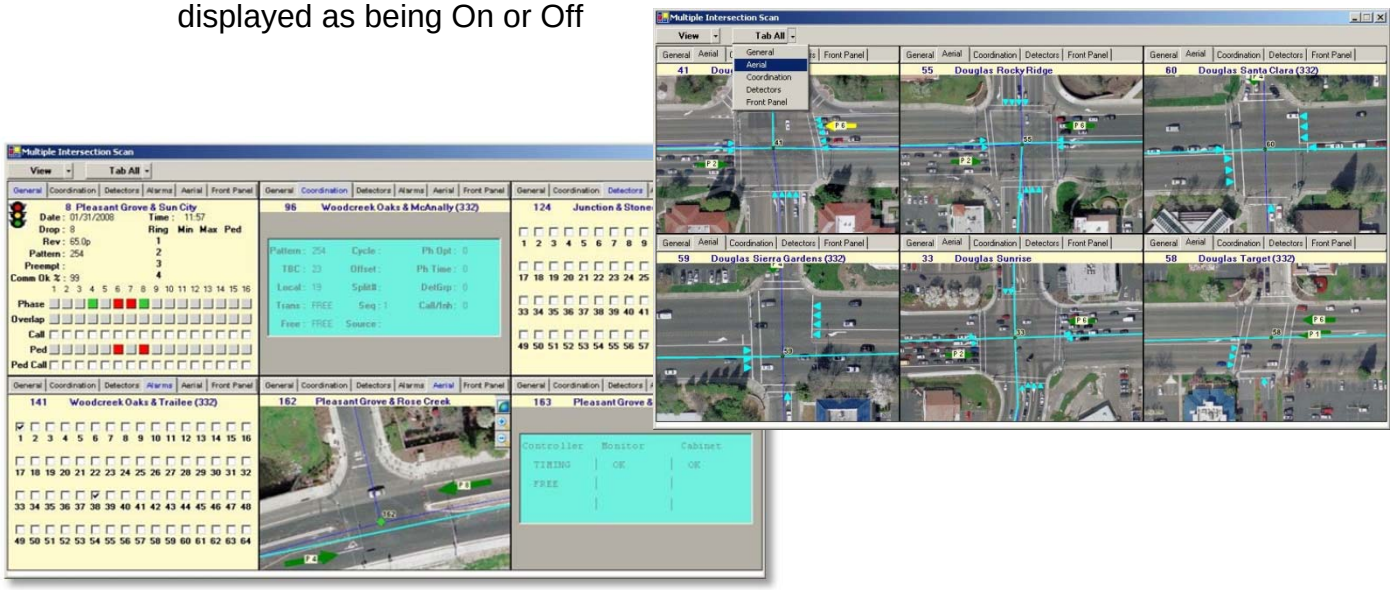
By placing the cursor over a particular controller, the user is presented with detailed current information.



Scan Screens

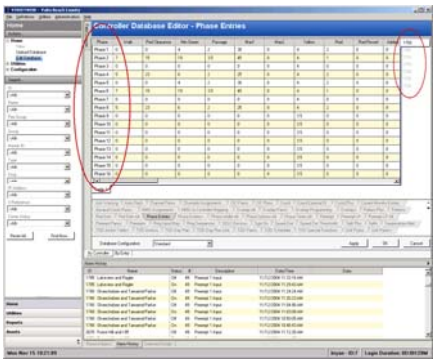
The real-time status of one or more intersections can be displayed with the Scan Screen. Various individual windows provide the user with the capability to view:

- General Information: displays phase timing and coordination status, the Active Ring, Recalls, Local Counter, Time, Pattern, Split, Preempt, and successful communication attempt percentage
- Aerial: displays a zoomed view from the GIS map
- Coordination: displays the controller coordination status, any alternate phase time tables, phase option tables, and alternate detector groups or call/inhibit tables associated with the active pattern
- Detectors: displays real-time detector channel inputs for up to 64 channels
- Front Panel: displays the status on the TS2 or 2070 controller
- Alarms: 64 active alarms operate in real-time from the controller and are displayed as being On or Off

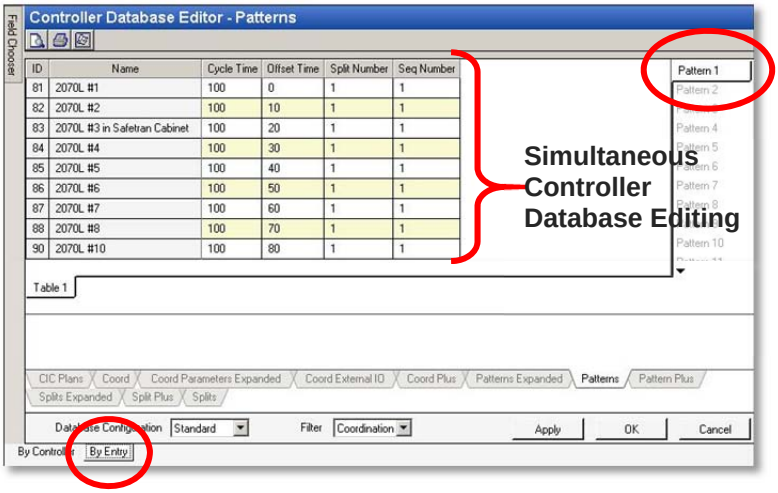


Database Editing

In order to alleviate repetitive data entry, users can copy and paste data to and from other Windows™-based applications as well as copy/compare database fields between controllers. In the graphic to the right, the circled list of selected controllers in the Controller Database Editor allows the user to quickly copy/paste from ID to ID. The user can copy and paste cells, rows, columns and grids.



By selecting the "By Entry" tab in the Controller Database Editor, the user can view and manipulate the same data across multiple controllers.



The search engine can filter intersections by ID, drop, status, IP address, pattern, name, Group, Flex Group, or Master ID. In addition, the search engine in the reports module filters by report name, report category, controller ID, controller name, Flex Group, Begin date, End date, Begin Time and End Time.

The user can use the "Print Screen" function provided with each database screen in ATMS.now.

MODES OF OPERATION

ATMS.now operates in a distributed mode, making use of the intelligence in the Actuated Signal Controllers. ATMS.now uploads and downloads to the controller all the parameters required to operate the local intersection including time-of-day/day-of-week (TOD/DOW) schedules. The system also monitors all intersection controllers on a real-time basis communicating at a rate of 10,000 Kbps. Upon system startup, ATMS.now is configured to establish communications with all intersection controllers and begin real-time monitoring. ATMS.now is designed for unattended operation twenty-four (24) hours per day, seven (7) days a week, without requiring an operator to be logged into the system.

ATMS.now provides system control by coordinating intersection operation on an individual, Flex Group, or system-wide basis. ATMS.now includes the following defined control modes, which are operator-selectable from the Graphical User Interface (GUI): Local TBC (TOD/DOW), Special Event, Remote (Manual), System (Traffic-Responsive), Off-Line (Standby), and Flash.

The Active Pattern drives the operation of the local signal controller. NTCIP defines Opmodes, Src as the source of the Active Pattern. The source of the active pattern may be Remote, System, or TBC. If the system is in standby mode then the active pattern is set to TBC generated by the local Time of Day schedule.

In the event that, while in software-commanded override, a controller does not receive a valid timing plan number from the central signal system software within an operator-defined time frame, ATMS.now reverts back to its local TOD/DOW schedule.

In the event of a failure other than power failure or the severing of communications between ATMS.now and the controller manual programming overrides all modes.

Stand-By

ATMS.now has a Controllers Offline function that allows the user to limit the communication of information to only those devices that are actually online and communicating to the central server. By designating controllers that are offline, you can isolate the controllers that are not ready for communication from the controllers that are operational and need to communicate to ATMS.now. Both the List View in the GUI and the Icon in the GIS show the deactivation by disabling color-coded controller conditions. It is possible to manually schedule controllers on an intersection basis or Flex Group basis. The whole ATMS or specific functions can be set to “View” privileges only, limiting command and editing capabilities on a function-by-function basis.

Flash And Free/Flash

In the flash mode, the controller does not provide green time to any movements at the intersection. FLASH is defined as Pattern 255 by NTCIP. Flash can be initiated from the central by either manual control or through the scheduler.

In the free mode the controller runs uncoordinated. FREE is defined by Pattern 254 by NTCIP. FREE mode can be initiated from the central by either manual control or through the scheduler.

Both Actuated Signal Controller conditions are represented via List View in the GUI and the Icon in the GIS show by a color-coded pin or button.

Temporary And Permanent Commands

A control window with Time Range, Date Range Monday thru Sunday date Fields entered in ATMS.now allows the scheduler to implement any command on a Temporary basis, permanent, or recurring basis.

Remote (Manual Commands)

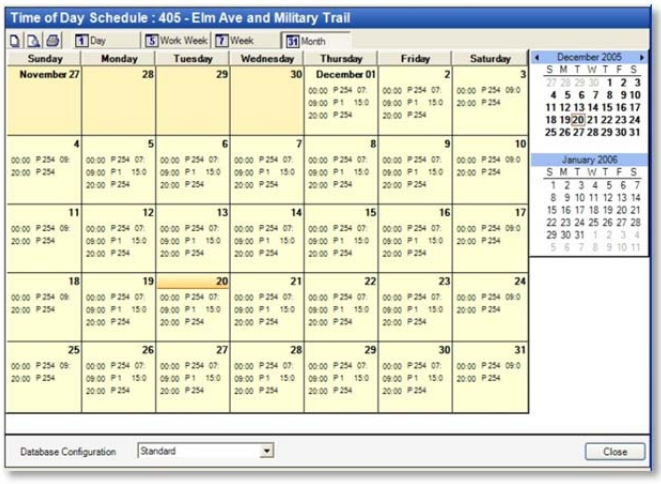
ATMS.now provides an extensive list of commands that can be manually or automatically scheduled for override and release in any time frame. Some of these commands include patterns, preemption, special events, special functions, download real-time clock, and collection of events, traffic volumes and occupancies. These commands can be done on a controller, Group, or Flex Group basis. Manual commands are the highest level of the control hierarchy in ATMS.now.

The Actuated Signal Controller provides 24 Special Functions for users which can be activated by Day Plan Actions or manually controlled by ATMS.now. The user can manually control a controller, Group, or Flex group of controllers by immediately overriding or adding to the current operation with a special function output and running that special function for a duration of time or indefinitely. The user can use the scheduler to automatically activate the Day Plan Action containing the Special Function or Functions

Remote Stop Time

Trafficware implemented Stop Time as a pattern in ATMS and the controller. Stop Time is executed remotely via the Instant Pattern function, only when accompanied by a time value (in seconds). The controller internally freezes the timer just as if it receives a Stop Time from the cabinet, only it requires a time value to execute it, preventing intersection lock up.

Time Of Day (Tod)



By default ATMS.now uses TBC mode for controlling traffic conditions at the local intersection. In this mode, each controller automatically selects and implements the locally stored traffic signal timing plans in accordance with the defined schedule. The ATMS.now Schedule is a fully compliant NTCIP based time-of-day schedule. NTCIP defines an annual schedule in terms of day-of-week, month, and day-of-month. This implies that the schedule applies to the current year. The Schedule selects the Day Plan for the current day. The Day Plan contains the time-of-day events for the current day used to select actions from the Action Table. The Actuated Signal Controller

updates the current TBC pattern once per minute based on the scheduled events from the action table.

Each day the controller checks the Scheduler to determine the most applicable Day Plan. If the current day is not specified in the Scheduler, the controller will run free in Pattern# 0. The controller checks the current Day Plan once per minute to retrieve the current time-of-day action. The controller then performs a lookup in the Action Table to determine the active TBC Pattern. The TBC pattern determines the current time-of-day of the controller. NTCIP defines 48 Patterns, 100 Actions and 32 Day Plans. All Patterns, Actions and Day plans are stored in the ATMS.now SQL database Permanent File so that ATMS.now "knows" which parameters are stored in the controller.

Special Events

The Actuated Signal Controller provides 48 patterns, 100 Actions and 32 Day Plans conforming to NTCIP standards for users which can be activated by Day Plan Actions or manually controlled by ATMS.now. The user can manually control a controller, Group, or Flex group of controllers by immediately overriding or adding to the current operation with a special function output and running that special function for a duration of time or indefinitely. The user can use the Scheduler to automatically activate the Day Plan Action containing the Special Function or Functions.

The Scheduler performs pre-programmed, automated tasks such as controller status, data collection, time synchronization, database verifications, and Special Functions. Although all these functions can be performed manually, they are easily automated to save time and have accurate information ready or more easily accessible to the user. All information gathering is stored on the server in SQL and can be retrieved at any time. The operator can make an unlimited number of entries multiple years in advance. The Scheduler allows the user to make the commands permanently, temporarily, or repetitively by individual controller, Group, or Flex Groups.

The ATMS.now operator is able to schedule any command for execution at any time if granted permissions in the User Module. The system administrator can inhibit commands from being entered into the event scheduler on a user basis.

In ATMS.now Manual (Remote) commands have priority over scheduled entries in the event scheduler. The operator has the ability to make entries into the event scheduler multiple years in advance. An unlimited number of entries are permitted in the ATMS.now scheduler: however, the controller is limited and defined by NTCIP for the number of events in the NTCIP controller. The scheduler has the capability to load multiple commands for the same time and to execute those commands at the same time, but for events scheduled at the same time, the execution are sequential by priority.

Traffic Responsive Control

Trafficware's ATMS.now includes a powerful suite of traffic responsive operation (TRO), with a choice of utilizing on-street field master controllers, or central based TRO. One further advantage to Trafficware's approach is that both the Model NT-981, 6-port TS2 master and Model 2070 master, include a local secondary controller, within the same

chassis. Trafficware is presently the only vendor in the industry who offers a field master and local unit within a single controller.

The layout and TRO strategy for these units are laid out identical to the requirements of NTCIP standard 1210 “Field Management Stations (FMS) – Objects for Signal System Masters.”

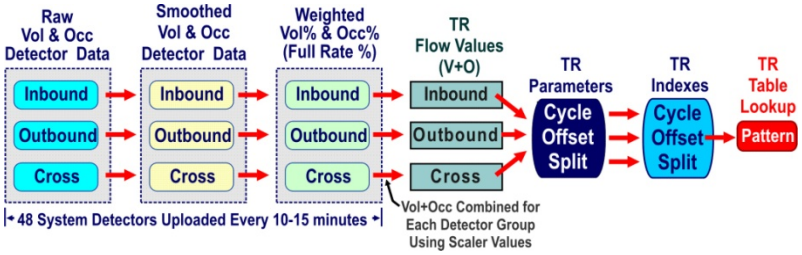
Traffic Responsive Operation (TRO) smooths raw volume and occupancy data, to “average” the data with the previous sample. This smoothed data is weighted using the Full Rate% values supplied by the user to calculate Vol% and Occ% for each detector. Vol% and Occ% are then weighted using Scalars to compute TRO Flow Values for the Inbound, Outbound and Cross-direction. The TRO Flow Values are used to calculate Cycle, Offset and Split Parameters which are in turn used to reference a Cycle, Offset and Split Index. Lastly, the indexes are used to “lookup” a pattern from the TRO pattern tables.

Traffic volume and occupancy measures vary greatly from one sample to the next, especially if the sample period is less than 10–15 minutes. Therefore, 10 or 15-minute samples are “smoothed” or “averaged” with the last “smoothed” sample. The Smooth Value is assigned for each detector and applied to the formula below to “smooth” each volume and occupancy sample. If the Smooth Value is “0”, then the current sample is not averaged with the previous volume or occupancy sample and no smoothing takes place.

$$SmoothedValue = \frac{(NewValue * (100 - SmoothVal) + OldValue * SmoothVal)}{100}$$

Vol %

Volume % compares the sampled volume (converted to a one minute flow rate) with the “Full Rate %” which is a full-scale reading of flow rate expressed in vehicles per minute.



Since flow rate is also a function of green time (g/C) provided over the detector, Volume “Full Rate %” must be approximated.

For example, assume that volume “Full Rate %” is 18 veh/min for a smoothed 15-minute sample. The measured flow rate is 150 vehicles, sampled over the 15-minute period (volume must first be converted to a one-minute flow rate because “Full Rate%” is expressed in vehicles per minute).

Vol (rate per minute) = 150 veh / 15 minutes = 10 veh / min
Vol % = measured flow rate / full rate % = (10 / 18) = 56%

Occupancy % is a measure of total vehicle presence over the detector during the sampling period. Full occupancy at 100% is equivalent to a constant call on the detector. NTCIP standards require occupancy to be expressed as an integer value, in the range of 0-200, so the resolution can be measured within 0.5 %. However, occupancy is always 100% of occupancy if a detector call is constant, over the entire sample period.

Trafficware NEMA controllers provide an enhanced "plus" detector feature called occupancy-on-green to measure occupancy only during the green or green + yellow clearance interval. This feature provides a useful measure of occupancy for detectors at or near the stop bar when standing queues are stopped over the detector during the red interval. Occupancy-on-green + yellow are measured during the portion of the sample time equivalent to the total split time.

Occupancy "Full Rate %" is a full-scale reading of occupancy expressed in %. Since occupancy is a function of the green time (g/C) over the detector and occupancy-on-green feature, occupancy "Full Rate %" must be approximated.

For example, if occupancy is measured during the green + yellow interval of the phase, then the maximum occupancy is roughly equivalent to the split time of this phase. If occupancy "Full Rate %" for this detector is 60% and measured occupancy is 12%, then the Occ% value is calculated as follows:

Occ % = measured occupancy / full rate % = 12 / 60 = 20%

Central level traffic responsive operation will provide a real-time status display of Vol% and Occ% for each system detector similar to the status display provided in the master.

TRO Flow Values - Inbound, Outbound and Cross Detector Groups

Each system detector is assigned to the Inbound, Outbound or Cross-detector group and assigned an occupancy Scalar (kx) and a volume Scalar (cx). TRO Flow Values are computed for each detector group using the formula below. Each TRO Flow Value (Inbound, Outbound and Cross) is a weighted average of the Vol% and Occ% values for the detectors sampled for each detector group.

$$FlowValue = \frac{(k1 * Occ_1 + k2 * Occ_2 + ... + kx * Occx) + (c1 * Vol_1 + c2 * Vol\ 2 + ...cx * Volx)}{k1 + k2 + ... + kx + c1 + c2 + ... + cx}$$

Central level traffic responsive operation (via ATMS.now in lieu of On-Street Masters) will provide real-time status displays of all TRO calculations for each active flex group. These status displays will include real-time TRO Flow Value for the Inbound, Outbound and Cross detectors assigned to each flex group. A table lookup is used to select the current Cycle, Offset and Split Index from these parameters.

Cycle, Offset and Split Parameters

The *Cycle, Offset and Split Parameters* are calculated from the *TRO Flow Values* as follows. These parameters range from 0 to 100% and are used to perform a table lookup to select the *Cycle, Offset and Split Index*.

Cycle Index = Max. Inbound V+O <*or*> Max. Outbound V+O
Offset Index = ((Outbound – Inbound) / (Outbound + Inbound)) * 50 + 50
Split Index = ((Cross – Cycle Index) / (Cross + Cycle Index)) * 50 + 50

Cycle, Offset and Split Index

The TRI and TRE calculations perform a table lookup using the calculated Cycle, Offset and Split Parameters to select a *Cycle, Offset and Split Index*. Separate threshold tables are selected depending on whether the C*ycle, Offset and Split Parameters* are increasing or decreasing. This reduces the hysteresis or "bounce" in successive data samples.

Separate threshold tables will be provided for each flex group. One table will be used to reference the index if V+O are increasing and the other table will be used if V+O are decreasing compared with the last sample. Below is an example *Cycle Index* lookup table for both cases. Similar threshold tables will be provided to select the *Offset and Split Index* as they are currently used in the field master.

CYCLE LENGTH THRESHOLDS

CYCLE LENGTH INCREASING
FREE to CYCLE 1 : 25
CYCLE1 to CYCLE2 : 35
CYCLE2 to CYCLE3 : 41
CYCLE3 to CYCLE4 : 48
CYCLE4 to CYCLE5 : 56
CYCLE5 to CYCLE6 : 99

CYCLE LENGTH DECREASING
CYCLE1 to FREE : 17
CYCLE2 to CYCLE1 : 28
CYCLE3 to CYCLE2 : 36
CYCLE4 to CYCLE3 : 40
CYCLE5 to CYCLE4 : 49
CYCLE6 to CYCLE5 : 99

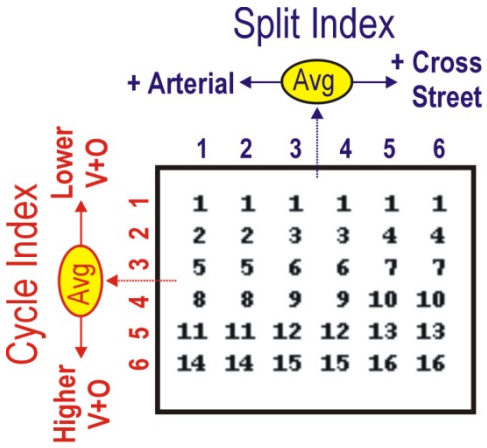
In the example above, suppose the current *Cycle Index* is "4" and the *Cycle Parameter* has increased during the last 15 minute sample period from 52% to 55%. A lookup from the increasing table will retain the *Cycle Index* at "4" because 55% is less than the threshold of 56% necessary to change to *Cycle Index* "5".

However, once the *Cycle Index* moves to "5", the *Cycle Parameter* will have to drop to 49% (from the decreasing table) to move back to *Cycle Index* "4". Without separate threshold tables, the TR system could become unstable if the measured *Cycle Parameter* began oscillating from 55 to 56. This method reduces the hysteresis or "bounce" in the V+O data measured by the system.

TR Pattern Lookup Procedure Using the Cycle, Offset and Split Index

The traffic responsive pattern is selected by a table lookup procedure using the calculated *Cycle, Offset and Split Index* values documented above. Four separate offset tables (cycle/split matrixes) are provided for each flex group defined in the system. Any of the 48 patterns within the secondary controllers may be assigned to these lookup tables.

The pattern lookup procedure described below illustrates the relationship between the inbound, outbound and cross street preferences within the system.



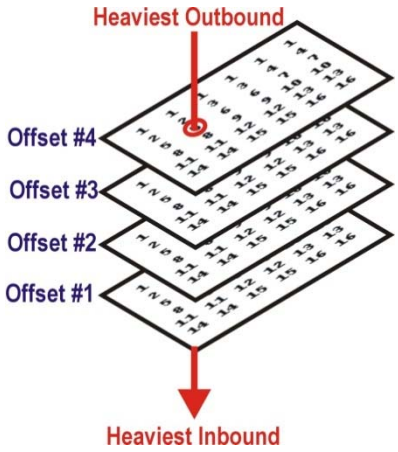
1) *Cycle Index* varies cycle length with arterial V+O

Patterns assigned to the same row typically share a common cycle length. For example Cycle 1 (row 1) could be assigned to free operation, Cycle 2 (row 2) assigned to 80" patterns, Cycle 3 (row 3) to 90" patterns, etc. *Cycle Index* then increases with V+O driving the cycle length higher with each successive row of patterns.

2) *Split Index* varies splits based on *Arterial* vs. *Cross*

Patterns within the same row share a common cycle length; however, different patterns may be used to adjust split times to favor an arterial or cross street preference.

CIC (Critical Intersection Control) is an adaptive split feature, which provides an alternate way of adjusting split times (see Chapter 13 of the controller manual).



3) *Offset Index* is based on an *Inbound* vs. *Outbound* relationship in the volume + occupancy data and adds a third dimension to the decision of selecting a traffic responsive pattern.

The four offset matrices can be visualized as four separate layers of the *Cycle / Split Index Tables* as shown to the left. *Offset Index* is the relationship between the highest *Outbound* V+O compared with the highest *Inbound* V+O.

Traffic responsive operation applies the *Offset Index* to select a *Cycle / Split Index Table* favoring a strong inbound or outbound demand in the network.

The controller provides a maximum of 48 patterns, with 32 unique split tables to define these matrices. However, there are 144 unique patterns that can be assigned to this matrix (4 offset tables * 6 cycles * 6 splits).

ATMS.now maintains a separate lookup table for each flex group, to emulate the mode table within the traffic responsive master. The possible modes assigned to each index are:

TR – Implement the current traffic responsive operation pattern for the flex group
TOD – Implement the current time-of-day for the flex group
SBY – Central stand-by operation

The mode table allows traffic responsive to select the operating mode of each flex group based on the calculated *Cycle Index* value. The mode table under master and central control can be configured to select time-of-day patterns from the secondary controller

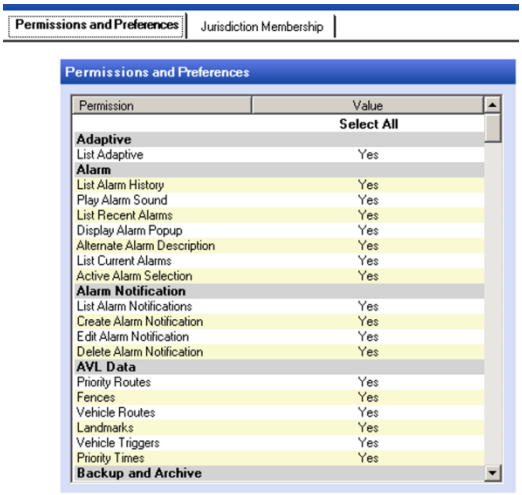
schedules as a default under low volume and occupancy (V+O) conditions and switch to a traffic responsive pattern at high V+O conditions to respond to incidents.

ATMS.now will maintain a separate lookup table for each flex group that provides traffic responsive outputs within the defined by NTCIP 1210 – Traffic Signal Masters. The NTCIP command table is primarily used to program special function outputs controlled by the traffic responsive pattern selected.

SECURITY AND SYSTEM ACCESS

Each user in ATMS.now is assigned security access in relation to all functions within the system. Typically, the system administrator (ADMIN) is the only user who can define other users and assign access rights. This level of security ensures control over which users have total access to the system and those which only have viewing access.

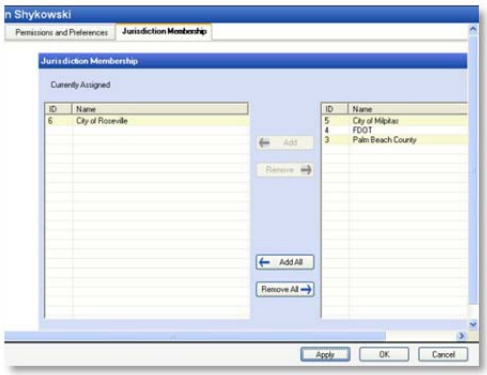
Each user can be programmed for different allowable operations to be performed on selected controllers only. This allows the City to select who has access to the system and which controllers are being accessed. This is a high-level security feature to minimize system problems created from unauthorized sources.



ATMS.now has several levels of security features, which may be enabled at multiple levels. Since the architecture of the central software is client/server based, the security settings for each authorized client connection are established upon connection, per the user account login.

Outside jurisdiction clients may be granted limited access to view their shared intersections only, while non-related intersections in other parts of the City are removed from the selection list, and “blinded” to these guest accounts.

The system administrator can set user’s access rights for all the components within the system. Any number of security levels can be created and users can be created from other user access rights



In addition to system administrators, ATMS.now provides multi-jurisdictional controls that provide Full, Partial, or Read-Only access rights to other agency’s devices, status’, and logs.

Individual user profiles can be customized by the System Administrator to allow or deny access to various components of ATMS.now. Among the many user-based permissions and preferences are those related to:

- Alarms (including incidents and triggers)
- AVL data

- Cameras
- Backup and archiving databases
- Controller configurations
- Congestion parameters
- Database parameters
- Devices
- Events
- GIS interface parameters
- Incident triggers
- User and jurisdictional rights
- Access and control of approved auxiliary devices, such as monitors and Opticom
- Real-time control screen access
- Reports
- Utilities
- Vehicle classification access
- Weather alerts

User Groups allows the system administrator to assign privileges to Group types, and assign users to those groups. This feature creates an easy way to manage privileges and control in large agencies.

Successful completion of the log-in results in execution of a session start-up procedure. The start-up procedure establishes privileges, object menu options, windows, and tools the operator may utilize. Only functions that a particular operator has permission to access are displayed.

If the operator logs off of any individual workstation, all windows and applications that are part of the central signal system software close.

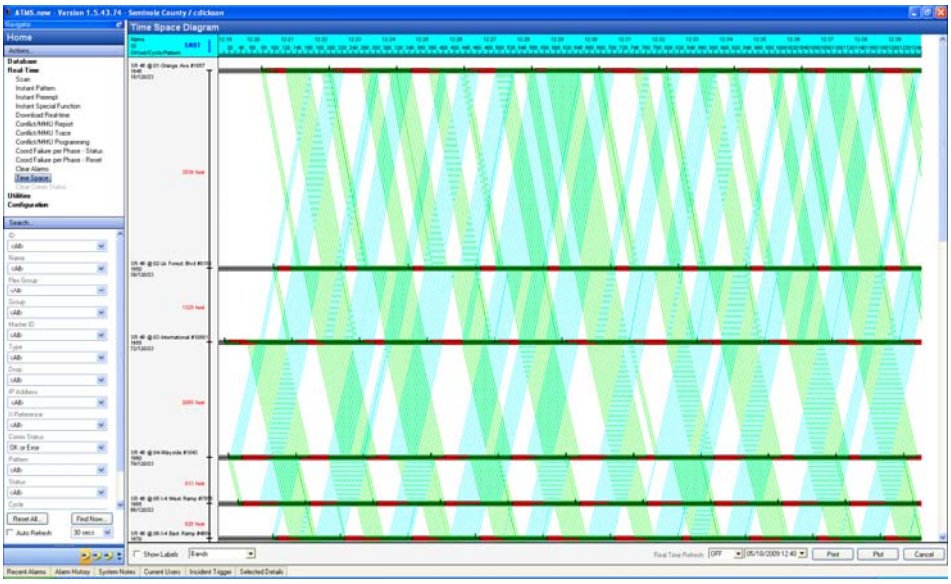
ATMS.now provides assignable pop up alarms, color coding of status, and assignable audible notification.

The ability to track changes made to each controller whether at the TMC or in the field and provide logs of who and when changes were made, including notifying staff when changes appear between the controller and the central database is currently under development and very close to completion.

MoE: MEASURES OF EFFECTIVENESS

Time/Space Diagrams

Generate time-space diagrams from both real-time data and from historical data contained in the database and to display such time-space diagrams on-screen.



Perform “on-screen fine-tuning”, using click and drag methods to adjust the offsets, with the resulting changes in the widths of the progression bands being displayed. Then save the resulting changes in offset for that timing plan.

Fine-tune crossing arterial progression by generating the time-space diagram for each street in a separate window. The on-screen adjustment of the offset of the common window result in changes in the widths of the progression bands in both windows.

Real-Time Split Monitor

The Splits tab provides real-time graphical split monitoring for a single controller based on controller selection from the Controller List or GIS pane. The split monitor graphically displays three values for each active phase:

- Actual (real-time)
- Programmed
- Average of 5 cycles

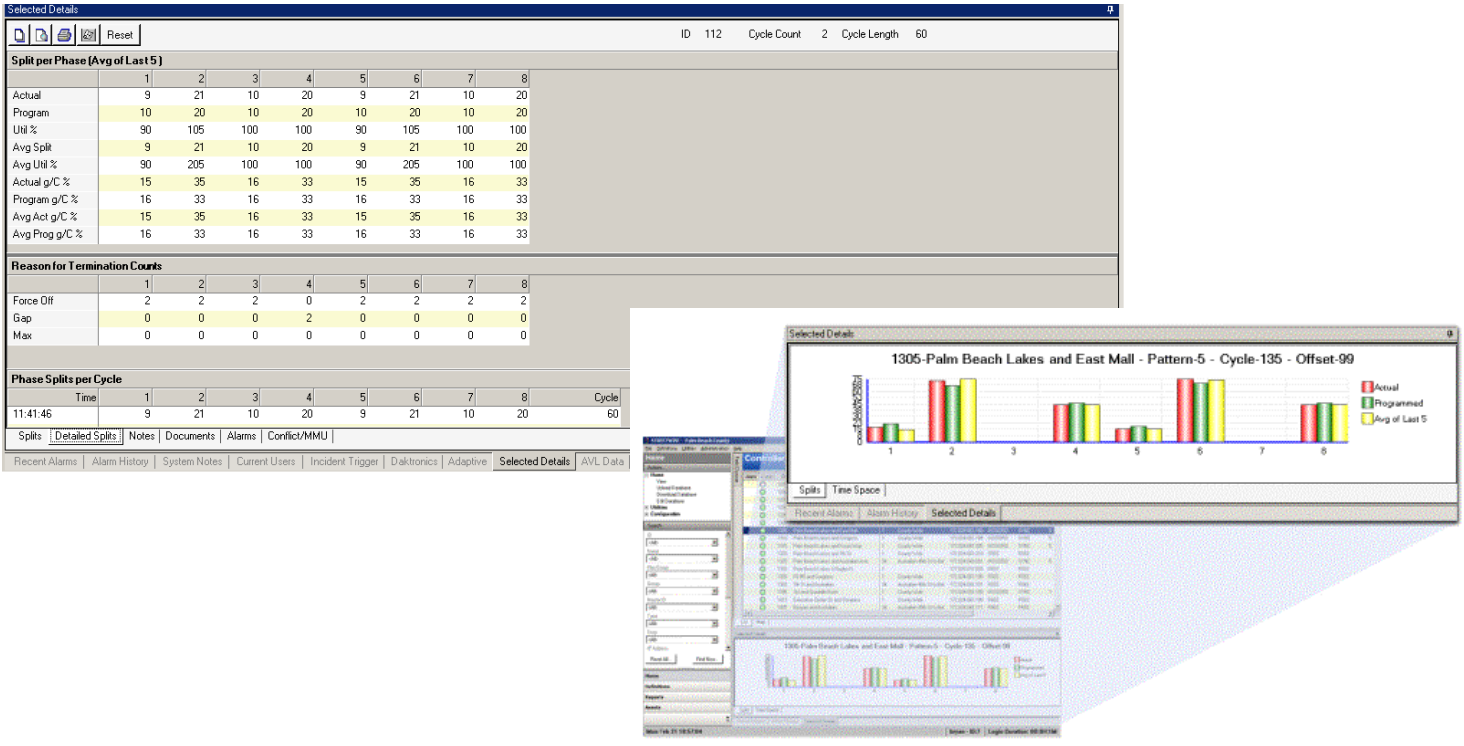
The real-time split information is gathered during the system’s “Full Status” activity for the programmed group(s) in the Scheduler, and historical reports for the Split data can be retrieved in the Reports module of ATMS.now. A Detailed Splits monitor allows information about a specific intersection to be viewed, providing real-time numerical split monitoring for a single controller.

SYSTEM DESCRIPTION

The Detailed Splits tab displays real-time split information on a per phase basis for both free and coordinated intersections. This will include:

- Actual (real-time)
- Programmed
- Util %
- Avg split
- Avg Util %
- Actual g/C %
- Program g/C%
- Avg Act g/C %
- Avg Prog g/C%
- Reason for Phase termination counters per cycle by
    - Force Offs
    - Gap
    - Max

In addition to the Detailed Splits, ATMS.now also provides a real-time graphical Splits tab for monitoring a single controller. The split monitor graphically displays three (3) values for each active phase: actual (real-time), programmed, and average of five (5) cycles. The real-time split information is gathered during the system's "Full Status" activity for the programmed group(s) in the Scheduler, and historical reports for the Split data can be retrieved in the Reports module of ATMS.now.



DIAGNOSTICS

Communication Statistics

ATMS.now provides communication statistics including the number of communication attempts, successes, failures, and percentage of successful communications per intersection, per channel, and per system.

Failure Summary

ATMS.now provides malfunction detection from the Controller for Coordination Failure, Coordination Fault, Cycle failure, Cycle fault, MMU fault, Controller fault, Detector SDLC fault, MMU SDLC fault, Terminal Facility SDLC fault, SDLC response frame fault, EEPROM CRC fault, Detector Diagnostic fault, Ped detector fault, and coordination diagnostic fault.

Upon detection of the failure, ATMS.now enables an alarm and initiates the notification to an operator. The occurrence of each alarm is recorded in the system log referencing the intersection name and ID.

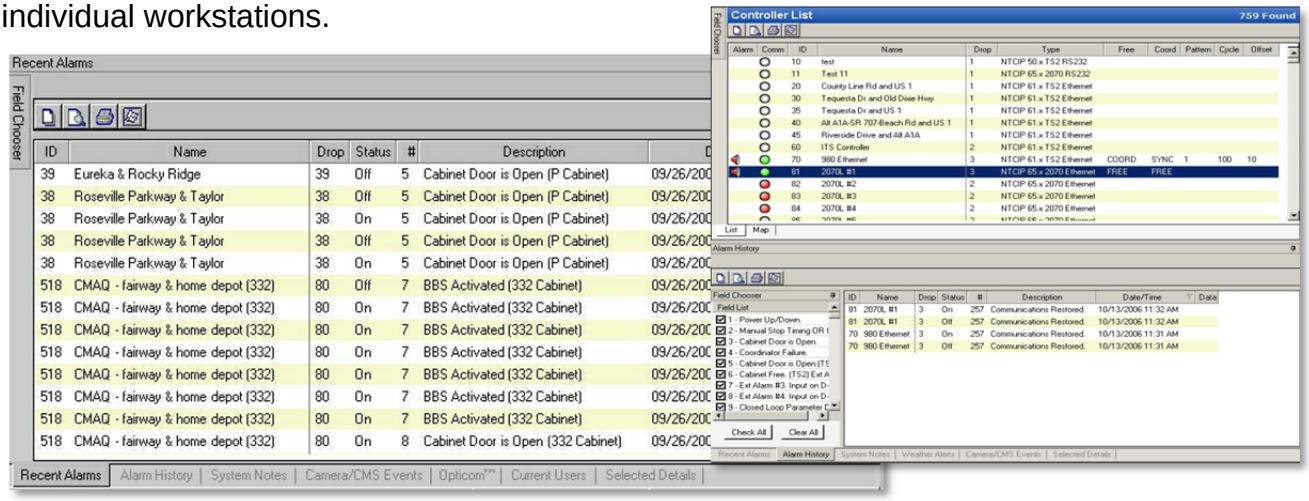
Failure Monitoring

ATMS.now provides a distinction between low-priority events and high-priority alarms. Events are uploaded periodically (perhaps once per day) for historical purposes, whereas alarms are typically relayed to the central as soon as possible. These alarms are logged and time stamped and displayed visually to the operator.

A maximum of 128 events and alarms may be enabled through separate controller menus; however, each numbered event refers to the same numbered alarm. If an alarm is enabled it must first enabled as an event. However, an event may be enabled as an event without being enabled as an alarm. This allows the user to define high-priority alarms to be reported immediately to the central while low-priority events are stored for record purposes.

Audible Alarms

ATMS.now software can generate audible alarms for specified, user-defined failures, concurrent with graphical alerts and alphanumeric paging. Operators disable/enable the audible alarm feature quickly and easily. The source of the audible alarms comes from individual workstations.



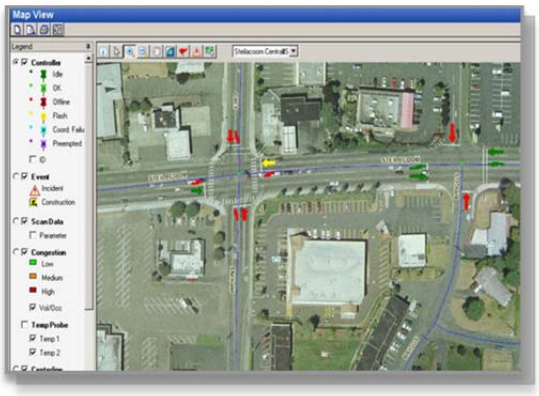
Alarms And Paging User Notification

ATMS.now has the ability to create a system-generated notification schedule to send a page, email or web message to a specified unattended user when specified alarms are detected by the system. The notification can be customized by user, alarm type, and start and end times of day, days of week, and date. The phone number, email address and critical trigger alarms are incorporated in the User Module of ATMS.now.

ATMS.now can be programmed to send e-mail, text, page, and web-based messages to any recipient by alarm type and TOD. Our standard installation does not include .wav file setup, but this function can be activated upon request. The alarm notification view is programmable on a user-by-user basis through an Alarm Field Chooser window.

Detector Monitoring

When a detector alarm is active the Occupancy Value represents a NEMA specified error code for the failed detector diagnostic. These detector Diagnostic faults are: Max Presence Fault, No Activity Fault, Open Loop Fault, Shortened Loop Fault, Excessive Inductance Fault, Watchdog Fault, and Erratic Output fault. These failure modes are provided on the main detector programming and are also available on three separate full programming tables for TOD-based failure programming.



Event Status and Failure Monitoring

In a properly designed communication infrastructure choosing an Open Systems Interconnection (OSI) communications model utilizing TCP and UDP at layer 4, IP at layer 3 and Ethernet at layer 2, real-time status is received continuously on a once per second basis minimum from local controllers with true Ethernet interfaces. Real time information includes phase status, current timing plan in effect, mode of operation, and equipment status.

The ATMS.now System Administrator program monitors high level requests against lower-level requests, and executes them based on priority. An example of this is when the system is about to perform a pre-programmed system time broadcast and a user has requested a database Upload, the System Administrator program will suspend the time broadcast and perform the Upload first, then execute the time broadcast. The priority level of each ATMS function is hard-coded within the ATMS.now Administrator program.

OTHER ATMS FUNCTIONS

Scheduler

Events can be scheduled to occur automatically, allowing the System Administrator to define time-of-day polling for the system. Scheduled events include, but are not limited to automatic data uploads, comparing databases, synchronizing the field clocks within the system, gathering alarms, and uploading logs. All system activities can be scheduled by time-of-day and executed by the system without operator intervention.

Time Synchronization

ATMS.now provides multiple schedule options to keep the server time in sync with the field controllers.

- USNO Time: Collects time from the US National Observatory via Internet and updates the server time
- Sync Controller Time to Server: Synchronizes ATMS server time from a specific controller.
- Download Real-Time: Download server time to controller(s)

These options are default tasks in the Scheduler. As stated previously, the Scheduler gives the user full control on time and frequency of performed tasks, from once/second to annually.

ATMS.now updates the controller clock when the controller is added to the Time Sync Group in the system Scheduler. It will be performed at the frequency level of the system Scheduler. A manual command is available in the main system window for quick time sync at any time.

Timing Patterns

ATMS.now defines Cycle length, offset, split, and sequence combination as a pattern. NTCIP defines 50 patterns, 1-48 user definable and Pattern #254 as Free and Pattern # 255 as Flash. Trafficware provides 32 spit tables and all 16 combinations of Lead/Lag for phase sequence flexibility. Each Pattern allows a unique timing value for the Cycle Length and Offset. All 50 patterns are stored in the controller's database for implementation upon command by central signal system software. The Actuated Signal Controller provides both automatic calculations of permissive periods and the ability for the operator to input desired values for the beginning and end permissive periods. ATMS.now allows for as many special signal timing plans as desired within the 48 pattern limitation to accommodate unusual traffic flow patterns during special events. ATMS.now provides a complete copy utility for transferring controller databases from one to another. ATMS.now provides for all 16 combinations of lead, lag, lead/lag phasing and can be configured to recognize first and third-car left turn lane detection.

Arrival Distribution

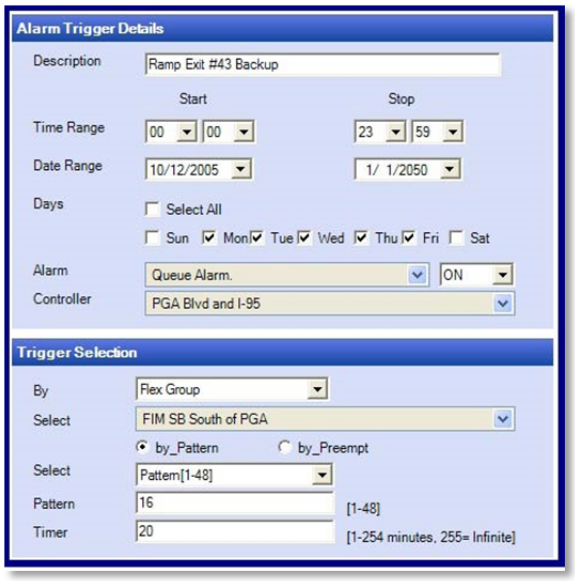
ATMS.now allows an Arrival Distribution graph that plots counts across the cycle length and shows the relationship of how cars arrive by direction to the intersection.

Turning Movement Counts

Query turning movement counts, data formulated by average 85th and 90th percentile.

Communications Interface

For specific network performance, the ATMS.now interface provides a switch layer to control network elements that provide network-level information. This provides the monitoring/collecting of specific network communication statistics.



Vehicle Preemption

ATMS.now correctly recognizes the occurrence of a locally-initiated emergency vehicle, transit or railroad preemption not as a coordination failure, but as a preemption, as the local controller has been preempted. The beginning and ending times of all preemption events are time stamped, recorded and stored in the SQL database for report generation. Types of preemption follow the NTCIP definitions and are differentiated as follows:

- Preempt 1&2: Railroad
- Preempt 3-6: Emergency Vehicle
- Preempt 7-10: Transit Priority.

Alarm Triggering

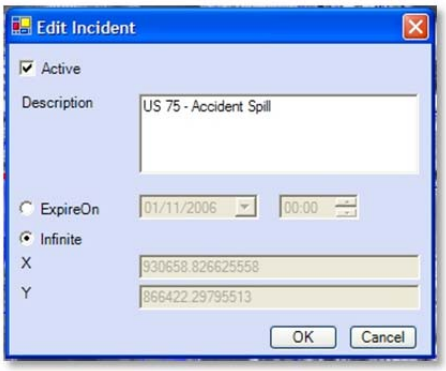
Alarm Triggers are system-generated controller or other device actions based on a reported alarm input from a single or multiple controller. These Alarm Triggers can cause a pre-programmed reaction of another Controller, Group, or Flex Group, or other devices such as CCTV and CMS. An example of this would be to cause a complete coordinated arterial to automatically transition to “FREE” operation if a critical intersection in that arterial issued a “Coord Fail” alarm to ATMS.now. This feature can be used to solve a variety of problems that cannot be addressed by time-of-day control or traffic responsive operation. This feature has been used successfully in control applications that are not predictable and can be triggered by an alarm response. Another example of the use of alarms triggers based on an incident would be a queue detector. The example illustrates how a pattern can be sent down to a control group when a Queue Detector Alarm is received by ATMS.now

In the example, a queue detector is provided at the “PGA Blvd & I-95” interchange. A trigger is generated when this alarm state changes to ON. When the trigger is activated, Pattern 16 is downloaded as the REMO pattern to the Flex Group labeled “FIM SB South of PGA”. Note that this flex group may contain not only the interchange, but also nearby signals affected by the event. In this example, a CCTV or CMS could also have been automatically activated to display a camera preset or a predefined message.

Note that any of the alarms of the NTCIP Controller may be used to activate an alarm trigger.

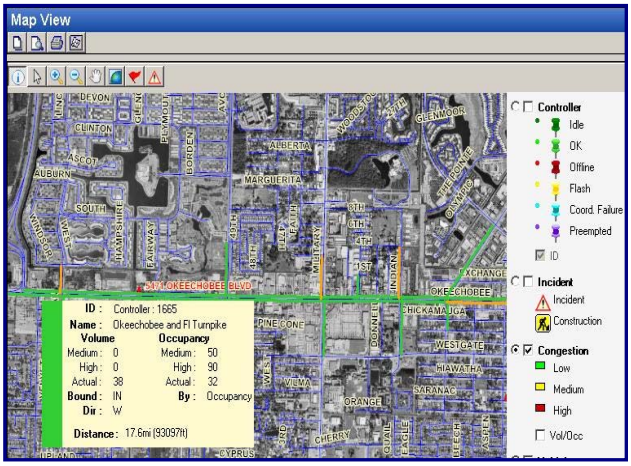
Incident and Construction Notification

Incident or construction zones can be indicated on the GIS map, and provide details specific to that incident, for ATMS.now or web viewing.



Detector Data Processing

View real-time intersection status and detector volume, occupancy, and speed data overlaid on the GIS map or hyperlinked files.



The ATMS.now software has a configurable detector data processing resolution, as frequent as every one (1) minute for traffic responsive operation to every 15 minutes in a standard system.

All detector inputs, whether from loop, video, or radar, can be simultaneously used as detectors for volume, occupancy, extension, added initial and work as switching detectors. Each detector channel has individual failure programming. Detector alarms are reported to the ATMS system in real-time while the actuation records are reported at the programmed interval. Detector status is monitored in ATMS in real-time. This includes all 64 vehicle detector and 8 pedestrian detector activations and Alarms.

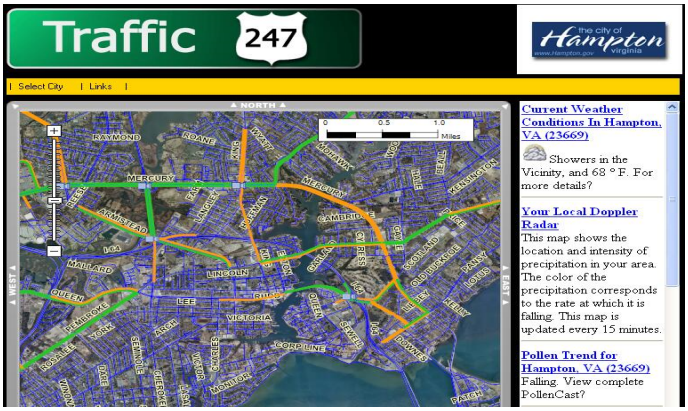
Collection and Retrieval

ATMS.now automatically records detector data in the database and archives the data onto external media. Raw detector data can be stored in memory on a five minute basis. Up to four weeks of five-minute detector data for each intersection can be stored on the system disk by the database program. Each five-minute block can be date and time-tagged. The user has the ability to enable or disable the detector data collection feature.

ATMS.now does not require compressing of the detector data for collection or archive, with the exception of archival of the SQL database using the standard SQL backup tools. ATMS.now does provide an embedded functionality to Backup and Archive on a schedule. This function will archive the core controller databases and the SQL database to an archive location, based on a system schedule. ATMS.now does not define data as bad or good.

Congestion Level Traffic Monitoring

Collect detector data and compare with thresholds for reporting and monitoring traffic congestion. This information is displayed graphically with three threshold levels. Low is displayed in green, medium is displayed in yellow and high congestion level is displayed in red. With another module, this information and maps have the ability to be exported and sent to outside sources such as websites or FTP servers.



Distance Marker

The user can designate a point of interest by placing a marker on the map. The system will calculate the distance from the marker to the nearest instrumented objects in the network.

Remote Access

ATMS.now supports multiple users distributed over local and wide area networks and remote access users over dial-up, VPN and thin-client connections to the LAN. Remote access users have full access to the database, GUI, and central signal software controls.

SYSTEM AND OPERATIONAL REPORTS

ATMS.now has seamlessly integrated Crystal Reports into the Reports Module. The reports module provides the user the ability to generate reports from a library of pre-formatted report templates from the ATMS.now database. ATMS.now stores all imported and system generated data into the system's main SQL database and makes it available for future report generation. The operator can generate custom reports as well as export to common formats such as text comma-delimited, text space-delimited, and text tab-delimited.

ATMS.now embeds pre-formatted Crystal Reports within the application. This is due to the two search engines that drive the Reports. The customer can request to have Trafficware take their favorite reports and implement them into the next ATMS update (we do this all of the time), or they can utilize Crystal Reports outside of the ATMS application without harming the database.

Using Seagate Crystal Reports, Standard ATMS.now reports can be printed in .pdf, .doc, .xls, and .txt formats.

ATMS.NOW DELL SERVER SPECIFICATION

PowerEdge R710:
Chassis for Up to 6, 3.5-Inch Hard Drives
SHIP:
PowerEdge R710 Shipping
Processor:
Intel® Xeon® E5640 2.66Ghz, 12M Cache,Turbo, HT, 1066MHz Max Mem
Installation Services:
No Installation
Memory:
24GB Memory (3x8GB), 1333MHz Dual Ranked RDIMMs for 1 Processor, Optimized
Additional Processor:
Single Processor Only
Operating System:
Windows Server 2008 R2, Standard Edition,x64, Includes 5 CALS
Hard Drive Configuration:
RAID 5 for H700 or PERC 6/i Controllers
Internal Controller:
PERC 6/i SAS RAID Controller, 2x4 Connectors, Internal, PCIe,256MB Cache,x6
Hard Drives:
QTY 6 - 2TB 7.2K RPM SATA 3.5in HotPlug Hard Drive
Power Supply:
High Output Power Supply, Redundant, 870W
Power Cords:
NEMA 5-15P to C13 Wall Plug, 125 Volt, 15 AMP, 10 Feet (3m), Power Cord
Embedded Management:
iDRAC6 Express
Microsoft SQL Server:
Microsoft®SQL Server™2008R2 Workgroup w5 CALs, OEM, NFI,w/Media
Rails:
ReadyRails™ Sliding Rails With Cable Management Arm
Bezel:
Bezel
Internal Optical Drive:
DVD+/-RW, SATA, Internal
System Documentation:
Electronic System Doc, OpenManage DVD Kit with Dell Management Console
1st Hard Drive:
HD Multi-Select
Power Cords:
No Additional Power Cords
Feature Upgrades for Embedded NIC Ports:
Dual Two-Port Embedded Broadcom® NetXtreme II 5709 Gigabit Ethernet NIC
BIOS Setting:
Power Saving BIOS Setting
Riser Card:
Riser with 2 PCIe x8 + 2 PCIe x4 Slot
Hardware Support Services:
3Yr Basic Hardware Warranty Repair: 5x10 HW-Only, 5x10 NBD Onsite
Proactive Maintenance:
Maintenance Declined

Dell PowerEdge R710

The Dell™ PowerEdge™ R710 helps you operate efficiently and lower TCO with enhanced virtualization capabilities, improved energy efficiency, and innovative system management tools.

Strong IT foundation

You want a data center built for organic growth and the ability to scale based on your company's changing requirements. You need complete solutions that let you focus your time and money on managing and growing your business. Dell responds with an expanding portfolio of enterprise servers, storage technologies, and services with a single goal: to help you simplify IT.

Purposeful design

With Dell's system commonality, once your IT managers learn one system, they understand how to manage next-generation Dell servers. Logical component layout and power supply placement provide a straightforward installation and redeployment experience. The PowerEdge R710 provides an interactive LCD for system health monitoring, alerting, and control of basic management as well as checking the AC power meter and ambient temperature thermometer included with each server.

Enhanced virtualization

Featuring embedded hypervisors, large memory capacity with 18 DIMM slots, and 4 integrated network connections, the Dell PowerEdge R710 delivers better overall system performance and greater virtual machine-per-server capacity. The latest Intel® Xeon® processor technology adapts to your software in real time, processing more tasks simultaneously. With optional factory-integrated virtualization capabilities, you get tailored solutions that allow you to streamline deployment and simplify virtual infrastructures. Choose your hypervisor from market leaders such as VMware®, Citrix®, and Microsoft®, and enable virtualization with a few mouse clicks.

Energy-optimized technologies

The PowerEdge R710 reduces power consumption while increasing performance capacity versus previous generation servers using Energy Smart technologies and standards-based components along with right-sized efficient power supply units, improved system-level design efficiency, and policy-driven power and thermal management. Dell's advanced thermal control delivers optimal performance at minimal power consumption without compromising enterprise performance.

Simplified systems management

The Dell OpenManage™ suite offers enhanced operations and standards-based commands designed to integrate with existing systems for effective control.

Lifecycle Controller

Lifecycle Controller is the engine for advanced systems management integrated on the server. Lifecycle Controller simplifies administrator tasks to perform a complete set of provisioning functions such as system deployment, system updates, hardware configuration and diagnostics from a single intuitive interface called Unified Server Configurator (USC) in a pre-OS environment. This eliminates the need to use and maintain multiple pieces of disparate CD/DVD media.

Dell Management Console (DMC)

DMC, powered by Altiris™ from Symantec™, delivers a single view and a common data source into the entire infrastructure. DMC is an easily extensible, modular foundation that can provide basic hardware management or more advanced functions such as asset and security management. It helps reduce or eliminate manual processes so less time and money is spent keeping the lights on and more time can be spent on strategic uses of technology.

Dell Services

Dell Services can help reduce IT complexity, lower costs, and eliminate inefficiencies by making IT and business solutions work harder for you. The Dell Services team takes a holistic view of your needs and designs solutions for your environment and business objectives while leveraging proven delivery methods, local talent, and in-depth domain knowledge for the lowest TCO.

The Dell PowerEdge R710 server with the performance of Intel Xeon processor 5500 and 5600 series offers you a 2U rack to efficiently address a wide range of key business applications.

Feature	PowerEdge R710 Technical Specification
Form Factor	2U rack
Processors	Quad-core or six-core Intel® Xeon® processor 5500 and 5600 series
Processor Sockets	2
Front Side Bus or HyperTransport	Intel QuickPath Interconnect (QPI)
Cache	Up to 12MB
Chipset	Intel 5520
Memory[1]	Up to 288GB (18 DIMM slots): 1GB/2GB/4GB/8GB/16GB DDR3 up to 1333MT/s
I/O Slots	**4 PCIe 2.0 slots + 1 storage slot:** two x8 slots, two x4 slots, one x4 storage slot
RAID Controller	**Internal:** PERC H200 (6Gb/s) PERC H700 (6Gb/s) with 512MB battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache SAS 6/iR PERC 6/i with 256MB battery-backed cache **External:** PERC H800 (6Gb/s) with 512MB of battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache PERC 6/E with 256MB or 512MB of battery-backed cache **External HBAs (non-RAID):** 6Gbps SAS HBA SAS 5/E HBA LSI2032 PCIe SCSI HBA
Drive Bays	Eight 2.5" hard drive option or six 3.5" hard drive option; optional flex bay expansion to support half-height TBU Up to four 3.5" drives with optional flex bay, up to six 3.5" drives without optional flex bay, or up to eight 2.5" SAS or SATA drives with optional flex bay **Peripheral bay options:** Slim optical drive bay with choice of DVD-ROM, Combo CD-RW/DVD-ROM, or DVD + RW
Maximum Internal Storage[1]	Up to 18TB
Hard Drives	**Hot-plug hard drive options:** 2.5" SAS SSD, SATA SSD, SAS (15K, 10K), nearline SAS (7.2K), SATA (7.2K) 3.5" SAS (15K, 10K), nearline SAS (7.2K), SATA (7.2K) **Solid state storage cards:** Fusion-io® 160GB ioDrive PCIe solid state storage card Fusion-io 640GB ioDrive Duo PCIe solid state storage card Fusion-io 320GB ioDrive Mono PCIe solid state storage card Fusion-io 640GB ioDrive Mono PCIe solid state storage card Fusion-io 1.28TB ioDrive Mono PCIe solid state storage card
Communications	Four embedded Broadcom® NetXtreme® II 5709c Gigabit Ethernet NIC with failover and load balancing; TOE (TCPIP Offload Engine) supported on Microsoft® Windows Server® 2003 SP1 or higher with Scalable Networking Pack; Optional 1GBe and 10GBe add-in NICs Broadcom NetXtreme II 57711 Dual Port Direct Attach 10Gb Ethernet PCI-Express Network Interface Card with TOE and iSCSI Offload Intel Gigabit ET Dual Port Server Adapter and Intel Gigabit ET Quad Port Server Adapter Dual Port 10GB Enhanced Intel Ethernet Server Adapter X520-DA2 (FcoE Ready for Future Enablement) **Optional add-in NICs:** Brocade® CNA (1020) Dual Port Server Adapter **Optional add in HBAs:** Brocade 8 GB HBAs Emulex CNA iSCSI HBA stand up adapter OCE10102-IX-D Emulex CNA iSCSI HBA stand up adapter OCE10102-FX-D
Power Supply	Energy Smart – two hot-plug high-efficient 570W PSU or high-output two hot-plug 870W PSUs **Uninterruptible Power Supplies:** 1000W–5600W 2700W–5600W High-Efficiency Online Extended Battery Module (EBM) Network Management Card
Availability	DDR3; hot-plug hard drives; optional hot-plug redundant power supplies; dual embedded NICs with failover and load balancing support; PERC 6/i; hot-plug redundant cooling; tool-less chassis; fibre and SAS cluster support; validated for Dell/EMC SAN
Video	Matrox® G200 with 8MB of cache
Remote Management	iDRAC6 Enterprise (optional)
Systems Management	Dell™ OpenManage™ Microsoft® System Center Essential (SCE) 2010 v2
Embedded Hypervisor	Optional Embedded SD Media
Rack Support	ReadyRails™ sliding rails with optional cable management arm for 4-post racks (optional adapter brackets required for threaded hole racks); ReadyRails static rails for 2-post and 4-post racks
Operating Systems	Microsoft® Windows Server® 2012 Microsoft Windows® Small Business Server 2011 Microsoft Windows Small Business Server 2008 Microsoft Windows Server 2008 SP2, x86/x64 (x64 includes Hyper-V®) Microsoft Windows Server 2008 R2 SP1, x64 (includes Hyper-V v2) Microsoft Windows HPC Server 2008 R2 Novell® SUSE® Linux® Enterprise Server Red Hat® Enterprise Linux® Oracle® Solaris™ **Virtualization Options:** Citrix® XenServer™ VMware® vSphere™ ESX® and ESXi™ For more information on the specific versions and additions, visit Dell.com/OSsupport.
Featured Database Applications	Microsoft SQL Server® solutions (see Dell.com/SQL) Oracle database solutions (see Dell.com/Oracle)
Thermal Operation	**Continuous Operation:** 10C to 35C, 10% to 80% relative humidity (RH). **10% of annual operating hours:** 5C to 40C, 5% to 85%RH. **1% of annual operating hours:** -5C to 45C, 5% to 90%RH. For in-depth detail, check your user manual.

[1] GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

OEM Ready Models Available

OEM Ready platforms are grab-and-go products for OEM customers delivering a fast and simple path to a custom-branded solution. For more information, please visit Dell.com/OEM.

See the benefits at Dell.com/PowerEdge

DELL POWEREDGE 4220 AND 2420 RACKS

NEXT GENERATION RACK ENCLOSURES

The solid, versatile 42U Dell™ PowerEdge™ 4220 rack enclosure introduces important new power distribution, cooling and cabling options, and is designed for use in any environment from the data center, to a wiring closet or factory floor. A 24U version of the rack, Dell PowerEdge 2420, is also available for those environments that need less density for their equipment, such as small and mid-sized businesses.

NEW POWER BENEFITS

The new Dell 4220 rack provides more choices in the types and form factors of power distribution units (PDUs) that can be mounted in the rack. In addition to U-space PDU mounting, the rack also offers toolless PDU mounting at the rear of the rack. For mounting full-length PDUs alongside the rear door, the Dell 4220 rack provides the maximum distance between the back panels of the server to the PDU outlets, keeping the cables from impeding airflow.

BETTER AIRFLOW AND COOLING

The surface area of the doors on the Dell 4220 rack is 80% perforated to allow for better airflow—this is one of the highest perforation ratings among the leading data center racks sold worldwide. Finally, air dams have been included at the front of the rack frame to block hot air from traveling from the back to the front of the server, a common thermal issue with similar racks.

For hot-aisle/cold-aisle thermally efficient data center topologies, the footprint of the rack matches standard 2' floor tile placement, optimizing sub-floor cable and cold-air access without conflict.

EASIER CABLE MANAGEMENT

To provide support for deep server dimensions and to allow additional space for cable management, the total depth of the Dell 4220 and 2420 rack enclosures has been increased to 1070mm from 1000mm. Additionally, dual side panels on both sides of the rack make accessing cables easier—simply remove the top or bottom section of the panel. Finally, the back frame of the rack features removable tailbars at the top and bottom, eliminating a common obstacle to routing power and communication cables. These tailbars can be securely replaced after the IT cabling is complete.

Rack Features
Large open base for cable entry and exit Dual rear doors and split side panels Adjustable vertical mounting rails slide forward or backward within the rack 80% of the surface area of front and rear doors are perforated to aid in the thermal management of ultra-dense environments Rack-top cable exits with adjustable, sliding door Reinforced frame for stability Unique side-rack PDU options for Dell PDUs Reversible front door can be configured to open from left or right Front and rear doors are removable Rotating rear casters to easily position rack Ideal base dimensions for 2-tile placement in data center U-space numerical markings on both front and rear server mounting posts Easily accessible leveling feet Height allows movement through standard doorway

Rack Specifications	
2420 Dimensions	Height 47.3" (1202mm) Width 23.82" (605mm) Depth 42.15" (1070mm)
2420 Static Load Rating	1,500 lbs.
4220 Dimensions	Height 78.7" (1999mm) Width 23.82" (605mm) Depth 42.15" (1070mm)
4220 Static Load Rating	2,500 lbs.

Rack Weights	
2420 frame, doors, sides	94.5kg
4220 frame	86kg
4220 frame, doors	106kg
4220 frame, doors, sides	135kg

Total Weight with Crate for Air Shipping	
2420	162.5kg
4220 frame	176.5kg
4220 frame, doors	196.5kg
4220 frame, doors, sides	225.5kg

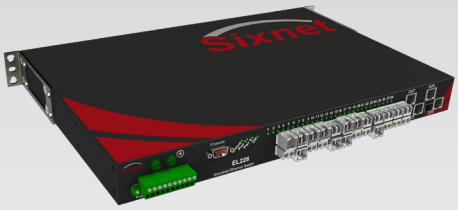
Total Weight—Ground Shipping	
2420	120kg
4220 frame	114kg
4220 frame, doors	135kg
4220 frame, doors, sides	163kg

SIMPLIFY YOUR SERVERS AT DELL.COM\POWEREDGE\RACK

DATASHEET

EL228 Layer 2 Industrial Ethernet Switch

ExtremeLine Managed Industrial Connectivity



PRODUCT HIGHLIGHTS

- KEMA tested and approved for IEC 61850 and IEEE 1613
- Enterprise-class functionality and security future proofs the network
- Powerful management and monitoring simplifies deployment and provides fault isolation
- Extreme port flexibility allows for seamless field configuration and upgrade
- Up to 26 fiber optic ports offer the ultimate in noise immunity
- Universal mounting (patent pending) simplifies ordering and deployment

ADVANCED INDUSTRIAL RATINGS

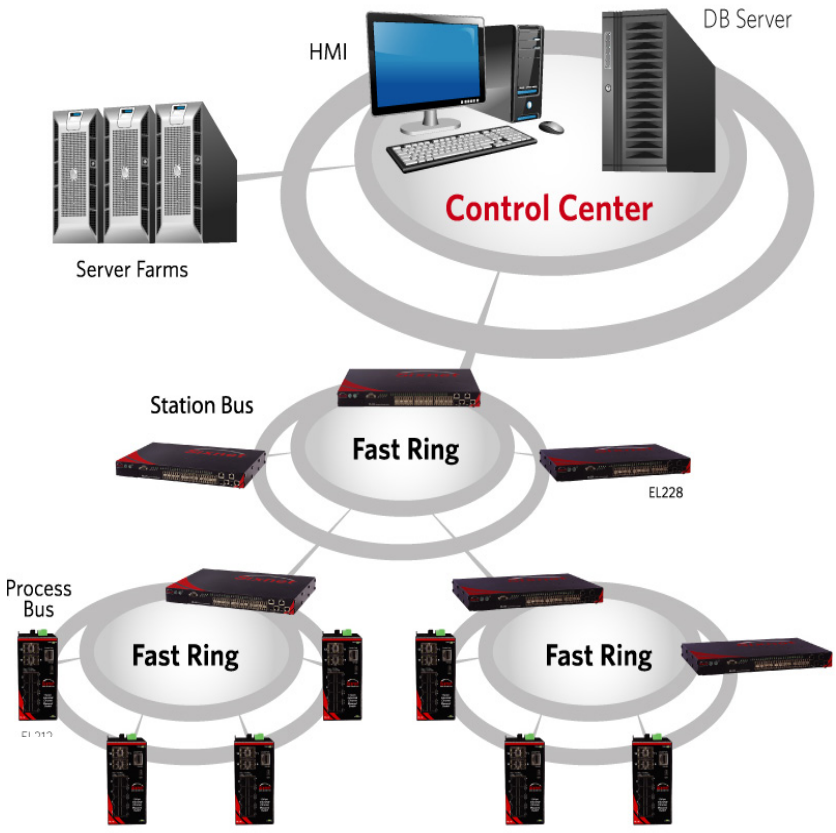
- IEC 61850 and IEEE 1613 for utility substation automation and other power applications
- NEMA TS-2 for traffic control systems
- EN 50155 and EN 50121-4 for railway installations
- ISA 12.12 and ATEX for Zone 2 hazardous locations

CONNECT. MONITOR. CONTROL.

The Sixnet EL228 is a 28 port (24 + 4G) managed industrial Ethernet switch designed to meet the extreme requirements of power substations, traffic control, railway and other harsh environments. It combines the high performance and security of an enterprise-class switch with rugged packaging and protected circuitry to meet the needs of the most demanding applications.

24 fast Ethernet SFP ports for fiber or copper links can be mixed and matched on the fly to provide the ultimate in port flexibility. Sixnet's universal mounting features LEDs, power/ground connections, console ports and bracket positions on both the front and back of the switch simplify ordering and deployment. By combining all of these features in one hardened package, the EL228 provides users with the lowest total cost of ownership of any industrial Ethernet switch in its class.

APPLICATION SCENARIO: POWER INDUSTRY



EL228 Layer 2 Industrial Ethernet Switch
ExtremeLine Managed Industrial Connectivity

INDUSTRIAL CONNECTIVITY

Sixnet's industrial Ethernet switches combine enterprise-class performance with rugged reliability to provide a "best of both worlds" solution for many of today's industrial applications. Our hardened switches are ideally suited for harsh and outdoor environments that include power substations, Smart Grid, military, utility, transportation and other industries where real-time performance under extreme operating conditions is required. Built-in redundancy coupled with advanced security and network management ensures the infrastructure stays up and running while providing tools for monitoring and tracking.

CONNECT. MONITOR. CONTROL.

FEATURES & BENEFITS

Rugged, Reliable Operation

- **Supports deployment in extreme environments**
- **Provides high reliability in the toughest applications**
  - Heavy industrial ratings for power, traffic, railway and hazloc applications
  - KEMA approved for IEC 61850 & IEEE 1613
  - Superior EMC performance and EMI immunity
  - Designed and tested from -40° to +85°C operating temperature (no fans)
  - Rugged corrosion-resistant metal enclosure
  - Sealed IP50 protects against dust, dirt and debris
  - UL/CSA, FCC and CE compliant
  - Dual-redundant AC or DC power supplies

Advanced Networking & Redundancy

- **Ensures fast recovery from faults**
- **Prioritizes handling of mission-critical data**
  - Real-Time-Ring™ for fast redundant rings
  - RSTP (Rapid Spanning Tree) provides complex redundancy
  - MSTP (Multiple Spanning Tree) per-VLAN redundancy
  - VLAN (GVRP, Q-in-Q) for convenient traffic segregation
  - LACP (Link Aggregation) increases bandwidth
  - IGMP for multicast filtering (snooping and querying)
  - QoS/CoS/DS provides real-time message prioritization
  - Jumbo frame (10K) support on Gigabit ports
  - Virtual stacking for up to 36 EL228 switches

Universal Mounting

- **Lowers overall cost of ownership**
- **Maximizes efficiency - one model does it all**
  - Universal mounting supports both front and reverse wiring
  - Status LEDs on front and back of switch for easy viewing
  - Console RS232 port on front and back of switch for local management
  - Space efficient 1U rack-mount design fits onto EIA, WECO and ETSI racks from 19" to 24"

Powerful Management & Monitoring

- **Simplifies configuration and management**
- **Provides fast and easy troubleshooting**
  - Easy configuration via Web or CLI
  - SNMPv1, v2, v3 network management
  - LLDP for universal network identification
  - sFlow for network-level monitoring
  - RMON and port mirroring for advanced diagnostics
  - Event/Error/System logging and system monitoring
  - UPnP, OAM and Banner support
  - Dual firmware upgrade system
  - Relay output contact to signal alarms

Ultimate Port Flexibility

- **Simplifies on-site configuration**
- **Reduces "fork-lift" upgrades**
  - 28 total Ethernet ports (24 + 4G)
    - 2 Gig RJ45 ports support auto 10/100/1000 Mbps
    - 2 Gig RJ45/SFP combo ports for copper or fiber links
    - 24 fast SFP ports - mix 100M fiber or 10/100 copper
  - Fiber transceivers support multimode, singlemode, bi-directional single-strand and long haul up to 120km
  - Up to 26 total noise-immune fiber optic ports

Advanced Cyber Security

- **Prevents against unauthorized access**
- **Protects from unwanted intrusion**
  - Static and dynamic port security
  - Authentication - SNMPv3, 802.1x, RADIUS, TACACS+ AAA/3.0, Web and MAC
  - Encryption - MD5, TLS, TTLS, TACACS+ AAA/3.0
  - Access Control List (ACL) per IP/MAC/VLAN/TCP/UDP
  - Secure Web (HTTPS/SSL) and Telnet (SSH)
  - Rate limiting and multicast storm protection
  - IP Source Guard, DHCP Snooping and Option 82

SPECIFICATIONS

Ethernet Performance
- 28 total Ethernet ports (24 + 4G)
- 24 SFP ports for a mix of copper or fiber
- 4 Gigabit with 2 RJ45 ports and 2 RJ45/SFP combo ports
- RJ45 ports: auto-negotiation (speed/duplex) and auto-crossover
- Non-blocking, store and forward, wire-speed
- Switching capacity and forwarding rate: 12.8 Gbps/9.5 Mpps
- Jumbo frame: 10K on Gigabit ports
- Ethernet isolation: 1500 Vrms 1 minute

Switching Features
- Flow control: IEEE 802.3x (Full Duplex) and Back-Pressure (Half Duplex)
- Spanning Tree Protocol (STP per IEEE 802.1D) plus
  - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
  - BPDU forwarding and filtering
- Real-Time-Ring for high-speed, fault-tolerant rings
  - Link loss recovery: 50ms/hop
  - Switches in ring: <50 for best performance
  - Multiple rings are supported (4 per switch)
- Virtual Local Area Networks (VLANs)
  - 802.1Q tag-based with 256 VLANs and 4K VLAN ID
  - 802.1v protocol and port-based VLAN
  - Voice and Private VLAN
  - GVRP and Q-in-Q (double tagging)
- Link Aggregation Control Protocol (LACP per IEEE 802.3ad)
  - Static trunk (8 trunks and up to 8 ports per trunk)
  - Traffic load balancing
- Internet Group Management Protocol (IGMP)
  - IGMP v1, v2 and v3 with up to 255 multicast groups
  - IGMP snooping and querying
  - Immediate leave and leave proxy
  - Throttling and filtering
- Multicast VLAN Registration (MVR)
- IEEE 802.1ab Link layer Discovery Protocol (LLDP)
- Quality of Service (QoS) with 4 priority queues
  - Scheduling schemes: WRR and Strict priority
  - CoS per IEEE 802.1p and IP DSCP-based
  - DiffServ (DS): ingress, egress and remarking
- Rate limiting (ingress and egress)
  - 64Kbps to 100/1000 Mbps
  - Per port CoS

Security
- Enable/disable ports
- Port security (MAC-based): static and dynamic
- DHCP Snooping and Option 82
- IP Source Guard
- IEEE 802.1X Network Access Control
  - Port-based with single or multiple host mode
  - Authentication: EAP-MD5, PEAP, TLS, TTLS
  - MAC and web authentication
  - Guest VLAN and Auto VLAN assignment
- RADIUS and TACACS+ AAA
  - Authentication, Accounting and Authorization
  - 5 servers for RADIUS, 1 server for TACACS+
  - Encryption: MD5, TLS, TTLS, TACACS+ AAA/3.0
- Access Control List (ACL)
  - IP and MAC-based
  - VLAN and TCP/UDP port
- Storm Control for broadcast and multicast messages
- HTTPS/SSL for secure Web access
- SSH v1.5/2.0 for secure Telnet access
- SNMPv3 authentication and encryption
- Username and password authentication
- Management access filtering

All specifications are subject to change. Contact Sixnet to learn more.

Management & Monitoring
- IP Address assignment: Static, DHCP and BOOTP
- CLI (Command Line Interface) via console or Telnet
- Web interface (HTTP/HTTPS/SSL)
- SNMP v1, v2, v3 (Simple Network Management Protocol)
- SNMP Traps for event notification
- RMON I (Remote Monitoring): Groups 1, 2, 3 and 9
- sFlow network-wide traffi c monitoring
- Dual firmware update system
- Configuration download and upload
- Software upgrade via TFTP
- Port mirroring
- Event/Error/System log
  - Local flash
  - Remote server via system log (Syslog RFC 3164)
  - SMTP (RFC 821) email alarming
- Network Time Protocol for time synchronization
  - SNTP (RFC 2030) and NTP (RFC 1305)
- DNS (Domain Name Server) client
- Universal Plug and Play (UPnP)
- IEEE 802.3ah OAM (Operational Administration Maintenance)
- Banner commands

Power Input & Alarm Output
- Dual-redundant internal power input option
- 10-pole screw block can be positioned in front or back
- Power input options:
  +/- 24-48 VDC, (D option)(absolute min & max): +/- 18-75 VDC
  +/- 110-250 VDC or 100-240 VAC (50/60 Hz)(A option),
  (absolute min & max): +/- 90-300 VDC or 85-264 VAC
- Power consumption: 60 Watts typ. with all ports linked
- Protection: current overload and reverse polarity
- Alarm output: form -C relay (NO and NC contacts)
  - Max. voltage: 250 VAC, 30 VDC
  - Max. current: 2A @ 30 VDC or 250 VAC

Mechanical
- Universal mounting (Sixnet exclusive feature - patent pending)
  - Front or rear/reverse wiring with power in front or back
  - 1U rack mount (19" brackets included)
  - Optional 23", 24", EIA, WECO, ETSI and wall brackets available
- Ingress protection: IP50 sealed from dust and contaminants
- Heavy-gauge corrosion-resistant metal enclosure
- Dimensions (HxWxD): 1.75(1U)x17.3x12' (45x439x305mm)
- Weight (typical): 9.5 lbs (4.3 kg)

Environmental
- Operating/storage temperature: designed and tested from -40° to +85°C per IEC 60068-2-1/2
- Humidity: 5 to 95% RH (non-condensing) per IEC 60068-2-30
- Vibration: 20mm/s from 1 to 150 Hz per IEEE 1613 Class V.S.3
- Vibration: Amp: 3mm from 2-9 Hz, 1g from 9-200Hz, 1.5g from 200-500 Hz per IEC 61850-3
- Shock: 30g @ 11ms per IEC 61850-3, free-fall: 250mm distance

Standards & Compliance
- Power Systems: IEC61850-3, IEC60870-2-1/2; IEEE1613
  - KEMA tested and approved
- Traffic Control: NEMA TS-2
- Railway Systems: EN50155 & EN50121-4
- Safety: UL508 / CSA C22.2 No.142 / EN61010-1 / CE
- Hazardous Locations: ISA12.12.01/CSA C22.2 No.213 (C 1, Div 2, Grps A, B, C, D)
  - EL228-AA-1 and EL228-A0-1 models, T3C@60C (Ambient)
  - EL228-DD-1 and EL228-D0-1 models, T4@60C (Ambient)
- ATEX: EL228-DD-1 and EL228-D0-1 only (Zone 2, Cat3, T4@60C)
- EMC: IEEE c37.90.1/2/3, IEC61000-6-2, IEC61000-6-4, IEC/TS61000-6-5, IEC60870-2-1, IEC61000-4 Series, FCC Part 15, EN55022/CISPR22, CE
- Dielectric and Impulse: IEC60255-5 & C37.90
- RoHS, WEEE and REACH compliant
- MTBF: >200,000 hours GB @ +40°C per MIL-HNDBK-217F2
- ISO9001:2008 certified company

Warranty
- 5 years on design and manufacturing defects

EL228 Layer 2 Industrial Ethernet Switch
ExtremeLine Industrial Connectivity

SELECTION GUIDES

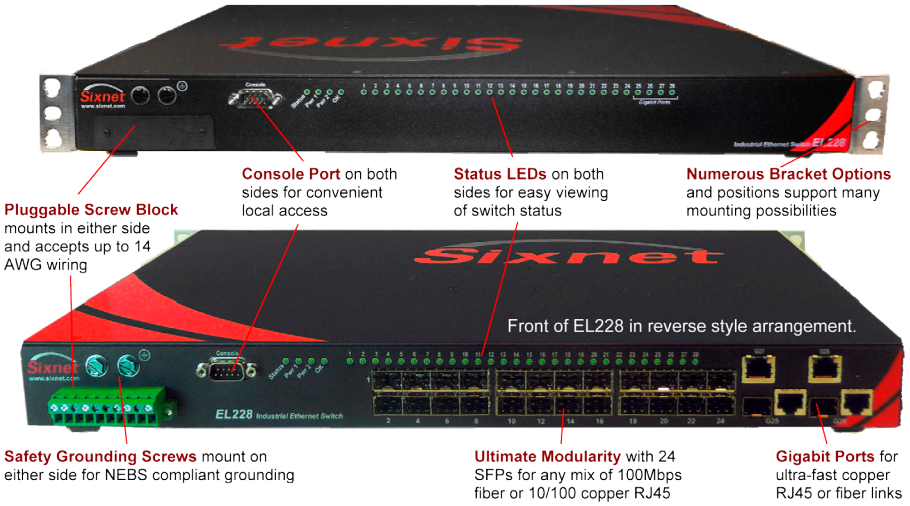
MODEL	DESCRIPTION
EL228-AO-1	with single universal VAC/VDC power input
EL228-AA-1	with dual universal VAC/VDC power supplies built in (with load share operation **)
EL228-DO-1	with single 24/48 VDC power input
EL228-DD-1	with dual 24/48 VDC power supplies built in (with load share operation **)

**See user manual for more details

ACCESSORIES MODEL	DESCRIPTION
EK1-BRCKT-19	Set (2) of 1U 19" brackets (one set included with each switch)
EK1-BRCKT-23	Set (2) of 1U 23" EIA/WECO
EK1-BRCKT-2324	Set (2) of 1U 23/24" EIA/WECO
EK1-BRCKT-ETSI	Set (2) of 1U 536 mm ETSI brackets
EK1-BRCKT-WALL	Set (2) of wall brackets

FIBER TRANSCEIVERS	SPEED	MODE	NOM. MAXIMUM DISTANCE	PORT COMPATIBILITY
FCOPPER-SFP-100	10 / 100 Mbps	Cooper RJ45	100 meters	Ports 1 thru 24
FMFIBER-SFP-4K	100 Mbps	Multimode	4 kilometers	Ports 1 thru 26
FSFIBER-SFP-30K	100 Mbps	Singlemode	30 kilometers	Ports 1 thru 26
FSFIBER-SFP-60K	100 Mbps	Singlemode	60 kilometers	Ports 1 thru 26
FSFIBER-SFP-100	100 Mbps	Singlemode	100 kilometers	Ports 1 thru 26
GMFIBER-SFP-500	Gigabit	Multimode	550 meters	Ports 25 and 26
GMFIBER-SFP-2K	Gigabit	Multimode	2 kilometers	Ports 25 and 26
GMFIBER-SFP-10K	Gigabit	Singlemode	10 kilometers	Ports 25 and 26
GMFIBER-SFP-30K	Gigabit	Singlemode	30 kilometers	Ports 25 and 26
GMFIBER-SFP-50K	Gigabit	Singlemode	50 kilometers	Ports 25 and 26
GMFIBER-SFP-80K	Gigabit	Singlemode	80 kilometers	Ports 25 and 26

Note: Special applications (such as BiDi) or extra long haul (up to 120 km) transceivers are available by special order.



About Red Lion

As the global experts in communication, monitoring and control for industrial automation, Red Lion has been delivering innovative solutions to customers for forty years. Our award-winning technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, Sixnet and N-Tron. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. Red Lion is a Spectris company.

For more information, visit www.redlion.net/sixnet, call +1 (518) 877-5173 or email info@redlion.net

Sixnet a red lion business

www.redlion.net/sixnet
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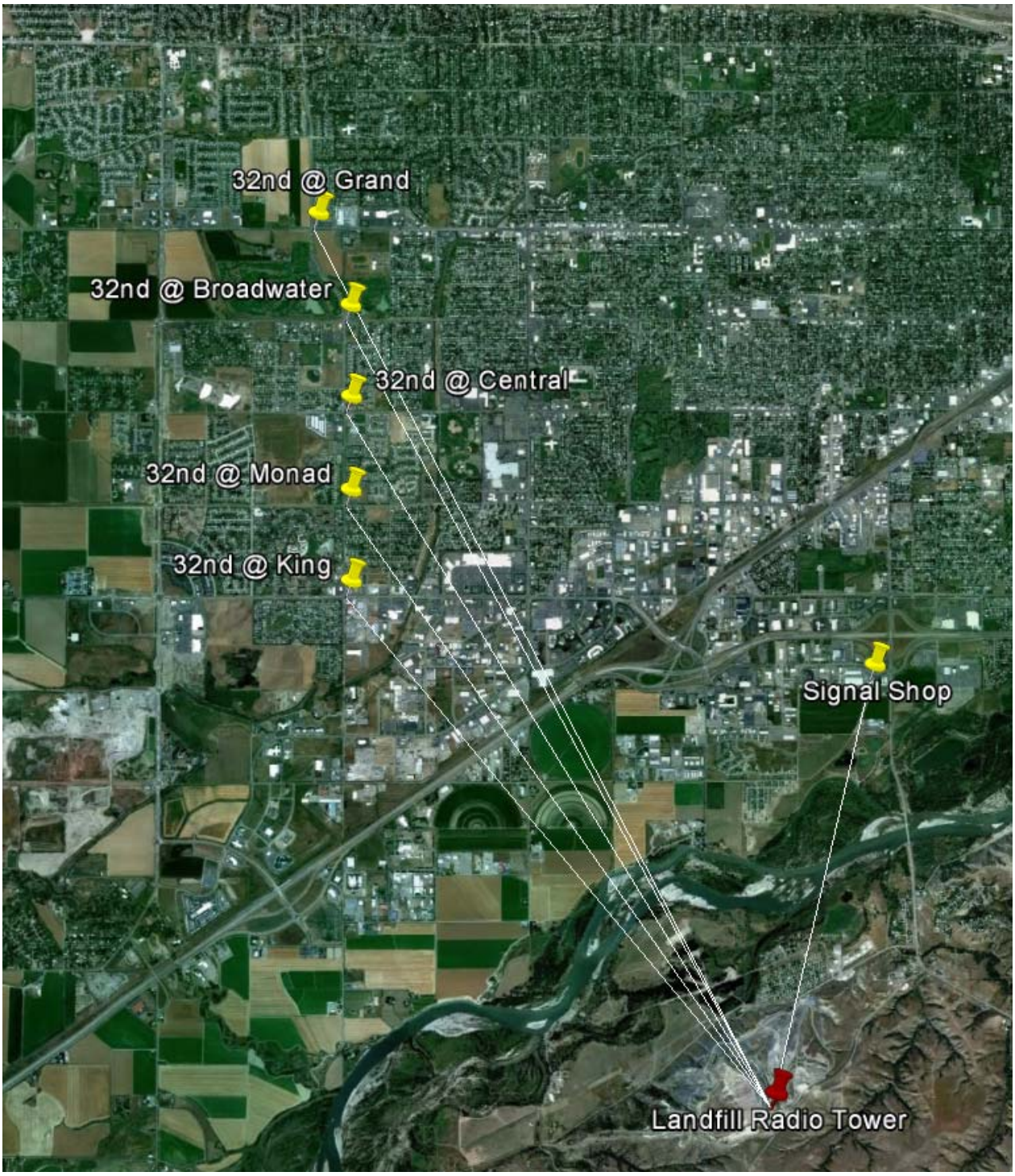
CONNECT. MONITOR. CONTROL.

WIRELESS SPECIFICATIONS

TABLE OF CONTENTS

WIRELESS PLAN



MOUNTAIN SECURE SYSTEMS
RUGGED & WIRELESS SOLUTIONS

SUMMIT SERIES SINGLE RADIO DETAILED SPECIFICATIONS

SUMMIT OUTDOOR WIRELESS PRODUCT ENCLOSURE PHYSICAL SPECIFICATIONS	
Size	12 " x 12 " x 3 " with integrated antenna
Weight	6 lbs.
Mounting	Wall and pole mount
Pole Size	.5 to 3 " outside diameter
External Connectors	RJ45 Power over Ethernet and N Type Female
AZ/EL Control	Both
Temperature	-55C t 85C
Vibration	MIL-STD-810F and IEC 60721-3-4 4M5 random
Shock Mechanical	MIL-STD-810F and IEC 60721-3-4 4M5
Humidity	100%
Water Ingress	IP67 / NEMA6 / IEC 529
Solar Radiation	ASTM G53 1000h
Ice Load	25mm radial
Salt Fog	MIL-STD-810F and IEC 68-2-11 Ka 500 hours

SUMMIT OURDOOR WIRELESS PRODUCT INTERFACE FREQUENCY SPECIFICATIONS			
FREQUENCY RANGE	2.412 TO 2.462 GHZ	4.945 TO 4.985 GHZ	5.745 TO 5.825 GHZ
Peak Transmit Power & Transmit Power Control (TPC)	28 dBm (600mW) – Yes	26 dBm (400mW) – Yes	27 dBm (500mW) – Yes
Modulation Type with DFS Support	OFDM – No	OFDM – No	OFDM – Yes
IEEE Protocol	802.11 b/g and proprietary	802.11 a and proprietary	802.11 a and proprietary
Data Rates	6Mbps, 9Mbps, 12Mbps, 24Mbps, 36Mbps, 48Mbps. 54Mbps	6Mbps, 9Mbps, 12Mbps, 24Mbps, 36Mbps, 48Mbps. 54Mbps	6Mbps, 9Mbps, 12Mbps, 24Mbps, 36Mbps, 48Mbps. 54Mbps
TX Channel Width	5, 10, 20, and 40 MHz	5, 10, 20, and 40 MHz	5, 10, 20, and 40 MHz
Security	WPA, WPA2, AES-CCM & TKIP encryption, 802.1x, 64/128/152bit WEP	WPA, WPA2, AES-CCM & TKIP encryption, 802.1x, 64/128/152bit WEP	WPA, WPA2, AES-CCM & TKIP encryption, 802.1x, 64/128/152bit WEP
Receiver Sensitivity	-74 to -97 dBm	-74 to -94 dBm	-74 to -94 dBm
Outdoor Range (Antenna Dependent)	30 miles	30 miles	30 miles
FCC Part 15	Yes	Yes	Yes
CE Mark	Yes	Yes	Yes
Industry Canada RSS-210	Yes	Yes	Yes
RoHS Compliance	Yes	Yes	Yes
ESD/EMP Protection	Yes	Yes	Yes
MTBF Rate	160,000 hours	160,000 hours	160,000 hours

see reverse

SUMMIT SERIES SINGLE RADIO DETAILED SPECIFICATIONS

Summit Ourdoor Wireless Product IEEE Networking Standards and Description	
802.1d	Ethernet and bridging
802.1p	Traffic prioritization
802.1q	Virtual Local Area Networks (VLAN)
802.1s	Spanning tree protocol
802.1w	Rapid spanning tree protocol
802.3ab	Gigabit ethernet
802.3ac	Q-tag support for 802.1Q VLAN information and 802.1p traffic priority information
802.3ad	Link aggregation for parallel links (now IEEE 802.1AX)
802.3i	10 Mbps ethernet
802.3u	100 Mbps ehternet with auto-negotiaton
802.3x	Full duplex and flow control
802.11e	WMM and QoS
802.11h	DFS and TPC

Included Configuration and Control Software Features	
Name	Features
SpeedCONFIG®	IP discovery tool
	Local and remote configuration
	Bandwidth test tool (on board and external)
	Spectrum analysis
	Real Time Received Signal Quality Indicator (RSSI)
	Client Connection Quality (CCQ)
	Antenna alignment tool with audio
	System file configuration management and scripting
Summit View Network Monitoring System	IP discovery tool
	Network and node management with link to configuration tools
	Real Time Received Signal Quality Indicator (RSSI)
	Real time wireless interface data rate monitoring
	Wireless event reporting tool (audio and email capability)
Web Configuration	Device can be configured via standard web browser using web interface

Made in the USA
SDVOSB
CAGE Code: 09FR8
9001:2008
AS9100C
J-STD-001

Mountain Secure Systems
Rugged & Wireless Solutions

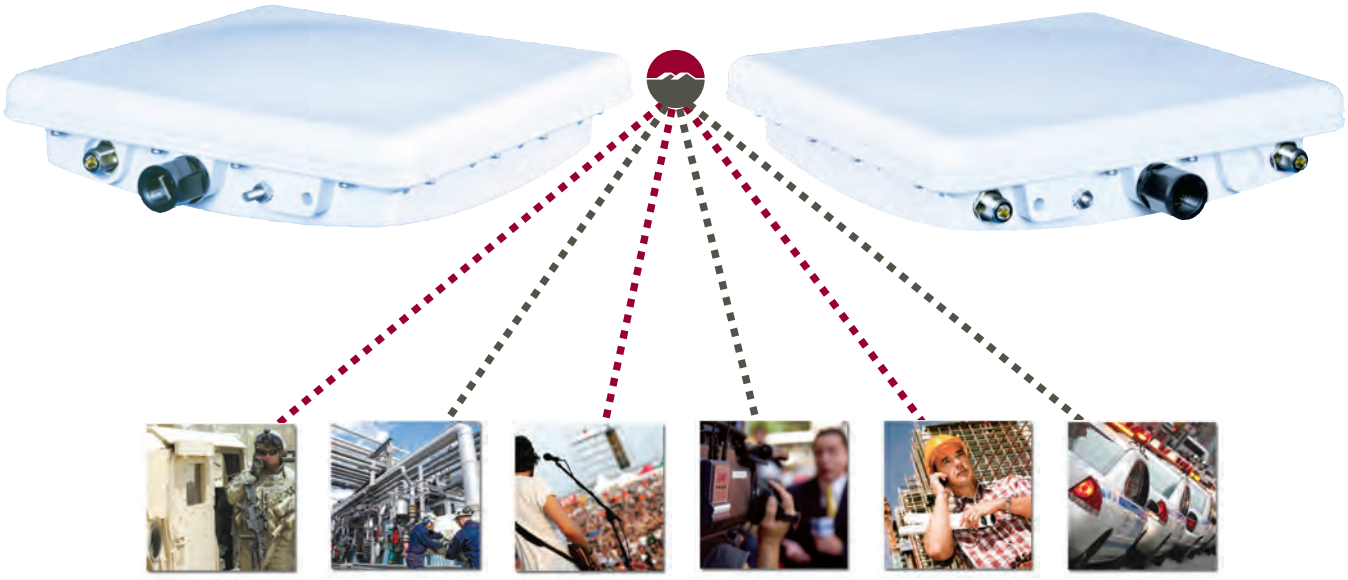
1350 Kansas Avenue,
Longmont, CO 80501 USA
888-884-9344
MountainSecureSystems.com

ISO 9001:2008 AS9100C CAGE 09FR8 SDVOSB

MOUNTAIN SECURE SYSTEMS
RUGGED & WIRELESS SOLUTIONS

SUMMIT SR DUAL BRIDGE/ROUTER WIRELESS RADIO

Summit Single Router (SR) Dual Bridge/Router Outdoor Wireless Network products from **Mountain Secure Systems** (MSS) are designed to deliver the best cost-to-performance ratio in the wireless network industry for video, voice and data applications. **A single device is capable of point-to-point, point-to-multipoint or wireless mesh network configuration.** Our devices also include all configuration and network management software. No additional license fees or add-on controllers—a one cost solution!



Summit SR Dual Bridge/Router Outdoor Wireless Network products from MSS have two complete wireless devices installed in one enclosure and either device may be configured as a router or as a bridge. They may also be individually configured for point-to-point, point-to-multipoint, wireless mesh, or repeater operation. **The following configurations are available:**

MSS Part#	Unit Description and Operating Frequency
MSS-54001	Summit SR Dual Wireless Bridge/Router certified for 2.4GHz band operation on both devices
MSS-54002	Summit SR Dual Wireless Bridge/Router Certified for 4.9 GHz Public Safety Band (PSB) operation on both devices
MSS-54003	Summit SR Dual Wireless Bridge/Router Certified for 5.8 GHz band operation on both devices
MSS-54004	Summit SR Dual Wireless Bridge/Router Certified for 4.9 GHz PSB or 5.8 GHz band operation on both devices
MSS-54005	Summit SR Dual MIMO Wireless Bridge/Router Certified for 2.4GHz or 5.8 GHz band operation on the both devices
MSS-54006	Summit SR Dual Wireless Bridge/Router Certified for 2.4 GHz or 4.9 GHz PSB band operation on both devices
MSS-54007	Summit SR Dual Wireless Bridge/Router Certified for 2.4 GHz band operation on the first device and 5.8 GHz band operation on the second device
MSS-54008	Summit SR Dual Wireless Bridge/Router Certified for 4.9 GHz PSB operation on the first device and 5.8 GHz band operation on the second device
MSS-54009	Summit SR Dual Wireless Bridge/Router Certified for 2.4 GHz band operation on the first device and 4.9 GHz PSB or 5.8 GHz band operation on the second device

see reverse

Best of all, Summit wireless network radios are:

Reliable:

- Built in the USA at a world-class manufacturing facility that meets stringent quality management requirements for military and aerospace
- Industry-leading 2-Year Standard Warranty

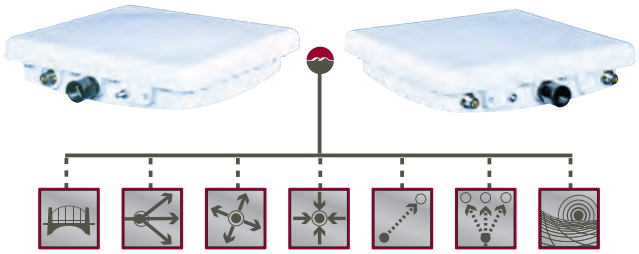
Fast:

- The non MIMO optionprovides 40 Mbps of real throughput in a 20 MHz channel; software configurable for up to 60 Mbps
- The MIMO option provides up to 150 Mbps of real throughput in a 40 MHz channel

Flexible

Every Summit radio can be configured as either a **bridge** or a **router** in any of the following network configurations:

- Access Point (AP)
- Client
- Point-to-point
- Point-to-multipoint
- Wireless Mesh



Secure

Summit products offer security features, such as:

- AES Wireless Encryption (WPA2) 64/128/192 Bit
- Built-in Firewall
- FIPS 140-2 Validation is available

Extremely Rugged:

Mountain Secure Systems has a long history of providing rugged products to the military that perform flawlessly under harsh conditions. Our products exceed the following standards for both the US and Europe and can be operated worldwide:

- Operating Temperature: -40 to 175F (-40 to 80C)
- IP67-rated enclosure meets MIL-STD-810F standards for mechanical shock, humidity, salt fog and solar radiation
- EN 300-019-2-4 Class T4.1E and Class 4M3 (humidity, shock and vibration)
- Powered by IEEE 802.3af standard POE (Power over Ethernet)

For more information about Summit outdoor wireless network products from Mountain Secure Systems, please call 888-884-9344, or visit us on the web at MountainSecureSystems.com.

MADE IN THE USA
SDVOSB
CAGE CODE: 09FR8
9001:2008
AS9100C
J-STD-001

MOUNTAIN SECURE SYSTEMS
RUGGED & WIRELESS SOLUTIONS

1350 Kansas Avenue,
Longmont, CO 80501 USA
888-884-9344
MountainSecureSystems.com

ISO 9001:2008 AS9100C CAGE 09FR8 SDVOSB

UNMANAGED INDUSTRIAL ETHERNET SWITCHES

The SL/SLX-5ES and SL/SLX-8/9ES are 5 and 8/9 port industrial Ethernet switches that provide advanced performance that enables you to achieve real-time deterministic operation. These ruggedized switches are hardened to provide superior reliability. They require no user setup and immediately start operating as soon as you power them up. Sixnet switches are designed to make your job easier, ensuring your system will keep running for many years to come.

SLX Models

PRODUCT HIGHLIGHTS

- Slim packaging fits on your Din-rail
- High performance and value
- Truly industrial hardened design
- Plug & play saves you time and money

REAL-TIME ETHERNET PERFORMANCE

- Fast wire-speed switching
- Intelligent message routing - No collisions!
- Ideal for any system

PLUG & PLAY SIMPLICITY

- Auto-sensing for speed and duplex
- Auto-mdi/mdix-crossover works with straight or crossed cables
- Auto-polarity corrects for crossed signals

TROUBLE FREE OPERATION

- Ultra-reliable 1,000,000+ hours MTBF
- Dual power inputs with industrial spike protection
- DIN-rail or direct panel mounting
- UL/CSA (CUL), CE, hazardous locations (Zone 2) and maritime rated

Sixnet Knows Industrial

We have been designing industrial hardware such as Remote Terminal Units for over 30 years and have used this expertise to design the toughest Ethernet switches on the market. Don't trust your critical communications to so-called industrial hardware from commercial switch manufacturers. Sixnet switches give you proven assurance that your system will keep running for years to come.

SL Models

ETHERNET PERFORMANCE

- Unmanaged with 5, 8 or 9 Ethernet ports
- Store & forward wire-speed switching
- Automatic address learning, aging and migration
- Full duplex operation with flow control (no collisions)
- All IEEE 802.3 Ethernet protocols supported
- 1024 MAC addresses supported
- Memory bandwidth 3.2 Gbps
- Typical latency (varies on load)
  - @ 100 Mbps: 5 µs + frame time
  - @ 10 Mbps: 16 µs + frame time
- Ethernet isolation 1500 VRMS 1 minute

ETHERNET PORTS

- Shielded RJ45 ports for 10/100BaseTX
  - Auto-negotiation for 10 or 100 Mbps
  - Auto- MDI/MDIX-crossover for either cable type
  - Auto-polarity corrects for crossed +/- signals
- Fiber optic port speed 100BaseFX (100 Mbps)
- Fiber duplex operation: Full duplex
- Fiber wavelength: 1300 nm center (typical)
- Fiber max. distance (full duplex) (see web for details)
  - 4 km for multimode 50 or 62.5/125 µm (SC or ST)
  - 20 km for singlemode 9 or 10/125 µm (SC or ST)
  - 40 km (long haul) or more (contact Sixnet)

ETHERNET COMPLIANCE

- IEEE 802.3 (10Mbps Ethernet supports legacy devices)
- IEEE 802.3u (Fast Ethernet 100Mbps for newer devices)
- IEEE 802.3x (Full-Duplex with Flow Control)

POWER INPUT

- Power input voltage: 10-30 VDC
- Redundant input terminals
- Input power (typical - all ports active at 100 Mbps)
  - 2.0 W (5-port without fiber)
  - 3.0 W (5-port including 1 fiber)
  - 4.0 W (8-port without fiber)
  - 5.0 W (9-port including 1 fiber)
- Transient protection: 15,000 watts peak
- Spike protection: 5,000 watts (10 times for 10 uS)

ENVIRONMENTAL

- Operating temperature
  - SLX models: -40 to +85°C (cold startup at -40)
  - SL models: -40 to +60°C
- Storage temperature: -40 to +85 °C
- Humidity (non-condensing) 5 to 95% RH
- Vibration and shock: IEC60068-2-6

STANDARDS COMPLIANCE

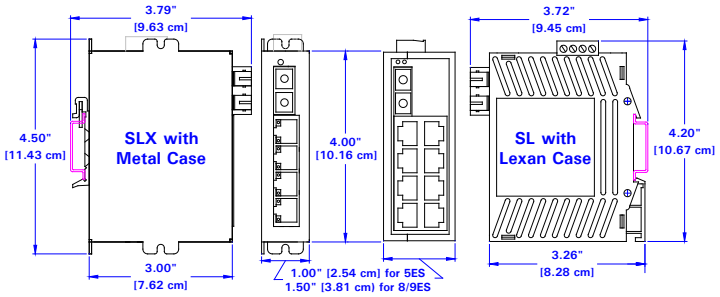
- Electrical safety - UL508/CSA C22.2/14, EN61010-1, CE
- EMC - FCC part 15, ICES-003, EN55022, EN61000-6, CE
- Hazardous locations: ISA 12.12.01 / CSA C22.2/213 (Class I, Div. 2); EN60079-15 (Zone 2, Category 3), CE (ATEX)
- Maritime rated for marine & offshore per ABS
- Eye safety (fiber models) - IEC60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11

PHYSICAL

- Din-rail or direct panel mounting
- Ingress protection: SLX models - IP40, SL models - IP40
- Case: UL94V0 Lexan (SL) or Aluminum (SLX)
- Weight:
  - 4 oz (0.11 kg) – SL-5ES
  - 6 oz (0.17 kg) – SLX-5ES, SL-8/9ES
  - 8 oz (0.23 kg) – SLX-8/9ES
- Dimensions – see mechanical diagram below

All specifications are subject to change. Contact Sixnet to learn more.

MECHANICAL DRAWINGS



ORDERING GUIDE

SLX-5ES-1	5 RJ45 10/100 ports
SLX-5ES-2SC	4 RJ45 ports and 1 mm fiber SC, 4 Km
SLX-5ES-2ST	4 RJ45 ports and 1 mm fiber ST, 4 Km
SLX-5ES-3SC	4 RJ45 ports and 1 sm fiber SC, 20 Km
SLX-5ES-3ST	4 RJ45 ports and 1 sm fiber ST, 20 Km
SLX-6ES-4/5	Dual fiber - see separate datasheet
SLX-8ES-1	8 RJ45 10/100 ports
SLX-8ES-6/7	Three fiber - see separate datasheet
SLX-9ES-2SC	8 RJ45 ports and 1 mm fiber SC, 4 Km
SLX-9ES-2ST	8 RJ45 ports and 1 mm fiber ST, 4 Km
SLX-9ES-3SC	8 RJ45 ports and 1 sm fiber SC, 20 Km
SLX-9ES-3ST	8 RJ45 ports and 1 sm fiber ST, 20 Km
SL-	w/Lexan case and limited temperature
ET-PS-024-02	2 Amp, AC to 24 VDC Power Supply
SP-ETH-2	Dual Ethernet port surge & lightning protector

Contact Sixnet for special or long haul fiber transeivers up to 120 Km.

Sixnet a red lion business
www.redlion.net/sixnet
+1 (518) 877-5173 | info@redlion.net

ADLD0203-SL.SLX-589ES-123
Rev FEB 2013

Consent **1. E.**

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: W.O. 12-14, Integrated Water Plan Implementation, Wastewater Collection System Study, Contract Amendment No. 1

PRESENTED BY: David Mumford

Department: Public Works

Information

PROBLEM/ISSUE STATEMENT

Staff is requesting that the City Council approve Amendment No. 1 to the City's contract with DOWL HKM for WO 12-14, Integrated Water Plan Implementation (IWPI), Wastewater Collection System Study in the amount of $50,000.00. The contract term would also be extended to March 31, 2014.

The contract price increase would add a Wastewater Master Planning effort to the current contract which would conduct a condition assessment on existing collection system components and explore and develop specific improvement alternatives to the City's collection system. Work would include reviewing and coordinating with the findings of other IWPI planning documents, such as the Wastewater Treatment Facility Plan and the Reuse and Reclamation Study, assessing the condition of existing system components, conducting additional modeling, conducting technical analysis of alternatives, producing planning level cost estimates, developing and recommending a 10-year CIP, and documenting all work performed in report format.

The proposed Master Planning effort will be closely guided and refined by City staff based on further evaluation of recommended improvement alternatives being produced by DOWL HKM under the current W.O. 12-14 contract work.

ALTERNATIVES ANALYZED

The Council may:

- Award Contract Amendment No. 1 to DOWL HKM; or
- Do not award the contract amendment to DOWL HKM.

If the contract amendment is not awarded, the City will be unable to keep its Wastewater Master Plan current. The last time the Master Plan was updated was 2006.

FINANCIAL IMPACT

The Wastewater Fund expense for this project was approved by City Council in the FY 13 budget. A summary of the funding is as follows:

Project Budget	$60,000.00
Previously Encumbered	$0

This Contract	$50,000.00
Budget Remaining	$10,000.00

RECOMMENDATION

Staff recommends that Council approve Amendment No. 1 to the City's contract with DOWL HKM for WO 12-14, IWPI, Wastewater Collection System Study in the amount of $50,000.00 and extend the term of the contract to March 31, 2014.

APPROVED BY CITY ADMINISTRATOR

Attachments

WO 12-14 DRAFT PES Contract Amend#1

DRAFT

AMENDMENT NO. 1

TO

CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES

CITY OF BILLINGS W.O. 12-14
INTEGRATED WATER PLAN IMPLEMENTATION
Wastewater Collection System Study

THIS AGREEMENT, made and entered into on _____, 2013, by and between the following:

CITY OF BILLINGS, a Municipal Corporation,
Billings, Montana 59103,
Hereinafter designated the City

and

DOWL HKM
222 North 32nd Street, Suite 700
Billings, Montana 59101
Hereinafter designated the Consultant

WITNESSETH:

WHEREAS, the City and Consultant have entered into a contract dated April 23, 2012 for Consultant to provide engineering services to the City for Work Order 12-14, Integrated Water Plan Implementation, Wastewater Collection System Study, and;

WHEREAS, the City has need for additional engineering services, and;

WHEREAS, the City has authority to contract for consulting engineering services, and;

WHEREAS, the Consultant represents that he is qualified to perform such services, is in compliance with Montana Statutes relating to the registration of professional engineers and is willing to furnish such services to the City;

NOW, THEREFORE, in consideration of the terms, conditions, covenants and performance contained herein, or attached and incorporated herein, the Parties hereto agree as follows:

DRAFT

Appendix A, Section 3 is amended as follows:

Add the following "Task 600 – Additional Wastewater Master Planning" with the scope of work included herein.

Task 600 – Additional Wastewater Master Planning

Coordinate with City of Billings staff to assess existing wastewater collection system components and explore and develop specific future alternatives. City direction shall be received prior to commencing any work on this task. This task shall be billed at the hourly rate in the original Contract for any work performed up to a maximum of $50,000.00. No work shall be performed beyond this $50,000.00 budget without further Contract amendment. Work will be undertaken at City direction, and is anticipated to include, but not limited to:

- reviewing and coordinating with the findings of other Integrated Water Plan Implementation planning documents, such as the Wastewater Treatment Facility Plan and the Reuse and Reclamation Study,
- assessing and summarizing the physical condition and hydraulic characteristics of existing system components,
- conducting additional modeling,
- conducting technical analysis of alternatives,
- producing planning level cost estimates of alternatives,
- report writing, and
- developing and recommending a 10-year CIP.

Appendix B, Section 1.A. is amended to include the following:

For services rendered under Appendix A of this Agreement, the Engineer shall be paid based on actual time accrued, by not to exceed $252,130.00 (Two Hundred Fifty Two Thousand One Hundred Thirty and No/100 Dollars) based on the following tasks:

100	Information Gathering	$15,330.00
200	Flow Monitoring and Infiltration/Inflow Analysis	$98,500.00
300	Sanitary Sewer Model	$57,900.00
400	Satellite Treatment Options	$12,000.00
500	Final Report	$18,400.00
600	Additional Wastewater Master Planning	$50,000.00

The total addition to the Contract by this Amendment is $50,000.00

Part 1 Special Provisions, Section 3.C. is deleted. The following language replaces and supercedes this clause in the Original Contract:

"This Contract shall terminate at midnight on March 31, 2014."

DRAFT

All other terms and conditions of the contract to which this amendment applies shall remain in full effect.

CONSULTANT – DOWL HKM

NAME: _____

BY: _____

TITLE: _____

DATE: _____

CITY OF BILLINGS, MONTANA

BY: _____
City Council or Designee

DATE: _____

Consent **1. F.**

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: WO 12-16, Integrated Water Plan Implementation, Water Distribution System Study, Contract Amendment No. 2

PRESENTED BY: David Mumford

Department: Public Works

Information

PROBLEM/ISSUE STATEMENT

Staff is requesting that the City Council approve Amendment No. 2 to the City's contract with Morrison Maierle, Inc. (MMI) for WO 12-16, Integrated Water Plan Implementation (IWPI), Water Distribution System Study in the amount of $80,000.00. The contract term would be extended to March 31, 2014.

The contract price increase would add a Water Master Planning effort to the current contract. The plan would explore and develop specific improvement alternatives to the City's water system. Work would include additional modeling, planning level cost estimates, technical analysis of alternatives, recommendations for and development of a 10-year CIP, and documenting all work performed in report format.

The proposed Master Planning effort will be closely guided and refined by City staff based on further evaluation of recommended improvement alternatives being produced by MMI under the current W.O. 12-16 contract work.

ALTERNATIVES ANALYZED

The Council may:

- Award Contract Amendment No. 2 to MMI; or
- Do not award the contract amendment to MMI.

If the contract amendment is not awarded, the City will be unable to follow-through on the important task of keeping its Water Master Plan current. The last time the Master Plan was updated was 2006.

FINANCIAL IMPACT

The Water Fund expense for this project was approved by City Council in the FY13 budget. A summary of the funding is as follows:

Project Budget	$90,000.00
Previously Encumbered	$0
This Contract	$80,000.00
Budget Remaining	$10,000.00

RECOMMENDATION

Staff recommends that Council approve Amendment No. 2 to the City's contract with MMI for WO 12-16, IWPI, Water Distribution System Study in the amount of $80,000.00 and extend the term of the contract to March 31, 2014.

APPROVED BY CITY ADMINISTRATOR

Attachments

WO 12-16 DRAFT PES Contract Amend#2

DRAFT

AMENDMENT NO. 2

TO

PROFESSIONAL ENGINEERING

SERVICES

W.O. 12-16, INTEGRATED WATER PLAN IMPLEMENTATION

THIS AGREEMENT, made and entered into on _____, 2013, by and between the following:

CITY OF BILLINGS, a Municipal Corporation,
Billings, Montana 59103,
Hereinafter designated the City

and

Morrison-Maierle, Inc.
315 N. 25th Street, Suite 102
Billings, Montana 59101
Hereinafter designated the Contractor

WITNESSETH:

WHEREAS, the City and Contractor have entered into a contract dated June 25, 2012, for Contractor to provide engineering services to the City for Work Order 12-16 Integrated Water Plan Implementation, and;

WHEREAS, the City has need for additional engineering services, and;

WHEREAS, the City has authority to contract for consulting engineering services, and;

WHEREAS, the Contractor represents that he is qualified to perform such services, is in compliance with Montana Statutes relating to the registration of professional engineers and is willing to furnish such services to the City;

NOW, THEREFORE, in consideration of the terms, conditions, covenants and performance contained herein, or attached and incorporated herein, the Parties hereto agree as follows:

DRAFT

Appendix A, Section 3 is amended as follows:

Add the following "Task 17 – Additional Water Master Planning Effort Scope of Work" included herein.

TASK 17 – ADDITIONAL WATER MASTER PLANNING EFFORT

Coordinate with City of Billings staff to explore and develop specific alternatives to the City of Billings water system. City direction shall be received prior to commencing any work on this task. This task shall be billed at an hourly rate in the original Contract for any work performed on this task up to a maximum of $80,000.00. No work will be performed beyond this $80,000.00 budget without further Contract amendment. Work will be undertaken at City direction, but is anticipated to include, but not be limited to, additional modeling, planning level cost estimates, documenting work performed in a report, technical analysis of alternatives, and recommendations for and development of a 10-year CIP.

Appendix B, Section 1, Paragraph A is amended to include the following:

Delete the existing fee table and replace with the following table of fees.

Task 1	Current Model and Information Review	$	12,356.00
Task 2	Update Existing Model Properties	$	25,728.00
Task 2A	Pump Station and Ground Elevation Verification	$	9,159.00
Task 3	Review Connection Points	$	31,050.00
Task 4	Review Existing Pressure Zone Boundaries	$	6,330.00
Task 5	Allocate Demands	$	12,842.00
Task 6	Calibrate Model	$	7,018.00
Task 7	Develop Future Demands	$	5,298.00
Task 8	Review/Develop Pressure Zone Criteria	$	5,287.00
Task 9	Review Existing Pressure zones	$	4,820.00
Task 10	Review Existing Pumping and Storage Infrastructure	$	12,928.00
Task 11	Evaluate Potential New Pressure Zones	$	18,894.00
Task 12	Determine Required Pressure Infrastructure for Pressure Zone Alternative	$	16,790.00
Task 13	Conceptual West End Treatment Plant Hydraulic Evaluation	$	10,995.00
Task 14	Develop Conceptual West End Treatment Plant Size and Location	$	19,520.00
Task 15	Draft and Final Reports	$	34,071.00
Task 16	Quality Assurance	$	6,800.00
Task 17	Additional Water Master Planning Effort	$	80,000.00
Total Professional Engineering Services		**$**	**319,886.00**

The total addition to the Contract by this Amendment is $80,000.00.

DRAFT

Part 1 Special Provisions, Section 3, Paragraph C is deleted. The following language replaces and supercedes this clause in the Original Contract and Amendment No. 1:

"This Contract shall terminate at midnight on March 31, 2014."

All other terms and conditions of the contract to which this amendment applies shall remain in full effect.

CONSULTANT

NAME: Morrison Maierle, Inc.

BY: _____

TITLE: Vice President

DATE: _____

CITY OF BILLINGS, MONTANA

BY: _____
City Council or Designee

DATE: _____

Consent **1. G.**

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: Funding for an Exposition Gateway Public Infrastructure Engineering Contract

PRESENTED BY: David Mumford

Department: Public Works

Information

PROBLEM/ISSUE STATEMENT

Beginning in July 2012, Big Sky Economic Development Authority (BSEDA) collaborated with property owners and civic leaders in Billings to develop a concept plan for the Exposition Gateway. The Exposition Gateway planning process addresses properties east of the East Billings Urban Renewal District (EBURD). This plan was approved by the Yellowstone County Board of County Commissioners on May 28th, 2013. The Big Sky Economic Development Board of Directors adopted it on June 13th. The City Council will consider adopting the plan at its June 24th, 2013 meeting.

The Exposition Gateway Master Plan presents a number of recommendations and implementation actions that can be used to guide future development within the Exposition Gateway. As part of the implementation of the Exposition Gateway Master Plan, an engineering study is needed to determine quantities and costs of public infrastructure improvements. The City of Billings Public Works Department has solicited a fee proposal in the amount not to exceed $10,000 to perform this study. Results of the study may be used to help create an SID/RSID that will construct the improvements.

The Billings Industrial Revitalization District, Inc. (BIRD) Board of Directors voted to recommend the use of EBURD Tax Increment Finance (TIF) to fund the study. Work is to begin as soon as possible.

ALTERNATIVES ANALYZED

The Council may:

- Agree to utilize EBURD TIF funds for this project; or
- Do not agree to utilize the EBURD TIF funds for this contract and the project will not be able to proceed.

FINANCIAL IMPACT

The total cost of this project is $10,000. Funding for this project is available in the EBURD account.

RECOMMENDATION

Staff and the BIRD Board of Directors recommend that Council approve the use of EBURD TIF funds in the amount of $10,000 to develop public infrastructure quantities and a cost estimate for a potential SID in the Exposition Gateway area.

APPROVED BY CITY ADMINISTRATOR

Attachments

BIRD Letter for TIF funds

BILLINGS INDUSTRIAL REVITALIZATION DISTRICT

June 4, 2013

City of Billings City Council
210 North 27th St
Billings, MT 59101

RE: EBURD TIF funds for Expo Gateway SID/RSID Engineering Study

Honorable Mayor & City Council:

The City of Billings Public Works Department has agreed to move forward with an engineering study for a potential Special Improvement District / Rural Special Improvement District (SID/RSID) in the Exposition Gateway Master Plan study area. The next step is to develop an estimated quantity and cost breakdown for public infrastructure needs in the area.

The Billings Industrial Revitalization District, Inc. (BIRD) Board of Directors met on May 30th, 2013 and voted to recommend to the City of Billings City Council funding for this engineering study using EBURD Tax Increment Funds.

Chris Hertz of the City Engineer's Office has provided a fee proposal from Kadrmas, Lee, & Jackson in the amount of $10,000.

Please place this on the June 24th City Council consent agenda for City Council approval of the expenditure of EBURD Tax Increment Finance funds for this project.

Please contact me with any questions.

Sincerely,

Steve Zeier
TIF Coordinator

Consent **1. H.**

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: Acceptance of Drainage Way Easements within Wilshire Heights Subdivision

PRESENTED BY: David Mumford

Department: Public Works

Information

PROBLEM/ISSUE STATEMENT

There is a natural drainage way off of the rims that transverses between Lots 22 and 23, Block 5 of Wilshire Heights Subdivision. Some time in the past a concrete valley gutter was constructed between the two lots. It may be necessary to maintain or reconstruct this valley gutter in the future. The property owners have agreed to grant the city an easement to allow maintenance of the valley gutter.

ALTERNATIVES ANALYZED

The Council may:

- Accept the drainage way easement; or
- Do not accept the drainage way easement which would make it difficult for the city to maintain the valley gutter.

FINANCIAL IMPACT

There is no significant financial impact with acceptance of this drainage way easement.

RECOMMENDATION

Staff recommends that Council accept the drainage way easement from Lots 22 and 23, Block 5 of Wilshire Heights Subdivision.

APPROVED BY CITY ADMINISTRATOR

Attachments

Lot 22 Exhibit

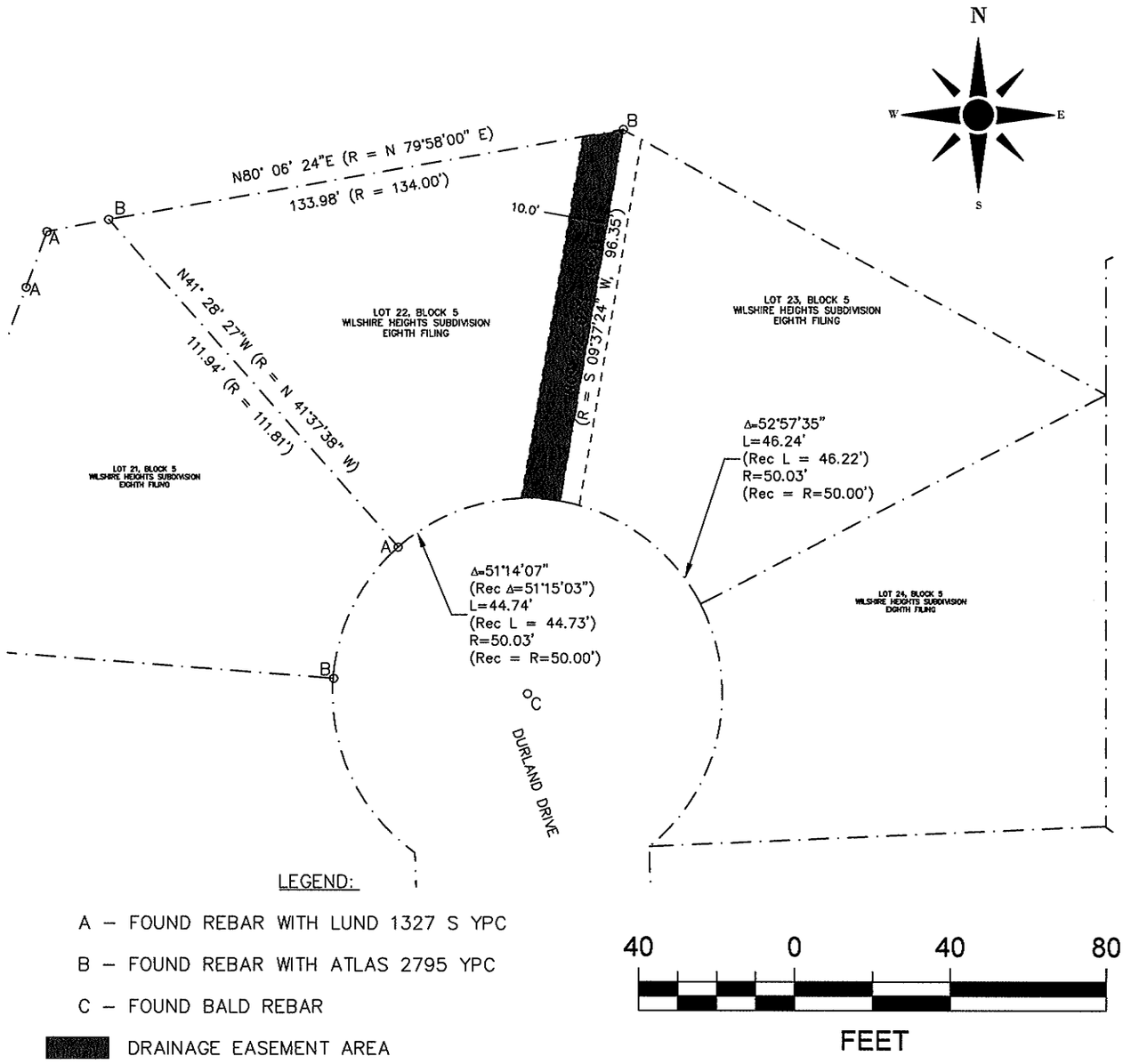
Lot 23 Exhibit

Lot 22 Easement

Lot 23 Easement

EXHIBIT A

DRAINAGE WAY EASEMENT
SITUATED IN LOT 22, BLOCK 5,
WILSHIRE HEIGHTS SUBDIVISION, EIGHTH FILING
BILLINGS, YELLOWSTONE COUNTY, MONTANA



LEGEND:

A – FOUND REBAR WITH LUND 1327 S YPC

B – FOUND REBAR WITH ATLAS 2795 YPC

C – FOUND BALD REBAR

DRAINAGE EASEMENT AREA

40 0 40 80

FEET

EASEMENT DESCRIPTION

A tract of land situated in Lot 22, Block 5 of Wilshire Heights Subdivision, Eighth Filing, per Document No. 978719, recorded June 3, 1975 and on file at the Yellowstone County Clerk & Recorder office, Billings, Yellowstone County, Montana.

BASIS OF BEARING, The north line of lots 21 & 22 of block 5, of said Wilshire Heights Subdivision, Eighth Filing, (N 79°58'00" E).

Said tract of land more particularly described as follows:
Being the east 10.00 feet of said Lot 22, Block 5 of Wilshire Heights Subdivision, Eighth Filing, containing an area of 950 square feet more or less.

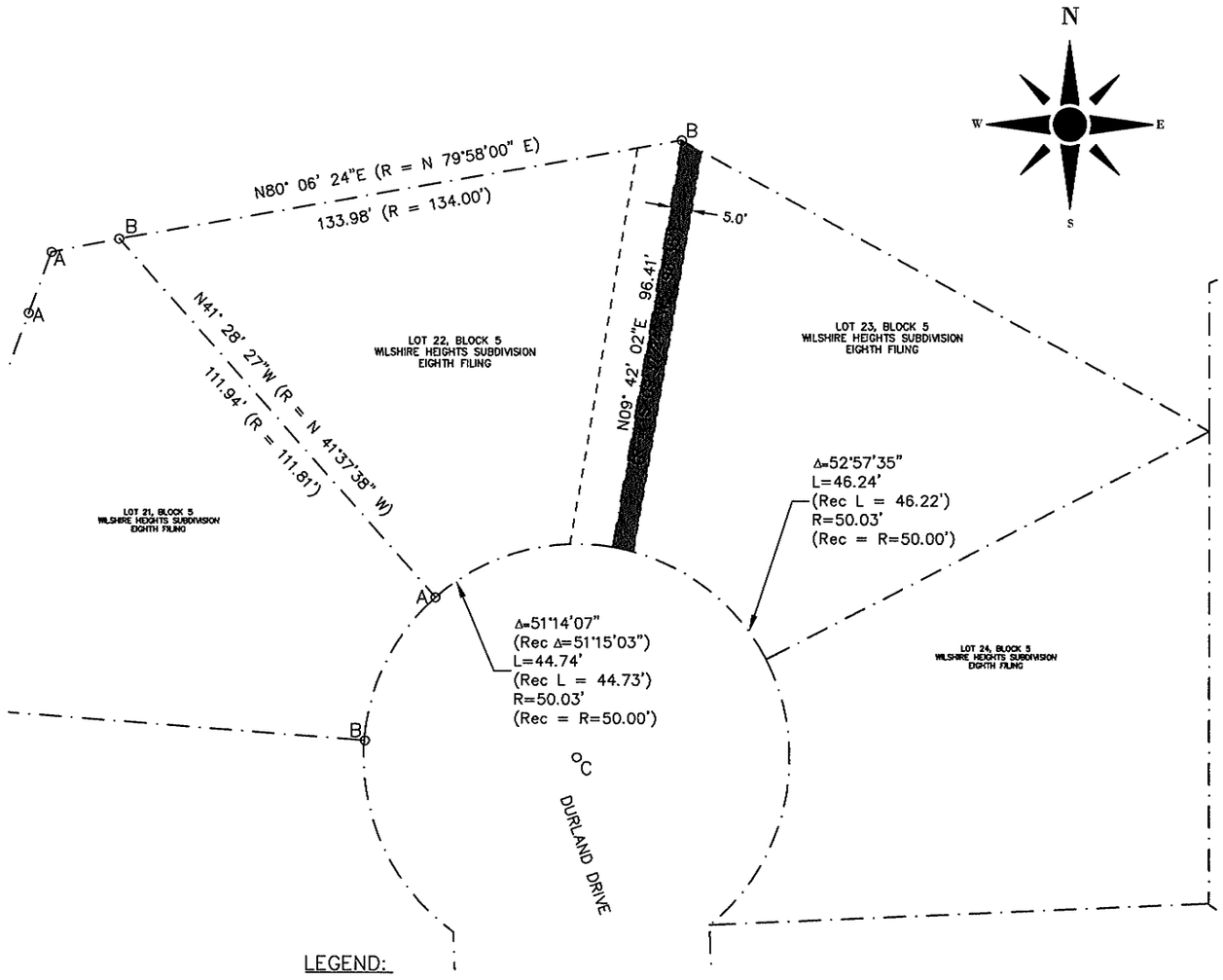
CITY OF BILLINGS, MONTANA
DRAINAGE WAY EASEMENT EXHIBIT

THIS EXHIBIT IS PREPARED BY
THE CITY OF BILLINGS, MONTANA

UPDATED: 10/24/2012 TAG
T:\Backup\Civil 3D 2012 Projects\Wilshire Heights Steven Kienitz\Lot 22 Block 5 Wilshire Heights.dwg

EXHIBIT A

DRAINAGE WAY EASEMENT
SITUATED IN LOT 23, BLOCK 5,
WILSHIRE HEIGHTS SUBDIVISION, EIGHTH FILING
BILLINGS, YELLOWSTONE COUNTY, MONTANA



LEGEND:

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BASIS OF BEARING, The north line of lots 21 & 22 of block 5, of said Wilshire Heights Subdivision, Eighth Filing, (N 79°58'00" E).

Said tract of land more particularly described as follows: Being the west 5.00 feet of said Lot 23, Block 5 of Wilshire Heights Subdivision, Eighth Filing, containing an area of 478 square feet more or less.

CITY OF BILLINGS, MONTANA
DRAINAGE WAY EASEMENT EXHIBIT

THIS EXHIBIT IS PREPARED BY
THE CITY OF BILLINGS, MONTANA

UPDATED: 10/24/2012 TAG
T:\Backup\Civil 3D 2012 Projects\Wilshire Heights Steven Kienitz\Lot 22 Block 5 Wilshire Heights.dwg

***** DRAINAGE WAY EASEMENT *****

FOR VALUABLE CONSIDERATION, **STEVEN KIENITZ** and **MAUREEN KIENITZ**, ("Grantor") of 1639 St. Johns Avenue, Billings, MT 59102 does hereby GRANT, to the **CITY OF BILLINGS, MONTANA,** ("Grantee") a municipal corporation, whose address is Post Office Box 1178, Billings Montana 59103, a perpetual easement to construct, reconstruct, maintain, operate, repair and improve necessary features and appurtenances of an existing concrete drainage way and retaining wall over, across, under and through the following described real property that is located in the City of Billings, Yellowstone County, Montana:

A tract of land situated in Lot 22, Block 5 of Wilshire Heights Subdivision, Eighth Filing, per Document No. 978719, recorded June 3, 1975 and on file at the Yellowstone County Clerk & Recorder office, Billings, Yellowstone County, Montana.

BASIS OF BEARING, The north line of lots 21 & 22 of block 5, of said Wilshire Heights Subdivision, Eighth Filing, (N 79°58'00" E).

Said tract of land more particularly described as follows:
Being the east 10.00 feet of said Lot 22, Block 5 of Wilshire Heights Subdivision, Eighth Filing, containing an area of 950 square feet more or less.

More commonly referred to as 3244 Durland Drive.

DESCRIPTION OF EASEMENT
SEE ATTACHED EXHIBIT "A"

This easement shall continue from the date it is executed by all parties so long as the need continues to use the property for the above-described purposes, and shall terminate when the City of Billings ceases to use the property to maintain, operate, repair and improve necessary features and appurtenances for the Drainage Way & Retaining Wall.

DATED this _____ day of _____, 2012.

_____
STEVEN KIENITZ (Co-Owner)

_____
MAUREEN KIENITZ (Co-Owner)

STATE OF MONTANA)
: ss
County of Yellowstone)

On this _____ day of _____, 2012 before me a Notary Public for the State of Montana, personally appeared **STEVEN KIENITZ** and **MAUREEN KIENITZ**, and acknowledged to me that they executed the foregoing instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial seal the day and year first above written.

_____(Signature)

(SEAL) _____(Printed Name)
Notary Public for the State of Montana
Residing at Billings, Montana
My Commission Expires: _____

ACKNOWLEDGEMENT AND ACCEPTANCE OF CONVEYANCE

THIS EASEMENT is hereby accepted pursuant to City Council approval on the _____ day of _____, 2012.

CITY OF BILLINGS,
a Montana Municipal Corporation

By: _____
THOMAS W. HANEL, MAYOR

ATTEST:

_____
CARI MARTIN, City Clerk

STATE OF MONTANA)
: ss
County of Yellowstone)

On this _____ day of _____, 2012 before me a Notary Public for the State of Montana, personally appeared **THOMAS W. HANEL** and **CARI MARTIN**, known to me to be the Mayor and City Clerk of Billings, respectively, and acknowledged to me that they executed the foregoing instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial seal the day and year first above written.

_____(Signature)

(SEAL) _____(Printed Name)
Notary Public for the State of Montana
Residing at Billings, Montana
My Commission Expires: _____

***** DRAINAGE WAY EASEMENT *****

FOR VALUABLE CONSIDERATION, **KATHRYN MCLAIN**, ("Grantor") of 3239 Durland Drive, Billings, MT 59102 does hereby GRANT, to the **CITY OF BILLINGS, MONTANA,** ("Grantee") a municipal corporation, whose address is Post Office Box 1178, Billings Montana 59103, a perpetual easement to construct, reconstruct, maintain, operate, repair and improve necessary features and appurtenances of an existing concrete drainage way and retaining wall over, across, under and through the following described real property that is located in the City of Billings, Yellowstone County, Montana:

A tract of land situated in Lot 23, Block 5 of Wilshire Heights Subdivision, Eighth Filing, per Document No. 978719, recorded June 3, 1975 and on file at the Yellowstone County Clerk & Recorder office, Billings, Yellowstone County, Montana.

BASIS OF BEARING, The north line of lots 21 & 22 of block 5, of said Wilshire Heights Subdivision, Eighth Filing, (N 79°58'00" E).

Said tract of land more particularly described as follows:
Being the west 5.00 feet of said Lot 23, Block 5 of Wilshire Heights Subdivision, Eighth Filing, containing an area of 478 square feet more or less.

More commonly referred to as 3239 Durland Drive.

DESCRIPTION OF EASEMENT
SEE ATTACHED EXHIBIT "A"

This easement shall continue from the date it is executed by all parties so long as the need continues to use the property for the above-described purposes, and shall terminate when the City of Billings ceases to use the property to maintain, operate, repair and improve necessary features and appurtenances for the Drainage Way & Retaining Wall.

DATED this _____ day of _____, 2012.

_____
KATHRYN MCLAIN (Owner)

STATE OF MONTANA)
: ss
County of Yellowstone)

On this _____ day of _____, 2012 before me a Notary Public for the State of Montana, personally appeared **KATHRYN MCLAIN**, and acknowledged to me that she executed the foregoing instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial seal the day and year first above written.

_____(Signature)

(SEAL) _____(Printed Name)
Notary Public for the State of Montana
Residing at Billings, Montana
My Commission Expires: _____

ACKNOWLEDGEMENT AND ACCEPTANCE OF CONVEYANCE

THIS EASEMENT is hereby accepted pursuant to City Council approval on the _____ day of _____, 2012.

CITY OF BILLINGS,
a Montana Municipal Corporation

By: _____
THOMAS W. HANEL, MAYOR

ATTEST:

_____
CARI MARTIN, City Clerk

STATE OF MONTANA)
: ss
County of Yellowstone)

On this _____ day of _____, 2012 before me a Notary Public for the State of Montana, personally appeared **THOMAS W. HANEL** and **CARI MARTIN**, known to me to be the Mayor and City Clerk of Billings, respectively, and acknowledged to me that they executed the foregoing instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial seal the day and year first above written.

_____(Signature)

(SEAL) _____(Printed Name)
Notary Public for the State of Montana
Residing at Billings, Montana
My Commission Expires: _____

Consent **1. I.**

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: Acknowledge Receipt of Petition to Vacate a 10' Right of Way Intersecting Shawnee Drive and Set a Public Hearing

PRESENTED BY: David Mumford

Department: Public Works

Information

PROBLEM/ISSUE STATEMENT

Gerald Watson, owner of lots 10 and 11, Block 5, Wanigan Subdivision, has petitioned to vacate the 10' right of way between his lots. The 10' right of way was dedicated for a future walkway. The walkway will not be constructed due to the fact that it would lead to private commercial property and is not needed. Mr. Watson owns both lots fronting the right of way. The area of the right of way proposed to be vacated is approximately 1,400 square feet.

ALTERNATIVES ANALYZED

The Council may:

- Acknowledge the petition to vacate the above-mentioned right-of-way and set a public hearing for July 22, 2013; or
- Do not acknowledge the petition and terminate the right-of-way vacation process.

FINANCIAL IMPACT

The petitioner obtained a comparative market analysis to establish the value of the right of way. River Crossing Inc. has established the value of the right of way at $6,300.00.

RECOMMENDATION

Staff recommends that Council acknowledge the receipt of a petition to vacate a 10' right of way that intersects with Shawnee Drive and set a public hearing for July 22, 2013.

APPROVED BY CITY ADMINISTRATOR

Attachments

Right of Way Exhibit

PLAT OF

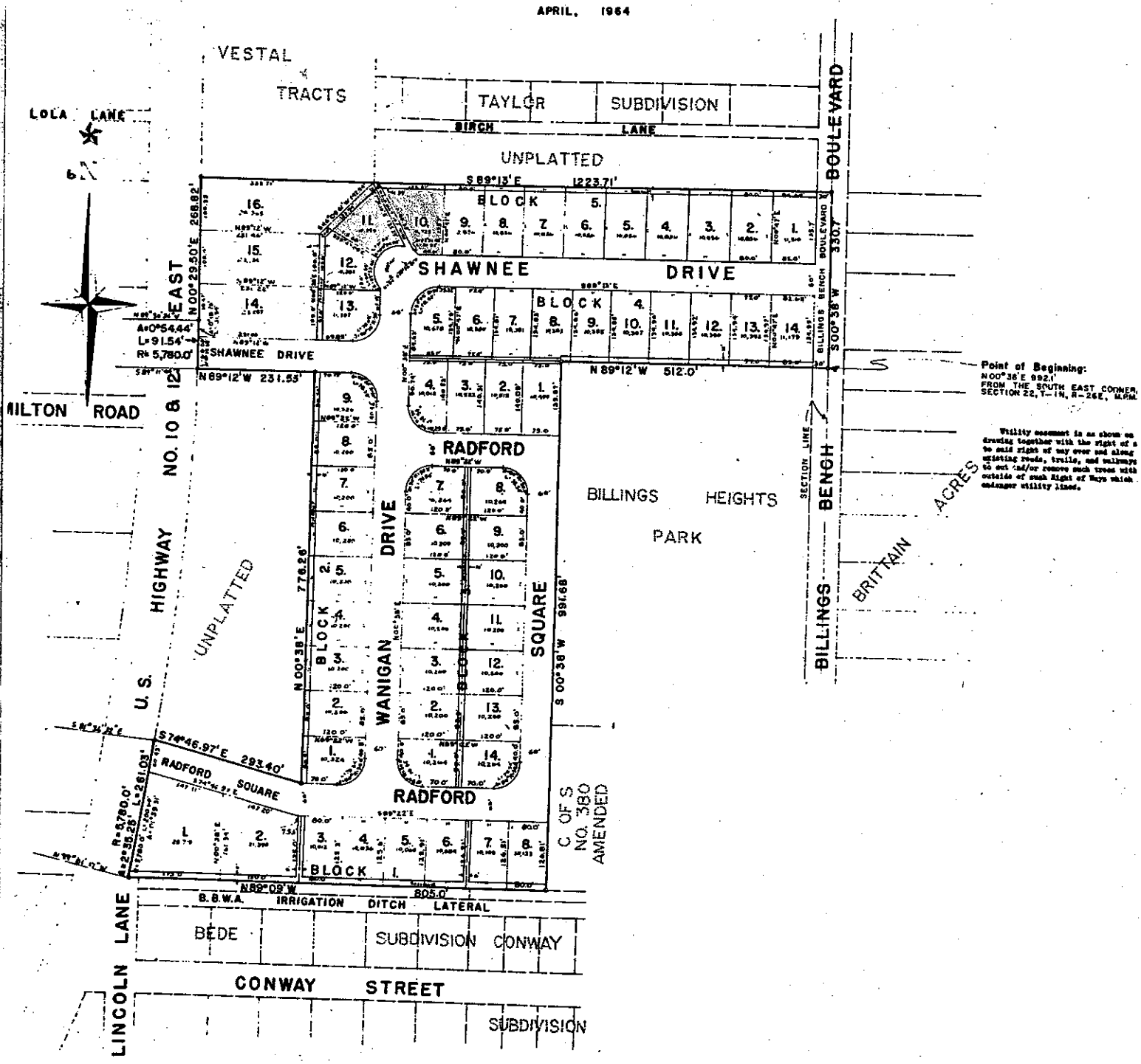
WANIGAN SUBDIVISION

SITUATED IN THE S E 1/4 SECTION 22, T-1 N, R-26 E, M.P.M.

YELLOWSTONE COUNTY, MONTANA

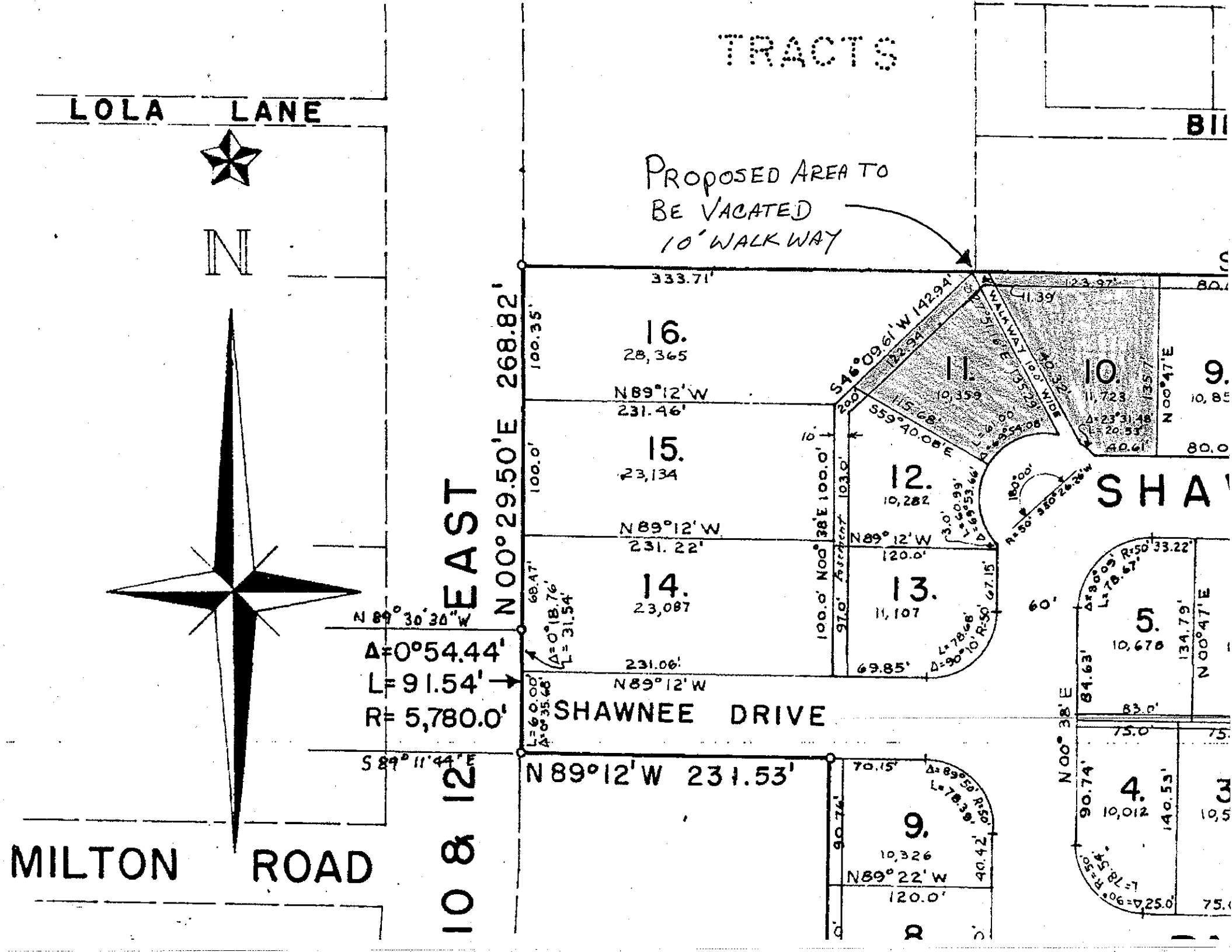
Plat & Survey By Sage Engineers & Land Planners, Inc. *Billings, Montana*

APRIL, 1964



Utility easement is as shown on drawing together with the right of access to said right of way over and along existing roads, trails, and walkways to cut and/or remove such trees with the outside of such Right of Ways which endanger utility lines.

WHILE THIS IS A PHOTOGRAPHIC REPRODUCTION OF THE RECORDED PLAT, THE COMPANY ASSUMES NO LIABILITY FOR VARIATIONS, IF ANY, WITH A RE-SURVEY.


TRACTS
LOLA LANE
N
PROPOSED AREA TO BE VACATED 10' WALK WAY
333.71'
16.
28,365
N89°12'W
231.46'
15.
23,134
N89°12'W
231.22'
14.
23,087
231.06'
N89°12'W
N 00° 29.50' E 268.82'
100.35'
100.0'
68.47'
N 89° 30' 30" W
Δ=0°54.44'
L=91.54'
R=5,780.0'
Δ=0°18.76'
L=31.54'
L=60.00'
Δ=0°35.68'
S 89° 11' 44" E
N89°12'W 231.53'
SHAWNEE DRIVE
EAST
10 & 12
MILTON ROAD
S46°09'61"W 142.94'
123.97'
11.39'
WALKWAY 10.0' WIDE
40.32'
11.
10,359
S59°40.08'E
115.68'
10'
10.
11,723
Δ=23°31.48'
L=20.53'
40.61'
135.7'
N00°47'E
9.
10,85
80.0
SHA
180°00'
R=50'
S60°26.26"W
12.
10,282
N89°12'W
120.0'
13.
11,107
69.85'
60'
33.22'
5.
10,676
134.79'
N00°47'E
84.63'
83.0'
75.0'
4.
10,012
140.53'
90.74'
N00°38'E
9.
10,326
N89°22'W
120.0'
70.15'
40.42'
8

Consent **1. J.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Signature Authority Resolution for Home Repair Loan Subordination
PRESENTED BY: Brenda Beckett
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

The Community Development Division manages home repair loan programs to assist low-income households in making needed improvements to homeowner-occupied residences. The majority of the funding for these programs is annually authorized by the U. S. Department of Housing and Urban Development.

Loan recipients routinely request loan subordination in order to refinance primary mortgages on properties where the City of Billings holds secondary or tertiary loan position. The current process for approval of routine subordinations requires Council approval, often extending the amount of time a homeowner must wait to close on a new loan.

The Community Development Board is required to annually review the Subordination Policy for loan programs (see attached) and recommend changes to preserve the City's financial interest in residential properties that have been rehabilitated, in part, using the City's home repair loan program. Changes to this policy are submitted through the Division's annual allocation process when funds are committed to programs each April for Council review and approval.

ALTERNATIVES ANALYZED

1) Approve authority for the City Administrator to sign and execute subordination agreements under the City's approved Subordination Policy for home repair programs.

2) Not approve authority.

FINANCIAL IMPACT

This streamlining measure is expected to save staff time in processing standard subordinations and increase customer service and responsiveness in managing long-term secured loans. Staff is unaware of other financial impact following approval of the resolution.

RECOMMENDATION

Staff recommends approval of a resolution granting the City Administrator authority to execute and sign loan subordination documents to facilitate financing or refinancing residences that have received loans through the City of Billings home repair programs.

APPROVED BY CITY ADMINISTRATOR

Attachments

Resolution - Housing Rehab Subordinations

Loan Subordination Policy

SIGNATURE AUTHORITY RESOLUTION

RESOLUTION NO. 13-

A RESOLUTION GRANTING THE CITY ADMINISTRATOR THE AUTHORITY TO EXECUTE AND SIGN LOAN SUBORDINATION DOCUMENTS TO FACILITATE FINANCING OR REFINANCING RESIDENCES THAT HAVE RECEIVED LOANS THROUGH THE CITY OF BILLINGS HOME REPAIR PROGRAMS.

WHEREAS the City of Billings manages home repair loan programs to assist low-income households in making needed improvements to homeowner-occupied residences, and;

WHEREAS the funding for home repair programs is annually authorized by the U.S. Department of Housing and Urban Development (HUD) through an entitlement formula process to support the City's efforts to provide decent housing and suitable living environments for low-income residents and to expand economic opportunity for those residents by providing affordable funding mechanisms to sustain the City's affordable housing stock, and;

WHEREAS supplemental funding for the City of Billings home repair loan programs has been allocated by the City Council, and;

WHEREAS the City Council may continue to appropriate funding allocations to home repair loan programs each April to support efforts identified in the City's Consolidated Plan required to accept and distribute HUD and funding from alternative sources, and;

WHEREAS home repair program loan recipients routinely request loan subordination in order to refinance primary mortgages on which the City of Billings holds secondary or tertiary loan position; and;

WHEREAS the Community Development Board and City Council have approved a standard Subordination Policy to protect the City's financial interest in the property.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Signing and Execution Authority: The City of Billings City Council hereby authorizes the City Administrator to sign and execute subordination agreements under the City's home repair loan programs. The authority is limited to occasions when the City's loan position will not be diminished by executing the agreement. Any other subordination agreements will be submitted for City Council consideration and approval.

Section 2. Subordination Policy: The Community Development Board is required to annually review the Subordination Policy and recommend changes that help to preserve the City's financial interest in residential properties that have been rehabilitated, in part, using the City's home repair loan program.

Section 2. Effective Date: The Resolution shall become effective on adoption.

Passed and approved this 24th day of June, 2013.

THE CITY OF BILLINGS:

BY:_____
Thomas W. Hanel, Mayor

ATTEST:

_____
Cari Martin, City Clerk

Housing Rehab Loan Program
Subordination Process

Bank Supplies to the City (must receive at least four weeks prior to City Council meeting):

1. Financial documentation demonstrating income for all household occupants 18 years old or older.
2. Full disclosure of amounts and reasons for the new loan.
3. Total loan amount and itemization of all debts rolled into new first mortgage.
4. Copy of Appraisal.
5. The name of the Bank's Trustee.

Community Development Staff will:

1. Review the request.
2. Determine eligibility for subordination.
3. Makes a determination for pay off amount (if any) based on the Subordination Policy.
4. If an exception is requested, presents the information to the Community Development Board. Please Note: An exception request may take up to 30 days for review by the Community Development Board in addition to 30 days (or more) required for review by the City Council.
5. Submits Subordination Request and staff recommendation to the City Council.
6. City Council reviews Subordination Request and approves or denies.
7. Report decision to the Lender.

Lender's Responsibility:

1. Close the loan.
2. Forward repayment of pay off amount to Community Development Office.

City's Process:

1. CD Staff prepares Subordination Agreement.
2. CD Staff completes Modification Agreement.
3. Documents are forwarded to Lender or Title Company for recording.

Housing Rehabilitation Loan Program
Subordination Policy

<table>
<tr><th colspan="2">General Requirements</th></tr>
<tr><td colspan="2">

Total loan-to-value ratio for the property cannot exceed 85% (based on appraisal).
City Council must approve all requests – may take up to six weeks (or longer depending on when the required documents are submitted).
Homeowner(s) must provide financial documentation demonstrating household income is at or below 80% of current Area Median Income.
The City will only subordinate once. A second request for subordination will be denied.
Subordination may not be requested within three years of the Rehabilitation Loan origination.
Lender must provide written documentation outlining:

The amount of the original mortgage.
The amount of the new first mortgage.
Details of debts being incorporated into new mortgage.
Copy of appraisal.
Name of Bank Trustee.

</td></tr>
<tr><td>Criteria for 0% Repayment
Straight Refinance of First Mortgage</td><td>
Loan is a refinance, and the City is still in 2nd position.
The new mortgage (refinance) lowers the monthly payment from current mortgage.
No other debt of any kind is rolled into the new 1st mortgage loan.
</td></tr>
<tr><td>Criteria for 15% Repayment
Applicant pays 15% of the loan balance and the City Subordinates 85%</td><td>
Medical debt is the only debt rolled into the new 1st mortgage.
City remains in 2nd position.
</td></tr>
<tr><td>Criteria for 33% Repayment
Applicant pays 1/3 of the loan balance and the City Subordinates 2/3</td><td>
New 1st mortgage includes debt such as consumer debt, car loans, etc.
Debt cannot be more than twice the original Rehab Loan amount.
</td></tr>
<tr><td>Deny Subordination or Complete Payoff Required</td><td>
Refinance is to obtain cash only.
The loan was previously subordinated.
The subordination puts the City's loan in 3rd position.
The Housing Rehab Loan was originated within three years of the date of request for subordination.
The amount of the loan for other items such as medical, credit card, car loan, etc. totals more than twice the Rehab Loan.
</td></tr>
<tr><td>Exceptions / Special or Extenuating Circumstances</td><td>
Community Development Board will review all exception requests or special cases.
Exception requests may take up to 30 days for review by the Board in addition to the 30 days required for review by City Council.
After review of exception requests, the Community Development Board will forward their recommendation to the City Council for final review.
</td></tr>
</table>

Consent **1. K.**

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: Resolution to Close Special Improvement/Sidewalk Bond Debt Funds to the SID Revolving Fund

PRESENTED BY: Patrick M. Weber Finance Director

Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

State law requires closing SID/Sidewalk debt service funds once the debt has been satisfied. Any excess/deficit cash balances upon completion of the bond obligations are transferred to the SID Revolving Fund. Sidewalk pooled issues in funds 8630 and 8990 will be closed.

ALTERNATIVES ANALYZED

There are no viable alternatives to approving the resolution since State law requires this action.

FINANCIAL IMPACT

The revolving fund will receive cash of $9,263 for the pooled Sidewalk with positive cash. The revolving fund will give cash of $36,144 to the pooled sidewalk issue with negative cash. The cash balance in the SID Revolving Fund is about $3,300,000.

RECOMMENDATION

Staff recommends Council approve the Resolution authorizing the closure of Special Improvement District Funds to the SID Revolving Fund.

APPROVED BY CITY ADMINISTRATOR

Attachments

SID Closing Resolution, Attachment A

SID Closing, Attachment B

SIDs Closed, Attachment C

ATTACHMENT A

RESOLUTION _____

A RESOLUTION TO CLOSE THE SPECIAL IMPROVEMENT DISTRICT DEBT FUNDS AND SIDEWALK SPECIAL ASSESSMENT DEBT FUNDS TO THE SPECIAL IMPROVEMENT DISTRICT REVOLVING FUND PURSUANT TO M.C.A. 7-12-4222.

WHEREAS, the Special Improvement District Bond Debt Obligation and the Sidewalk Special Assessment Debt Obligation has been paid in full and excess/deficit balances remain, and

WHEREAS, state law requires that Special Improvement/Sidewalk Debt Funds be closed to the SID Revolving Fund and the City Council has the authority to close these funds after all debt has been satisfied.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA:

That the Special Improvement/Sidewalk Funds be closed per Attachment C to the SID Revolving Fund effective June 24, 2013:

PASSED AND APPROVED by the City Council, this 24th day of June 2013.

THE CITY OF BILLINGS:

BY:_____
Thomas W. Hanel, MAYOR

ATTEST:

BY:_____
Cari Martin, CITY CLERK

ATTACHMENT B

SID 863 - Pooled Series – 1999 Pooled Sidewalk
SID 9904 Misc curb, gutter & Sidewalk program-various locations throughout the city

SID 899 - Pooled Series – 1997 Pooled Sidewalk
SID 9901 Misc curb, gutter & Sidewalk program-various locations throughout the city
SID 9809 Misc curb, gutter & Sidewalk program-various locations throughout the city

ATTACHMENT C

SID 863 1999 Pooled Sidewalk Series

PROJECT NUMBER	ISSUE DATE	ISSUE AMOUNT	CASH	ACCRUED INTEREST	FUND BALANCE
863	1999	10,560.00	-	(9.31)	(9.31)
9904	1999	49,440.00	9,263.36	42.31	9,305.67
TOTALS		**60,000.00**	**9,263.36**	**33.00**	**9,296.36**

SID 899 1997 Pooled Sidewalk Series

PROJECT NUMBER	ISSUE DATE	ISSUE AMOUNT	CASH	ACCRUED INTEREST	FUND BALANCE
899	1997	133,297.00	1.58	(152.56)	(150.98)
9809	1997	208,623.00	(35,914.08)	(125.52)	(36,039.60)
9901	1997	1,080.00	(231.75)	9.39	(222.36)
TOTALS		**343,000.00**	**(36,144.25)**	**(268.69)**	**(36,412.94)**

TOTALS	**403,000.00**	**(26,880.89)**	**(235.69)**	**(27,116.58)**

Total Negative cash	(36,145.83)
Total Positive cash	9,264.94

Consent **1. L.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Second Reading of Ordinance Amending Ward I Boundary
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

City election ward boundaries must be adjusted to conform to city limit amendments resulting from annexation or exclusion of property from the city. The City Council approved the exclusion of property described as Lot 20, Block 3, Rolle Subdivision (Deannexation #13-05) on May 28, 2013 by Resolution #13-19273. This requires a change in the boundaries of Ward I. Two readings are required for this action. The first reading of the ordinance was conducted and approved by City Council on June 10, 2013. The second reading is scheduled for this meeting.

ALTERNATIVES ANALYZED

City Council may approve or not approve the ordinance to amend the boundary of Ward I on second reading.

- Approving the ordinance will modify the boundaries of Ward I to exclude the property described as Lot 20, Block 3, Rolle Subdivision.
- Denying the ordinance will not modify the boundaries of Ward I and create a problem where property outside the City Limits is within one of the City Ward Boundaries.

FINANCIAL IMPACT

There is no budget/financial impact from this action.

RECOMMENDATION

Staff recommends that Council approve this ordinance on second reading removing recently excluded property from Ward I.

APPROVED BY CITY ADMINISTRATOR

Attachments

Ward Ordinance Boundary Modification

ORDINANCE NO. 13-_____

AN ORDINANCE OF THE CITY OF BILLINGS, AMENDING BILLINGS MUNICIPAL CODE, CHAPTER 11, ELECTIONS, IN PARTICULAR, SECTION 11-102(c), WARD BOUNDARIES; AND CHANGING THE WARD BOUNDARIES ESTABLISHED THEREIN BY REMOVING CERTAIN NEWLY EXCLUDED REAL PROPERTY FROM WARD I PROVIDING FOR CERTIFICATION AND REPEALING OF ALL ORDINANCES AND RESOLUTIONS INCONSISTENT THEREWITH.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA:

1. AMENDMENT. Pursuant to Billings Municipal Code, Section 1.16.030 and the State Law, Billings Municipal Code, Section 1.16.030 Ward Boundaries is hereby amended by removing from the following designated Ward the following described real property:

   Ward I: A tract of land situated in the SW1/4 of Section 28, T.1N., R.26E., Billings, Yellowstone County, Montana, more particularly described as:

   Rolle Subdivision, Lot 20, Block 3, Recorded January 2, 1957, Under Document No. 575483, Records of Yellowstone County, Montana, annexed under Resolution No. 89-16236, Passed and Approved by City Council December 11, 1989;
   Containing 6.642 gross and net acres, more or less.
   (# 13-05) See Exhibit "A" Attached

2. CERTIFICATION. Pursuant to M.C.A. Section 13-3-103, the above change and alteration is hereby certified to the election administrator by the City Council, and the City Administrator or his designee is hereby directed to certify the changes and alterations and to deliver a map showing the boundaries of the ward, the streets, avenues and alleys by name and the ward by number, to the election administrator not more than ten (10) days after the effective date of this ordinance.

3. REPEALER. All other ordinances, sections of the Billings Municipal Code and ordinances inconsistent herewith are hereby repealed.

PASSED by the City Council on the first reading this 10th day of June, 2013.

PASSED by the City Council on the second reading this 24th day of June, 2013.

THE CITY OF BILLINGS

BY:_____

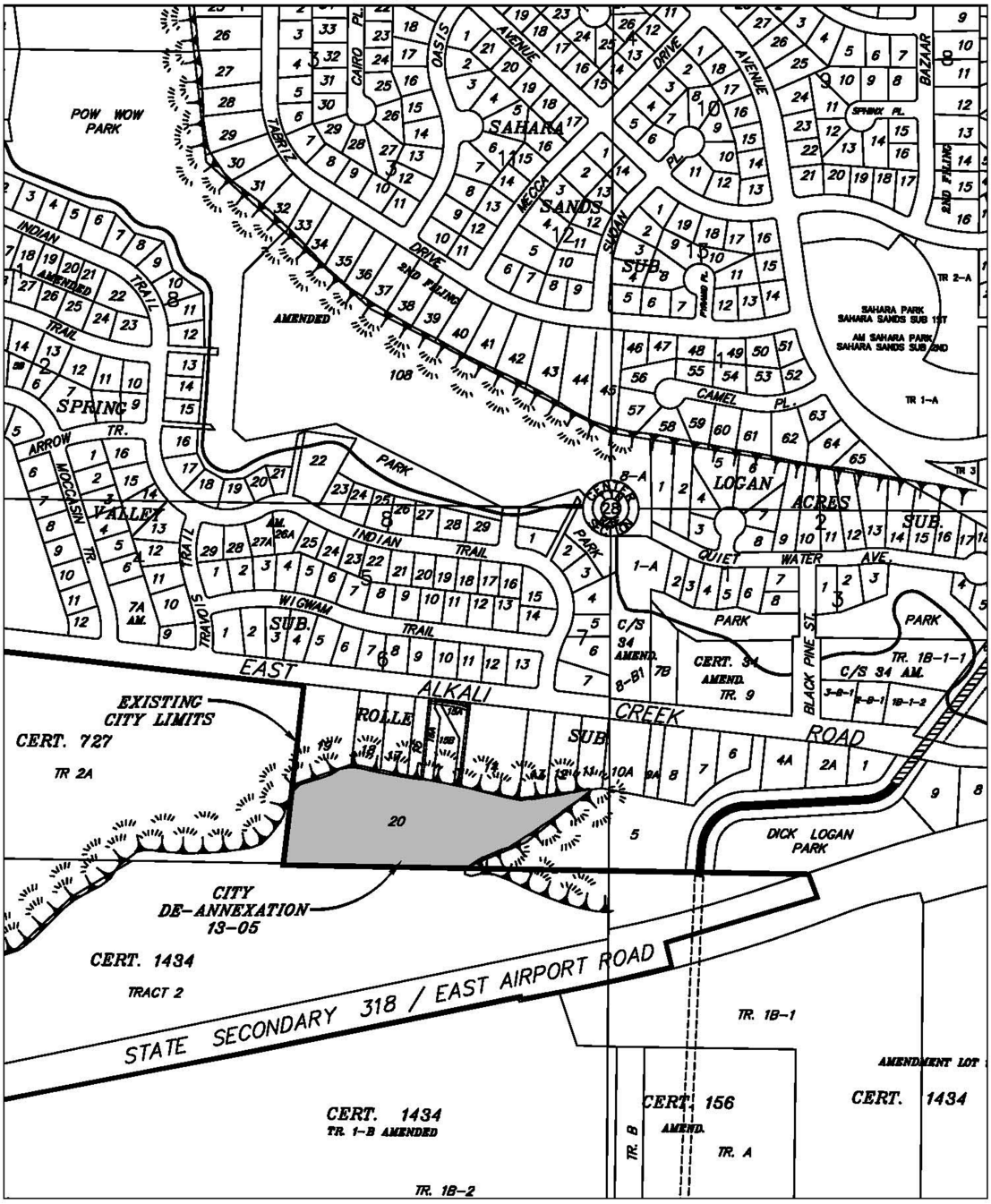
Thomas W. Hanel, MAYOR

ATTEST:

BY:_____

Cari Martin, CITY CLERK

EXHIBIT "A"


POW WOW PARK
SAHARA
SANDS
SUB
SAHARA PARK
SAHARA SANDS SUB 1ST
AM SAHARA PARK
SAHARA SANDS SUB 2ND
TR 1-A
TR 2-A
CAMEL PL.
SPRING TR.
VALLEY
INDIAN TRAIL
WIGWAM TRAIL
PARK
LOGAN ACRES SUB.
QUIET WATER AVE.
BLACK PINE ST.
C/S 34 AMEND.
CERT. 34 AMEND.
TR. 9
C/S 34 AM.
TR. 1B-1-1
EAST ALKALI CREEK ROAD
EXISTING CITY LIMITS
CERT. 727
TR 2A
ROLLE SUB
20
DICK LOGAN PARK
CITY DE-ANNEXATION 13-05
CERT. 1434
TRACT 2
STATE SECONDARY 318 / EAST AIRPORT ROAD
TR. 1B-1
AMENDMENT LOT
CERT. 1434
TR. 1-B AMENDED
CERT. 156 AMEND.
TR. A
TR. B
TR. 1B-2

Consent **1. M.**

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: W.O. 12-05, Five Mile Lift Station, Resolution Transferring a Portion of Bitterroot Heights Park and Establishing Compensation

PRESENTED BY: David Mumford

Department: Public Works

Information

PROBLEM/ISSUE STATEMENT

On February 11, 2013, City Council awarded W.O. 12-05, Five Mile Lift Station to Western Municipal Construction. The lift station is under construction in a portion of the undeveloped Bitterroot Heights Park, which was dedicated when the land was subdivided. Staff is requesting that the City Council approve a Resolution that transfers the portion of the park that contains the lift station and access road and transfers the land and facility maintenance responsibility to the Public Works (PW) Department. As compensation for reducing the amount of land in the park, Public Works would pay the Parks Recreation and Public Lands (PRPL) Department $75,000. The land value was established by a market analysis. Dating back to the fall of 2012, PW and PRPL have had a common understanding that the lift station would be located at the north end of Bitterroot Heights Park. PRPL and PW worked closely during project design to ensure that the new lift station had aesthetically pleasing landscape design and building features. Both PW and PRPL agree that cooperating on the project will benefit the citizens of Billings through construction cost savings and efficiencies in operations and maintenance for both departments.

ALTERNATIVES ANALYZED

The Council may:

- Approve a Resolution that transfers a portion of the Bitterroot Heights Park, transfers maintenance responsibility to PW and compensates PRPL $75,000 for the land, or
- Do not approve the resolution. Without the resolution, there will be no clear record of the park land transfer, the maintenance responsibility transfer and that compensation was paid for using the land for this purpose.

FINANCIAL IMPACT

The funding for WO 12-05 was budgeted in FY12 and FY13 and the source is wastewater revenues. A summary of the funding is as follows:

FY 12 Project Budget	$3,413,513
Previously Encumbered	$2,824,292
Parkland Compensation	$75,000

Budget Remaining	$514,221

RECOMMENDATION

Staff recommends that the City Council approve a Resolution that transfers a portion of Bitterroot Heights Park for a sanitary sewer lift station and access road, transfers maintenance responsibilities to Public Works and compensates Parks Recreation and Public Lands in the amount of $75,000.

APPROVED BY CITY ADMINISTRATOR

Attachments

Resolution
Exhibit

RESOLUTION NO. 13- _____

A RESOLUTION OF THE BILLINGS, MONTANA CITY COUNCIL VACATING A PORTION OF BITTERROOT HEIGHTS PARK FROM ITS CURRENT USE AS A PUBLIC PARK AND DEDICATING IT TO THE USE AND BENEFIT OF THE PUBLIC FOR PURPOSES OF CONSTRUCTING, OPERATING, MAINTAINING AND REPAIRING A SANITARY LIFT STATION, AND TRANSFERRING MANAGEMENT OF THE PORTION OF THE PARK SO DEDICATED FROM THE DEPARTMENT OF PARKS, RECREATION, AND PUBLIC LANDS TO THE DEPARTMENT OF PUBLIC WORKS.

WHEREAS, the City of Billings received a dedication of lands at the time Bitterroot Heights Subdivision was platted to create a public park commonly known as Bitterroot Heights Park, and

WHEREAS, the City of Billings has managed this land as an undeveloped public park through its Department of Parks, Recreation and Public Lands since the time of the dedication of this land for a public park, and

WHEREAS, the City of Billings is now experiencing the development of new residential and commercial uses of land in this area requiring the construction of a new sanitary lift station in this area, to be operated, maintained and repaired as needed by the Department of Public Works, and

WHEREAS, the City Council now deems it to be in the interests of the residents of the City of Billings to vacate a portion of the park and to dedicate it to the use and benefit of the public for purposes of constructing a sanitary lift station to be operated, maintained, and repaired as necessary by the Department of Public Works.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA, AS FOLLOWS:

Section 1. That the dedication for use as a public park of that portion of Bitterroot Heights Park described below is hereby vacated.

Section 2. That the management of this land is hereby transferred from the Department of Parks, Recreation and Public Lands to the Department of Public Works.

Section 3. That to compensate the public for the vacation of this land from the use of the public as park land, the Department of Public Works shall transfer to the Department of Parks, Recreation and Public Lands the amount of SEVENTY-FIVE THOUSAND and no/100s DOLLARS ($75,000.00).

Section 4. That this land is hereby dedicated to the benefit and use of the public for purposes of constructing, operating, maintaining, and repairing as necessary a sanitary lift station.

Section 5. That the remainder of Bitterroot Heights Park shall continue to be managed by the Department of Parks, Recreation and Public Lands and the original dedication of this land for purposes of a public park are not affected or changed in any way by reason of this action.

Section 6. That the City Clerk is hereby instructed to file this resolution with the Yellowstone County Clerk and Recorder and any other document deemed necessary, in such form as the said Clerk and Recorder may require, to give notice to all the public at all future times of this action.

Section 7. This Resolution shall become effective immediately upon its passage.

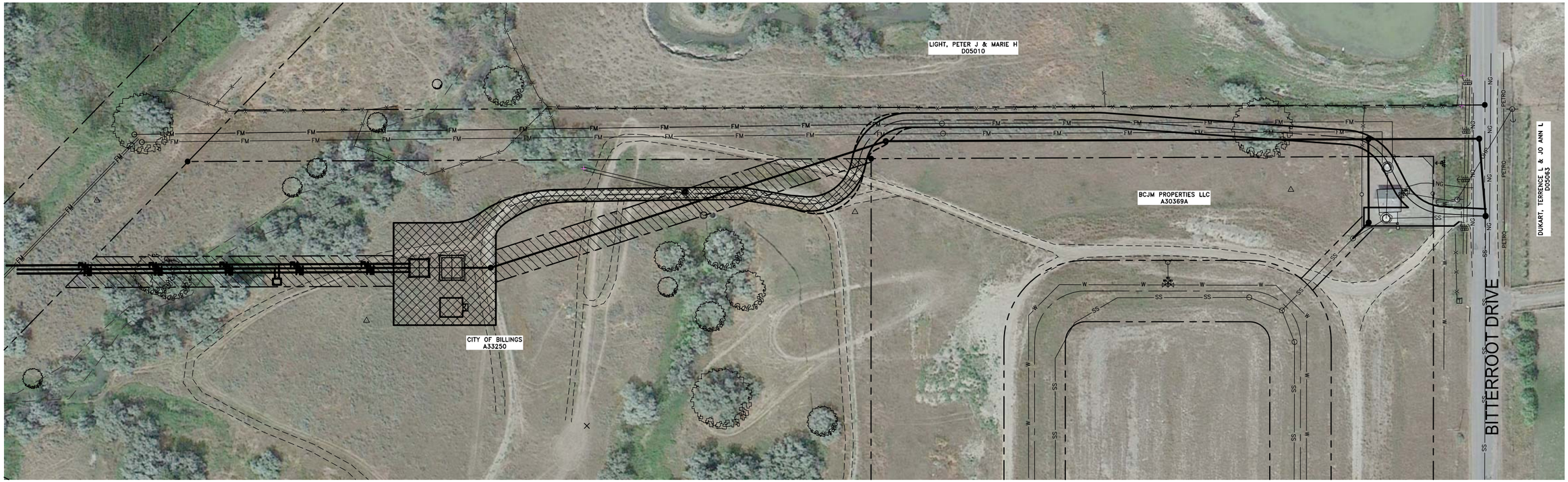
APPROVED AND PASSED by the City Council of the City of Billings, this ____ day of _____, 2013.

THE CITY OF BILLINGS:

BY:_____
THOMAS W. HANEL, MAYOR

ATTEST:

BY:_____
CARI MARTIN, CITY CLERK



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SCALE IN FEET

VERIFY SCALE!

THESE PRINTS MAY BE REDUCED, LINE BELOW MEASURES ONE INCH ON ORIGINAL DRAWING.

MODIFY SCALE ACCORDINGLY!

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	REVISED PER ADDMENDUM 1	1/16/13	RLL

V:\0686\181 - 5 Mile Lift Station\ACAD\Sheets\0686181 G-9.dwg Plotted by Randy LaRance on 6/10/13

MORRISON MAIERLE, INC.
An Employee-Owned Company
Engineers
Surveyors
Scientists
Planners
315 N. 25th Street, Suite 102
Billings, MT 59101
Phone: (406) 656-6000
Fax: (406) 237-1201

DRAWN BY: RLL
DSGN. BY: KDD
APPR. BY: CMH
DATE: 01/2013

Q.C. REVIEW BY: CJA
DATE: 01/07/2013

FIVE MILE LIFT STATION PROJECT

BILLINGS MONTANA

SEWER FACILITIES EASEMENT AREA

PROJECT NUMBER 0686.181

SHEET NUMBER 9

DRAWING NUMBER

Consent **1. N.**

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: Second Reading Ordinance Amending Ward III Boundary - Annexation #13-06

PRESENTED BY: Candi Beaudry

Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

City election ward boundaries must be adjusted to conform to city limit amendments resulting from annexation of property into the City. The City Council approved the annexation of property described as Lot 5, Block 2, and Lot 1, Block 3, Titan Subdivision (Annexation #13-06) on May 28, 2013. This requires a change in the boundaries of Ward III. Two readings are required for this action. The first reading of the ordinance was conducted and approved by the City Council on June 10, 2013. The second reading is scheduled for this meeting.

ALTERNATIVES ANALYZED

City Council may:

- Approve second reading of the ordinance to amend the boundaries of Ward III. Approving the ordinance will modify the boundaries of Ward III to include the property described as Lot 5, Block 2, and Lot 1, Block 3, Titan Subdivision.
- Not approve second reading of the ordinance to amend the boundaries of Ward III. Not approving the ordinance will not modify the boundaries of Ward III and create a problem where property inside the City Limits is not within one of the City Ward Boundaries.

FINANCIAL IMPACT

There is no budget/financial impact from this action.

RECOMMENDATION

Staff recommends that Council approve this ordinance on second reading adding recently annexed property to Ward III.

APPROVED BY CITY ADMINISTRATOR

Attachments

Ward Ordinance

ORDINANCE NO. 13-_____

AN ORDINANCE OF THE CITY OF BILLINGS, AMENDING BILLINGS MUNICIPAL CODE, CHAPTER 11, ELECTIONS, IN PARTICULAR, SECTION 11-102(c), WARD BOUNDARIES; AND CHANGING THE WARD BOUNDARIES ESTABLISHED THEREIN BY ADDING CERTAIN NEWLY ANNEXED REAL PROPERTY TO WARD III PROVIDING FOR CERTIFICATION AND REPEALING OF ALL ORDINANCES AND RESOLUTIONS INCONSISTENT THEREWITH.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA:

1. AMENDMENT. Pursuant to Billings Municipal Code, Section 11-102(c) and the State Law, Billings Municipal Code, Section 11-102(c) Ward Boundaries is hereby amended by adding to Ward III the following described real property:

   A tract of land situated in the SE1/4 of Section 18, T.1S., R.26E., P.M.M., Yellowstone County, Montana, more particularly described as:

   Titan Subdivision, Lot 5, Block 2 and Lot 1, Block 3, Recorded June 18, 2001, under Document No. 3133913. Including all adjacent Right-Of-Way of Interstate Avenue.

   Containing 6.898 gross and 5.885 net acres more or less.
   (# 13-06) See Exhibit "A" Attached

2. CERTIFICATION. Pursuant to M.C.A. Section 13-3-103, the above change and alteration is hereby certified to the election administrator by the City Council, and the City Administrator or his designee is hereby directed to certify the changes and alterations and to deliver a map showing the boundaries of the ward, the streets, avenues and alleys by name and the ward by number, to the election administrator not more than ten (10) days after the effective date of this ordinance.

3. REPEALER. All other ordinances, sections of the Billings Municipal Code and ordinances inconsistent herewith are hereby repealed.

PASSED by the City Council on the first reading this 10th day of June 2013.

PASSED by the City Council on the second reading this 24th day of June, 2013.

THE CITY OF BILLINGS:

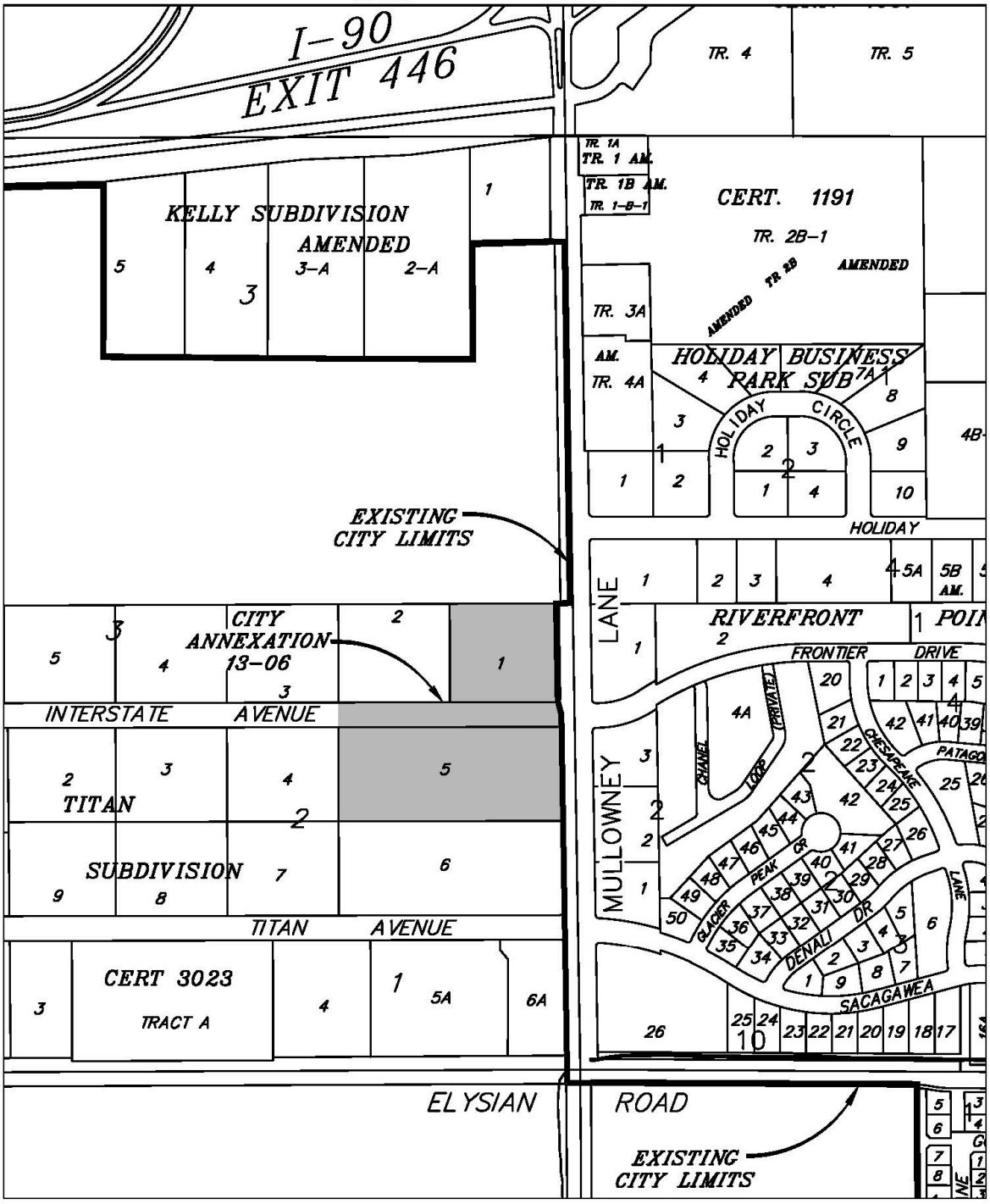
_____
Thomas W. Hanel, MAYOR

ATTEST:

BY:_____
Cari Martin, CITY CLERK

(AN#13-06)

EXHIBIT "A"


I-90
EXIT 446
TR. 4
TR. 5
TR. 1A
TR. 1 AM.
TR. 1B AM.
TR. 1-B-1
CERT. 1191
TR. 2B-1
AMENDED
TR. 2B
TR. 3A
AM.
TR. 4A
HOLIDAY BUSINESS PARK SUB
HOLIDAY CIRCLE
KELLY SUBDIVISION AMENDED
EXISTING CITY LIMITS
CITY ANNEXATION 13-06
INTERSTATE AVENUE
TITAN SUBDIVISION
TITAN AVENUE
CERT 3023
TRACT A
ELYSIAN ROAD
EXISTING CITY LIMITS
LANE
RIVERFRONT
FRONTIER DRIVE
MULLOWNEY LANE
CHESAPEAKE
PATAGO
PEAK
GLACIER
DENALI
SACAGAWEA
LANE

Consent **1. O.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Bitterroot Heights Subdivision, 2nd Filing -- Preliminary Major Plat
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

On April 1, 2013, subdivider, BCJM, LLC, applied for preliminary major plat approval for Bitterroot Heights Subdivision, 2nd Filing. The proposed subdivision creates 69 lots for single-family residences on a 21.42-acre parcel of land. This proposal is the second filing of a master planned subdivision that was originally reviewed in 2004. The subject property is generally located on the west side of Bitterroot Drive, north of Mary Street in the northeast Billings Heights. The property is zoned Residential-7,000-Restricted (R-70-R). The Yellowstone County Board of Planning reviewed the plat and conducted a public hearing on May 29, 2013. Interstate Engineering is the representing agent.

ALTERNATIVES ANALYZED

In accordance with state law, the City Council has 60 working days to act upon this major preliminary plat; the 60 working day review period for the proposed plat ends on June 25, 2013. State and City subdivision regulations also require that preliminary plats be reviewed using specific criteria, as stated within this report. The City may not unreasonably restrict an owner's ability to develop land if the subdivider provides evidence that any identified adverse effects can be mitigated. Within the 60 day review period, the City Council is required to:

1. Approve;
2. Conditionally Approve; or
3. Deny the Preliminary Plat

FINANCIAL IMPACT

Should the City Council approve the preliminary plat, the subject property may further develop under private ownership, resulting in additional tax revenues.

BACKGROUND

- General location: West of Bitterroot Drive, north of Mary Street, in the Heights
- Legal Description: A portion of Tract 3A-1, C/S 2317
- Subdivider/Owner: BCJM, LLC

- Engineer and Surveyor: Interstate Engineering
- Existing Zoning: R-70-R
- Existing land use: vacant reclaimed gravel pit
- Proposed land use: Single-Family Residential
- Gross area: 21.42 acres
- Net area: 15.76 acres
- Proposed number of lots: 69
- Lot size: Max: 14,091 square feet
  Min.: 7,407 square feet
- Parkland requirements: 1.63 acres of parkland required; a parkland master plan was previously reviewed and approved, to include dedication of a total of approximately 15.5 acres of parkland.
- Variance request: Variance from Section 23-406(B)(6), Billings Subdivision Regulations. Request would allow the completion of Empire Drive to match the existing street section for the remaining 120 feet.

STAKEHOLDERS

A public hearing was conducted by the Yellowstone County Board of Planning on May 25, 2013. Property owners adjacent to the subject property were notified by certified mail of the hearing and a legal notice was published in the Billings Times. No public comments were received.

CONSISTENCY WITH ADOPTED POLICIES OR PLANS

Consistency with the Growth Policy, the Transportation Plan 2009 Update, and Billings Area Bikeways and Trail Master Plan are discussed within the Findings of Fact.

RECOMMENDATION

The Planning Board recommends approval of the variance request from Section 23-406(B)(6) of the City Subdivision Regulations and conditional approval of the preliminary plat of Bitterroot Heights Subdivision, 2nd Filing and adoption of the Findings of Fact as presented in the staff report.

Recommended Conditions of Approval

Pursuant to Section 76-3-608(4), MCA, the following conditions are recommended to reasonably minimize potential adverse impacts identified within the Findings of Fact:

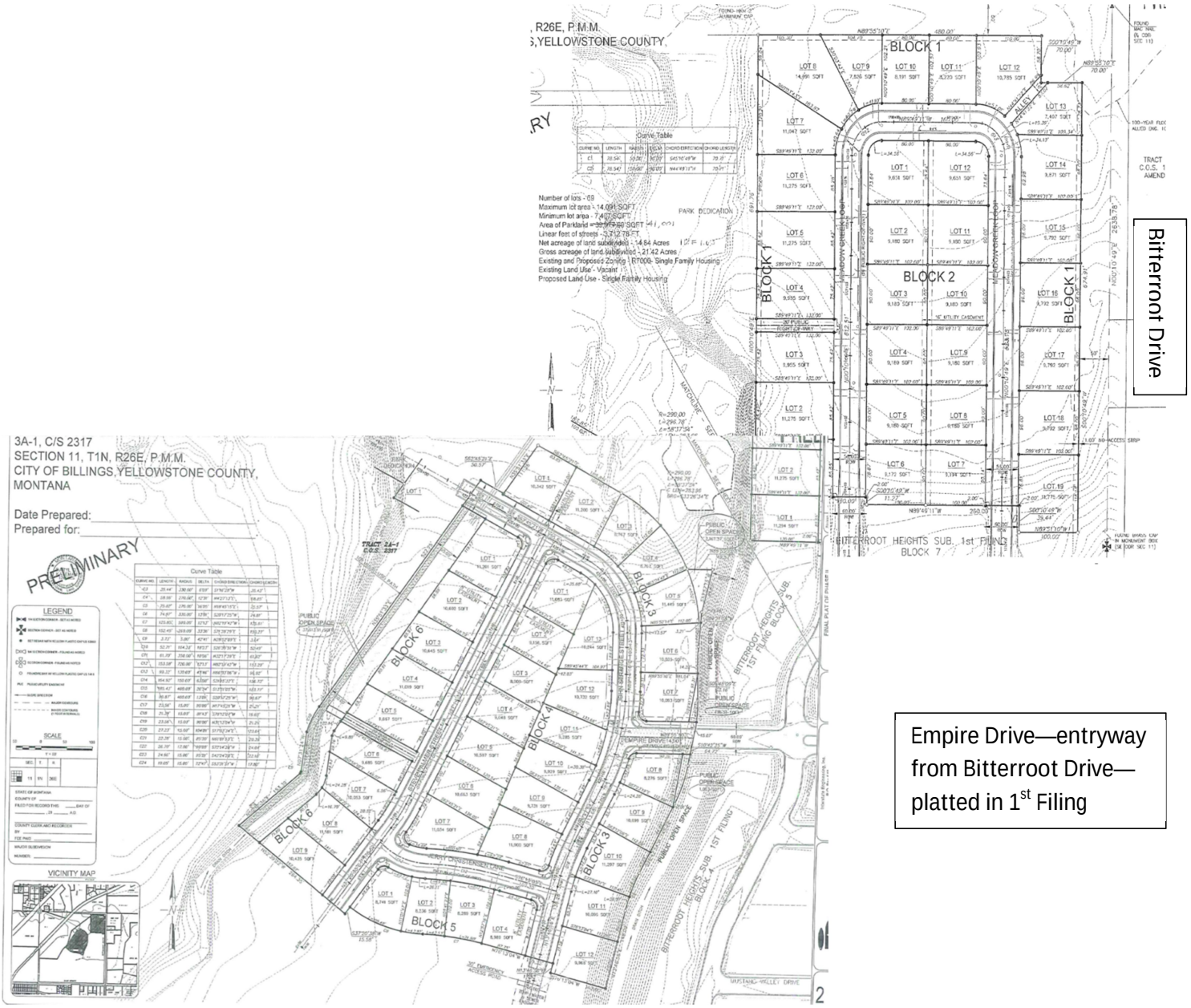
1. To minimize effects on local services, the subdivider shall make a cash contribution amounting to the cost of improving Bitterroot Drive with curb, gutter and boulevard sidewalk along the 2nd Filing frontage as approved by City Engineering, prior to final plat approval.
2. To minimize effects on public health and safety, the street names within the subdivision shall be reviewed and approved by City Fire and County GIS to ensure uniqueness, prior to final plat approval.
3. To conform to the Montana Subdivision and Platting Act, the final plat shall contain the entire subject parcel known as “Remainder Tract 3A-1 Certificate of Survey 2317”.
4. Minor changes may be made in the SIA and final documents, as requested by the Planning, Legal or Public Works Departments to clarify the documents and bring them into the standard acceptable format.
5. The final plat shall comply with all requirements of the City of Billings Subdivision Regulations, rules, regulations, policies, and resolutions of the City of Billings, and the laws and Administrative Rules of the State of Montana.

APPROVED BY CITY ADMINISTRATOR

Attachments

Preliminary Plat
Bitterroot Heights Master Plan
Findings of Fact
Mayor's Letter
Site Photos

Bitterroot Heights Subdivision, 2nd Filing Preliminary plat sheets (combined)



Bitterroot Drive

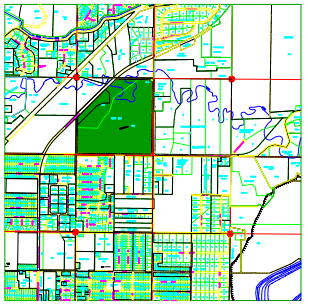
Empire Drive—entryway from Bitterroot Drive—platted in 1st Filing

Filing No. 2 Plat

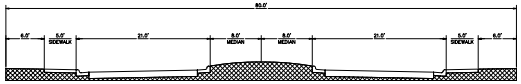
LEGAND

- FLOODWAY
- 100 YEAR FLOODPLAIN
- 500 YEAR FLOODPLAIN
- PHASE 1 BOUNDARY
- DRAINAGEWAYS

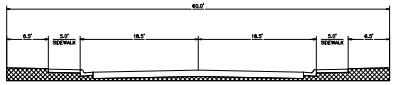
VICINITY MAP



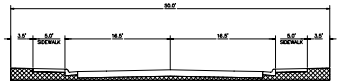
TYPICAL SECTIONS



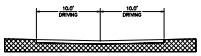
COLLECTOR STREETS (80' ROW)



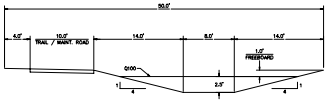
LOCAL STREETS (60' ROW)



ALTERNATIVE LOCAL STREETS (50' ROW)



ALLEYS (20' ROW)



DRAINAGEWAYS (50' ROW)

NOTES:

TOTAL AREA = 126.83 ACRES
LOTS AREA = 72.34 ACRES
STREET ROW AREA = 54.49 ACRES
PARK DEDICATION REQUIREMENTS = 7.96 ACRES
PARK LAND DEDICATION = 15.55 ACRES
DRAINAGE WAY ROW = 5.56 ACRES
TOTAL LOTS = 391
TOTAL LOTS POSSIBLE UNDER R-7000 = 450
TRACTS A, B, C AND D ARE LANDSCAPE BUFFERS

interstate engineering, inc.
Engineering · Surveying · Planning
1000 AVE. B, SUITE 200
BILLINGS, MONTANA 59102
PHONE (406) 255-1030
P.O. BOX 50914
BILLINGS, MONTANA 59107
FAX (406) 255-0179

1/4 SEC.	SECTION	TOWNSHIP	RANGE

FIELD BOOK
FIELD WORK
DRAWN KJB
CHECKED

DATE FEBRUARY, 2004
SCALE 1" = 150'
CLIENT
PROJ. NO.

YELLOWSTONE COUNTY
PRINCIPAL MERIDIAN, MONTANA
SHEET 1 OF 1

FINDINGS OF FACT – Bitterroot Heights Subdivision, 2nd Filing

The Planning staff has prepared on behalf of the Yellowstone County Board of Planning the Findings of Fact for the preliminary plat of Bitterroot Heights Subdivision, 2nd Filing and has provided them for review by the City Council, as follows:

A. What are the effects on agriculture, local services, the natural environment, wildlife, wildlife habitat, and public health, safety and welfare? [MCA 76-3-608(3)(a) and BMCC 23-302.H.2.]

1. Effect on agriculture and agricultural water user facilities

The subject property was historically used for dryland pasture and most recently was the site of a gravel mine. It was annexed and master planned for development in 2004, shortly after being reclaimed from mining. It is adjacent to similar residential uses to the south and east, and will provide community housing in an area that is not particularly productive for agriculture. It should not have a negative effect on the agricultural industry.

This subdivision does not contain any irrigation ditches or have any water shares, and therefore will not have an effect on agricultural water user facilities

2. Effect on local services

a. Utilities –Water services to the subject property are provided by the County Water District of Billings Heights (CWDBH). The existing water mains in Meadow Creek Loop and Empire Drive will be extended to serve the new interior streets. The improvements are subject to the review and approval of the applicable water provider during the time of construction. As proposed, the CWDBH finds that the water main extensions are acceptable.

Sanitary sewer service will be provided by the City by connecting to existing sewer mains in Meadow Creek Loop and Empire Drive. As proposed, the City of Billings Public Works Department finds the sewer main extensions to be acceptable.

MDU will provide gas services, and NorthWestern Energy will provide electric services to the subdivision. Easements have been shown on the face of the plat that are acceptable to these utility providers.

b. Storm water – A storm water master plan was reviewed in 2004 for the overall master planned area of Bitterroot Heights Subdivision. The master plan area is unique in that there are existing natural drainages that traverse the property that ultimately flow to Five Mile Creek at the northern portion of the subdivision. A plan was developed to direct storm water to these natural drainages and ultimately to a large detention pond area within the large 10-acre park at the northwest corner of the subdivision. The drainage ways are contained within Open Space corridors that were dedicated as parkland, and a 10-foot wide multi-use trail will be constructed within the open space to offer an amenity to the residents. The Parks and Public Works Departments have approved of the storm water-parkland plan and it has already begun to be implemented with the First Filing.

In addition to the proposed storm water management facilities, a Storm water Pollution Prevention Plan (SWPPP) will be required of the developer and construction contractors prior to site disturbance to ensure that storm drain facilities are not compromised during site and home construction.

c. Solid waste – The City of Billings will provide solid waste collection and disposal. The City's landfill has adequate capacity for this waste.

d. Streets –The proposed subdivision will be accessed off of the existing streets Empire Drive, and Meadow Creek Loop. These streets were designed under the previous street development standards, as 37-foot wide streets with curb, gutter, and curb-style sidewalk within 60-foot rights-of-way. The new proposed streets, being John Strange Street, Jerry Christensen Lane, Steve Palmer Street, and the extension of Meadow Creek Loop, will be built to the current design standards of 34-foot wide streets with curb, gutter and boulevard-style sidewalk within 56-foot rights-of-way. The one exception is the completion of Empire Drive. Since there is only 120 feet until its terminus at John Strange Street within this 2nd Filing, the subdivider has requested a variance from the subdivision regulations to allow it to be completed using the old standards. Given its short length and the awkwardness of transitioning the design guidelines at this location, staff is supportive of the variance request to allow the remaining approximately 120 feet of Empire Drive to be build using the old standards.

Bitterroot Drive fronts the east side of this subdivision. It is a Principle Arterial street built to a rural standard with two drive-lanes and roadside swales. Current City policy requires a subdivider to improve adjacent streets to City standards, or in cases where it is impractical to do so, a cash contribution for the amount of those improvements, with credit for what is already in place is accepted. In this case, City Engineer is requiring a cash contribution for the improvements needed along the 675 feet of Bitterroot Drive frontage (including curb, gutter, boulevard sidewalk, and 30-feet of street pavement) with credit for what is currently in place **(Condition #1)**. This money will be placed in an escrow account ear-marked for improving Bitterroot Drive at this location when the entire street is improved in the future.

e. Emergency services – The Billings Police and Fire Departments will respond to emergencies within the proposed subdivision. The nearest fire station is located at 1601 St. Andrews Drive (Station #6). The subdivision is located within the ambulance service area of American Medical Response (AMR).

The Chief of Police reviewed the proposal and indicated that while no increases in staffing would be needed for now, this area is at the far end of the patrol area and stretches resources. Continued development will adversely affect the PD's ability to respond without additional resources.

The fire department is largely concerned with emergency response and access to the site and water supply and hydrant availability. The Fire Marshal indicated that the street

layout and proposal for a temporary emergency access to Mary Street are acceptable. Also, the fire hydrant spacing is acceptable as proposed. One issue that the Fire Department would like further review of is the proposed street names; they indicated that several of the names were too close to existing names. It is recommended as a condition of approval that the subdivider work with City Fire and County GIS to finalize the new street names **(Condition #2)**.

f. Schools –School District #2 provides educational services to elementary through high school students. Beartooth Elementary School, Castle Rock Middle School, and Skyview High School will serve the children in this subdivision. A response from the district's facilities director indicated that both Beartooth and Castle Rock are currently overcrowded with 509 and 756 students enrolled respectively; maximum enrollment for Beartooth is currently 438 students, and for Castle Rock is 748 students. School District #2 is currently working on solutions to their facility needs including possible bonds for new schools, redistricting of students, and other ideas.

g. Parks and Recreation – The parkland dedication requirement for this subdivision amounts to 1.63 acres (11% of the net area of 14.84 acres). The subdivider has master planned its park provisions for the entire subdivision, and when all is complete will have provided approximately 15.5 acres of land for parks and open space. Over 11 acres of parkland was dedicated with the 1st filing, and 0.94 is being proposed for this 2nd filing.

In addition to land dedication, a park maintenance district has been established to maintain the large park area and open space corridors. The PMD will be expanded to include the lots within the 2nd filing. Furthermore, upon development of 51% of the total master planned lots, the subdivider will initiate a construction Special Improvement District to fund the parkland improvements identified in the overall park master plan. The Parks Department staff is satisfied with the proposal.

h. Mail Delivery - The United States Postal Service will provide postal service to the subdivision. With previous filings the developer provided centralized delivery facilities and the same is proposed for this filing. The developer will consult with the USPS prior to placement of the centralized mail boxes.

3. Effect on the natural environment

The subject property is relatively flat with a slight slope to the northeast. The master plan area was mined for gravel, so it sits lower than other surrounding properties. There are two main natural drainages flanking the subject property which have water running in them year round to Five Mile Creek to the north. These drainages will be enhanced with this development to provide natural storm water drainage facilities and open space corridors along which 10-foot wide trails will be constructed. The Five Mile Creek corridor, while not within the subject property, is nearby and protected within parkland that was dedicated with the First Filing plat.

A preliminary geotechnical evaluation was done for the subject area in February of 2013, to investigate soil, rock, and groundwater conditions and provide recommendations to support design and construction of foundation and drainage elements. The major findings indicated that

the area is characterized by areas of uncontrolled fill, natural clay and gravel, and shallow claystone bedrock. Construction on these variable substrates can result in foundation damage if not properly engineered. Therefore additional site specific studies will be required at the time of building permit application, to provide recommendations for foundation construction. The City Building Official has reviewed this geotechnical report, and made notes on its recommendations that will be enforced at the time of building permit issuance and subsequent inspections.

4. Effect on wildlife and wildlife habitat

There are no known endangered or threatened species on the property. There is a note in the SIA that warns future lot owners of the presence of deer and antelope in the area, which may cause damage to their landscaping. This subdivision is unique in that it has natural drainages traversing it; these are undoubtedly attractive to small wildlife and birds and waterfowl. The plan is to preserve these areas and a large portion of the parkland around the Five Mile Creek corridor will also remain in its natural state.

5. Effect on the public health, safety and welfare

The subdivision is located in an area with no known natural hazards.
Fire hydrants will be constructed to meet fire department requirements. Sidewalks and multi-purpose trails will offer a safe place for pedestrians to walk. If the recommended conditions of approval are met, the effects on public health and safety should be minimal.

B. Was an Environmental Assessment required? [MCA 76-3-616 and BMCC 23-302.H.1.]

The proposed subdivision is exempt from the requirement for an Environmental Assessment pursuant to Section 76-3-616, MCA.

C. Does the subdivision conform to the Yellowstone County-City of Billings 2008 Growth Policy, the Urban Area Transportation Plan--2009 Update, and the Billings Area Bikeway and Trail Master Plan? [BMCC 23-302.H.4.]

1. Yellowstone County-City of Billings 2008 Growth Policy

The proposed subdivision is consistent with the following goals of the Growth Policy:

a. Goal: Predictable land use decision that are consistent with neighborhood character and preferred land use patterns identified in neighborhood plans. (p. 6)

b. Goal: Contiguous development focused in and around existing population centers separated by open space. (p.6)

c. Goal: Affordable housing for all income levels dispersed throughout the City. (p. 6)

d. Goal: More housing and business choices within each neighborhood. (p. 6)

e. Goal: A multi-purpose trail network integrated into the community infrastructure that emphasizes safety, environmental preservation, resource conservation and cost effectiveness. (p. 10)

2. Urban Area Transportation Plan 2009 Update

The proposed subdivision adheres to the goals and objectives of the Transportation Plan 2009 Update and preserves the street network and street hierarchy specified in the plan.

3. Billings Area Bikeway and Trail Master Plan (BABTMP)

The proposed subdivision lies within the jurisdiction of the BABTMP. The Plan identifies a potential multi-use trail along the south side of Five Mile Creek, a primary bikeway along Mary Street and an arterial bikeway along Bitterroot Drive. The developer proposes to construct a trail along Five Mile Creek when the parkland area is developed when 51% of the total master planned lots are platted. Bitterroot Drive and Mary Street are both rural roads that will likely be upgraded in the not too distant future. Bike lane facilities will be looked at when that time comes.

D. Does the subdivision conform to the Montana Subdivision and Platting Act and to local subdivision regulations? [MCA 76-3-608(3)(b) and BMCC 23-302.H.3.a.]

The proposed subdivision satisfies the requirements of the Montana Subdivision and Platting Act and conforms to the design standards specified in the local subdivision regulations with one exception. The plat should contain all of the land within the underlying legal description. As proposed, the entire parcel, "Remainder of Tract 3A-1, C/S 2317" is not included in the platted area. The remaining portion will need to be platted as one or more lots on the final plat **(Condition #4)**. The subdivider and the local government have complied with the subdivision review and approval procedures set forth in the local and state subdivision regulations.

E. Does the proposed subdivision conform to all requirements of the zoning in effect? [BMCC 23-302.H.3.e.]

The subject property is located within the R-70-R zoning district. All development shall comply with the standards set forth in Section 27-308, BMCC. Final zoning compliance will be determined at the time of the building permit.

F. Does the proposed plat provide easements for the location and installation of any utilities? [MCA 76-3-608(3)(c) and BMCC 23-302.H.3.b.]

The subdivider has provided utility easements as requested by the City, MDU and YVEC on the face of the plat.

G. Does the proposed plat provide legal and physical access to each parcel within the subdivision and notation of that access on the plat? [MCA 76-3-608(3)(d) and BMCC 23-302.H.3.c.]

Legal and physical access is provided to the proposed lots from Meadow Creek Loop, John Strange Street, Jerry Christensen Lane, and Steve Palmer Street, which connect to existing street Empire Drive.

CONCLUSIONS OF FINDINGS OF FACT

- The preliminary plat of Bitterroot Heights Subdivision, 2nd Filing does not create any adverse impacts that warrant denial of the subdivision.

- The proposed subdivision conforms to several goals and policies of the 2008 Growth Policy Update and does not conflict with the Transportation or Bikeway and Trail Plans.

- The proposed subdivision complies with state and local subdivision regulations, local zoning, and provides legal and physical access to each lot.

- Any potential negative or adverse impacts will be mitigated with the proposed conditions of approval.

Approved by the Billings City Council, June 24, 2013.

_____

Thomas W. Hanel, Mayor

June 25, 2013

Matt Brosovich
BCJM, Inc.
PO Box 20318
Billings, MT 59104

Dear Property Owners:

On June 24, 2013, the Billings City Council conditionally approved the preliminary plat of Bitterroot Heights Subdivision, 2nd Filing, subject to the following conditions of approval:

1. To minimize effects on local services, the subdivider shall make a cash contribution amounting to the cost of improving Bitterroot Drive with curb, gutter and boulevard sidewalk along the 2nd Filing frontage as approved by City Engineering, prior to final plat approval.

2. To minimize effects on public health and safety, the street names within the subdivision shall be reviewed and approved by City Fire and County GIS to ensure uniqueness, prior to final plat approval.

3. To conform to the Montana Subdivision and Platting Act, the final plat shall contain the entire subject parcel known as "Remainder Tract 3A-1 Certificate of Survey 2317".

4. Minor changes may be made in the SIA and final documents, as requested by the Planning, Legal or Public Works Departments to clarify the documents and bring them into the standard acceptable format.

5. The final plat shall comply with all requirements of the City of Billings Subdivision Regulations, rules, regulations, policies, and resolutions of the City of Billings, and the laws and Administrative Rules of the State of Montana.

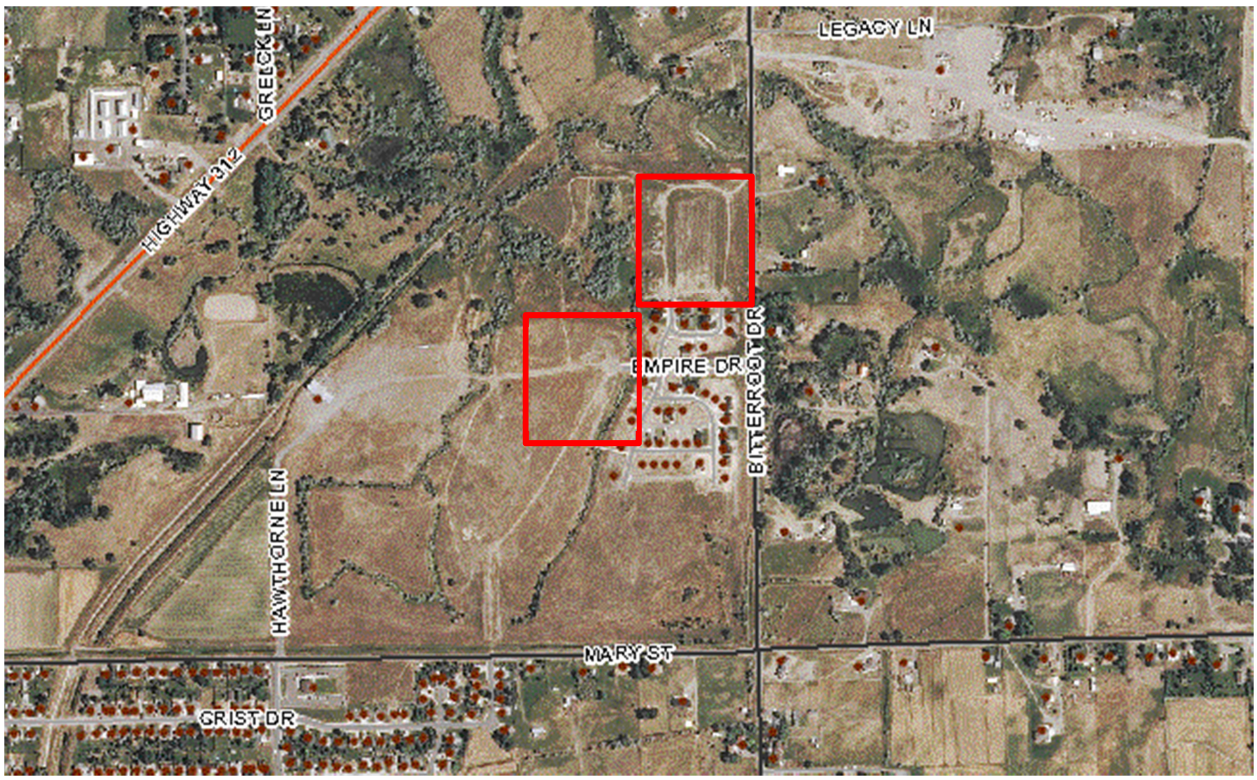
If you have questions please contact Juliet Spalding at (406) 247-8684 or by email at spaldingj@ci.billings.mt.us.

Sincerely,

_____
Thomas W. Hanel, Mayor

Pc: Chuck Strum, PE, Interstate Engineering

Photos – Bitterroot Heights, 2nd Filing



View looking North at terminus of Meadow Creek Loop (north portion of 2nd Filing)

Consent **1. P.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: High Sierra Subdivision, 7th Filing -- Preliminary Major Plat
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

On April 1, 2013, subdivider, High Sierra II, Inc., applied for preliminary major plat approval for High Sierra Subdivision, 7thFiling. The proposed subdivision creates 50 lots for single-family residences on a 14-acre parcel of land. This proposal was reviewed in 2008 as part of a larger subdivision known as High Sierra, 5thFiling. While the larger 5thFiling subdivision received preliminary approval, its final plat was scaled back to 23 residential lots, with the remainder in large lots which are now the subject of this proposal. The subject property is generally located on both sides of Benjamin Boulevard, west of High Sierra Boulevard in the northwest Billings Heights. The property is zoned Residential-7,000-Restricted (R-70-R). The Yellowstone County Board of Planning reviewed the plat and conducted a public hearing at its May 28, 2013, meeting. Sanderson Stewart is the representing agent.

ALTERNATIVES ANALYZED

In accordance with state law, the City Council has 60 working days to act upon this major preliminary plat; the 60 working day review period for the proposed plat ends on June 25, 2013. State and City subdivision regulations also require that preliminary plats be reviewed using specific criteria, as stated within this report. The City may not unreasonably restrict an owner's ability to develop land if the subdivider provides evidence that any identified adverse effects can be mitigated. Within the 60 day review period, the City Council is required to:

1. Approve;
2. Conditionally Approve; or
3. Deny the Preliminary Plat

FINANCIAL IMPACT

Should the City Council approve the preliminary plat, the subject property may further develop under private ownership, resulting in additional tax revenues.

BACKGROUND

- General location: North of Matador Ave. and west of High Sierra Boulevard, in the Heights
- Legal Description: Lot 1, Block 1; Lot 1, Block 2; Lots 1 & 38, Block 3; Lot 1, Block 4; and Lot 1, Block 5 of High Sierra Subdivision, 5th Filing
- Subdivider/Owner: High Sierra II, Inc.
- Engineer and Surveyor: Sanderson Stewart
- Existing Zoning: R-70-R
- Existing land use: Dryland agricultural
- Proposed land use: Single-Family Residential
- Gross area: 14.04 acres
- Net area: 10.34 acre
- Proposed number of lots: 50
- Lot size: Max: 15,305 square feet
  Min: 7,037 square feet
- Parkland requirements: 1.14 acres of parkland required; cash in lieu of land dedication was provided in 2012 when the 5th Filing final plat was approved.

STAKEHOLDERS

A public hearing was conducted by the Yellowstone County Board of Planning on May 28, 2013. Property owners adjacent to the subject property were notified by certified mail of the hearing and a legal notice was published in the Billings Times. No public comments were received.

CONSISTENCY WITH ADOPTED POLICIES OR PLANS

Consistency with the Growth Policy, the Transportation Plan 2009 Update, and Billings Area Bikeways and Trail Master Plan are discussed within the Findings of Fact.

RECOMMENDATION

The Planning Board recommends conditional approval of the preliminary plat of High Sierra Subdivision, 7th Filing and adoption of the Findings of Fact as presented in the staff report.

Recommended Conditions of Approval

Pursuant to Section 76-3-608(4), MCA, the following conditions are recommended to

reasonably minimize potential adverse impacts identified within the Findings of Fact:

1. Minor changes may be made in the SIA and final documents, as requested by the Planning, Legal or Public Works Departments to clarify the documents and bring them into the standard acceptable format.

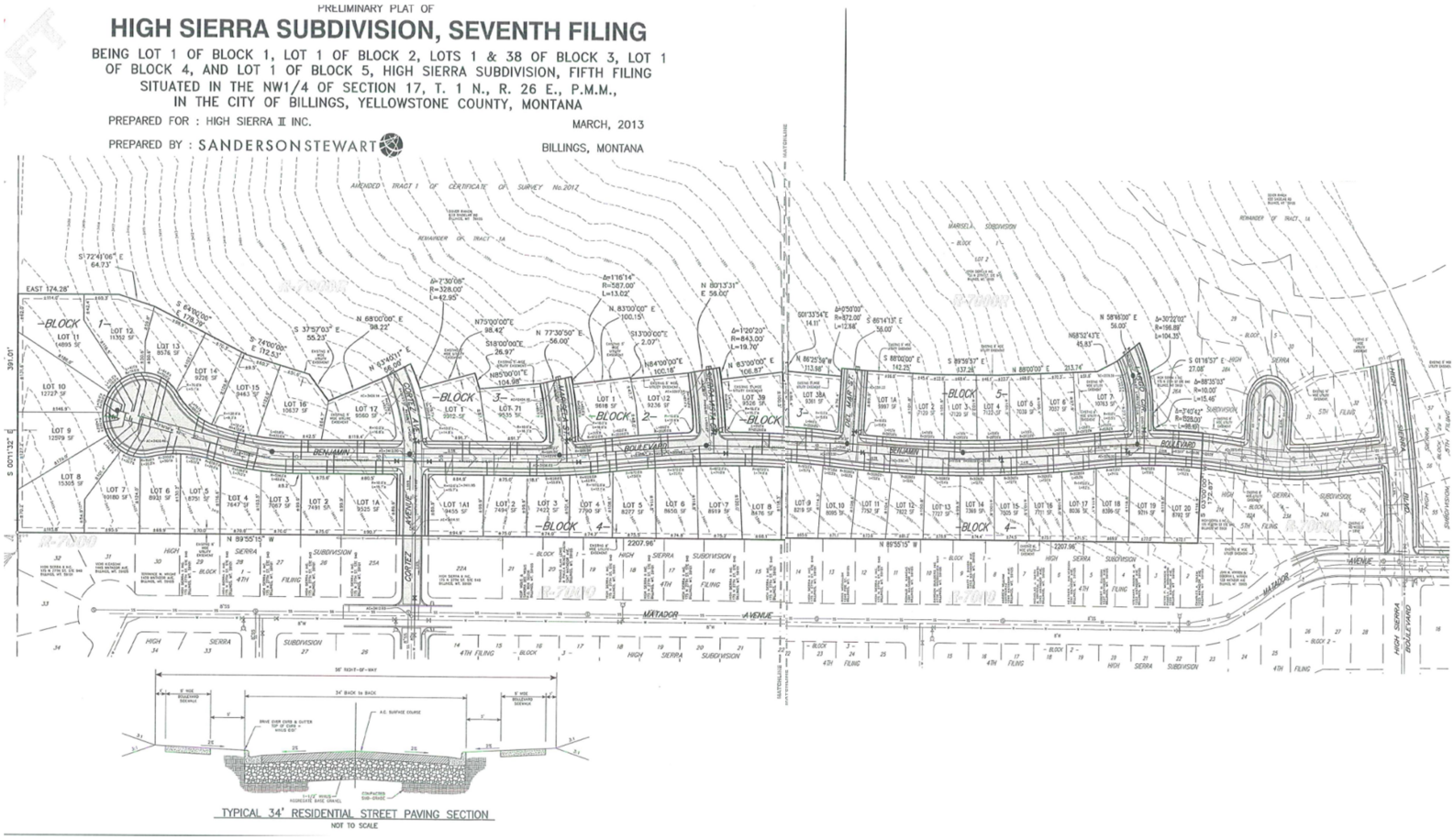
2. The final plat shall comply with all requirements of the City of Billings Subdivision Regulations, rules, regulations, policies, and resolutions of the City of Billings, and the laws and Administrative Rules of the State of Montana.

APPROVED BY CITY ADMINISTRATOR

Attachments

Preliminary Plat
2008 Master Plan: HS 5th-12th Filings
Findings of fact
Mayor's letter
Site Photos

High Sierra Subdivision, 7th Filing Preliminary Plat



Legend:

Total Area of Site	402.5795 Acres
Total Area in Lots	296.0148 Acres
Total Area of Park	9.5442 Acres
Total Area of Utility ROW	3.0418 Acres
Total Area of Landscape Islands	2.0723 Acres
Total Number of Lots	1,375
Average Lot Size	9,379 Sq.Ft.

Scale 1"=100'

High Sierra

A NEIGHBORHOOD TRADITION

AN OAKLAND COMMUNITY

Rick Harrison
Site Design Studio
www.rhsdplanning.com
9532 7th Avenue North - Golden Valley MN 55427

FINDINGS OF FACT – High Sierra Subdivision, 7th Filing

The Planning staff has prepared on behalf of the Yellowstone County Board of Planning the Findings of Fact for the preliminary plat of High Sierra Subdivision, 7th Filing and has provided them for review by the City Council, as follows:

A. What are the effects on agriculture, local services, the natural environment, wildlife, wildlife habitat, and public health, safety and welfare? [MCA 76-3-608(3)(a) and BMCC 23-302.H.2.]

1. Effect on agriculture and agricultural water user facilities

The subject property is currently used for dryland pasture by the Dover Ranch operation to the north. It, along with approximately 360 additional acres, was annexed by the City and rezoned for single-family residential uses in 2007. It is adjacent to similar residential uses to the south and east and will provide community housing in an area that is not particularly productive for agriculture. It should not have a negative effect on the agricultural industry.

The BBWA irrigation canal is located approximately 3/4 mile northeast of the property. This subdivision does not contain any ditches or water shares, and therefore will not have an effect on agricultural water user facilities

2. Effect on local services

a. Utilities –Water services to the subject property are provided by the City of Billings. The existing 8-inch main in Matador Avenue will be extended in two locations (at Cortez Ave. and High Sierra Blvd.) to serve the new interior streets. The improvements are subject to the review and approval of the City during the time of construction. As proposed, the City Public Works Department finds that the water main extensions are acceptable.

Sanitary sewer service will be provided by connecting to an existing 8-inch sewer main in Matador Ave. via High Sierra Boulevard. As proposed, the City of Billings Public Works Department finds the sewer main extension to be acceptable.

MDU will provide gas services, and Yellowstone Valley Electric Cooperative will provide electric services to the subdivision. Easements have been shown on the face of the plat that are acceptable to these utility providers.

b. Storm water – A storm water master plan was reviewed in June 2008 for this proposal. In general, storm drains and piping will be installed to carry water to the north to detention ponds located north of the overall master planned area (area covering High Sierra Subdivision 5th-12th filings). This and all other drainage improvements shall satisfy the criteria set forth by the most-current *City of Billings Stormwater Management Manual* and will be subject to review and approval by the Engineering Division. Additionally, a Stormwater Pollution Prevention Plan (SWPPP) will be required of the developer and construction contractors prior to site disturbance to ensure that storm drain facilities are not compromised during site and home construction.

c. Solid waste – The City of Billings will provide solid waste collection and disposal. The City's landfill has adequate capacity for this waste.

d. Streets –The proposed subdivision will be accessed off of the new street Benjamin Boulevard, which makes connections to existing Matador Ave. at Cortez Ave. and by extending High Sierra Blvd. to the north. Benjamin Blvd. and the other local streets, Cortez Ave., Marisela St., Sierra Vista Circle, Del Mar St., and Largo Circle will be built to City standards at 34 feet wide, with curb, gutter and boulevard-style sidewalks, all within 56-foot rights-of-way. The typical street section for these streets is found on the face of the preliminary plat. High Sierra Blvd. is designated as a Collector street and will be continued north within the subdivision and constructed to Collector street standards.

A Traffic Impact Study (TIS) was completed for this subdivision at the time of the 5th Filing. Based on its findings, it was determined that the installation of a signal at the intersection of Wicks Lane and St. Andrews should be considered and that has since been completed. High Sierra Subdivision, 5th and 7th Filings were required to contribute 2% of the construction costs based on a calculation of their pro rata share. That contribution was made in 2012, prior to approval of the 5th Filing final plat.

e. Emergency services – The Billings Police and Fire Departments will respond to emergencies within the proposed subdivision. The nearest fire station is located at 1601 St. Andrews Drive (Station #6). The subdivision is located within the ambulance service area of American Medical Response (AMR).

f. Schools –School District #2 provides educational services to elementary through high school students. Eagle Cliff Elementary School, Castle Rock Middle School, and Skyview High School will serve the children in this subdivision. A response from the district's facilities director indicated that Eagle Cliff and Skyview still have capacity for additional students. However, Castle Rock is currently overcrowded with 756 students enrolled; maximum enrollment for Castle Rock as it stands is 748 students. School District #2 is currently working on solutions to their facilities needs including possible bonds for new schools, redistricting of students, and other ideas.

g. Parks and Recreation – The parkland dedication requirement for this subdivision amounts to 1.14 acres (11% of the net area of 10.34 acres). The subdivider provided cash in lieu of parkland for this subdivision, previously at the time of the 5th Filing final plat approval.

h. Mail Delivery - The United States Postal Service will provide postal service to the subdivision. With previous filings the developer provided centralized delivery facilities and the same is proposed for this filing. The developer will consult with the USPS prior to placement of the centralized mail boxes.

3. Effect on the natural environment

The subject property is relatively level prairie land adjacent to the city limits on its south and east sides. A geotechnical evaluation was done for the subject area in June of 2008, to investigate

soil, rock, and groundwater conditions and provide recommendations to support design and construction of foundation and drainage elements. The major finding that study indicated was that the area is characterized by moderate to highly expansive claystone bedrock. Construction on this type of bedrock can result in foundation damage if not properly engineered, therefore close attention to the recommendations provided in the report is critical. The City Building Official has reviewed this geotechnical report, and made notes on its recommendations that will be enforced at the time of building permit issuance and subsequent inspections.

4. Effect on wildlife and wildlife habitat

There are no known endangered or threatened species on the property. There is a note in the SIA that warns future lot owners of the presence of deer and antelope in the area, which may cause damage to their landscaping. This subdivision should have a minimal effect on wildlife and wildlife habitat, as it is in an area that is rapidly urbanizing.

5. Effect on the public health, safety and welfare

The subdivision is located in an area with no known natural hazards.
Fire hydrants will be constructed to meet fire department requirements. Sidewalks will offer a safe place for pedestrians to walk. The effects on public health and safety should be minimal.

B. Was an Environmental Assessment required? [MCA 76-3-616 and BMCC 23-302.H.1.]

The proposed subdivision is exempt from the requirement for an Environmental Assessment pursuant to Section 76-3-616, MCA.

C. Does the subdivision conform to the Yellowstone County-City of Billings 2008 Growth Policy, the Urban Area Transportation Plan--2009 Update, and the Billings Area Bikeway and Trail Master Plan? [BMCC 23-302.H.4.]

1. Yellowstone County-City of Billings 2008 Growth Policy

The proposed subdivision is consistent with the following goals of the Growth Policy:

a. Goal: Predictable land use decision that are consistent with neighborhood character and preferred land use patterns identified in neighborhood plans. (p. 6)

b. Goal: Contiguous development focused in and around existing population centers separated by open space. (p.6)

c. Goal: Affordable housing for all income levels dispersed throughout the City. (p. 6)

d. Goal: More housing and business choices within each neighborhood. (p. 6)

2. Urban Area Transportation Plan 2009 Update

The proposed subdivision adheres to the goals and objectives of the Transportation Plan 2009 Update and preserves the street network and street hierarchy specified in the plan.

3. Billings Area Bikeway and Trail Master Plan (BABTMP)

The proposed subdivision lies within the jurisdiction of the BABTMP. The Plan identifies a primary bikeway along High Sierra Blvd. and the developer proposes to construct and stripe a bike lane along the subdivision's High Sierra Blvd. frontage in accordance with the plan.

D. Does the subdivision conform to the Montana Subdivision and Platting Act and to local subdivision regulations? [MCA 76-3-608(3)(b) and BMCC 23-302.H.3.a.]

The proposed subdivision satisfies the requirements of the Montana Subdivision and Platting Act and conforms to the design standards specified in the local subdivision regulations. The subdivider and the local government have complied with the subdivision review and approval procedures set forth in the local and state subdivision regulations.

E. Does the proposed subdivision conform to all requirements of the zoning in effect? [BMCC 23-302.H.3.e.]

The subject property is located within the R-70-R zoning district. All development shall comply with the standards set forth in Section 27-308, BMCC. Final zoning compliance will be determined at the time of the building permit.

F. Does the proposed plat provide easements for the location and installation of any utilities? [MCA 76-3-608(3)(c) and BMCC 23-302.H.3.b.]

The subdivider has provided utility easements as requested by the City, MDU and YVEC on the face of the plat.

G. Does the proposed plat provide legal and physical access to each parcel within the subdivision and notation of that access on the plat? [MCA 76-3-608(3)(d) and BMCC 23-302.H.3.c.]

Legal and physical access is provided to the proposed lots from Benjamin Boulevard, which connects to existing streets Matador Ave. and High Sierra Blvd.

CONCLUSIONS OF FINDINGS OF FACT

- The preliminary plat of High Sierra Subdivision, 7th Filing does not create any adverse impacts that warrant denial of the subdivision.

- The proposed subdivision conforms to several goals and policies of the 2008 Growth Policy Update and does not conflict with the Transportation or Bikeway and Trail Plans.

- The proposed subdivision complies with state and local subdivision regulations, local zoning, and provides legal and physical access to each lot.

- Any potential negative or adverse impacts will be mitigated with the proposed conditions of approval.

Approved by the Billings City Council, June 24, 2013.

_____

Thomas W. Hanel, Mayor

June 25, 2013

High Sierra II, Inc.
175 N. 27th St., Suite 900
Billings, MT 59101

Dear Property Owners:

On June 24, 2013, the Billings City Council conditionally approved the preliminary plat of High Sierra Subdivision, 7th Filing, subject to the following conditions of approval:

1. Minor changes may be made in the SIA and final documents, as requested by the Planning, Legal or Public Works Departments to clarify the documents and bring them into the standard acceptable format.

2. The final plat shall comply with all requirements of the City of Billings Subdivision Regulations, rules, regulations, policies, and resolutions of the City of Billings, and the laws and Administrative Rules of the State of Montana.

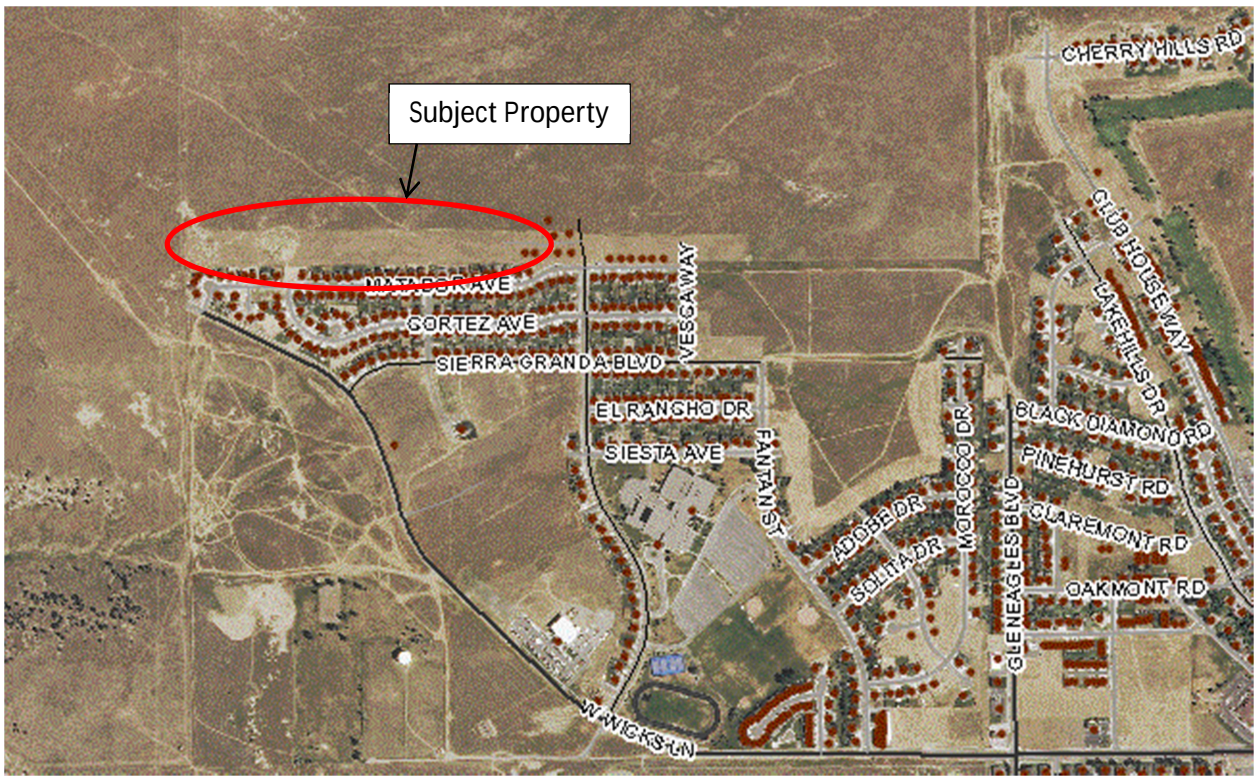
If you have questions please contact Juliet Spalding at (406) 247-8684 or by email at spaldingj@ci.billings.mt.us.

Sincerely,

_____
Thomas W. Hanel, Mayor

Pc: Mac Fogelsong, PE, Sanderson Stewart

Photos—High Sierra Subdivision, 7th Filing



View looking West down Benjamin Boulevard from its intersection with High Sierra Boulevard.

Consent **1. Q.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Final Plat of Trails West Subdivision, 2nd Filing
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

The final plat for Trails West Subdivision, 2nd Filing is being presented to Council for approval. On January 28, 2013, the City Council conditionally approved the preliminary plat of this 79-lot subdivision. The subject property is generally located on the south side of Grand Avenue between 56th St. West and 60th St. West. The property is zoned Residential-6000-Restricted and Residential-9600, and single-family residences are proposed for these lots. The owners are Ronald, Douglas, and Deborah Faye Frank, the subdividers are Dorn-Wilson Development, LLC, and the representing agent is Sanderson Stewart. Upon City Council approval, these documents are appropriate as to form for filing with the Clerk and Recorder.

ALTERNATIVES ANALYZED

The City Council may approve or deny the final plat of Trails West Subdivision, 2nd Filing. If the City Council chooses to deny the final plat, it must base the denial on the criteria outlined in MCA 76-3-611 and BMCC, Section 23-307.

FINANCIAL IMPACT

Should the City Council approve the final plat, the newly created lots will be developed which will increase tax revenues for the City.

RECOMMENDATION

Staff recommends that the City Council approve the final plat of Trails West Subdivision, 2nd Filing.

APPROVED BY CITY ADMINISTRATOR

Attachments

Final Plat pg. 1
Final plat pg. 2

PLAT OF

TRAILS WEST SUBDIVISION, SECOND FILING

BEING LOT 1, BLOCK 8, TRAILS WEST SUBDIVISION, FIRST FILING AND TRACT 1B OF C.O.S. 2379 AM.
SITUATED IN THE NE1/4 OF SECTION 5, T. 1 S., R. 25 E., P.M.M.,
IN THE CITY OF BILLINGS, YELLOWSTONE COUNTY, MONTANA

PREPARED FOR : DORN–WILSON DEVELOPMENT, LLC. APRIL 2013

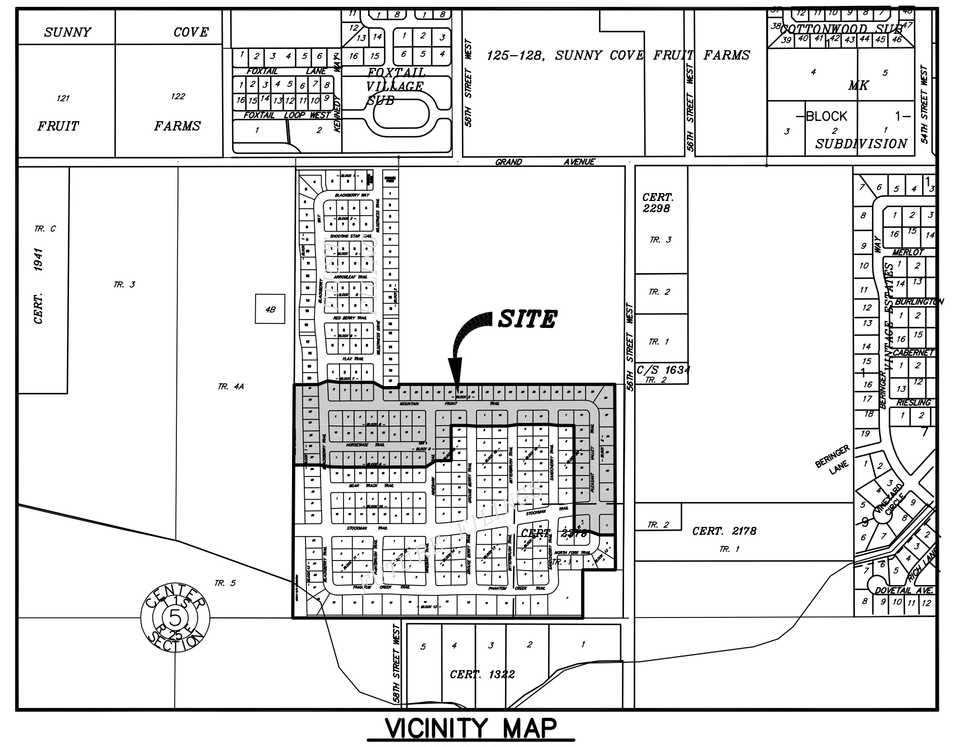
PREPARED BY : SANDERSON STEWART BILLINGS, MONTANA

NORTH

60 30 0 60 120
SCALE: 1" = 60'

BASIS OF BEARING: ORIGINAL PLAT OF TRAILS WEST SUBDIVISION, FIRST FILING.

- ○ FOUND SURVEY MONUMENT, REBAR WITH "SANDERSON STEWART" CAP OR AS NOTED.
- ⋋ SET 5/8" X 18" REBAR WITH CAP MARKED WITH THE LICENSE NUMBER OF THE UNDERSIGNED LAND SURVEYOR AND "SANDERSON STEWART".
- ▪ SET INTERSECTION MONUMENT, 5/8"x18" REBAR WITH CAP MARKED WITH THE LICENSE NUMBER OF THE UNDERSIGNED LAND SURVEYOR AND "SANDERSON STEWART BILLINGS MT". WILL BE REPLACED WITH BRASS CAP IN MONUMENT BOX UPON COMPLETION OF STREET IMPROVEMENTS.



VICINITY MAP
NOT TO SCALE

POINT OF BEGINNING:
SW CORNER GOVERNMENT LOT 1, REBAR WITH "SANDERSON STEWART" CAP.

GOVERNMENT LOT 1
UNPLATTED

DEDICATED PUBLIC RIGHT–OF–WAY 1881 SF

1/16 CORNER 1–1/2" ALUM. CAP

5/8" REBAR

3/4" PIPE

C.H. LUND SUB.

CERT. 1634 TR. 2

AM. CERT. 2735 TR. 4–A

BIRELY R/W DEDICATION 33,058 Sq. Ft.

BLACKBERRY WAY

WILDERNESS DR.

FLAX TRAIL

TRAILS WEST SUB., FIRST FILING

EXISTING 16' WIDE UTILITY EASEMENT

8' WIDE UTILITY EASEMENT

MOUNTAIN FRONT AVENUE

HORSESHOE TRAIL

NINEBARK STREET

GROUSE BERRY STREET

BITTERBRUSH STREET

SANDCHERRY STREET

NORTH FORK TRAIL

STOCKMAN AVENUE

56TH STREET WEST

UNPLATTED

BEAR TRACK TRAIL

10' WIDE IRRIGATION DITCH EASEMENT

16' WIDE UTILITY EASEMENT

16' WIDE UTILITY EASEMENT (TYPICAL)

TEMPORARY STORM WATER RETENTION EASEMENT

1 BLOCK 1 7110 SF
2 BLOCK 1 6014 SF
3 BLOCK 1 6014 SF
4 BLOCK 1 6014 SF
5 BLOCK 1 6014 SF
6 BLOCK 1 6014 SF
7 BLOCK 1 6014 SF
8 BLOCK 1 7065 sf
9 BLOCK 1 7065 SF
10 BLOCK 1 6014 SF
11 BLOCK 1 6014 SF
12 BLOCK 1 6014 SF
13 BLOCK 1 6014 SF
14 BLOCK 1 6014 SF
15 BLOCK 1 6014 SF
16 BLOCK 1 6996 SF
17 BLOCK 1 6836 SF
18 BLOCK 1 6359 SF
19 BLOCK 1 6349 SF
20 BLOCK 1 6339 SF
21 BLOCK 1 6329 SF
22 BLOCK 1 6319 SF
23 BLOCK 1 6309 SF
24 BLOCK 1 6296 SF
25 BLOCK 1 6286 SF
26 BLOCK 1 6275 SF
27 BLOCK 1 6265 SF
28 BLOCK 1 6255 SF
29 BLOCK 1 6245 SF
30 BLOCK 1 6235 SF
31 BLOCK 1 6225 SF
32 BLOCK 1 6215 SF
33 BLOCK 1 6213 SF
34 BLOCK 1 9617 SF
35 BLOCK 1 10417 SF
36 BLOCK 1 9625 SF
37 BLOCK 1 7989 SF
38 BLOCK 2 9600 SF
39 BLOCK 2 9614 SF
40 BLOCK 2 9629 SF
41 BLOCK 2 9746 SF
1 BLOCK 2 10813 SF
1 BLOCK 8 6824 SF
2 BLOCK 8 6008 SF
3 BLOCK 8 6008 SF
4 BLOCK 8 6008 SF
5 BLOCK 8 6008 SF
6 BLOCK 8 6008 SF
7 BLOCK 8 6008 SF
8 BLOCK 8 6891 SF
1 BLOCK 9 7854 SF
2 BLOCK 9 6067 SF
3 BLOCK 9 6067 SF
4 BLOCK 9 6067 SF
5 BLOCK 9 6067 SF
1 BLOCK 15 7854 SF
1 BLOCK 16 8214 SF
1 BLOCK 19 7426 SF
1 BLOCK 20 7906 SF
1 BLOCK 21 8562 SF
2 BLOCK 21 6501 SF
3 BLOCK 21 6501 SF
4 BLOCK 21 6501 SF
5 BLOCK 21 6501 SF
6 BLOCK 21 6501 SF
7 BLOCK 21 6501 SF
8 BLOCK 21 7197 SF
9 BLOCK 21 6501 SF
10 BLOCK 21 6501 SF
11 BLOCK 21 6501 SF
12 BLOCK 21 6501 SF
13 BLOCK 21 6501 SF

MATCH LINE, SHEET 1
MATCH LINE, SHEET 2

FUTURE FILINGS

1
1,607,173 SF
36.896 AC
– BLOCK 10 –

RESERVED FOR CLERK AND RECORDER

AREA SUMMARY:

GROSS AREA	56.1625 ACRES
BIRELY DRAIN RIGHT–OF–WAY	0.7598 ACRE
BLOCK 2 PUBLIC RIGHT–OF–WAY	0.0432 ACRE
DEDICATED ROADS & STREETS	5.9915 ACRES
NET AREA	49.3680 ACRES

ROAD DEDICATION 24671 SF

SHEET 1 OF 3

PLAT OF

TRAILS WEST SUBDIVISION, SECOND FILING

BEING LOT 1, BLOCK 8, TRAILS WEST SUBDIVISION, FIRST FILING AND TRACT 1B OF C.O.S. 2379 AM.
SITUATED IN THE NE1/4 OF SECTION 5, T. 1 S., R. 25 E., P.M.M.,
IN THE CITY OF BILLINGS, YELLOWSTONE COUNTY, MONTANA

PREPARED FOR : DORN–WILSON DEVELOPMENT, LLC. APRIL 2013

PREPARED BY : SANDERSON STEWART BILLINGS, MONTANA

BASIS OF BEARING: ORIGINAL PLAT OF TRAILS WEST SUBDIVISION, FIRST FILING.

- ○ FOUND SURVEY MONUMENT, REBAR WITH "SANDERSON STEWART" CAP OR AS NOTED.
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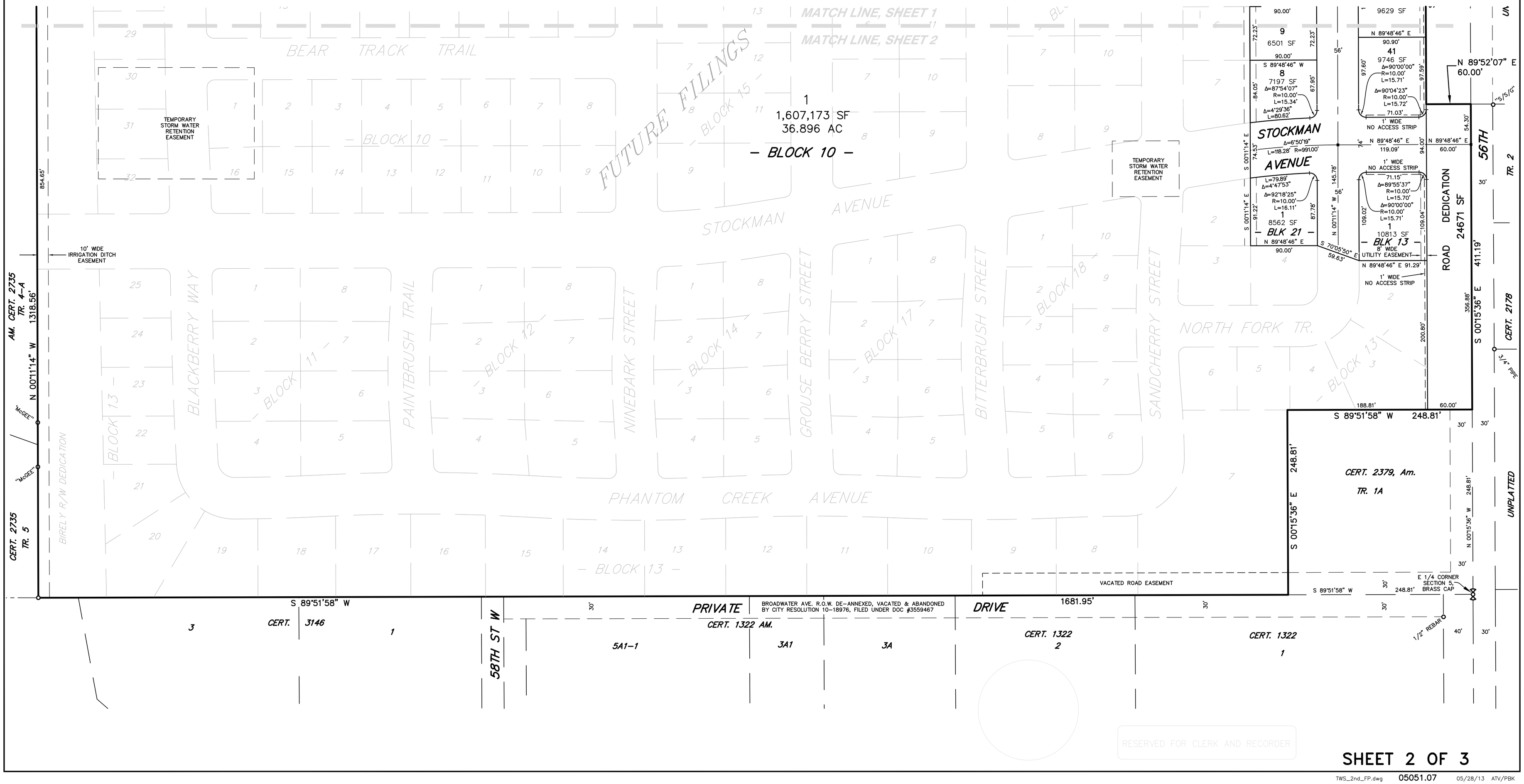
NORTH

60 30 0 60 120

SCALE: 1" = 60'



RESERVED FOR CLERK AND RECORDER

Consent **1. R.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Cancellation of Checks and Warrants
PRESENTED BY: Patrick M. Weber Finance Director
Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

Finance annually reviews outstanding checks and warrants. Under state law MCA 7-6-4303, City Council has the authority to cancel municipal checks and warrants that have remained outstanding or unpaid for a period of one year or longer.

ALTERNATIVES ANALYZED

The Council may:

- Approve the cancellation of checks and warrants, or
- Disapprove the cancellation of checks and warrants.

FINANCIAL IMPACT

The money amounts contained in the cancelled checks and warrants will revert to affected funds. Employees and vendors were notified and given the opportunity to pay the stop payment fee and have their checks reissued. The final cancellations may not exactly match the attachment, because payees are still responding and checks that are reissued will not be cancelled.

RECOMMENDATION

Staff recommends that Council authorize the cancellation of checks and warrants and receivable balances.

APPROVED BY CITY ADMINISTRATOR

Attachments

Exhibit A
Exhibit B - A/P Checking Voids

HEALTH CLAIMS CHECKS
TO BE VOIDED BY COUNCIL - JUNE 2013

	CHECK NO	CHECK DATE	NAME	CHECK AMOUNT
1	241583	5/10/2011	Barbeau, Eric	19.39
2	241851	5/17/2011	Binford, Tom	13.38
3	242940	6/21/2011	Hoey, Clifton	10.00
4	243176	6/28/2011	Keyes, Mark	21.21
5	243178	6/28/2011	Robertson, Misti	15.00
6	243554	7/12/2011	Binford, Tom	22.69
7	243555	7/12/2011	Kanawha Insurance	294.27
8	244645	8/16/2011	Gibbs, Russell	23.38
9	244654	8/16/2011	Mallow, Chris	25.00
10	244843	8/23/2011	Meyer, Robert	28.05
11	247399	11/8/2011	Edward Lawler DDS	28.96
12	248364	12/6/2011	Hoey, Clifton	30.00
13	248815	12/20/2011	Barbeau, Eric	0.16
14	249810	1/10/2012	The Children's Clinic	234.60
15	249867	2/8/2012	Puckett, Gary	190.93
16	250319	1/31/2012	Jackson, Donald	130.57
17	250507	2/7/2012	Wilson, Scott	355.99
18	250880	2/21/2012	Wilson, Scott	106.80
19	252147	4/10/2012	Fox, Christina	15.47
		TOTAL		1,565.85

HEALTH FLEX CHECKS
TO BE VOIDED BY COUNCIL - JUNE 2013

	CHECK NO	CHECK DATE	NAME	CHECK AMOUNT
1	69185	5/6/2011	Denson, Patricia	26.96
2	69429	5/20/2011	Skillestad, Ryan	10.00
3	70549	8/17/2011	Mitchell, Darrek	5.69
4	71466	12/30/2011	Martin, Ronald	105.00
5	72224	2/29/2012	Martin, Ronald	49.95
6	72437	3/31/2012	Martin, Ronald	1,101.40
7	72627	3/31/2012	Martin, Ronald	1,015.35
8	73147	4/30/2012	Kindness, Anne	10.41
		TOTAL		2,324.76

PAYROLL CHECKS
TO BE VOIDED BY COUNCIL - JUNE 2013

	Check Number	Check Date	Check Payee	Check Amount
1	339306	6/17/2011	CARSON, KATHLEEN A	0.13
2	339361	6/17/2011	WATTERS, ERNEST N	0.29
3	340004	7/15/2011	DIERENFIELD, DAVID S	4.43
4	340040	7/15/2011	NICHOLS, ANTHONY J	30.35
5	340049	7/15/2011	RUDE, KARL J	1.77
6	341756	9/23/2011	ELKIN, CORY W	0.85
		TOTAL		37.82

Check #	Vendor #	Vendor Name	Check Date	Check amount
727509	20117	Joyce and George Kenney	12/11/09	5,814.45
744223	9991522	Eric Gilbertsen	5/6/11	25.00
745214	9999999	Julie Not Afraid	6/3/11	5.00
745410	9999999	Sherri Keil	6/10/11	5.00
745563	9991213	Amy Lee Staton	6/17/11	10.00

4210-84930-409340	PW - Jennifer	Jennifer says its okay t
5210-15220-407840	Parking	void
5210-00000-229151	Parking	void
5210-00000-229152	Parking	void
0100-12130-403911	Municipal Court	Void

ɔ void

Consent **1. S. 1.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Payment of Claims May 28, 2013.
PRESENTED BY: Pat M. Weber, Financial Director
Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

Claims in the amount of $1,187,179.01 have been audited and are presented for your approval for payment. A complete listing of the claims dated May 28, 2013 is available in the Finance Department.

ALTERNATIVES ANALYZED

No other alternatives were analyzed.

FINANCIAL IMPACT

Claims have a varying impact on department budgets, but are submitted by the departments and reviewed by Finance staff before being sent to the Council.

RECOMMENDATION

Staff recommends that Council approve the Payment of Claims.

APPROVED BY CITY ADMINISTRATOR

Attachments

Payment of Claims 5.28.13

Check Date	Check	Name	Check Amount	Account	Item Desc
05/28/2013	263847	EBMS Import	4,699.44	6270-00000-205000	EBMS Insurance Payments
05/28/2013	263857	EBMS Import	20,116.36	6270-00000-205000	EBMS Insurance Payments
05/28/2013	263891	EBMS Import	26,696.50	6270-00000-205000	EBMS Insurance Payments
05/28/2013	263959	EBMS Import	5,872.01	6270-00000-205000	EBMS Insurance Payments
05/28/2013	263977	EBMS Import	14,830.26	6270-00000-205000	EBMS Insurance Payments
05/28/2013	766105	Billings Gazette	2,994.30	0100-14110-403310	Finance- Online Banners
05/28/2013	766105	Billings Gazette	2,994.30	2600-55110-403360	Library- adds and online banner
05/28/2013	766105	Billings Gazette	2,994.30	6700-31410-403310	City Clerk- public notice- sale of City-own
05/28/2013	766127	Ebms	69,359.46	6270-17520-403511	EBMS June 2013
05/28/2013	766127	Ebms	69,359.46	6270-17520-403512	EBMS June 2013
05/28/2013	766127	Ebms	69,359.46	6270-17520-403515	EBMS June 2013
05/28/2013	766127	Ebms	69,359.46	6270-17520-403515	EBMS June 2013
05/28/2013	766127	Ebms	69,359.46	6270-17520-405161	EBMS June 2013
05/28/2013	766239	Verizon Wireless	21,405.81	1500-21700-403450	Animal Shelter MDT
05/28/2013	766239	Verizon Wireless	21,405.81	7170-21660-403450	CCSIU Cell/PTT
05/28/2013	766239	Verizon Wireless	21,405.81	7170-21660-403450	CCSIU Air Card
05/28/2013	766239	Verizon Wireless	21,405.81	7170-21660-403450	CCSIU RAVEN
05/28/2013	766239	Verizon Wireless	21,405.81	1500-22210-403450	Fire MIFI
05/28/2013	766239	Verizon Wireless	21,405.81	1500-22210-403450	Fire MDT
05/28/2013	766239	Verizon Wireless	21,405.81	2600-55120-403450	ITD Air Card & MIFI
05/28/2013	766239	Verizon Wireless	21,405.81	6200-19110-403450	ITD Air Card & MIFI
05/28/2013	766239	Verizon Wireless	21,405.81	2600-55170-403450	Library Outreach Air Cards
05/28/2013	766239	Verizon Wireless	21,405.81	1500-21110-403450	Police MDT Toughbook
05/28/2013	766239	Verizon Wireless	21,405.81	1500-21110-403450	Police ICAC
05/28/2013	766239	Verizon Wireless	21,405.81	1500-21110-403450	Police US Marshall MDT
05/28/2013	766239	Verizon Wireless	21,405.81	0100-51120-403450	Parks PMD Air Card
05/28/2013	766239	Verizon Wireless	21,405.81	2090-44510-403450	Building Air Cards
05/28/2013	766239	Verizon Wireless	21,405.81	6700-31410-403450	Engineering Air Card
					PUD Air Card 60% 5020 75000 403450
05/28/2013	766239	Verizon Wireless	21,405.81	5020-75000-403450	PUD Air Card 40% 5120 85000 403450
					PUD Air Card 60% 5020 75000 403450
05/28/2013	766239	Verizon Wireless	21,405.81	5120-85000-403450	PUD Air Card 40% 5120 85000 403450
05/28/2013	766239	Verizon Wireless	21,405.81	0100-43210-403450	Code Enforcement Air Cards
					City Administration 406-839-4295
05/28/2013	766239	Verizon Wireless	21,405.81	0100-13130-403450	Bruce McCandless
05/28/2013	766239	Verizon Wireless	21,405.81	5710-71470-403160	Met Transit Tablets Monthly Charges
05/28/2013	766239	Verizon Wireless	21,405.81	2200-22330-402410	Fire HAZMAT MDT
05/28/2013	766239	Verizon Wireless	21,405.81	2110-31320-403450	Streets Ipad 406-697-0361
					PW-Distribution Collection
					60% 5020-75000-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5020-75000-403450	40% 5120-85000-403450
					PW-Distribution Collection
					60% 5020-75000-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5120-85000-403450	40% 5120-85000-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5610-71100-403450	Airport
05/28/2013	766239	Verizon Wireless	21,405.81	1500-21700-403450	Animal Shelter
05/28/2013	766239	Verizon Wireless	21,405.81	7170-21660-403450	CCSIU
05/28/2013	766239	Verizon Wireless	21,405.81	0100-16110-403450	Legal
05/28/2013	766239	Verizon Wireless	21,405.81	1500-22250-403450	Comm Center 911
					Facilites BOC
05/28/2013	766239	Verizon Wireless	21,405.81	6500-15650-403450	Plus 70% of 406-672-3027
					Facilities City Hall
05/28/2013	766239	Verizon Wireless	21,405.81	6500-15670-403450	Plus 30% of 406-672-3027
05/28/2013	766239	Verizon Wireless	21,405.81	0100-15120-403450	Finance Pat Weber
05/28/2013	766239	Verizon Wireless	21,405.81	1500-22210-403450	Fire Department
05/28/2013	766239	Verizon Wireless	21,405.81	0100-17500-403450	Human Resources
05/28/2013	766239	Verizon Wireless	21,405.81	6200-19130-403450	ITD GIS
05/28/2013	766239	Verizon Wireless	21,405.81	6200-19110-403450	ITD
05/28/2013	766239	Verizon Wireless	21,405.81	2600-55170-403450	Library Outreach
05/28/2013	766239	Verizon Wireless	21,405.81	2600-55120-403450	Library
05/28/2013	766239	Verizon Wireless	21,405.81	0100-11000-403450	Mayor
05/28/2013	766239	Verizon Wireless	21,405.81	6010-15500-403450	Motor Pool
05/28/2013	766239	Verizon Wireless	21,405.81	0100-12200-403450	Drug Court
05/28/2013	766239	Verizon Wireless	21,405.81	0100-12120-403450	Municipal Court Judge

05/28/2013	766239	Verizon Wireless	21,405.81	2400-43010-403450	Planning
05/28/2013	766239	Verizon Wireless	21,405.81	1500-21110-403450	Police
					Police Forensic 406-794-6880
05/28/2013	766239	Verizon Wireless	21,405.81	2510-21870-403450	406-698-7323
05/28/2013	766239	Verizon Wireless	21,405.81	1500-21110-403450	Police Resource Officers
05/28/2013	766239	Verizon Wireless	21,405.81	2490-21960-403450	Police DV 406-698-1391
05/28/2013	766239	Verizon Wireless	21,405.81	5210-15210-403450	Parking
05/28/2013	766239	Verizon Wireless	21,405.81	0100-51100-403450	PRPL Admin
05/28/2013	766239	Verizon Wireless	21,405.81	0100-51210-403450	PRPL Recreation
05/28/2013	766239	Verizon Wireless	21,405.81	0100-51400-403450	Cemetery
05/28/2013	766239	Verizon Wireless	21,405.81	0100-51120-403450	Parks PMD
05/28/2013	766239	Verizon Wireless	21,405.81	0100-51120-403450	Parks
05/28/2013	766239	Verizon Wireless	21,405.81	6600-31100-403450	Public Works Admin
05/28/2013	766239	Verizon Wireless	21,405.81	2090-44510-403450	Building
05/28/2013	766239	Verizon Wireless	21,405.81	6700-31410-403450	Engineering
05/28/2013	766239	Verizon Wireless	21,405.81	5410-31210-403450	Solid Waste
05/28/2013	766239	Verizon Wireless	21,405.81	2110-31320-403450	Streets
05/28/2013	766239	Verizon Wireless	21,405.81	5410-31230-403450	Solid Waste On Call
					Distribution & Collection 60% 5020-75000-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5020-75000-403450	Distribution & Collection 40$ 5120-85000-403450
					Distribution & Collection 60% 5020-75000-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5120-85000-403450	Distribution & Collection 40$ 5120-85000-403450
					Water Treatment
05/28/2013	766239	Verizon Wireless	21,405.81	5020-74000-403450	PWBelknap-WT
05/28/2013	766239	Verizon Wireless	21,405.81	5020-73120-403450	PWBLKNP MTRSHOP
					Belknap Office 60% 5020-73110-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5020-73110-403450	Belknap Office 40$ 5120-83110-403450
					Belknap Office 60% 5020-73110-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5120-83110-403450	Belknap Office 40$ 5120-83110-403450
					PWBLKNP STORES 75% 5020-73140-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5020-73140-403450	PWBLKNP STORES 25% 5120-83140-403450
					PWBLKNP STORES 75% 5020-73140-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5120-83140-403450	PWBLKNP STORES 25% 5120-83140-403450
05/28/2013	766239	Verizon Wireless	21,405.81	5120-84000-403450	Wastewater Treatment Plant
05/28/2013	766239	Verizon Wireless	21,405.81	6060-19310-403450	TeleComm Manager
05/28/2013	766239	Verizon Wireless	21,405.81	5710-71420-403160	On Call MET
05/28/2013	766239	Verizon Wireless	21,405.81	5710-71410-403450	MET Transit
05/28/2013	766239	Verizon Wireless	21,405.81	0100-43210-403450	Code Enforcement
05/28/2013	766239	Verizon Wireless	21,405.81	5710-71470-403160	MET Transit AVL Account 770599076-00001
05/28/2013	766239	Verizon Wireless	21,405.81	0100-51120-403450	Parks Seasonal
05/28/2013	766242	Yellowstone County Finance Dpt	8,120.00	1500-21110-403590	Prisoner Billing for Month Ending April 2013
05/28/2013	766243	Yellowstone County Sheriffs	5,225.00	1500-21400-402270	Firearms Range Fees
05/28/2013	766243	Yellowstone County Sheriffs	5,225.00	1500-21150-403822	SWAT Range Fees
05/28/2013	766243	Yellowstone County Sheriffs	5,225.00	1500-21400-403822	Rife Range Fees
05/28/2013	766243	Yellowstone County Sheriffs	5,225.00	7180-21600-407865	50/50 CCSIU Split for Drug Forfeiture in case # 11-18288.
			2,041,044.71		

Consent **1. S. 2.**

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Payment of Claims June 3, 2013.
PRESENTED BY: Pat M. Weber, Financial Director
Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

Claims in the amount of $1,206,092.78 have been audited and are presented for your approval for payment. A complete listing of the claims dated June 03, 2013 is available in the Finance Department.

ALTERNATIVES ANALYZED

No other alternatives were analyzed.

FINANCIAL IMPACT

Claims have a varying impact on department budgets, but are submitted by the departments and reviewed by Finance staff before being sent to the Council.

RECOMMENDATION

Staff recommends that Council approve the Payment of Claims.

APPROVED BY CITY ADMINISTRATOR

Attachments

List of claims greater than $2500.

AP Report > $2,500 for 06/03/2013

Check Date	Check	Name	Amount	Account	Item Desc
06/03/2013	766248	A & E Architects, PC	8,376.40	4980-55360-409390	New Library Building - Construction Management Services
06/03/2013	766261	Bresnan Communications Llc	68,336.97	2030-15130-409224	Utility (fiber optics) relocate for the Empire garage
06/03/2013	766273	Fehr & Peers	6,391.10	2400-43010-407214	inv 86782
06/03/2013	766282	Guardian Security Inc	6,354.50	2600-55120-403574	Inv 995945
06/03/2013	766284	HDR, Inc.	16,075.72	5120-82110-403540	WO 12-13 IWPI Reuse and Reclamation Study
06/03/2013	766284	HDR, Inc.	8,768.57	5020-72110-403540	WO 12-13 IWPI Reuse and Reclamation Study
06/03/2013	766284	HDR, Inc.	4,384.29	8400-31840-403590	WO 12-13 IWPI Reuse and Reclamation Study
06/03/2013	766284	HDR, Inc.	70,708.29	5120-82110-403540	WO 12-15 IWPI WWTF Plan
06/03/2013	766284	HDR, Inc.	3,852.63	5020-72110-403540	DRINKING WATER SOURCE STUDY
06/03/2013	766284	HDR, Inc.	6,028.51	5030-74910-409390	WO 12-45 3 MG Staples Reservoir Liner
06/03/2013	766285	High Tech Construction	118,765.55	8730-51990-409370	Payment #3 for construction of slides.
06/03/2013	766287	Ingram Library Services Inc.	27.50	2600-55190-403222	Inv 71830889
06/03/2013	766287	Ingram Library Services Inc.	70.68	2600-55190-403226	Inv 71830889
06/03/2013	766287	Ingram Library Services Inc.	6.48	2600-55190-403333	Inv 71830890
06/03/2013	766287	Ingram Library Services Inc.	262.70	2600-55190-403226	Inv 71830891
06/03/2013	766287	Ingram Library Services Inc.	20.62	2600-55190-403227	Inv 71912547
06/03/2013	766287	Ingram Library Services Inc.	14.72	2600-55190-403226	Inv 71912548
06/03/2013	766287	Ingram Library Services Inc.	30.62	2600-55190-403226	inv 71912549
06/03/2013	766287	Ingram Library Services Inc.	14.75	2600-55190-403226	Inv 71912550
06/03/2013	766287	Ingram Library Services Inc.	8.40	2600-55190-403226	Inv 71912551
06/03/2013	766287	Ingram Library Services Inc.	8.40	2600-55190-403333	Inv 71912551
06/03/2013	766287	Ingram Library Services Inc.	14.74	2600-55190-403226	Inv 71922552
06/03/2013	766287	Ingram Library Services Inc.	10.99	2600-55190-403242	Inv 71912553
06/03/2013	766287	Ingram Library Services Inc.	158.87	2600-55190-403226	Inv 71912554
06/03/2013	766287	Ingram Library Services Inc.	71.98	2600-55190-403241	Inv 71912554
06/03/2013	766287	Ingram Library Services Inc.	5.99	2600-55190-403226	Inv 71912555
06/03/2013	766287	Ingram Library Services Inc.	10.99	2600-55190-403222	Inv 71912556
06/03/2013	766287	Ingram Library Services Inc.	261.84	2600-55190-403226	Inv 71912556
06/03/2013	766287	Ingram Library Services Inc.	194.43	2600-55190-403255	Inv 71912556
06/03/2013	766287	Ingram Library Services Inc.	49.52	2600-55190-403333	Inv 71912556
06/03/2013	766287	Ingram Library Services Inc.	36.10	2600-55190-403333	Inv 71927189

06/03/2013	766287	Ingram Library Services Inc.	35.97	2600-55190-403222	Inv 71927190
06/03/2013	766287	Ingram Library Services Inc.	20.03	2600-55190-403226	Inv 71927190
06/03/2013	766287	Ingram Library Services Inc.	10.00	2600-55190-403255	Inv 71927191
06/03/2013	766287	Ingram Library Services Inc.	146.44	2600-55190-403226	Inv 71927192
06/03/2013	766287	Ingram Library Services Inc.	100.78	2600-55190-403227	Inv 71927192
06/03/2013	766287	Ingram Library Services Inc.	120.65	2600-55190-403241	Inv 71927192
06/03/2013	766287	Ingram Library Services Inc.	34.61	2600-55190-403242	Inv 71927192
06/03/2013	766287	Ingram Library Services Inc.	7.79	2600-55190-403255	Inv 71927192
06/03/2013	766287	Ingram Library Services Inc.	9.44	2600-55190-403333	Inv 71927192
06/03/2013	766287	Ingram Library Services Inc.	144.47	2600-55190-403226	Inv 71927193
06/03/2013	766287	Ingram Library Services Inc.	14.99	2600-55190-403227	Inv 71927193
06/03/2013	766287	Ingram Library Services Inc.	35.88	2600-55190-403380	Inv 71927193
06/03/2013	766287	Ingram Library Services Inc.	114.00	2600-55110-407930	Inv 71927194
06/03/2013	766287	Ingram Library Services Inc.	14.72	2600-55190-403333	Inv 71940078
06/03/2013	766287	Ingram Library Services Inc.	16.17	2600-55190-403380	Inv 71940078
06/03/2013	766287	Ingram Library Services Inc.	6.48	2600-55190-403333	Inv 71940079
06/03/2013	766287	Ingram Library Services Inc.	8.97	2600-55190-403226	Inv 71940080
06/03/2013	766287	Ingram Library Services Inc.	15.33	2600-55190-403226	Inv 71940081
06/03/2013	766287	Ingram Library Services Inc.	39.61	2600-55190-403226	Inv 71940082
06/03/2013	766287	Ingram Library Services Inc.	185.92	2600-55190-403226	Inv 71940083
06/03/2013	766287	Ingram Library Services Inc.	16.52	2600-55190-403241	Inv 71940083
06/03/2013	766287	Ingram Library Services Inc.	9.00	2600-55190-403226	Inv 71940084
06/03/2013	766287	Ingram Library Services Inc.	14.39	2600-55190-403226	Inc 71940085
06/03/2013	766287	Ingram Library Services Inc.	191.60	2600-55150-402280	Inv 71940086
06/03/2013	766287	Ingram Library Services Inc.	14.97	2600-55190-403227	Inv 71686339
06/03/2013	766287	Ingram Library Services Inc.	29.77	2600-55190-403226	Inv 71686340
06/03/2013	766287	Ingram Library Services Inc.	99.66	2600-55190-403255	Inv 71686340
06/03/2013	766287	Ingram Library Services Inc.	36.53	2600-55110-407930	Inv 71686341
06/03/2013	766287	Ingram Library Services Inc.	14.72	2600-55190-403227	Inv 71712868
06/03/2013	766287	Ingram Library Services Inc.	15.33	2600-55190-403226	Inv 71712869
06/03/2013	766287	Ingram Library Services Inc.	14.72	2600-55190-403226	Inv 71712870
06/03/2013	766287	Ingram Library Services Inc.	38.44	2600-55190-403226	Inv 71712871
06/03/2013	766287	Ingram Library Services Inc.	31.84	2600-55190-403226	Inv 71712872
06/03/2013	766287	Ingram Library Services Inc.	65.96	2600-55190-403226	Inv 71712873
06/03/2013	766287	Ingram Library Services Inc.	24.92	2600-55190-403226	Inv 71712874
06/03/2013	766287	Ingram Library Services Inc.	9.59	2600-55190-403255	Inv 71712874
06/03/2013	766287	Ingram Library Services Inc.	49.85	2600-55190-403226	Inv 71712875

06/03/2013	766287	Ingram Library Services Inc.	33.03	2600-55190-403227	Inv 71712875
06/03/2013	766287	Ingram Library Services Inc.	63.04	2600-55190-403226	Inv 71712876
06/03/2013	766287	Ingram Library Services Inc.	84.00	2600-55110-407930	Inv 71712877
06/03/2013	766287	Ingram Library Services Inc.	8.99	2600-55190-403226	Inv 71731439
06/03/2013	766287	Ingram Library Services Inc.	8.99	2600-55190-403226	Inv 71731440
06/03/2013	766287	Ingram Library Services Inc.	16.51	2600-55190-403226	Inv 71731441
06/03/2013	766287	Ingram Library Services Inc.	65.94	2600-55190-403222	Inv 71731442
06/03/2013	766287	Ingram Library Services Inc.	508.95	2600-55190-403226	Inv 71731442
06/03/2013	766287	Ingram Library Services Inc.	620.70	2600-55190-403227	Inv 71731442
06/03/2013	766287	Ingram Library Services Inc.	1,016.40	2600-55190-403241	Inv 71731442
06/03/2013	766287	Ingram Library Services Inc.	81.89	2600-55190-403241	Inv 71731442
06/03/2013	766287	Ingram Library Services Inc.	105.75	2600-55190-403255	Inv 71731442
06/03/2013	766287	Ingram Library Services Inc.	51.76	2600-55190-403333	Inv 71731442
06/03/2013	766287	Ingram Library Services Inc.	15.92	2600-55190-403226	Inv 71811343
06/03/2013	766287	Ingram Library Services Inc.	15.34	2600-55190-403226	Inv 71811344
06/03/2013	766287	Ingram Library Services Inc.	14.75	2600-55190-403226	Inv 71811345
06/03/2013	766287	Ingram Library Services Inc.	14.72	2600-55190-403227	Inv 71811346
06/03/2013	766287	Ingram Library Services Inc.	15.34	2600-55190-403226	Inv 71811347
06/03/2013	766287	Ingram Library Services Inc.	111.49	2600-55190-403227	Inv 71811347
06/03/2013	766287	Ingram Library Services Inc.	61.89	2600-55190-403226	Inv 71811348
06/03/2013	766287	Ingram Library Services Inc.	156.52	2600-55190-403226	Inv 71811349
06/03/2013	766287	Ingram Library Services Inc.	76.02	2600-55190-403227	Inv 71811349
06/03/2013	766287	Ingram Library Services Inc.	24.74	2600-55190-403222	Inv 71811350
06/03/2013	766287	Ingram Library Services Inc.	142.72	2600-55190-403226	Inv 71811350
06/03/2013	766287	Ingram Library Services Inc.	179.11	2600-55190-403227	Inv 71811350
06/03/2013	766287	Ingram Library Services Inc.	116.77	2600-55190-403255	Inv 71811350
06/03/2013	766287	Ingram Library Services Inc.	25.94	2600-55190-403333	Inv 71811350
06/03/2013	766287	Ingram Library Services Inc.	8.99	2600-55110-407930	Inv 17811351
06/03/2013	766290	Istate Truck, Inc.	140,044.00	5410-31220-409420	Roll off truck for Solid Waste replace SW0115
06/03/2013	766290	Istate Truck, Inc.	138,729.00	5410-31220-409420	Rolloff truck for Solid Waste replace SW0118
06/03/2013	766299	Knife River (JTL Group Inc.)	1,792.20	2110-31320-404710	asphalt at 1123 N23rd
06/03/2013	766299	Knife River (JTL Group Inc.)	294.06	2110-31320-404710	asphalt for glenwood/8th S & S28th
06/03/2013	766299	Knife River (JTL Group Inc.)	9,644.82	2110-31320-404710	asphalt on mountainview blvd
06/03/2013	766311	Mailing Technical Services	292.26	5210-15210-403110	parking - special inserts only
06/03/2013	766311	Mailing Technical Services	137.80	0100-15120-403110	Finance
06/03/2013	766311	Mailing Technical Services	4,464.38	6050-15150-403110	Postage Fund (weekly bills)
06/03/2013	766311	Mailing Technical Services	124.80	0100-12200-403110	Court - special mailing

06/03/2013	766314	Midland Implement Co Inc	159,298.00	6400-51600-409440	Two Toro model year 16' foot width wide area rotary mowers.
06/03/2013	766314	Midland Implement Co Inc	60.13	2110-31320-402320	709357001
06/03/2013	766314	Midland Implement Co Inc	97.28	2110-31320-402320	709357002
06/03/2013	766314	Midland Implement Co Inc	208.47	0100-51120-402320	712142001
06/03/2013	766316	Montana Dakota Utilities Co	3,900.33	5120-84000-403440	2937801000 2
06/03/2013	766316	Montana Dakota Utilities Co	7,800.65	5120-84000-403440	2937801000 2
06/03/2013	766316	Montana Dakota Utilities Co	3,900.33	5120-84000-403440	2937801000 2
06/03/2013	766316	Montana Dakota Utilities Co	198.72	1500-22210-403440	5336531000 1
06/03/2013	766316	Montana Dakota Utilities Co	24.29	5120-85000-403440	7354531000 2
06/03/2013	766316	Montana Dakota Utilities Co	17.54	4280-65900-409180	MDU Account #672 290 1000 3 / 502 S 33rd Street Irma House II
06/03/2013	766316	Montana Dakota Utilities Co	58.79	5020-74000-403440	0104901000 0
06/03/2013	766316	Montana Dakota Utilities Co	12.77	5020-74000-403440	1104901000 9
06/03/2013	766316	Montana Dakota Utilities Co	89.67	5020-74000-403440	2104901000 8
06/03/2013	766316	Montana Dakota Utilities Co	394.58	5020-73140-403440	3104901000 7
06/03/2013	766316	Montana Dakota Utilities Co	131.52	5120-83140-403440	3104901000 7
06/03/2013	766316	Montana Dakota Utilities Co	125.54	5020-73140-403440	4104901000 6
06/03/2013	766316	Montana Dakota Utilities Co	41.84	5120-83140-403440	4104901000 6
06/03/2013	766316	Montana Dakota Utilities Co	865.23	5020-74000-403440	5004901000 7
06/03/2013	766316	Montana Dakota Utilities Co	17.79	5020-74000-403440	5104901000 5
06/03/2013	766316	Montana Dakota Utilities Co	23.47	5020-74000-403440	5669231000 8
06/03/2013	766316	Montana Dakota Utilities Co	7.94	5020-74000-403440	6004901000 6
06/03/2013	766316	Montana Dakota Utilities Co	7.95	5020-74000-403440	6004901000 6
06/03/2013	766316	Montana Dakota Utilities Co	10.87	5020-74000-403440	6104901000 4
06/03/2013	766316	Montana Dakota Utilities Co	20.93	5020-74000-403440	6669231000 7
06/03/2013	766316	Montana Dakota Utilities Co	55.00	5020-74000-403440	7004901000 5
06/03/2013	766316	Montana Dakota Utilities Co	262.57	5020-74000-403440	9004901000 3
06/03/2013	766316	Montana Dakota Utilities Co	906.02	6500-15660-403440	9897331000 0
06/03/2013	766316	Montana Dakota Utilities Co	67.19	0100-51410-403440	0378901000 0
06/03/2013	766316	Montana Dakota Utilities Co	26.07	0100-51120-403440	3711011000 6
06/03/2013	766316	Montana Dakota Utilities Co	23.69	5020-74000-403440	8004901000 4
06/03/2013	766316	Montana Dakota Utilities Co	31.11	0100-51410-403440	9278901000 3
06/03/2013	766316	Montana Dakota Utilities Co	23.04	0100-51260-403440	0619431000 6
06/03/2013	766316	Montana Dakota Utilities Co	160.66	6500-15660-403440	1307331000 8
06/03/2013	766316	Montana Dakota Utilities Co	286.90	1500-22210-403440	4421901000 4

06/03/2013	766316	Montana Dakota Utilities Co	14.65	5020-74000-403440	5270331000 4
06/03/2013	766316	Montana Dakota Utilities Co	207.51	2600-55120-403440	5797801000 7
06/03/2013	766316	Montana Dakota Utilities Co	909.79	6500-15660-403440	7576331000 2
06/03/2013	766316	Montana Dakota Utilities Co	152.47	5410-31230-403440	7703901000 2
06/03/2013	766316	Montana Dakota Utilities Co	25.54	5120-85000-403440	8685631000 7
06/03/2013	766316	Montana Dakota Utilities Co	276.67	6500-15660-403440	9937331000 4
06/03/2013	766319	Montana State Fireman's Assoc	2,818.44	9000-00000-209924	Payroll Summary
06/03/2013	766321	Morrison Maierle Inc	90,117.88	4210-85930-409340	WO1205 5-Mile Creek Lift Station; WO 12-16 IWPI Water Distribution System Study
06/03/2013	766321	Morrison Maierle Inc	12,139.03	5020-72110-403540	
06/03/2013	766328	NorthWestern Energy	366.49	6600-31100-403410	Electricity
06/03/2013	766328	NorthWestern Energy	549.74	6700-31410-403410	Electricity
06/03/2013	766328	NorthWestern Energy	1,438.06	5210-15910-403410	15696362
06/03/2013	766328	NorthWestern Energy	163.78	1500-21150-403410	19841501
06/03/2013	766328	NorthWestern Energy	277.20	1500-21150-403410	19841550
06/03/2013	766328	NorthWestern Energy	8.18	2110-31320-403410	20470191
06/03/2013	766328	NorthWestern Energy	145.09	5210-15950-403410	2128319-7
06/03/2013	766328	NorthWestern Energy	6,351.95	6500-15670-403410	01005073
06/03/2013	766328	NorthWestern Energy	542.48	1500-22210-403410	07125370
06/03/2013	766328	NorthWestern Energy	94.83	0100-51220-403410	07126832
06/03/2013	766328	NorthWestern Energy	23.69	5710-71480-403410	07127640
06/03/2013	766328	NorthWestern Energy	371.06	5210-15950-403410	07208291
06/03/2013	766328	NorthWestern Energy	283.69	1500-22210-403410	07208408
06/03/2013	766328	NorthWestern Energy	1,157.04	5020-74000-403410	07222524
06/03/2013	766328	NorthWestern Energy	3,179.61	5020-74000-403410	07230436
06/03/2013	766328	NorthWestern Energy	7.40	0100-51120-403410	08317026
06/03/2013	766336	Public Utilities	56.01	8720-51980-403420	490833852
06/03/2013	766336	Public Utilities	319.01	8720-51980-403420	8934540476600
06/03/2013	766336	Public Utilities	48.20	8720-51980-403420	14662318478
06/03/2013	766336	Public Utilities	151,730.69	8050-15700-405350	6712510003200
06/03/2013	766336	Public Utilities	401.61	5120-85000-403420	671274846
06/03/2013	766336	Public Utilities	150.01	2110-31320-403420	671294847
06/03/2013	766337	Qwest Communications	88.84	5610-71100-403450	Qwest 406-252-9412 Airport
06/03/2013	766337	Qwest Communications	45.67	5710-71410-403450	Qwest 406-254-7038 MET Transit
06/03/2013	766337	Qwest Communications	7,292.32	2250-22320-403450	Qwest 406-255-9700 E911
06/03/2013	766337	Qwest Communications	44.42	1500-22250-403450	Qwest 406-655-0728 Fire Maintenance Shop
06/03/2013	766337	Qwest Communications	29.80	0100-51120-403450	Qwest 406-657-3014 Parks 3890 Stillwater

06/03/2013	766337	Qwest Communications	3,308.87	6060-19310-403450	Qwest 406-657-8377 Main System Centrex
					Qwest 406-657-3009 PUD Measured Lines
06/03/2013	766337	Qwest Communications	92.40	6060-19310-403450	406-657-3009 406-247-8579
06/03/2013	766337	Qwest Communications	29.80	6060-19310-403450	Qwest 406-657-3054 Park 1 Elevator Phone
06/03/2013	766345	Rimrock Foundation	3,878.82	2460-12530-403590	Drug Court reimbursement.April 2013
06/03/2013	766345	Rimrock Foundation	3,842.59	7380-12640-403560	SAMHSA.April 2013
06/03/2013	766345	Rimrock Foundation	3,645.67	7380-12640-403590	SAMHSA.April 2013
06/03/2013	766345	Rimrock Foundation	655.93	7380-12640-403990	SAMHSA.April 2013
06/03/2013	766345	Rimrock Foundation	3,411.64	7380-12660-403590	SAMHSA.April 2013
06/03/2013	766345	Rimrock Foundation	3,380.39	7380-12660-403590	SAMHSA.April 2013
06/03/2013	766371	Town & Country Supply Association	1,013.82	0100-51420-402310	T&C inv#107588 052113 322gal diesel
06/03/2013	766371	Town & Country Supply Association	335.53	1500-22260-402310	107600 FIRE1: UNLEADED FUEL DELIVERED ON 5/22/2013
06/03/2013	766371	Town & Country Supply Association	283.37	1500-22260-402310	107601 FIRE1: DYED DIESEL DELIVERED ON 5/22/2013
06/03/2013	766371	Town & Country Supply Association	667.48	1500-22260-402310	107602 FIRE3: DYED DIESEL DELIVERED 5/22/2013
06/03/2013	766371	Town & Country Supply Association	73.82	1500-22260-402310	107603 FIRE5: UNLEADED FUEL DELIVERED 5/22/2013
06/03/2013	766371	Town & Country Supply Association	850.10	1500-22260-402310	107604 FIRE5: DYED DIESEL DELIVERED 5/22/2013
06/03/2013	766371	Town & Country Supply Association	434.51	1500-22260-402310	107605 FIRE6: DYED DIESEL DELIVERED 5/22/2013
06/03/2013	766371	Town & Country Supply Association	-0.01	1500-22260-402310	DECIMAL POINT CORRECTION FUEL 5/22/2013
06/03/2013	766371	Town & Country Supply Association	13,653.60	6010-00000-141000	107059 PO NUM 292766
06/03/2013	766371	Town & Country Supply Association	23,613.75	6010-00000-141000	104167 PO NUM 292768
06/03/2013	766372	Tractor & Equipment Co.	4,151.06	5410-31230-402320	BLW00139085
06/03/2013	766372	Tractor & Equipment Co.	809.20	5410-31230-402320	BLW00139216
06/03/2013	766372	Tractor & Equipment Co.	2,136.06	5410-31230-402320	filters for units at landfill
06/03/2013	766372	Tractor & Equipment Co.	140.58	5410-31230-402320	filter cap for unit at lanfill
06/03/2013	766376	USDA APHIS	3,893.09	5610-71130-403590	Invoice #BD13-7330-003. Services for USDA to assist with fulfilling wildlife program as per FAA requirements.

06/03/2013	766378	WatchGuard Video	3,995.00	1500-21120-402442	4RE-100-GPS-ZOM, 4RE In-Car Camera System, includes GPS, high definition zoom (720P) forward facing camera, infrared color cabin camera, DVR, integrated 100GB automotive grade hard drive, 16GB USB removable thumb drive, cabin microphone, 900 Mhz Hi Fidelity wireless microphone, hardware & cabling, 1 yr warranty, includes evidence library express software ($1,000 discount per Steve Teese)
06/03/2013	766378	WatchGuard Video	25.00	1500-21120-402442	Shipping
06/03/2013	766378	WatchGuard Video	200.00	1500-21120-402442	4RE,WRL-KIT-05G, 4RE In-Car 802.11n wireless kit, 5GHz (2.4GHZ is available)
06/03/2013	766385	Yellowstone Electric Co	7,883.07	2110-31320-403590	boring for street light

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Zone Change 910 - Public Hearing and 1st Reading
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

This is a zone change request from Residential Manufactured Home (RMH) to Highway Commercial (HC) on Lots 10 and 11, Block 5, of Wanigan Subdivision, a 22,082 square foot parcel of land. The property is owned by Gerald Watson (The Paint Doctor) and the agent is Darryl Wilson of River Crossing Real Estate. The property is used as a fenced storage yard for the Paint Doctor business at 1005 Main Street. The owners conducted a pre-application neighborhood meeting on April 16, 2013. The pre-application meeting notes are included as Attachment C. The Zoning Commission conducted a public hearing on June 4, 2013, and is forwarding a recommendation of approval on a 3 to 0 vote.

ALTERNATIVES ANALYZED

State law at Section 76-2-304, MCA, requires that all zone changes be reviewed in accordance with 10 criteria. Using the 10 criteria to determine the appropriateness of the zone change request, the City Council may:
1. Approve the zone change request
2. Deny the zone change request
3. Allow withdrawal of the application
4. Delay action for up to thirty (30) days

FINANCIAL IMPACT

There should be minimal impact to the city's tax base from the proposed zone change. The zone change will change the fees assessed for arterial construction and storm water since these are based on the zoning of property and not the use of property. The zone change will add stability to this commercial property by conforming the zoning to the existing use.

BACKGROUND

The applicant is requesting to rezone 2 parcels located generally east of 1005 Main Street. The lots have frontage on Shawnee Drive but the majority of the access to the property is from the Paint Doctor at 1005 Main Street. The business uses these lots for storage of vehicles and parts for the business. The original zoning, RMH, is still in place for these lots east of Main Street. In 2012, TireRama received a similar zone change for property at 1001 Main Street and 2 lots east of the main business on Shawnee Drive.

In 1979, the main Paint Doctor property was re-zoned from RMH to HC to allow an existing automotive repair shop to be in conformance with zoning. The applicant would like to bring the existing storage lots into conformance with the zoning. There is a permanent easement between the Main Street property and the Shawnee Drive property for BBWA irrigation water. No structures may be built over the easement. The Wanigan Subdivision is one of the oldest subdivisions in Billings Heights and includes residential and commercial lots. The streets have not been paved but water and sewer services are provided by the city. The property to the north is the vacant parking lot for the former Circle Inn. Lee Steffanich also has a residence on this property to the east of Main Street. The former Circle Inn, located just north of the subject property, has been re-developed for an Auto Zone business. The former Circle Inn golf course is developing as personal mini-storage warehouses. The lots to the south are zoned HC and are vacant. The property to the west across Main Street is zoned HC and supports the Town and Country Plaza, a multi-tenant commercial development. Main Street is an arterial street and state-maintained route that connects I-90 with communities north and east of Billings. The current volume of traffic on Main Street averages 36,880 vehicle trips per day. There should be no impact on Main Street traffic from the re-zoning since the commercial business exists and the storage area on the two lots is already in use.

The zoning code requires any new commercial development or significant re-development to provide screening and buffering when the property is within 50 feet of a residential use or residential zone. If the property is fully re-developed, the owner will be required to fully screen the storage from the adjacent residences on Shawnee Drive. The lots on Shawnee Drive could be developed for other uses allowed in the HC zone however, given the location on an unpaved street without direct arterial street access, the development potential is limited.

The Billings Heights Neighborhood Plan indicates the property between Main Street and Bench Boulevard should develop with a mixture of uses including commercial, retail and higher density residential uses. The 2008 Growth Policy encourages the location of commercial uses at intersections of arterial streets to avoid “stripping” commercial zones narrowly along arterial streets. The practice of commercial strip zoning is evident in the traffic congestion and accessibility problems along Main Street, Grand Avenue, and 24th Street West. The proposed HC zoning for these 2 lots will allow the use to continue and for re-development to occur in the future. The current use will become a conforming use.

The HC zone requires a maximum building height of 45 feet and a front property line minimum setback of 20 feet. The arterial street setback is 60 feet to the centerline of the right-of-way for any new building and 50 feet from the centerline for any required parking. It appears the existing Paint Doctor building at 1005 Main Street meets the required setbacks, lot coverage and building height for the zoning district. It is nonconforming to the site development standards for landscaping (none), and screening of solid waste and storage areas (none). These nonconformities may continue unless the property is redeveloped or the building is expanded by more than 25% of its existing area. The applicant conducted a pre-application neighborhood meeting on April 16, 2013. No surrounding owners attended the meeting and the Planning Division staff did not receive any communication from the surrounding owners prior to the Zoning Commission hearing. The 2006 Heights Neighborhood Plan states the purpose of the plan is to guide the long-term growth of Billings Heights. A preferred land use map was developed locating and encouraging the retention of most commercial uses along Main Street and to locate a mixture of uses between Main Street and the parallel streets of Lake Elmo Drive and Bench Boulevard. The 2008 Growth Policy encourages the compatibility of adjacent zoning to new zoning especially in established neighborhoods. The proposed zoning is compatible with the adjacent zoning and existing land uses.

STAKEHOLDERS

The Zoning Commission conducted a public hearing on June 4, 2013, and received the staff recommendation and testimony from the agent, Darryl Wilson of River Crossing Real Estate. No other testimony was received. The Zoning Commission voted 3 to 0 to recommend approval of Zone Change #910.

CONSISTENCY WITH ADOPTED POLICIES OR PLANS

The Planning Division reviewed the application and recommended approval to the Zoning Commission based on the ten (10) criteria for zone changes. The Zoning Commission concurred with this recommendation. The subject property is adjacent to commercial uses to the north, south, and west. Uses allowed in the HC zoning are compatible with the surrounding zoning and neighborhood character. Some uses in the HC zone would only be allowed by special review approval such as on-premise service of alcoholic beverages. Any development or re-development of the property requires compliance with the new zoning and the ability to meet site development requirements and traffic safety standards. The 2008 Growth Policy and the Billings Heights Neighborhood Plan encourage predictable land use decisions that are consistent with neighborhood character and land use patterns. The existing use and proposed zoning are consistent with this neighborhood and land use pattern.

Prior to making a decision on the proposed zone change, the City Council shall consider the following 10 criteria:

1. Is the new zoning designed in accordance with the Growth Policy? The proposed zone change is consistent with the following goals of the Growth Policy:

• **Predictable land use decisions that are consistent with neighborhood character and land use patterns. (Land Use Element Goal, page 6)** The proposed zoning would permit the existing commercial use to continue in conformity with the zoning. The two vacant lots on Shawnee Drive may add value to the tire shop by providing additional area for storage. The area along Main Street and the property adjacent to the east have been used for commercial purposes since the late 1970s. The proposed zoning is consistent with the neighborhood character and land use patterns between Main Street and Bench Boulevard. Development standards are in place to require screening, buffering, and mitigation of any potential conflicts with adjacent residential uses. The proposed zoning is compatible with the existing uses on Shawnee Drive and Radford Square.

• **More housing and business choices with each neighborhood. (Land Use Element Goal, page 6)** The existing zoning is restricted to residential uses. The proposed zoning will allow the retention of the commercial use on Main Street and re-development of the property in the future.

• **Business development and rejuvenation in the Heights.(Economic Development Goal, Page 8) T**he proposed zoning will allow continuation of an existing use and the re-use of land for new business development.

2. Is the new zoning designed to secure from fire and other dangers? The new zoning requires minimum setbacks, open and landscaped areas and building separations. The new zoning, as do all zoning districts, provides adequate building separations and density limits to provide security from fire and other dangers.

3. Whether the new zoning will promote public health, public safety and general welfare? Public health, safety and general welfare will be promoted by the proposed zoning. The nonconforming zoning discourages investment in the property.

4. Will the new zoning facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirements? Transportation: The proposed zoning may have some impact on the surrounding streets if the property is redeveloped in the future. A traffic impact study may be required depending on the development that is built on the property in the future. New development that generates 500+ new vehicle trips per day will require a Traffic Accessibility Study (TAS).

Water and Sewer: The City provides sewer to the property and water is provided by Billings Heights Water District. Schools and Parks: There should not be any impact to schools from the proposed zone change.

Fire and Police: The subject property is currently served by the city Public Safety Services.

5. Will the new zoning provide adequate light and air? The proposed zoning provides for sufficient setbacks to allow for adequate separation between structures and adequate light and air.

6. Will the new zoning effect motorized and non-motorized transportation? Traffic generation from a commercial site is dependent on the specific uses within the development. The site is currently developed and the change in zoning should not have any effect on existing traffic patterns.

7. Will the new zoning promote compatible urban growth? The new zoning does promote compatibility with urban growth. The new zoning will allow investment in the property, increasing property value over time.

8. Does the new zoning consider the character of the district and the peculiar suitability of the property for particular uses? The proposed zoning does consider the character of district and the suitability of the property for commercial uses including neighborhood and commuter service businesses.

9. Will the new zoning conserve the value of buildings? The existing commercial building and development will be conserved by the new zoning.

10. Will the new zoning encourage the most appropriate use of land throughout the City of Billings? The proposed zoning will permit a greater variety of uses on the property and is the most appropriate use of the property.

RECOMMENDATION

The Zoning Commission recommends approval of Zone Change #910 and adoption of the 10 criteria on a 3 to 0 vote.

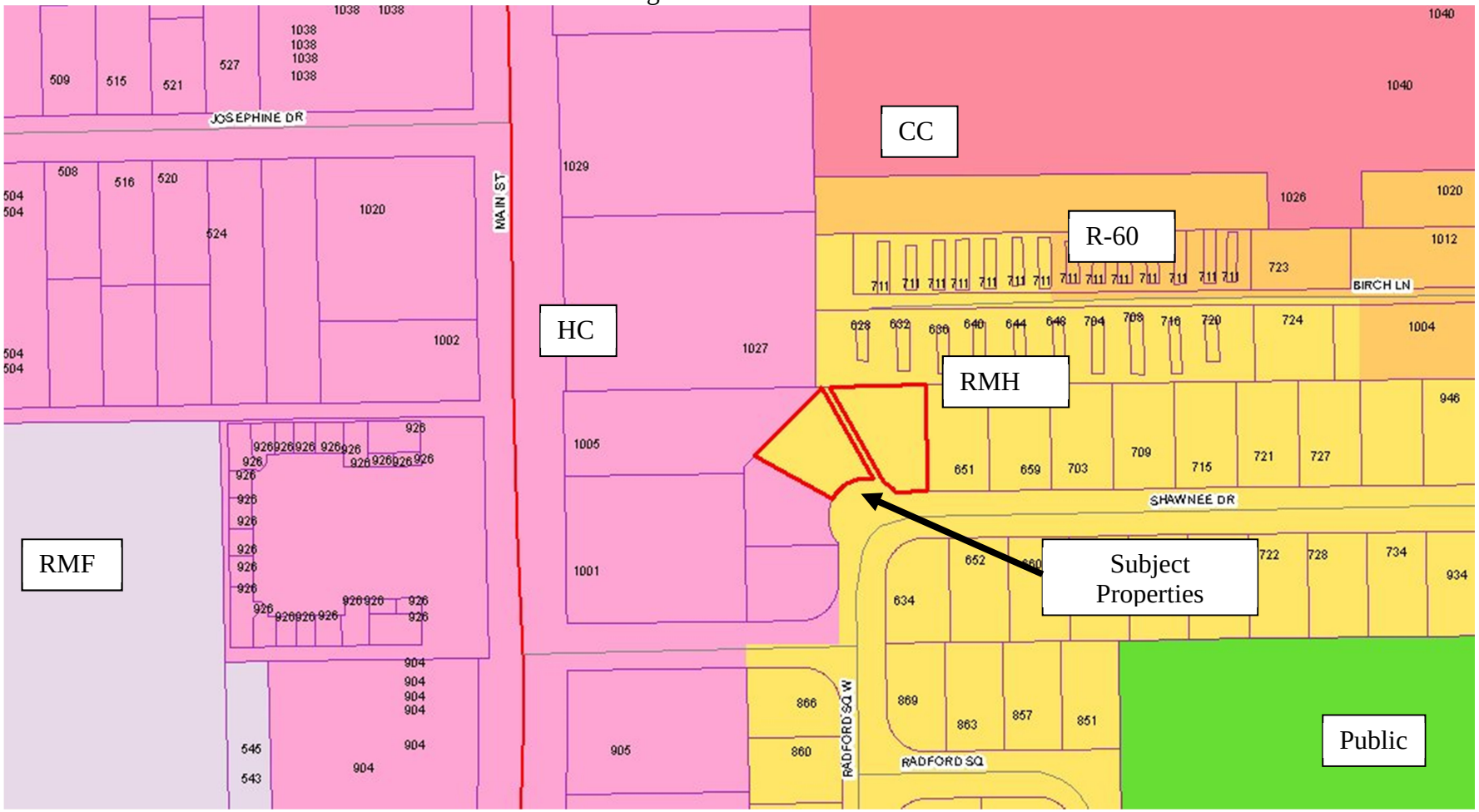
APPROVED BY CITY ADMINISTRATOR

Attachments

Zoning Map
Site Photos
Applicant Letter
Ordinance

Attachment A: Surrounding Zoning

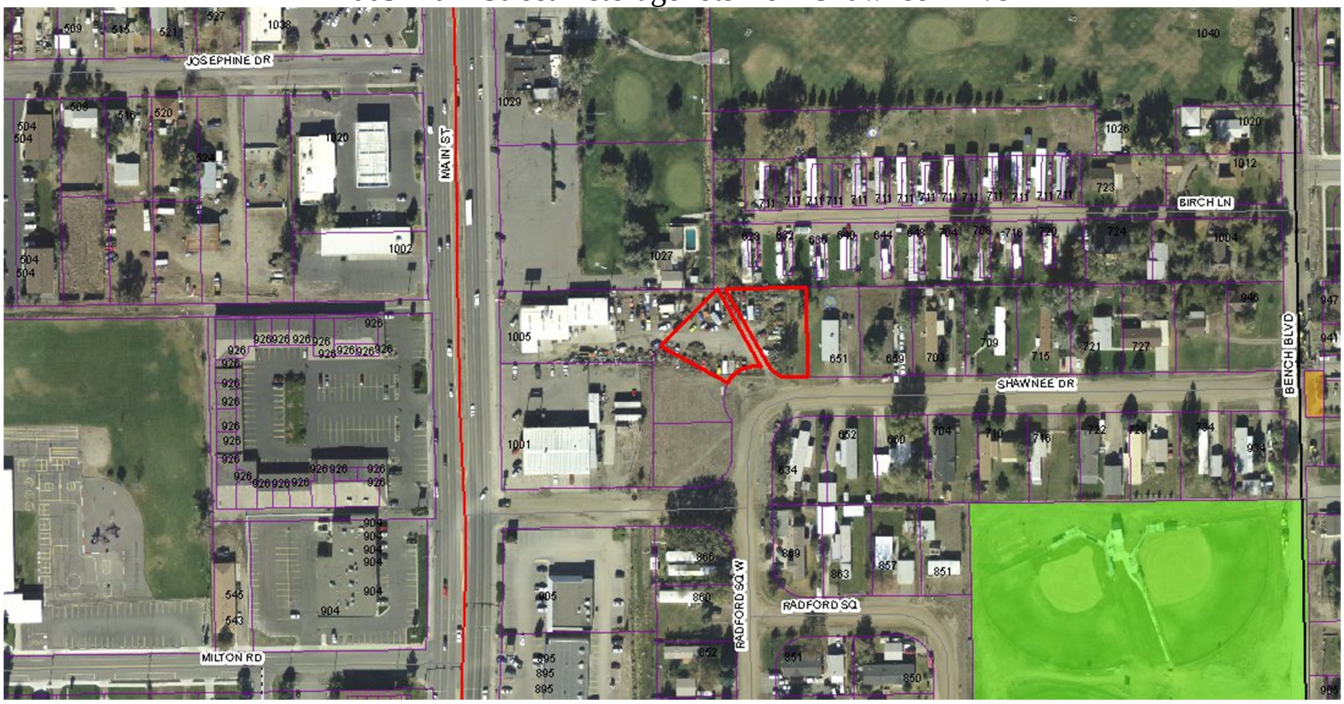
Zone Change #910 – 1005 Main Street



Attachment B

Site Photographs, Zone Change #910 – 1005 Main Street

1005 Main Street – storage lots from Shawnee Drive



Aerial Map

Attachment B, continued

Site Photographs, Zone Change #910 – 1005 Main Street

View north and west to Main Street from Shawnee Drive

View east on Shawnee Drive

Attachment B, continued

Site Photographs, Zone Change #910 – 1005 Main Street

View south and west along Shawnee Drive

View west to TireRama

Attachment C
Applicant's Letter

SUMMARY

ZONE CHANGE APPLICATION

CITY OF BILLINGS

OWNER:	Gerald W. Watson a/k/a The Paint Doctor 1005 Main Street Billings, MT 59101
LEGAL:	Lots 10, 11 and 16A, Block ~~6~~ 5, Wanigan Subdivision
TAX CODES:	A19443, A19437 & A19438
DESCRIPTION:	The subject property fronts on Main Street in the Billings Heights and has been used as a commercial enterprise for more than 20 years. The present use is an auto body and paint shop. Lot 16A, or the lot fronting on Main Street, is zoned Highway Commercial, whereas the remaining lots, 10A and 11, are zoned Residential Manufactured Homes.
NEIGHBORHOOD:	The neighborhood consists of Commercial and Residential use. The properties fronting on Main Street consist of Commercial and the remaining Neighborhood Residential. The adjacent neighbor to the south is Tire Rama which recently went through the same zone change on their Lots 12 and 13 of Block 5.
HISTORY:	The subject property has always been used for a commercial enterprise. The photos clearly indicate that Lots 10 and 11 have been fenced in and used as a storage yard as part of the historical use.
NEED:	The need for the zone change for Lots 10 and 11 to Highway Commercial will bring some conformity to the existing use and enable future owners the ability to develop the full potential of this property.

PRE-APPLICATION STATEMENT

On April 16, 2013, we held a pre-application meeting at 6:00 p.m. at The Paint Doctor located at 1005 Main Street.

Attached are copies of the form letter and map sent to the landowners. There were two letters returned and those copies are attached.

I have also attached the original Sign-In Sheet of that meeting.

PLEASE SIGN IN

ZONE CHANGE PRE-APPLICATION MEETING

April 16, 2013 @ 6:00 p.m.
1005 Main Street, Billings, MT 59105
The Paint Doctor

NAME	ADDRESS
DARRYL S. WILSON River Crossing Real Estate. Representative.	404 N. 31ST ST. Suite 205 Billings, MT 59101.
Gerald W Watson	1005 main St Billings mt 59105
Kim Watson	1005 main St. Billings MT 59105

ORDINANCE NO. 13-_____

AN ORDINANCE AMENDING THE ZONE CLASSIFICATION FOR a 22,082 square foot parcel described as Lots 10 & 11, Block 5, Wanigan Subdivision generally located east of 1005 Main Street

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA:

1. RECITALS. *Title 76, Chapter 2, Part 3, MCA,* and *Sections 27-302 and 27-1502, BMCC,* provide for amendment to the City Zoning Map from time to time. The City Zoning Commission and staff have reviewed the proposed zoning for the real property hereinafter described. The Zoning Commission and staff have considered the ten (10) criteria required by Title 76, Chapter 2, Part 3, MCA. The recommendations of the Zoning Commission and staff have been submitted to the City Council, and the City Council, in due deliberation, has considered the ten (10) criteria required by state law.

2. DESCRIPTION That 22,082 square feet described as Lots 10 & 11, Block 5, Wanigan Subdivision is presently zoned **Residential Manufactured Home (RMH)** and is shown on the official zoning maps within this zone.

3. ZONE AMENDMENT. The official zoning map is hereby amended and the zoning for **the above described parcels** is hereby changed from **Residential Manufactured Home (RMH) to Highway Commercial (HC)** and from the effective date of this ordinance, shall be subject to all the rules and regulations pertaining to **Highway Commercial (HC)** as set out in the Billings, Montana City Code.

4. REPEALER. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

5. EFFECTIVE DATE. This ordinance shall be effective from and after final passage and as provided by law.

PASSED by the City Council on first reading June 24, 2013.

PASSED, ADOPTED AND APPROVED on second reading July 8, 2013.

CITY OF BILLINGS:

BY:_____
Thomas W. Hanel, Mayor

ATTEST:

BY: Cari Martin, City Clerk

Zone Change #910 – east of 1005 Main Street

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Zone Change 911 - Public Hearing and 1st reading
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

This is a zone change request from Neighborhood Commercial (NC) to Community Commercial (CC) on Lots 1 through 8, including Lots 6 & 7 as C/S 1716, Block 15 of Central Heights Subdivision, 5th Filing. The property is a 65,120 square foot parcel of land. The property is owned by Rimrock Mini-Mall, LLC and the agent is Marshall Phil, P.E., of Blueline Engineering. The property is currently developed and is the north units of the Rimrock Mini-Mall at 109 S 24th Street West. The owners conducted a pre-application neighborhood meeting on April 29, 2013. The pre-application meeting notes are included as Attachment C. The Zoning Commission conducted a public hearing on June 4, 2013, and is forwarding a recommendation of approval on a 3 to 0 vote.

ALTERNATIVES ANALYZED

State law at Section 76-2-304, MCA, requires that all zone changes be reviewed in accordance with 10 criteria. Using the 10 criteria to determine the appropriateness of the zone change request, the City Council may:
1. Approve the zone change request
2. Deny the zone change request
3. Allow withdrawal of the application
4. Delay action for up to thirty (30) days

FINANCIAL IMPACT

The city service fees for arterial construction and storm water will be adjusted to the new zoning if it is approved. The new fees will be higher than the current assessment for Neighborhood Commercial zoning districts. The property may increase in value over time resulting in a larger tax base for the area.

BACKGROUND

The applicant is requesting to rezone the north half of the Rimrock Mini-Mall from NC to CC to facilitate leasing spaces to a wider range of businesses. The property is fully developed and was rezoned from residential to NC in 1977. There is no intent to demolish and reconstruct a new building on the property but new tenants may remodel interior spaces. The property consists of 8 lots with frontage on S 24th Street West south of Eldorado Drive.

The current owners have refurbished the façade of the mini-mall in recent years. The primary access to the property is from S 24th Street at a signalized intersection with Mall Drive to the west. There are 2 additional non-signalized accesses from S 24th Street West, an access from Eldorado Drive, and an access from Pueblo Drive. To the east, the property is separated from a residential neighborhood by an alley. One block to the east is Central Heights Elementary School. Across S 24th Street West is the Rimrock Mall and K-mart. The property to the north is CC zoning and is developed for an Albertson's grocery, Pro Auto Sound, a Holiday gas station and convenience store, Ace Hardware, Jackpot Casino, Taco Bell, Midas Muffler, and Bob Smith car dealership.

The south half of the Rimrock Mini-Mall is zoned CC and there are numerous retail and service businesses within these buildings. Across S 24th Street West is the Rimrock Mall and K-mart. South 24th Street West is an arterial street that connects with several east-to-west arterials including King Avenue West to the south and Grand Avenue to the north. The current volume of traffic on S 24th Street West averages 24,230 vehicle trips per day (2013). There should be no impact on this traffic from the re-zoning since the commercial businesses exist and any new tenant would not generate excess traffic above current levels. The 2008 Growth Policy encourages the location of commercial uses at intersections of arterial streets to avoid "stripping" commercial zones narrowly along arterial streets. The practice of commercial strip zoning is evident in the traffic congestion and accessibility problems along Main Street, Grand Avenue, and 24th Street West. The strip zoning on 24th Street West has been in place since the 1970s.

The primary difference between the NC zone and the CC zone is the allowance for on-premise sales of alcoholic beverages for restaurants, bars and casinos. The CC zone also allows unlimited floor area for business while the NC zone generally limits floor area for a single tenant to 10,000 square feet or less. The CC zone allows warehousing and mini-storage. The CC zone allows a maximum building height of 45 feet and a front property line minimum setback of 20 feet. The arterial street setback is 60 feet to the centerline of the right-of-way for any new building and 50 feet from the centerline for any required parking. It appears the rows of parking that face S 24th Street West are within the arterial setback but the building does meet the required arterial setback. The site also appears to meet all other required zoning setbacks, building heights and lot coverage. The site does not meet the required landscaping for commercial developments. These nonconformities may continue unless the property is redeveloped or the building is expanded by more than 25% of its existing area.

The applicant conducted a pre-application neighborhood meeting on April 29, 2013. Two surrounding owners attended the meeting and the Planning Division staff did not receive any communication from the surrounding owners prior to the Zoning Commission hearing. The 2008 Growth Policy encourages the compatibility of adjacent zoning to new zoning especially in established neighborhoods. The proposed zoning is compatible with the adjacent zoning and existing land uses to the north, west and south. The location of an on-premise alcohol license would require a special review approval and a waiver of the 600-foot separation from the Central Heights Elementary School.

STAKEHOLDERS

The Zoning Commission conducted a public hearing on June 4, 2013, and received the staff recommendation and testimony from the applicant's agents, Marshall Phil of Blueline Engineering and Rob Veltkamp. No other testimony was received. The Zoning Commission is forwarding a recommendation of approval and adoption of the findings of the 10 criteria on a 3 to 0 vote.

CONSISTENCY WITH ADOPTED POLICIES OR PLANS

The Planning Division reviewed the application and recommended approval to the Zoning Commission based on the ten (10) criteria for zone changes. The Zoning Commission concurred with this recommendation. The subject property is adjacent to commercial uses to the north, south, and west. Uses allowed in the CC zoning are compatible with the surrounding zoning and neighborhood character on S 24th Street West. Some uses in the CC zone would only be allowed by special review approval such as on-premise service of alcoholic beverages. Any development or re-development of the property requires compliance with the new zoning and the ability to meet site development requirements and traffic safety standards. The 2008 Growth Policy encourages predictable land use decisions that are consistent with neighborhood character and land use patterns. The existing use and proposed zoning are consistent with this neighborhood and land use pattern.

Prior to any making a decision on the proposed zone change, the City Council shall consider the following 10 criteria:

1. Is the new zoning designed in accordance with the Growth Policy? The proposed zone change is consistent with the following goals of the Growth Policy:
• Predictable land use decisions that are consistent with neighborhood character and land use patterns. (Land Use Element Goal, page 6) The proposed zoning would permit the types commercial uses to expand from the current restricted zoning of NC to the uses allowed in CC. It appears the uses will be compatible with the neighborhood character. Certain uses would require special review approval of the City Council prior to locating on the property including alcohol licenses.

• More housing and business choices with each neighborhood. (Land Use Element Goal, page 6) The existing zoning is restricted to 10,000 square feet of floor area for each business and certain uses are not allowed. The proposed zoning will remove the floor area limitation and allow additional business choices in the area.

2. Is the new zoning designed to secure from fire and other dangers? The new zoning requires minimum setbacks, open and landscaped areas and building separations. The new zoning, as do all zoning districts, provides adequate building separations and density limits to provide security from fire and other dangers.

3. Whether the new zoning will promote public health, public safety and general welfare? Public health, safety and general welfare will be promoted by the proposed zoning. The different zoning districts for the single property create substantial difficulty for the owner to fill vacancies in the tenant spaces.

4. Will the new zoning will facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirement? Transportation: The proposed zoning may have some impact on the surrounding streets if the property is redeveloped in the future. A traffic impact study may be required depending on the development that is built on the property in the future. New development that generates 500+ new vehicle trips per day will require a Traffic Accessibility Study (TAS).

Water and Sewer: The City provides water and sewer to the property. Schools and Parks: There should not be any impact to schools from the proposed zone change.

Fire and Police: The subject property is currently served by the city Public Safety Services.

5. Will the new zoning provide adequate light and air? The proposed zoning provides for sufficient setbacks to allow for adequate separation between structures and adequate light and air.

6. Will the new zoning effect motorized and non-motorized transportation? Traffic generation from a commercial site is dependent on the specific uses within the development. The site is currently developed and the change in zoning should not have any effect on existing traffic patterns.

7. Will the new zoning will promote compatible urban growth? The new zoning does promote compatibility with urban growth. The new zoning will allow the owner to fill vacant space and will increase investment in the property.

8. Does the new zoning consider the character of the district and the peculiar suitability of the property for particular uses? The proposed zoning does consider the character of district and the suitability of the property for commercial uses including neighborhood and service businesses.

9. Will the new zoning conserve the value of buildings? The existing commercial building and development will be conserved by the new zoning.

10. Will the new zoning encourage the most appropriate use of land throughout the City of Billings? The proposed zoning will permit a greater variety of uses on the property and is the most appropriate use of the property.

RECOMMENDATION

The Zoning Commission recommends approval and adoption of the findings of the 10 criteria for Zone Change 911 on a 3 to 0 vote.

APPROVED BY CITY ADMINISTRATOR

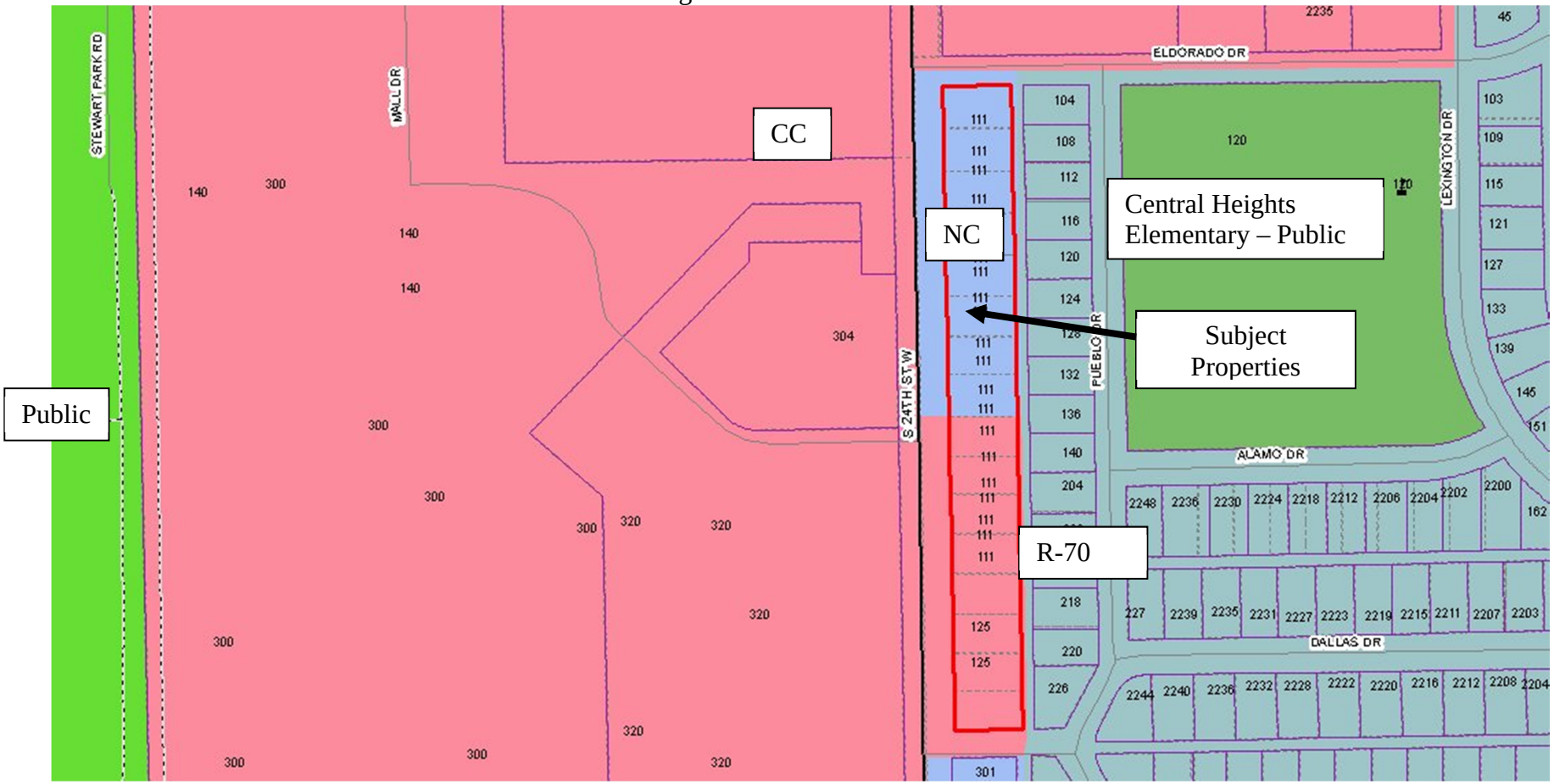
Attachments

Zoning Map

Site photos
Applicant Letter
Ordinance

Attachment A: Surrounding Zoning

Zone Change #911 – 109 S 24th Street West



Attachment B

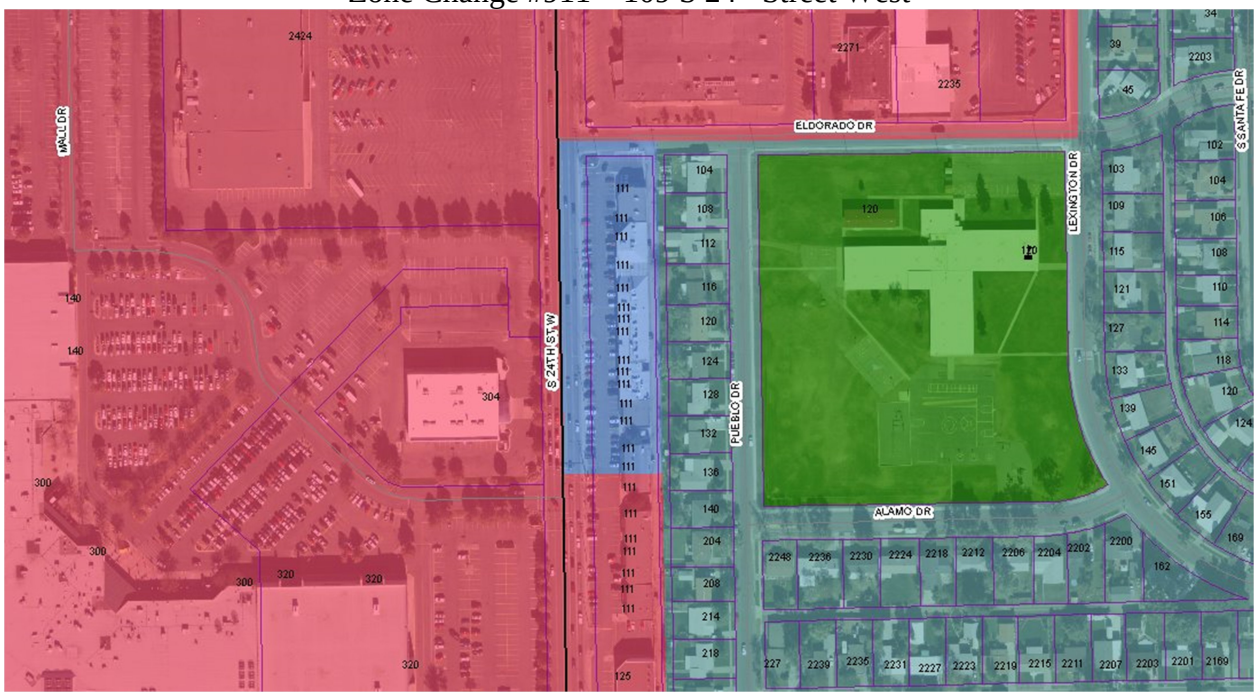
Zone Change #911 – 109 S 24th Street West

Subject property – intersection of Eldorado Drive and S 24th Street West

Aerial Map

Attachment B, continued

Zone Change #911 – 109 S 24th Street West



Aerial Map with zoning overlay

View east on Eldorado Drive

Attachment B, continued
Zone Change #911 – 109 S 24th Street West

View of north end of existing building

View south along S 24th Street West

Attachment B, continued

Zone Change #911 – 109 S 24th Street West

View north on S 24th Street West

View south and west to Rimrock Mall

Attachment C
Applicant's Letter

May 6, 2013

Planning & Community Services Division
4th Floor, Parmly Library
510 North Broadway
Billings, MT

To Whom it May Concern:

We are submitting this Zone Change Application for the property located at 111 S 24th St. West (Tax ID # A04891). The following paragraphs are in response to the questions found within the City Zone Change Application.

1. In what ways is your proposal consistent with the goals and policies of the adopted Growth Policy?

   The rezoning of this property supports the Growth Policy in the following ways:

   a. Land Use Element Goal #6 expresses the city's desire for more housing and business choices within each neighborhood. The rezoning of this portion of the mini-mall would allow for a slightly broader array of businesses to be present in the available suites. While 24th is a principal arterial, and primarily commercial, immediately adjacent neighborhoods could benefit from having a diverse selection of businesses nearby.

   b. Economic Development Element Goal #1 illustrates a need for coordinated economic development efforts that target business recruitment, retention, and expansion. Since the property is already partly zoned Neighborhood Commercial, completing the zoning to Community Commercial would encourage further development and variety of businesses to look at opening their doors in this area.

2. Explain your need for the intended zone change and why the property cannot be used under the existing zoning. Explain how the new zoning will fit in with the existing zoning and land uses of the immediate area.

The re-zoning of this lot to be entirely Community Commercial is essential to the owner's vision for this area. This zone change will complete the ability of the lot appeal to a more diverse group of business owners. This will also serve to make the zoning and use of the property consistent with that of the bulk of the property adjacent to and surrounding the property.

Additional information and materials specified within the Application forms are included in those forms and/or attached to this letter. We thank you very much for your continued support on this request, and for your consideration of our re-zoning application. Please feel free to contact me at (406) 294-2294 if you have any questions.

Sincerely,

Marshall Phil

Summary of Pre-Application Meeting

As required by the City of Billings rezoning policy, a pre-application meeting was held on Monday, April 29, 2013 in what used to be the Hawaiian Grill in the mini-mall on 24th St West. Marshall Phil of Blueline Engineering was present to field any questions from the attendees.

Two individuals attended the meeting and the conversation was conflict free. Concern that an adult bookstore or marijuana shop not be allowed, was expressed by one individual. The owner, Rob Veltcamp ensured that this was not the motivation for the zone change.

The meeting was focused primarily on information regarding the process of the zone change. One neighbor empathized that the zone change would be in the best interest of the owner.

Project Name Lot 1 Block 1 Central Heights Sub 5th

Job # 13097

Date 4-29-13

Sign In Sheet - Zoning Neighborhood Mtg.

blueline ENGINEERING
2110 Overland Avenue, Suite 119B | Billings, MT 59102
Work: 406-294-2294 | Fax: 406-294-2295

Name	Address	Phone
Marjean Narum	2248 Alamo Dr	656-1264
JERRY NARUM	2248 ALAMO.	656-1264

ORDINANCE NO. 13-_____

AN ORDINANCE AMENDING THE ZONE CLASSIFICATION FOR a 65,120 square foot parcel described as Lots 1 through 8, including Lots 6 & 7 as C/S 1716, Block 15 of Central Heights Subdivision, 5th Filing generally located at 109 S 24th Street West

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA:

1. RECITALS. *Title 76, Chapter 2, Part 3, MCA,* and *Sections 27-302 and 27-1502, BMCC,* provide for amendment to the City Zoning Map from time to time. The City Zoning Commission and staff have reviewed the proposed zoning for the real property hereinafter described. The Zoning Commission and staff have considered the ten (10) criteria required by Title 76, Chapter 2, Part 3, MCA. The recommendations of the Zoning Commission and staff have been submitted to the City Council, and the City Council, in due deliberation, has considered the ten (10) criteria required by state law.

2. DESCRIPTION That 65,120 square foot parcel described as Lots 1 through 8, including Lots 6 & 7 as C/S 1716, Block 15 of Central Heights Subdivision, 5th Filing is presently zoned **Neighborhood Commercial (NC)** and is shown on the official zoning maps within this zone.

3. ZONE AMENDMENT. The official zoning map is hereby amended and the zoning for **the above described parcels** is hereby changed from **Neighborhood Commercial (NC) to Community Commercial (CC)** and from the effective date of this ordinance, shall be subject to all the rules and regulations pertaining to **Community Commercial (CC)** as set out in the Billings, Montana City Code.

4. REPEALER. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

5. EFFECTIVE DATE. This ordinance shall be effective from and after final passage and as provided by law.

PASSED by the City Council on first reading June 24, 2013.

PASSED, ADOPTED AND APPROVED on second reading July 8, 2013.

CITY OF BILLINGS:

BY:_____
Thomas W. Hanel, Mayor

ATTEST:

BY: Cari Martin, City Clerk

Zone Change #911 – 109 S 24th Street West

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Zone Change 912 - Public Hearing and 1st reading
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

This is a zone change request from Residential 5,000 (R-50) and Public (P) to Residential Multi-family-Restricted (RMF-R) and Public (P) on portions of Lots 1A and 2A, Block 1, Western Sky Subdivision, west of the intersection of 44th Street West and south of King Avenue West. The property is owned by King Meadows, LLC and Pemberton LLC, and the agent is Marshall Phil, P.E., of Blueline Engineering. The owner conducted a pre-application neighborhood meeting on March 25, 2013. The pre-application meeting notes are included as Attachment C. The Zoning Commission conducted a public hearing on June 4, 2013, and is forwarding a recommendation of approval on a 3 to 0 vote.

ALTERNATIVES ANALYZED

State law at Section 76-2-304, MCA, requires that all zone changes be reviewed in accordance with 10 criteria. Using the 10 criteria to determine the appropriateness of the zone change request, the City Council may:
1. Approve the zone change request
2. Deny the zone change request
3. Allow withdrawal of the application
4. Delay action for up to thirty (30) days

FINANCIAL IMPACT

The city service fees for arterial construction and storm water will be adjusted based on the new zoning. These fees are higher than the current fees for R-50 zoning. New development will add to the property value which will increase the city's tax base in this area.

BACKGROUND

The applicant is requesting to rezone approximately 12 acres in portions of Lots 1A and 2A of Western Sky Subdivision. The property was annexed and zoned in 2007 but the subdivision has remained undeveloped for the past 5 years. The preliminary subdivision that matches the approved zoning (King Meadows) has not been submitted for final approval. The original partnership has dissolved and each owner now controls separate lots in the original subdivision.

A zone change for the northern half of the lots from R-50 to RMF-R was approved in August 2012 to facilitate the construction of multi-family apartments similar to those recently constructed in Lenhardt Square, north of King Avenue West and in Montana Sapphire, which is east of this location. The original zoning for the property was to confine the multi-family dwellings to the King Avenue West frontage. The proposed zone change will extend the multi-family zoning further to the south to increase the area for multi-family dwellings in addition to consolidating the Public zoning to a centrally located 5-acre parcel. The existing R-50 zoning allows single family and two-family dwellings. South 44th Street West will provide the primary access to the site until the next phase or phases of the subdivision are developed. South 44th Street West is a designated collector street on the Billings Urban Area Transportation Plan Functional Classification Map. The portion of the street north of King Avenue West is the first access drive into Lenhardt Square Subdivision. Shiloh Road and King Avenue West are principal arterial streets that have the capacity to handle additional traffic from development within this subdivision. Shiloh Road carries approximately 8,890 vehicle trips per day at this location and King Avenue West carries 8,000 vehicles per day west of Shiloh Road.

The RMF-R zone allows a maximum building height of 40 feet and a front and rear property line minimum setback of 15 feet. The maximum density of dwelling units in the RMF-R zone is 26 units per acre. This is not the typical development density in this area with multi-family zoning. Site development for driveways, access roads, landscaping, building setbacks and off-street parking results in a density of about 14 to 16 units per acre, or about 192 dwelling units on the area proposed to be changed from R-50 to RMF-R. The existing density in the R-50 zone is 10 dwelling units per acre. However, the existing apartments under construction on Lot 1A are developing at 21 units per acres, closer to the maximum density in the RMF-R zone. At this development density, the additional 12 acres will result in 252 dwelling units.

The applicant conducted a pre-application neighborhood meeting on March 25, 2013. Three surrounding property owners attended and asked questions about potential access to the utility lines the developer would extend for the new development. A synopsis of the meeting and list of attendees is in Attachment C. No surrounding property owners contacted the Planning Division staff prior to the Zoning Commission public hearing.

The West Billings Neighborhood Plan adopted by the City in 2001 states the purpose of the plan is to guide the long-term growth of West Billings by achieving planned growth. A preferred land use map was developed locating neighborhood, community and regional commercial nodes at major arterial intersections. One of the intersections is Shiloh Road and King Avenue West, located east of the subject property and a regional commercial center has been designated from King Avenue West south to I-90. The completion of the Shiloh Road improvements in 2010 has helped spur development along the corridor from the interstate to King Avenue West. The West Billings Neighborhood Plan indicates higher density housing and professional office space is the preferred land use between arterial street intersections. The existing RMF-R zone that borders King Avenue West conforms to the West Billings Neighborhood Plan and the extension of this zoning is also in conformance with the plan. The proposed RMF-R zone is compatible with the all the surrounding zoning.

STAKEHOLDERS

The Zoning Commission conducted a public hearing on June 4, 2013, and received the staff recommendation and testimony from the applicant's agent, Marshall Phil of Blueline Engineering. No other testimony was received. The Zoning Commission is recommending approval of the zone change and adoption of the findings of the 10 criteria for Zone Change 912 on a 3 to 0 vote.

CONSISTENCY WITH ADOPTED POLICIES OR PLANS

The Planning Division reviewed the application and recommended approval based on the ten (10) criteria for zone changes. The Zoning Commission concurred with this recommendation. The subject property is adjacent to multi-family zoning to the north and the Lenhardt Square Planned Development includes multi-family zoning and mixed uses along the King Avenue West street frontage. Zoning to the west is R-50 but is undeveloped. The R-50 zone allows a similar development density (10 units per acre) but allows those units only as single or two-family structures. There is a planned street that separates the two zoning districts. The ELI zone and A-1 zone to the east are compatible with the proposed RMF-R zone. The ELI zone will require buffering and screening when developed. The existing substation in the A-1 zone was approved by special review of the County and requires landscaping and screening. The City is preparing to develop the West Billings Shiloh Conservation Area as a storm water and flood control project south of the substation. The uses allowed within RMF-R zoning are compatible with the surrounding zoning and neighborhood character. Any development of the property requires compliance with the new zoning and the ability to meet site development requirements and traffic safety standards. The 2008 Growth Policy and the West Billings Neighborhood Plan encourage predictable land use decisions that are consistent with neighborhood character and land use patterns. The existing use and proposed zoning are consistent with this neighborhood and land use pattern.

Prior to any making a decision on the proposed zone change, the City Council shall consider the following 10 criteria:

1. Is the new zoning designed in accordance with the Growth Policy? The proposed zone change is consistent with the following goals of the Growth Policy: • Predictable land use decisions that are consistent with neighborhood character and land use patterns. (Land Use Element Goal, page 6) The proposed zoning would permit more land to be used for multi-family dwellings and this is consistent with the neighborhood character and the planned subdivision. The proposed zoning is compatible with the existing uses in Montana Sapphire Subdivision, Lenhardt Square and St. Vincent Healthcare Subdivision to the north.

• More housing and business choices with each neighborhood. (Land Use Element Goal, page 6) The existing zoning is restrictive of the types of housing available in the subdivision. The proposed zoning will allow more housing in the area including multifamily dwellings.

2. Is the new zoning designed to secure from fire and other dangers? The new zoning requires minimum setbacks, open and landscaped areas and building separations. The new zoning, as do all zoning districts, provides adequate building separations and density limits to provide security from fire and other dangers. The City Fire Department will ensure safe access to the site and provision for minimum fire flow to the new buildings.

3. Whether the new zoning will promote public health, public safety and general welfare? Public health and public safety will be promoted by the proposed zoning. Lower density subdivisions increase response times by police and emergency service providers. The proposed zoning will increase the availability and variety of housing options for Billings' residents and promote the general welfare.

4. Will the new zoning will facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirement? Transportation: The proposed zoning may have some impact on the surrounding streets, and a traffic impact study may be required depending on the development that is built on the property in the future. New development that generates 500+ new vehicle trips per day will require a Traffic Accessibility Study (TAS).

Water and Sewer: The City will be able to provide water and sewer to the property by extension of those utilities from King Avenue West. A new Zone 3 Water Reservoir will be built in the future to provide additional storage capacity.

Schools and Parks: There may be impact to schools from the proposed zone change since any residential development in the future could affect the schools in the area. The property is in the Elder Grove Elementary and Middle School District and in the West High District (SD #2).

Fire and Police: The subject property is currently served by the city Public Safety Services.

5. Will the new zoning provide adequate light and air? The proposed zoning provides for sufficient setbacks to allow for adequate separation between structures and adequate light and air.

6. Will the new zoning effect motorized and non-motorized transportation? Traffic generation from a multi-family development of less than 20 units per acre is approximately 8 trips per day per dwelling unit. The multifamily apartments under construction to the north will add about 1,584 vehicle trips per day to King Avenue West. This is about a 20% increase from the most recent traffic count numbers. The current traffic counts are based on a 3-year rolling average. A TAS will be needed to adequately address the motorized vehicle impact to King Avenue West and S 44th Street West. The TAS may require the developer to invest in traffic control improvements or participate with other land owners in improvements. The 2011 Bikeway and Trail Master Plan included a multi-use trail on the north side of King Avenue West. The new residents of this subdivision would need to cross King Avenue West to access this connector trail to the Shiloh Road Multi-Use Trail. Improvements to S 44th Street West will ensure access for pedestrians.

7. Will the new zoning promote compatible urban growth? The new zoning does promote compatibility with urban growth. Lower density development is inefficient and ineffective in recovering the costs to extend city services. Higher densities of development, such as the proposed zoning, will allow the city to grow in a better urban pattern and form.

8. Does the new zoning consider the character of the district and the peculiar suitability of the property for particular uses? The proposed zoning does consider the character of the district and the suitability of the property for multifamily uses. There are several existing and new multi-family developments in the area. The Growth Policy and the West Billings Neighborhood Plan both encourage higher density housing along arterials between major intersections to avoid the “strip commercial” development typical of older arterial streets in Billings. The increased traffic generation of a multi-family development will not impact existing neighborhoods and will have direct access to a collector street and an arterial street.

9. Will the new zoning conserve the value of buildings? Surrounding property exhibits higher taxable land value. The property is currently vacant and should increase in value when developed. There are no buildings on the subject property.

10. Will the new zoning encourage the most appropriate use of land throughout the City of Billings? The proposed zoning will permit denser development and allow more housing choices in the area. The surrounding development is compatible and this is the most appropriate use of the land.

RECOMMENDATION

The Zoning Commission recommends approval and adoption of the findings of the 10 criteria for Zone Change 912 on a 3 to 0 vote.

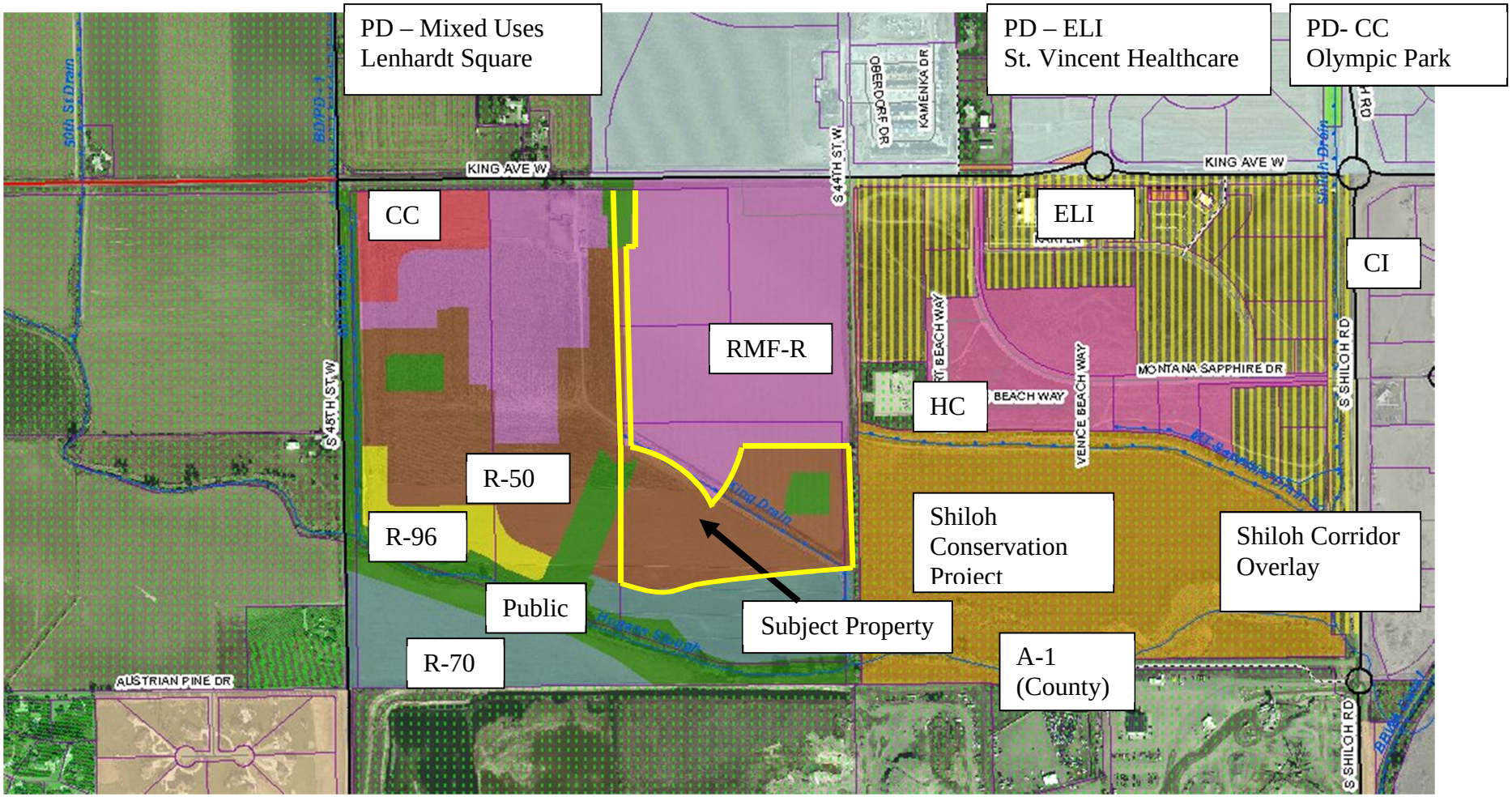
APPROVED BY CITY ADMINISTRATOR

Attachments

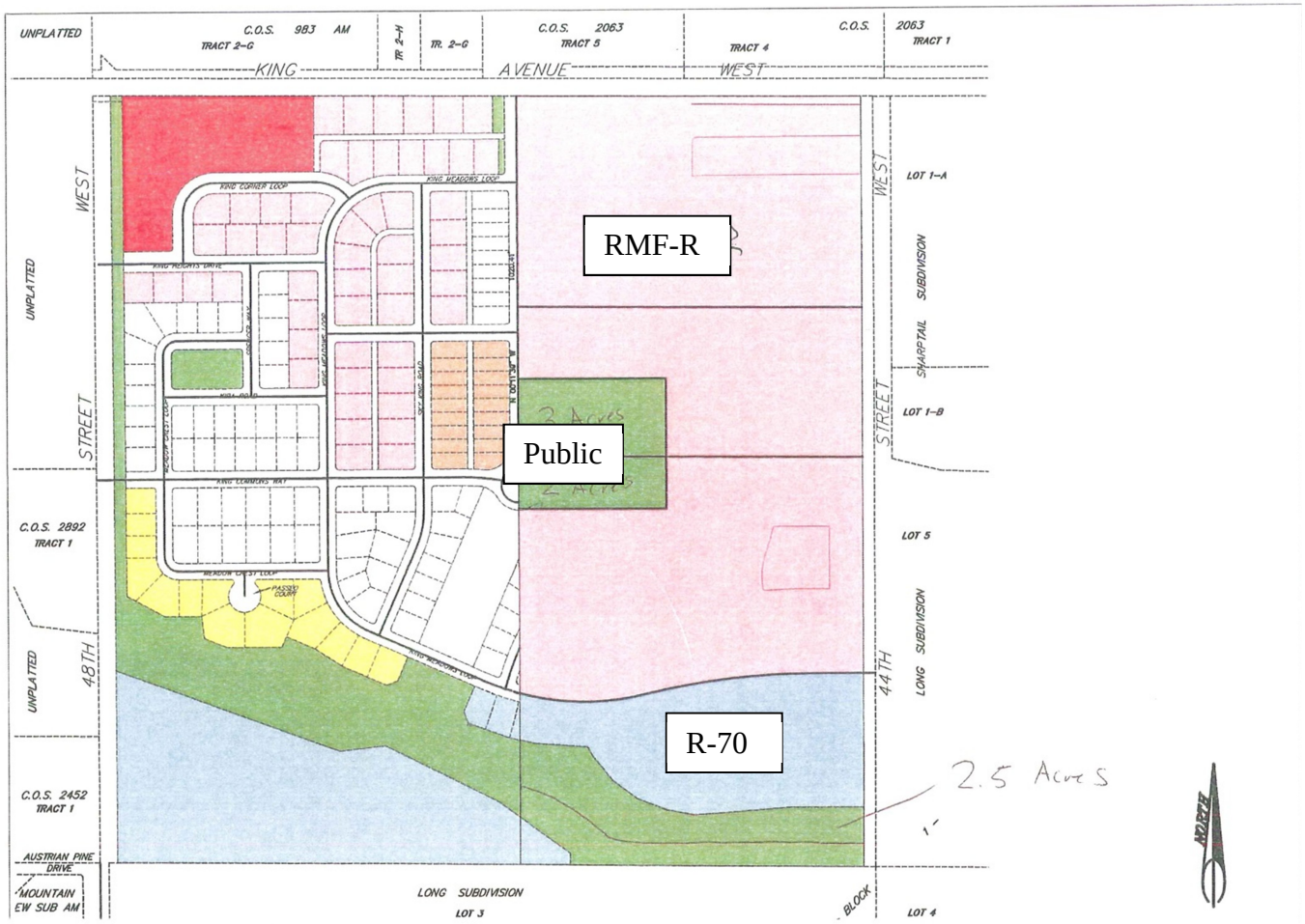
Zoning Map
Site photos
Applicant Letter
Ordinance

Attachment A: Surrounding Zoning

Zone Change #912 – Lots 1A and 2A Western Sky Subdivision



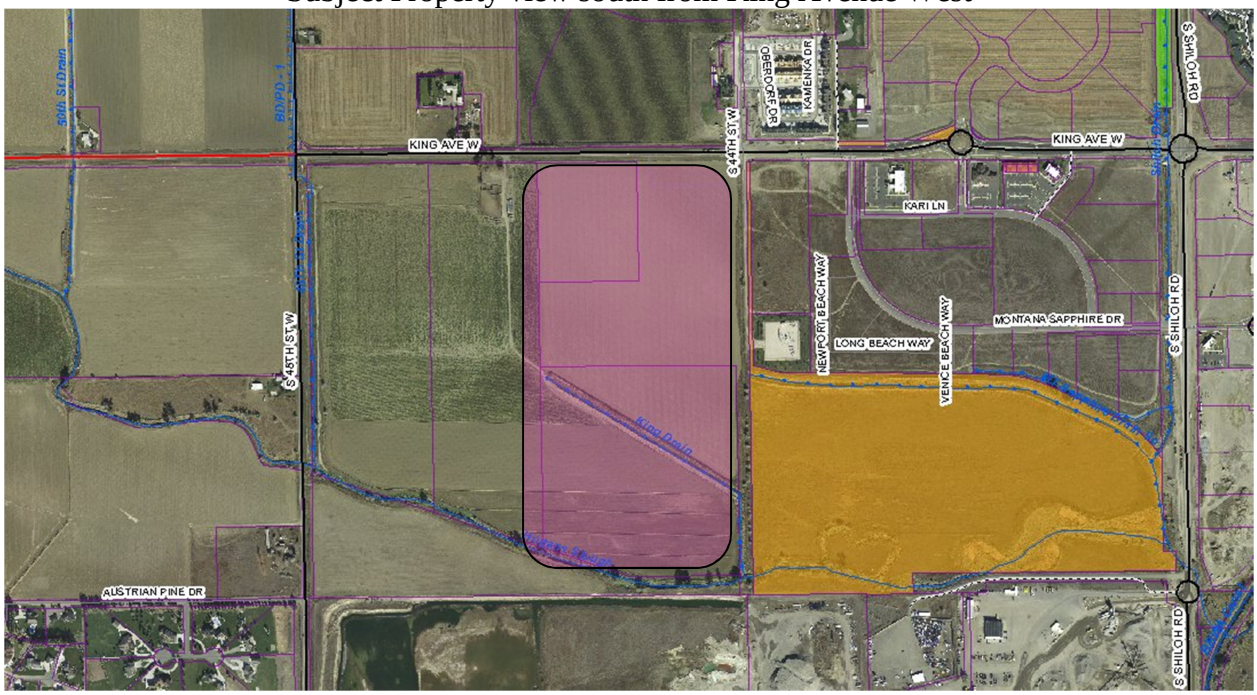
Attachment A: continued – Proposed Zoning
Zone Change #912 – Lots 1A and 2A Western Sky Subdivision



Attachment B

Zone Change #912 – Lots 1A and 2A Western Sky Subdivision

Subject Property view south from King Avenue West



Aerial Map

Attachment B, continued

Zone Change #912 – Lots 1A and 2A Western Sky Subdivision

View south and west from King Avenue West

View west along King Avenue West

Attachment B, continued

Zone Change #912 – Lots 1A and 2A Western Sky Subdivision

View north and east across King Ave West

View east along King Ave West

Attachment C
Applicant's Letter

May 6, 2013

Planning & Community Services Division
4th Floor, Parmly Library
510 North Broadway
Billings, MT

To Whom it May Concern:

We are submitting this Zone Change Application for Amended Plat of Lots 1 & 2 Block 1 Western Sky Subdivision (Tax ID # C15618 & C 15619). The following paragraphs are in response to the questions found within the City Zone Change Application.

1. In what ways is your proposal consistent with the goals and policies of the adopted Growth Policy?

   The rezoning of this property supports the Growth Policy in the following ways:

   a. Land use Element Goal #2 requests that new developments that are sensitive to and compatible with the character of adjacent City neighborhoods. The development completed in the north-east area of the subdivision, and the adjacent development to the north, are consistent with a RMF-R style development. The owner intends to see this Multi-family development throughout the remainder of the requested zone change.

   b. Land Use Element Goal #5 expresses the city's desire for more affordable housing for all income levels dispersed throughout the City and County. The rezoning of the remaining R-70 to RMFR, with its appropriate public space, will open up doors to allow more affordable housing to be constructed in this area. The north-eastern portion of the subdivision has already been shown to be an accommodating and attractive option for lower income families and individuals. This zone change would help further this opportunity.

c. Open Space and Recreation Element Goal #1 asks that rational consideration of neighborhoods for park expenditures be made. The owners of these lots have had conversations with the parks district and have agreed to develop the parks themselves. This would keep the new public zoning from having to be budgeted against maintaining the other city parks.

2. Explain your need for the intended zone change and why the property cannot be used under the existing zoning. Explain how the new zoning will fit in with the existing zoning and land uses of the immediate area.

   The existing zoning of the Amended Plat of Lots 1 & 2 Block 1 Western Sky Subdivision is based on a previous master plan. This master plan has since been revisited. The new plans do not fit into this original zoning map. There will be more public land dedicated than is required, 5 acres total, and it will be centralized to maximize the benefit for the new community. As previously stated, the development to the northwest, across King Avenue, consists of the same zoning and this development will be consistent with this neighboring community.

Additional information and materials specified within the Application forms are included in those forms and/or attached to this letter. We thank you very much for your continued support on this request, and for your consideration of our re-zoning application. Please feel free to contact me at (406) 294-2294 if you have any questions.

Sincerely,

Marshall Phil

Marshall Phil

Summary of Pre-Application Meeting

As required by the City of Billings rezoning policy, a pre-application meeting was held on Monday, March 25, 2013 in the model unit at 4305 Laguna Beach Unit 4. Will Ballew of Blueline Engineering was present to field any questions from the attendees.

Three individuals attended the meeting and the conversation was conflict free. Questions about how the property owners planned to extend sanitary sewer to service the lots, was the primary topic of conversation. The attendees were not concerned with the implications of a potential zone change. They were concerned about how they could utilize the extension of public utilities after the lots were developed.

The meeting was focused primarily on lot development, and how the surrounding owners could tie-in or take advantage of development being adjacent to their lots.

Pre-Application Neighborhood Meeting Sign-In Sheet

Property Owner	Address	Phone Number
Terrell & Barbara Krieg	3115 Sycamore Lane, Bzn	656 5329
Harbour Towne LP	PO Box 19, Melt MT 59057	406.690.6894 Jake

ORDINANCE NO. 13-_____

AN ORDINANCE AMENDING THE ZONE CLASSIFICATION FOR portions of Lots 1A and 2A, Block 1, Western Sky Subdivision generally located south of King Avenue West and west of 44th Street West

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA:

1. RECITALS. *Title 76, Chapter 2, Part 3, MCA,* and *Sections 27-302 and 27-1502, BMCC,* provide for amendment to the City Zoning Map from time to time. The City Zoning Commission and staff have reviewed the proposed zoning for the real property hereinafter described. The Zoning Commission and staff have considered the ten (10) criteria required by Title 76, Chapter 2, Part 3, MCA. The recommendations of the Zoning Commission and staff have been submitted to the City Council, and the City Council, in due deliberation, has considered the ten (10) criteria required by state law.

2. DESCRIPTION That portions of Lots 1A and 2A, Block 1 of Western Sky Subdivision are presently zoned **Residential 5,000 (R-50) and Public (P)** and are shown on the official zoning maps within these zones.

3. ZONE AMENDMENT. The official zoning map is hereby amended and the zoning for **the above described parcels** is hereby changed from **Residential 5,000 (R-50) and Public (P) to Residential Multi-family-Restricted (RMF-R) and Public (P) as shown on the attached Exhibit A** and from the effective date of this ordinance, shall be subject to all the rules and regulations pertaining to **Residential Multi-family-Restricted (RMF-R) and Public (P)** as set out in the Billings, Montana City Code.

4. REPEALER. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

5. EFFECTIVE DATE. This ordinance shall be effective from and after final passage and as provided by law.

PASSED by the City Council on first reading June 24, 2013.

PASSED, ADOPTED AND APPROVED on second reading July 8, 2013.

CITY OF BILLINGS:

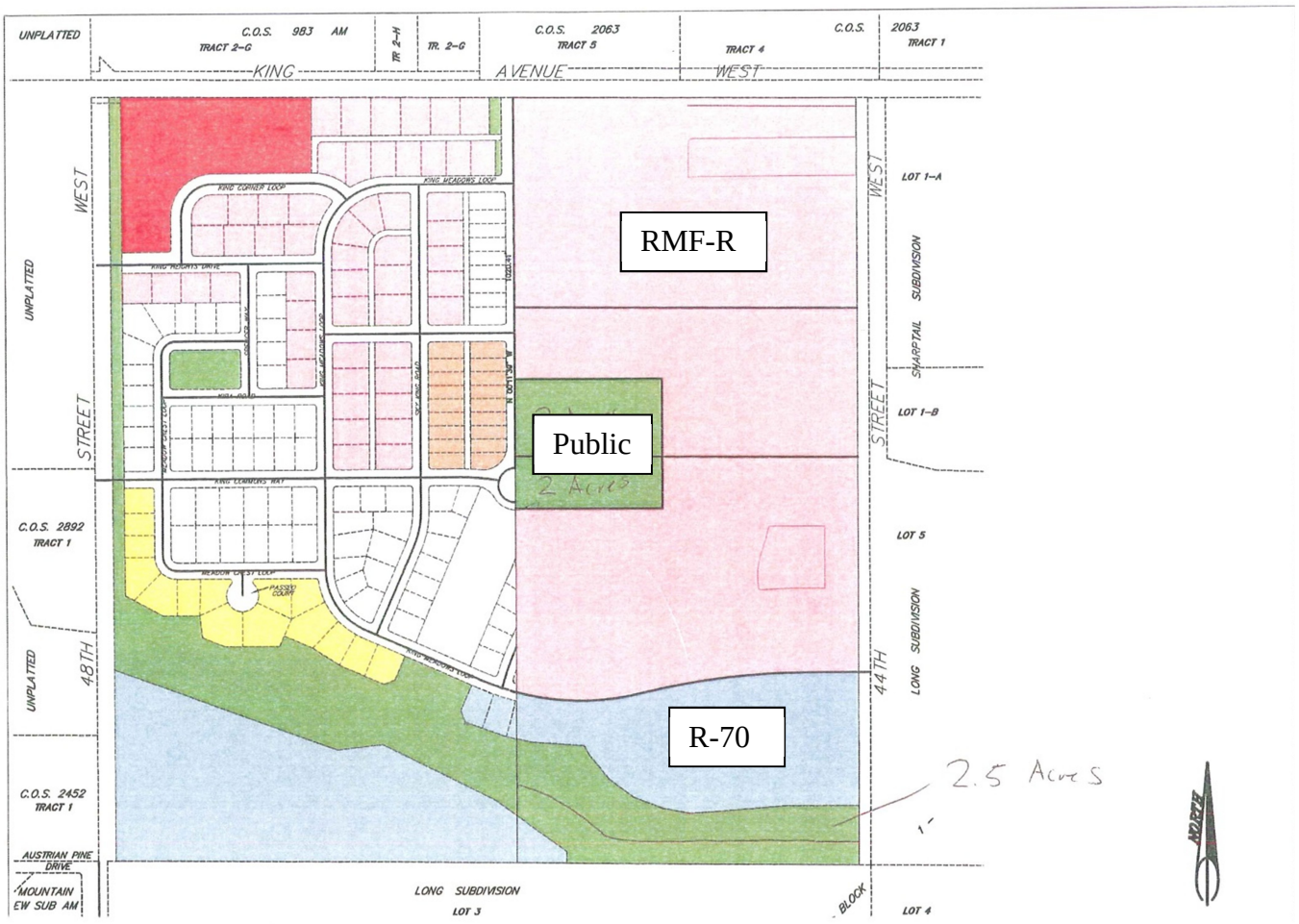
BY:_____
Thomas W. Hanel, Mayor

ATTEST:

BY: Cari Martin, City Clerk

Zone Change #912 – Western Sky Subdivision

EXHIBIT A


RMF-R
Public
R-70
2.5 Acres
UNPLATTED
C.O.S. 983 AM
TRACT 2-G
TR. 2-H
TR. 2-G
C.O.S. 2063
TRACT 5
TRACT 4
C.O.S. 2063
TRACT 1
KING AVENUE WEST
WEST STREET
48TH STREET
44TH STREET
KING CORNER LOOP
KING MEADOWS LOOP
KING MEADOWS DRIVE
KING LOMBARD WAY
MEADOW CREST LOOP
PASSO COURT
KING MORNING LOOP
C.O.S. 2892
TRACT 1
C.O.S. 2452
TRACT 1
AUSTRIAN PINE DRIVE
MOUNTAIN EW SUB AM
LONG SUBDIVISION
LOT 3
BLOCK
LOT 4
LOT 1-A
SHARPTAIL SUBDIVISION
LOT 1-B
LOT 5
LONG SUBDIVISION
NORTH

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Special Review 906 - Public Hearing
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

This is a request for a special review to place a beer and wine license with gaming in a Controlled Industrial (CI) zone at 900 S 24th Street West, a multi-tenant building. The property is legally described as Lot 5A1 of Block 3, Midland Subdivision 3rd Filing, a 1.32 acre parcel of land. The 2 units are 3,712 square feet within an existing 10,950 square-foot multi-tenant building. The location will not require a waiver of the 600 foot separation from this location as there are no churches, schools or public parks with playground equipment within 600 feet of this property. The Zoning Commission conducted a public hearing on June 4, 2013, and is forwarding a recommendation of conditional approval on a 3 to 0 vote.

ALTERNATIVES ANALYZED

The Planning Division reviewed the application and recommended conditional approval to the Zoning commission. The Zoning Commission concurred with this recommendation. Before a recommendation of approval or conditional approval can be made, each special review request must demonstrate conformance with three primary criteria: 1) the application complies with all parts of the Unified Zoning Regulations, 2) the application is consistent with the objectives and purposes of the Unified Zoning Regulations and the 2008 Growth Policy, and 3) is compatible with surrounding land uses and is otherwise screened and separated from adjacent land to minimize adverse impacts. This application conforms to the first criteria, and conforms to all parts of the Unified Zoning Regulations. The location is in one of the zoning districts that allows beer and wine licenses with gaming by special review approval. The application is conforming to the purposes of the regulations and the 2008 Growth Policy. The location of an additional license in this area should have no impact on the surrounding uses or neighbors. The application also conforms to the second and third criteria. There will be no remodeling or changes to the building.

The Zoning Commission is recommending conditions for this special review based on the approval criteria for special review uses.

PROPOSED CONDITIONS
1. The special review approval shall be limited to Lot 5A1, Block 3 of Midland Subdivision, 3rd Filing.
2. The special review approval is for the location of a beer and wine license with gaming and no other use is intended or implied.

3. Any expansion of the interior space greater than 372 square feet will require an additional special review approval. The addition of an outdoor seating area will require an additional special review approval.
4. There shall be no outdoor public address system or outside announcement system of any kind.
5. These conditions of special review approval shall run with the land described in this authorization and shall apply to all current and subsequent owners, operators, managers, lease holders, heirs and assigns.
6. The proposed development shall comply with all other limitations of Section 27-613 of the Unified Zoning Regulations concerning special review uses, and all other City of Billings regulations and ordinances that apply.

FINANCIAL IMPACT

The approval of a new beer and wine license with gaming will increase the city's business tax determination fees for this location.

BACKGROUND

This is a request for a special review to locate a beer and wine license with gaming in a 3,712 square foot suite in a multi-tenant building located at 900 S 24th Street West. No specific tenant for the license is listed with the application, but a license could be located within the building. The CI zone allows the location of a liquor license with gaming by special review approval. There is a long history of special review approvals in the area of South 24th Street West and King Avenue West. All the requests (22) have been approved with the exception of a microbrewery proposed on Enterprise Avenue in 2005. The location is not within 600 feet of any church, school, or public park with a playground. Most of the commercial property near this site is developed for retail services or offices.

STAKEHOLDERS

The Zoning Commission conducted a public hearing on June 4, 2013, and received the staff recommendation and testimony from the applicant's agents, Marshall Phil of Blueline Engineering and Rob Veltkamp. No other testimony was received. The Zoning Commission is recommending conditional approval on a 3 to 0 vote.

CONSISTENCY WITH ADOPTED POLICIES OR PLANS

The consistency with adopted policies and plans is discussed in the alternatives analyzed section above.

RECOMMENDATION

The Zoning Commission is recommending conditional approval of Special Review 906 on a 3 to 0 vote.

APPROVED BY CITY ADMINISTRATOR

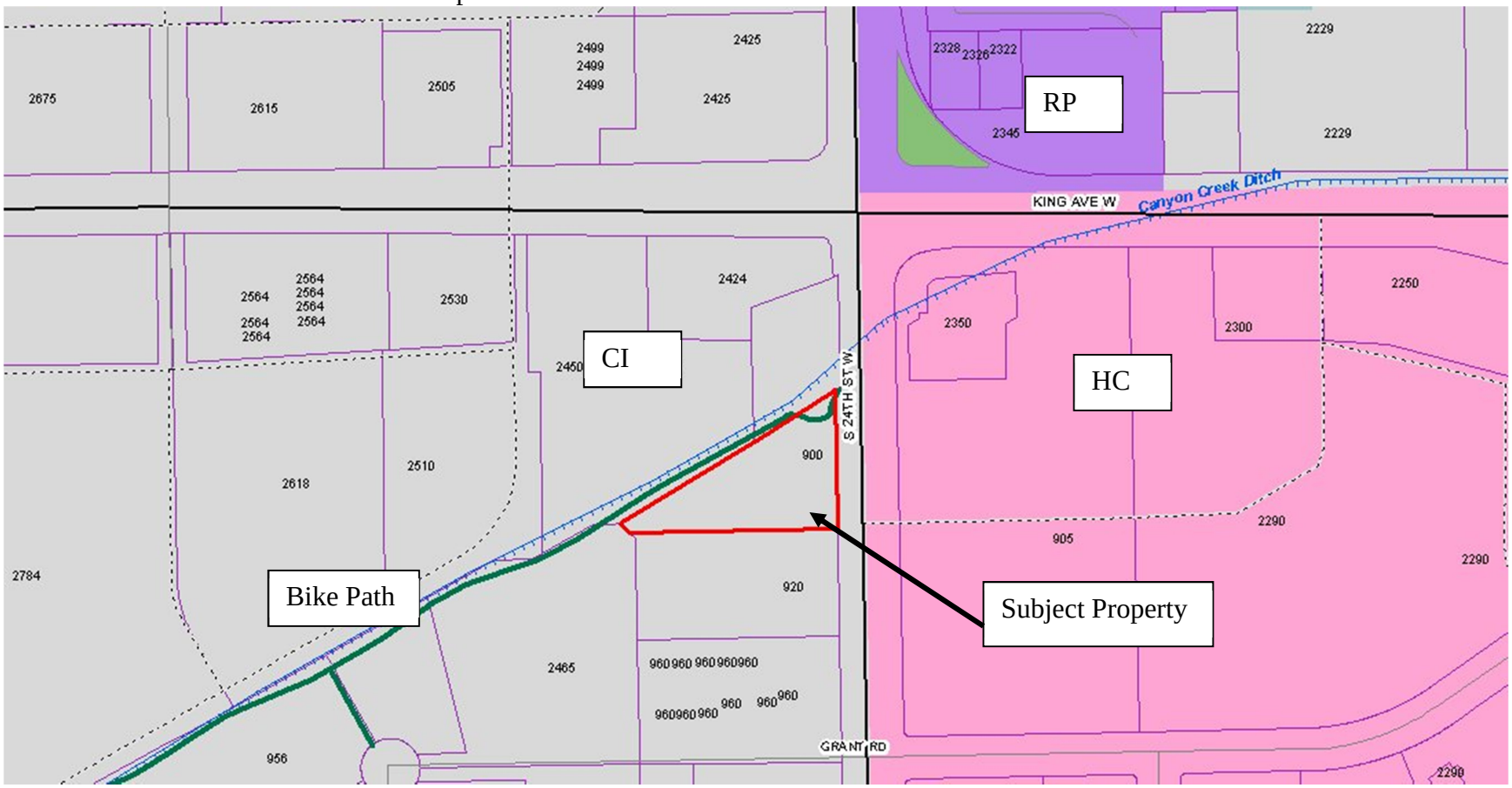
Attachments

Zoning Map

Site photos
Site Plan
Applicant Letter

Attachment A - Zoning Map

Special Review #906 – 900 S 24th St West – Units 2 & 3



Attachment B - Site photos

Special Review #906 – 900 S 24th St West – Units 2 & 3

Subject property

View north along S 24th St West

Attachment B - continued

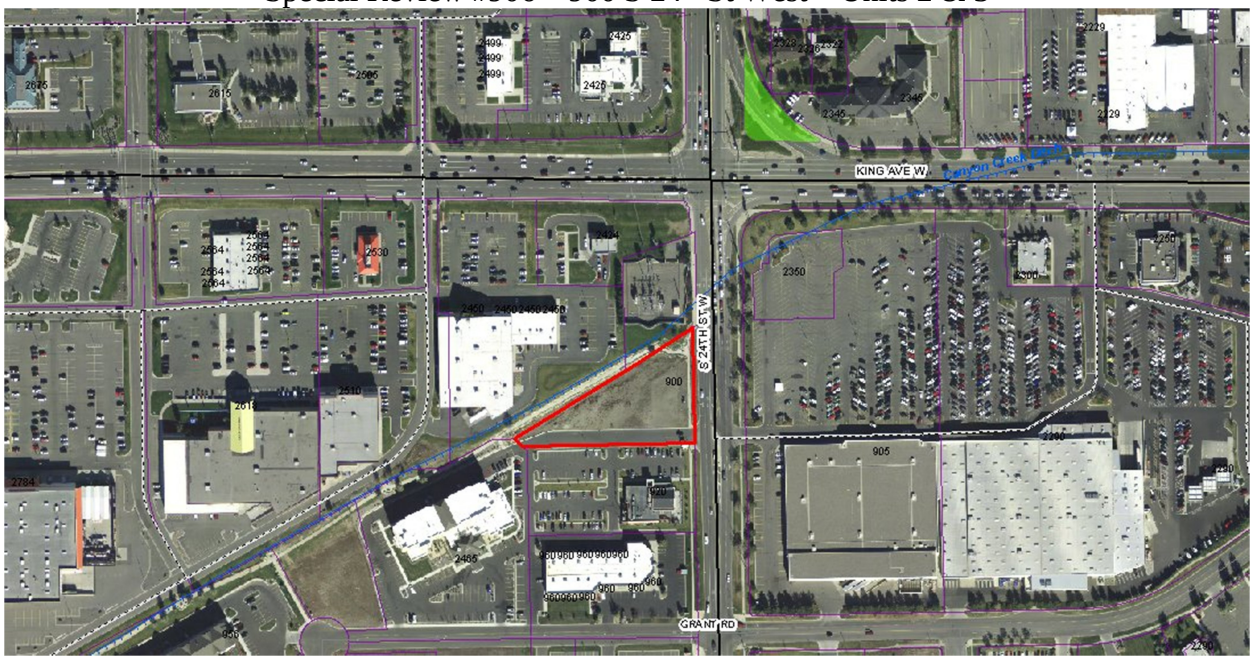
Special Review #906 – 900 S 24th St West – Units 2 & 3

View east across S 24th St West to Shopko/Costco

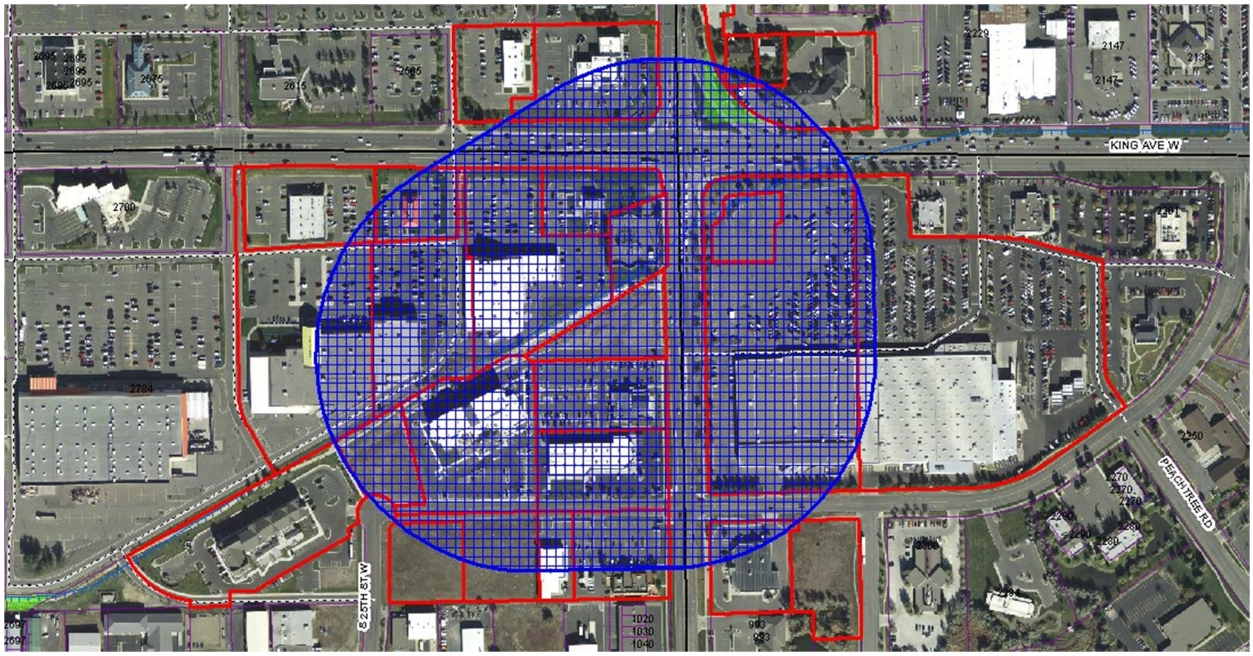
View south on S 24th St West

Attachment B - continued

Special Review #906 – 900 S 24th St West – Units 2 & 3



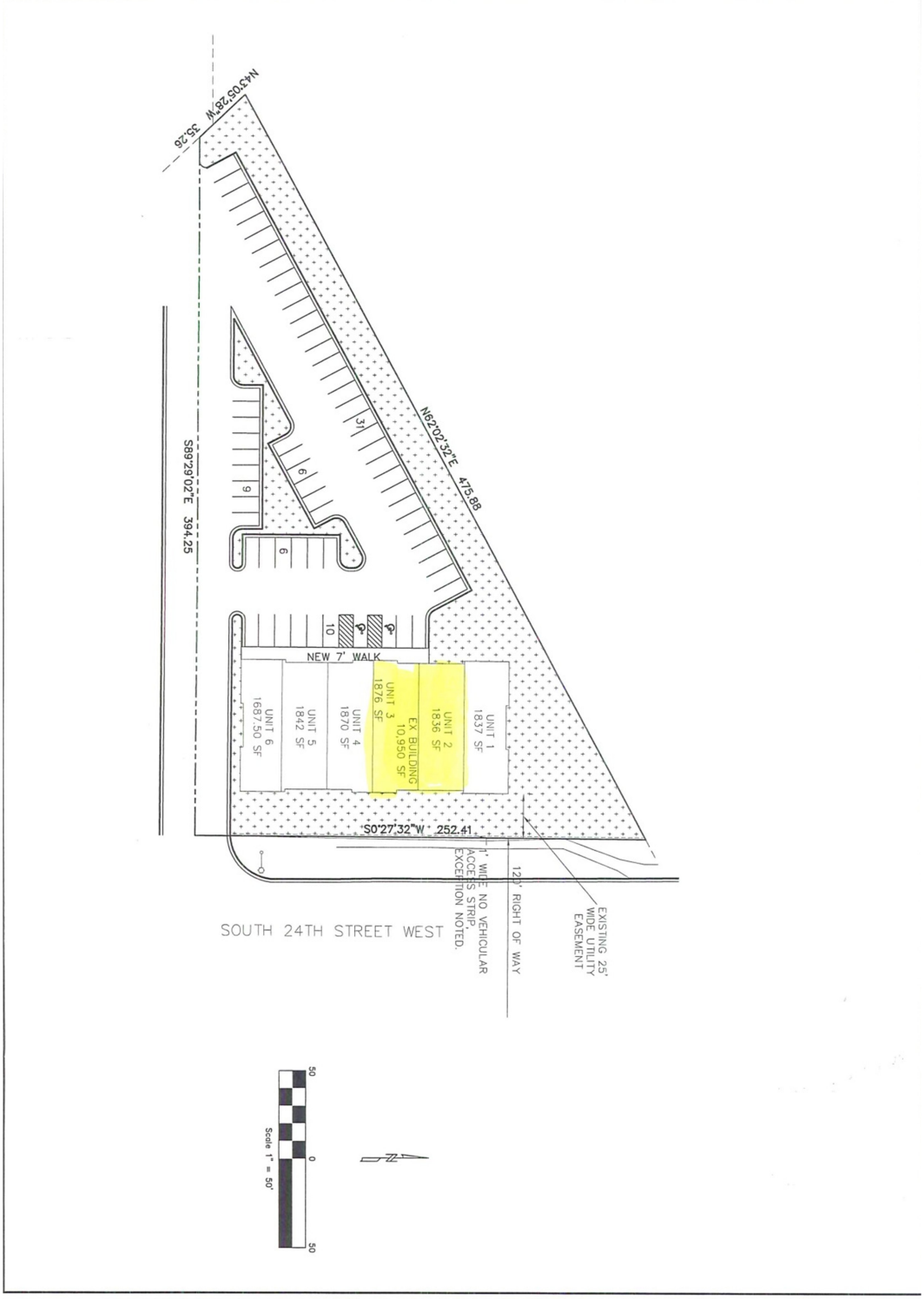
Aerial View



600 radius map

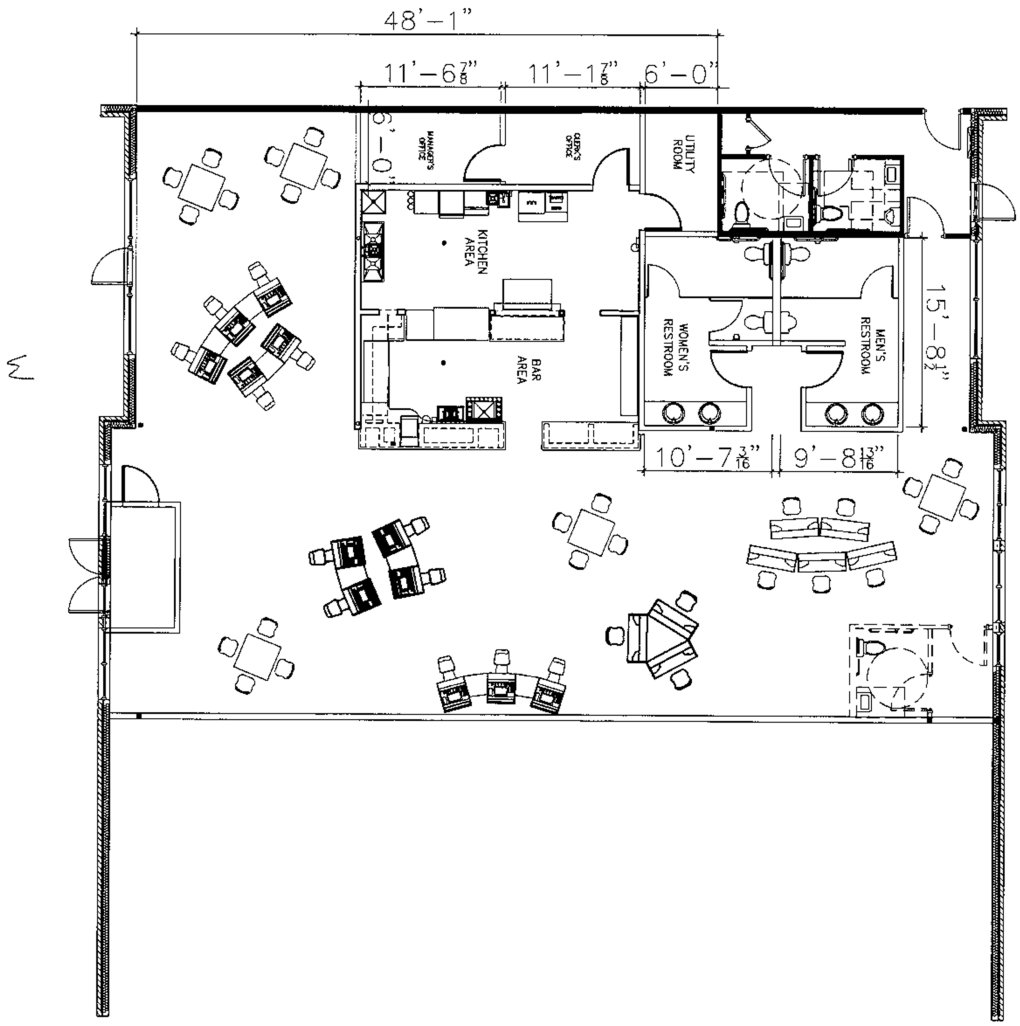
Attachment C – Site Plan

Special Review #906 – 900 S 24th St West – Units 2 & 3



SHEET 1/1	LOT 5, MIDLAND SUBDIVISION	DRAWN BY: CAG	NO.	DATE	COMMENTS
		CHECKED BY: MDP			
	SITE LAYOUT	DATE: 5/6/13 SCALE: 1"=50'			
		JOB# 13101 DRAWING: EXHIBIT			

BLUELINE ENGINEERING LLC
2110 OVERLAND AVENUE, SUITE 119B
BILLINGS, MT 59102
PHONE 294-2294 / FAX 294-2295


48'-1"
11'-6 7/8"
11'-1 7/8"
6'-0"
6'-0"
MANAGER'S OFFICE
CLERK'S OFFICE
UTILITY ROOM
KITCHEN AREA
BAR AREA
WOMEN'S RESTROOM
MEN'S RESTROOM
15'-8 1/2"
10'-7 3/16"
9'-8 13/16"

Attachment D – Applicant Letter

Special Review #906 – 900 S 24th St West – Units 2 & 3

May 6, 2013

Planning & Community Services Division
4th Floor, Parmly Library
510 North Broadway
Billings, MT

To Whom it May Concern:

We are submitting this Special Review Application for the property located at 900 24th St. West, Units 2&3 (Tax ID # A28359A). The following paragraphs are in response to the questions found within the City Special Review Application.

A) In what ways is your proposal consistent with the goals and policies of the adopted Growth Policy?

Economic Development Element Goal #1 asks for coordinated economic development efforts that target business recruitment, retention, and expansion. The opening of this business would serve this goal by creating new jobs and expanding upon the successful economic King Avenue region.

B) Why is there a need for the intended use of the property at this location?

This is an empty unit at this point, and with the permit resulting from a special review, it will encourage other businesses to also set up in the area.

C) How will the public interest be served if this application is approved?

Allowing the special review to be passed will further diversify and boost business for this mini-mall. More customers being attracted could boost the local economy and make the decision to open future businesses in the area more appealing.

D) The business petitioning for special review approval would occupy two of the building spaces on 900 24th St West. The business would be primarily gaming, with a food and wine license.

Additional information and materials specified within the Application forms are included in those forms and/or attached to this letter. We thank you very much for your continued support on this request, and for your consideration of our re-zoning application. Please feel free to contact me at (406) 294-2294 if you have any questions.

Sincerely,

Marshall Phil

Marshall Phil

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Exposition Master Plan Public Hearing and Adoption
PRESENTED BY: Candi Beaudry
Department: Planning & Community Services

Information

PROBLEM/ISSUE STATEMENT

The City Council is being asked to consider adoption of the Exposition Gateway Concept Plan. Beginning in July 2012, Big Sky Economic Development Authority (BSEDA) collaborated with property owners and civic leaders in Billings to develop a concept plan for the Exposition Gateway area. The Exposition Gateway planning process addressed properties east of the East Billings Urban Renewal District. These properties straddle City and County boundaries. There are 11 properties, (8 owners) located within the City of Billings and 55 properties, (26 owners) located outside of the City within Yellowstone County. This planning effort aligns with the recommendation set forth in the East Billings Urban Renewal District Master Plan (Adopted July 2009) to develop a “mini master plan” for the Exposition Gateway. This concept plan is the result of an extensive and inclusive effort. It presents a number of recommendations and implementation actions that can be used to guide future development toward the long-term vision of a stronger, more dynamic and diverse economy within the Exposition Gateway.

The seven-member Exposition Gateway Steering Committee, property owners, and a team of consulting architects, engineers, economists and planners studied the area’s issues and opportunities. The consultant team completed a market assessment (see Appendix A) and conducted a number of in-depth interviews with property owners and representatives of public agencies (see Appendix C). The Exposition Gateway Steering Committee participated in and guided the planning process. The concept plan addresses many factors of the area including storm water, water, and sewer infrastructure, some transportation elements, as well as the potential market factors that will influence future development. A key element of this plan is dealing with the inadequacies of the currently existing infrastructure. This plan makes recommendations on how to best achieve progress and attached funding mechanisms as well.

Property owner workshops were held on October 16, 2012 and December 25, 2012. The consultant team presented the draft concept plan at a public meeting held on February 20, 2013. Of the 34 individual property owners within the study area, 21 are supportive of the plan, 3 are opposed, and 10 chose not to respond to a balloting process asking for their vote on the Plan. The Plan for this area was approved by the Yellowstone County Board of County Commissioners on May 28th, 2013. Adoption by the Big Sky Economic Development Board of Directors occurred June 13th.

ALTERNATIVES ANALYZED

The City Council may:
• Adopt the Exposition Gateway Concept Plan or
• Not adopt the Exposition Gateway Concept Plan

FINANCIAL IMPACT

There is no direct financial impact to the adoption of the Exposition Gateway Concept Plan at this time.

RECOMMENDATION

Staff recommends the City Council adopt the Exposition Gateway Concept Plan as part of the 2008 Growth Policy.

APPROVED BY CITY ADMINISTRATOR

Attachments

Expo Gateway Master Plan

Resolution for Exposition Gateway Concept Plan

BILLINGS EXPOSITION GATEWAY
CONCEPT PLAN

BIG SKY
ECONOMIC DEVELOPMENT

MAY 15, 2013

ACKNOWLEDGMENTS

This concept plan has been created in cooperation with the property owners in the East Billings Urban Renewal District (EBURD) and the Exposition Gateway Area, members of the Billings Industrial Revitalization District Inc (BIRD) and Big Sky Economic Development Authority's (BSEDA) community development team.Major contributors include the following organizations and individuals, as well as members from the community who participated in three public meetings associated with its progress.

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Montana Department of Commerce
City of Billings: TIF District - EBURD
Big Sky Economic Development Authority
Pacific Steel & Recycling
Yellowstone County Board of County Commissioners
Montana-Dakota Utilities
The Boyer Company

Exposition Gateway Steering Committee
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Marty Connell, BIRD, Inc., President
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Bill Kennedy, Yellowstone County Commissioner
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Candi Beaudry, City / County Planning Director
Stan Jonutis, Montana Department of Transportation
Kendra Breiland, Fehr & Peers / Hospitality Corridor Study
First Interstate Bank Operations Center - Meeting Space
Big Sky Collision Center - Meeting Space
Billings Industrial Revitalization District - Meals and Refreshments

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Fair Treatment
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1. Manage storm water.
2. Provide lodging, dining and visitor attractions.
3. Connect to MetraPark.
4. Create high visibility.
5. Expression of businesses.
6. Phased redevelopment.
7. Create infrastructure over time.

SECTION 1
INTRODUCTION

Beginning in July 2012, Big Sky Economic Development Authority (BSEDA) collaborated with property owners and civic leaders in Billings to develop a concept plan for the Exposition Gateway. This planning effort aligns with the recommendation set forth in the East Billings Urban Renewal District Master Plan (July 2009) to develop a "mini master plan" for the Exposition Gateway. The Exposition Gateway planning area addresses properties both within and adjacent to the eastern-most edge of the East Billings Urban Renewal District. These properties straddle City and County boundaries. There are 8 properties, (8 owners) located within the City of Billings and 42 properties, (26 owners) located outside of the City within Yellowstone County.

The Exposition Gateway Steering Committee, property owners and a team of consulting architects, engineers, economists and planners studied the area's issues and opportunities. The consultant team completed a market assessment (see Appendix A) and conducted a number of in-depth interviews with property owners and representatives of public agencies (see Appendix C). The Exposition Gateway Steering Committee participated in and guided the planning process. Property owner workshops were held on October 16, 2012 and December 5, 2012. The consultant team presented the draft concept plan at a public meeting held on February 20, 2013.

This concept plan is the result of an extensive and inclusive effort. It presents a number of recommendations and implementation actions that can be used to guide future development toward the long-term vision of a stronger, more dynamic and diverse economy within the Exposition Gateway.

EXISTING CONTEXT

Early on in the planning process, the consultant team and Exposition Gateway Steering Committee identified the study area's opportunities and attributes (Figures 1-1, 1-2, 1-3) and issues and constraints (p.4, Figures 1-4, 1-5, 1-6) to address through this planning effort.

FIGURE 1-1 PROXIMITY TO REGIONAL ENTERTAINMENT AND EVENT CENTER

FIGURE 1-2 UNIQUELY SITUATED BETWEEN THE RIMS NATURAL AREAS AND THE YELLOWSTONE RIVER

Opportunities and Attributes

- The study area is situated within a prominent location in the region, in close proximity to surrounding natural recreation areas, MetraPark event center, and downtown Billings.
- The confluence of transportation corridors offers visibility and access to the greater metropolitan area.
- The shift in the street grid presents a potential opportunity for landmark structures and landscapes.
- Many current property owners are willing, interested and organized to be involved with the changing area.
- Some of the larger property ownerships may help enable near-term development.
- There is evidence of recent private investment in blocks to the west.
- Additional modification of Bench Boulevard, Exposition Drive, and 6th intersection could help address existing traffic patterns to complement the recently completed Bench Boulevard improvement project by Yellowstone County.
- Expansion of the Downtown transit service (circulator) and eventual reuse of rail corridor could help improve access to and from the area.
- Current related projects addressing the Hospitality Corridor, MetraPark, Heritage Trail system, Museum of the Yellowstone, conference center, etc can establish symbiotic relationships in the area by identifying common goals and partnership opportunities.
- Prior planning efforts such as the Downtown Framework Plan and EBURD Master Plan define the goals of the area in its larger context.
- There are multiple potential grant opportunities for innovative infill projects.
- There is a potential for public private partnerships for redevelopment.
- The area may have access to redevelopment tools such as: CDBG, EB-5, New Markets Tax credits, and non-profit bonds. Additionally, parcels within the city may have access to TIFD funds.

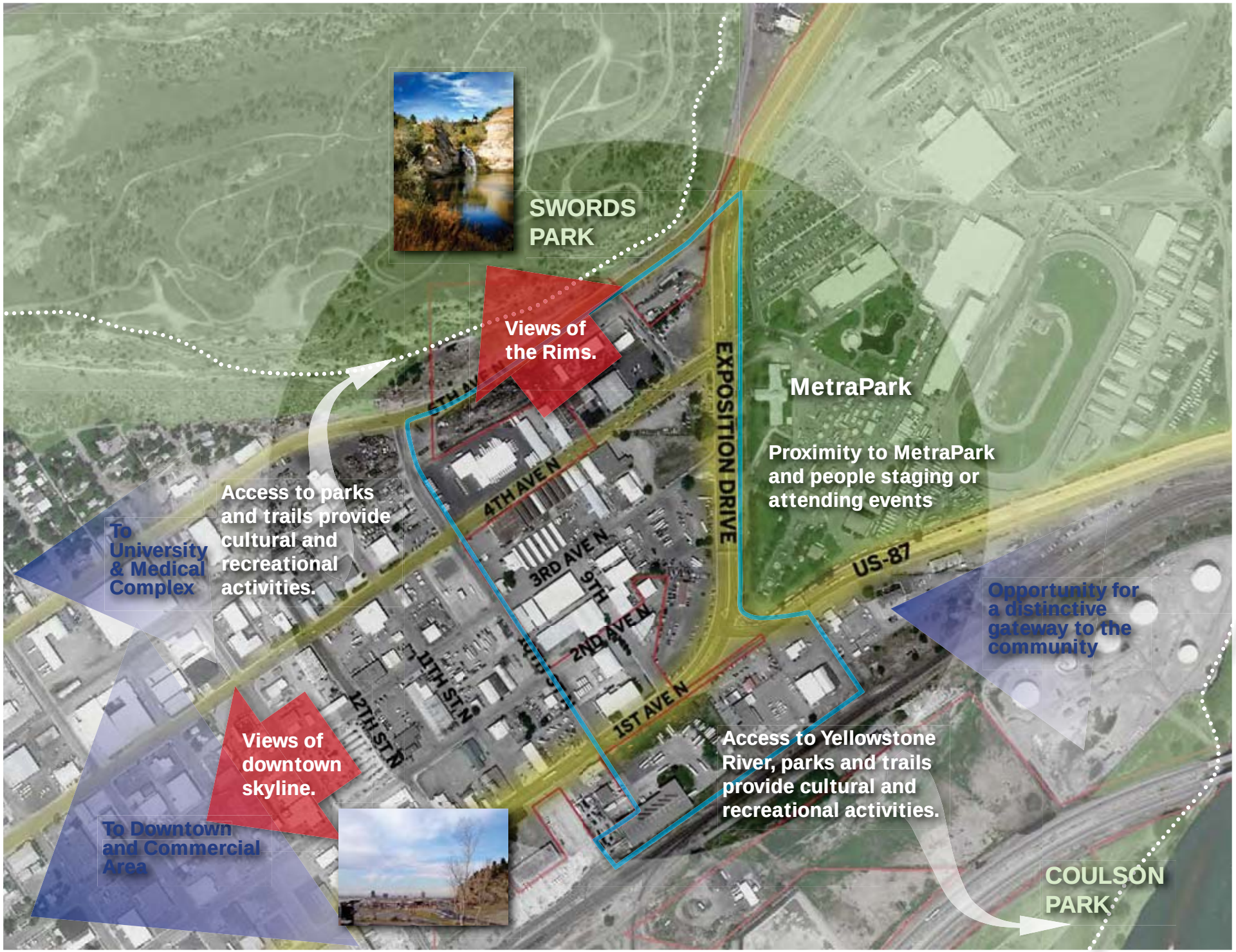

FIGURE 1-3 OPPORTUNITIES AND ATTRIBUTES

FIGURE 1-4 LACK OF CONNECTION TO METRAPARK WITH MULTI-MODAL ACCESS OR COMPLEMENTARY DEVELOPMENT

FIGURE 1-5 EXISTING NARROW AND INCOMPLETE SIDEWALKS

Issues and Constraints

- The study area lacks a strong physical, multi-modal connection to MetraPark.
- Existing streetscapes consisting of narrow sidewalks, traffic volume and vehicle speeds make walking seem unpleasant, if not unsafe.
- Major intersections of Exposition Drive with 6th Avenue North and 1st Avenue North have very high traffic volumes and lack appropriate multi-modal accommodation.
- The Gateway lacks a sense of place. The area is dominated by storage lots and industrial uses.
- There are existing stormwater issues in the area that lead to periodic flooding.
- There are several groups of smaller parcels with different owners that can make a coordinated redevelopment effort more challenging.
- The lack of services within the area discourages some desired uses.
- Uncertainty about potential to achieve needed rents for various uses and building types discourages redevelopment.
- Concerns of property owners regarding rising taxes if development occurs.
- There are some identified zoning issues, such as non-conforming situations, that discourage redevelopment activities.
- County parcels do not have the ability to use TIF or urban renewal techniques (unless annexed into the City).
- There have been challenges to ensuring cooperation from utility servicing agencies, including the lack of on-going maintenance for street and stormwater facilities.
- As this area is governed by multiple jurisdictions, there is an existing challenge to maintain coordination between agencies.

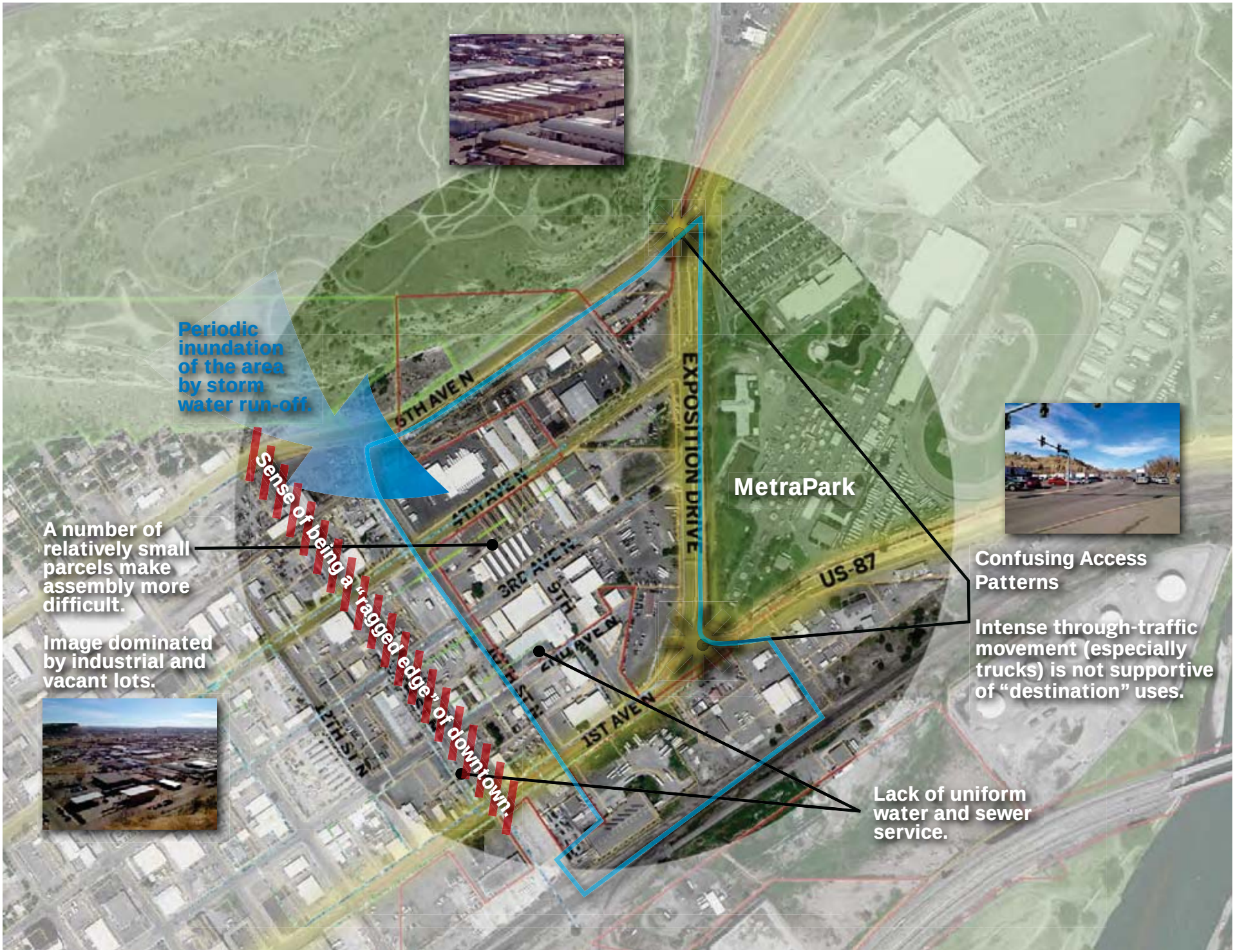

FIGURE 1-6 ISSUES AND CONSTRAINTS

SECTION 2
FRAMEWORK: PLAN ELEMENTS

Stormwater Management

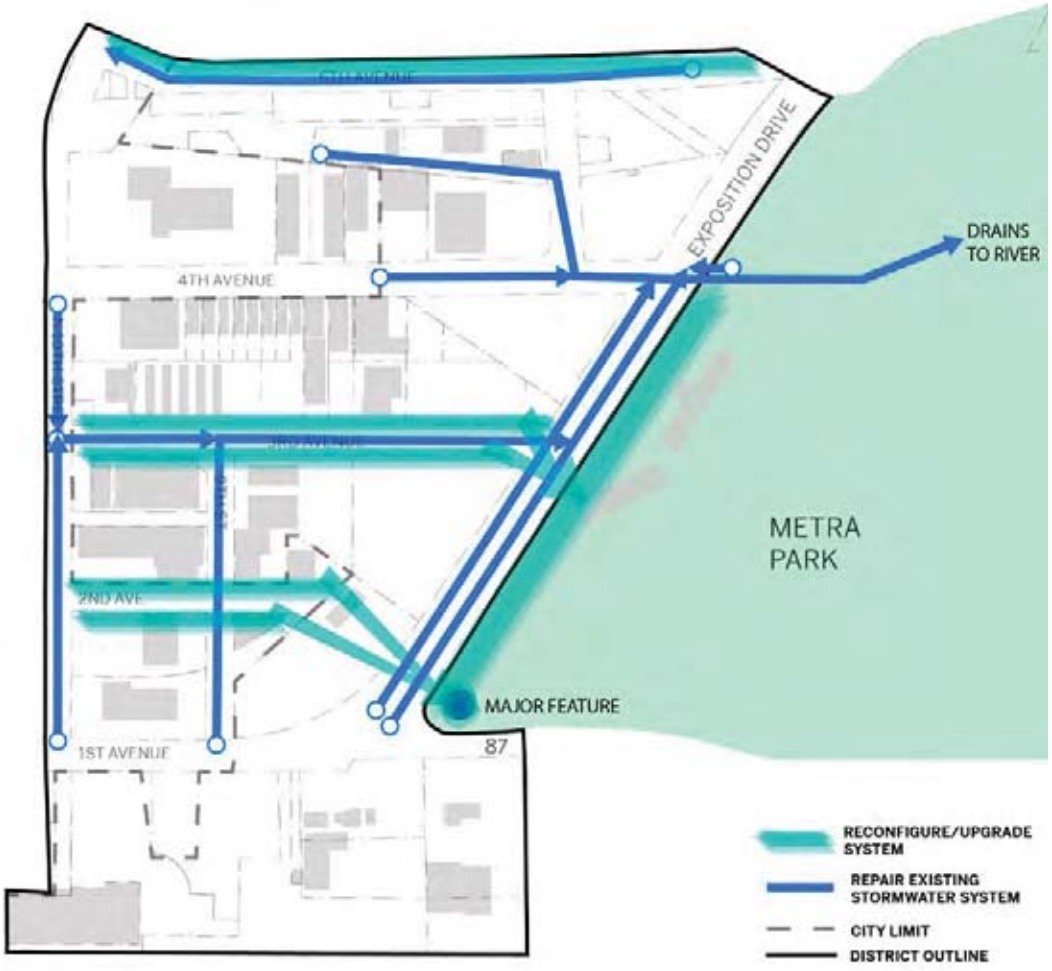

FIGURE 2-1 STORMWATER SYSTEM CONCEPT DIAGRAM

According to the City of Billings stormwater maps, stormwater inlets and piping exist throughout the Exposition Gateway Area. Much of this infrastructure was installed decades ago and is no longer adequate. The City is using cameras to investigate the conditions of the stormwater pipes. During site visits, the consultant team verified the location of the drain inlets at all intersections in the study area. The inlets were found to be silted in or the rim elevations were not in alignment with a flow line, both horizontally and vertically. The result is that during large storm events, the water is slow to drain, backs up onto the streets, and sometimes appears to reverse flow into the storm drain system and on to private property. Flooding damages buildings, equipment and materials and decreases property values significantly. This is further exacerbated by differing regulations across the Gateway's multiple jurisdictions. The parcels in the study area that fall within the City jurisdiction are regulated by the City and their MS4 permit standards. Investigations by the consultant team determined that there are currently no requirements in place to address stormwater for the parcels in the study area located outside of the City boundary. It does appear that the City is taking action to address stormwater management issues further to the west, (*"Ambitious drainage project aims to stop east-end Billings flooding"* Billings Gazette Feb 13, 2013)

Before any major redevelopment of the Exposition Gateway Area can occur, this essential infrastructure issue needs to be addressed. This will likely require a combination of maintenance, repair and replacement. In the absence of formal regulations for the majority of the study area,

FIGURE 2-2 EXAMPLES OF EXISTING STORMWATER DRAINAGE FACILITIES

FIGURE 2-3 LANDSCAPED SWALE FOR SURFACE RUNOFF

FIGURE 2-4 MID-STREET RAIN GARDEN

the consultant team looks to existing standards within the City Public Works Department, County Public Works Department, Montana State Department of Transportation, and State Department of Enivironmental Quality for guidance on what makes sense to address the deficiencies.

The City of Billings stormwater regulations state that Comprehensive Drainage Plan (CDP) sites must implement low impact development practices that infiltrate, evapotranspire, or capture for reuse the first half-inch of rainfall from their site's runoff from a 24hr-storm event. (pg 1-2 of City of Billings Stormwater Management Manual). The County does not have any additional stormwater permits or requirements. The result is that current stormwater pipes are sized to capture street drainage only, but are being inundated with runoff from private lots and street runoff from outside of the project study area.

These stormwater deficiencies: reinforce suboptimal land and transportation uses; detract from an otherwise robust and well-traveled corridor; and prevent the accrual of advantages that proximity to the MetraPark presents.

Developing an interlocal agreement among City, County and State partners to maintain, retrofit and upgrade the stormwater system may be an effective tool to overcome these deficiencies.

Montana state law requires property owners to collect, slowly release and filter stormwater created by their own development. Treatments can occur through surface treatment basins, rain gardens, underground storage facilities, green roof technologies, or some combination. Ideally any surface method should create an amenity that can enhance the area's appeal. There are numerous proven methods by which stormwater may be handled in a visually attractive manner. They need not be fenced off ponds. By the same token, streets and sidewalks can also incorporate these methods in a manner that enhances the public realm. We have included photographic illustrations that demonstrate examples used both in Billings and elsewhere. A combination of these solutions will resolve the current deficiencies and add immeasurably to the collective value of the area.

FIGURE 2-5 EBURD SEWER AND WATER PIPING


FIGURE 2-6 EXPOSITION GATEWAY AREA AFTER AN EXTREME STORM EVENT- BILLINGS GAZETTE JUNE 20, 2010 (L MAYER)

Water and Sanitary Sewer Utilities

As discussed in the EBURD Master Plan and indicated on Figure 2-5 of this plan, almost all of the study area is serviced by water and sanitary sewer to some degree. Unfortunately, many of these facilities are decades old, run across jurisdictional boundaries and are severely undersized for the type of development activities that are being planned for the area. Many of the properties within the project boundary were developed prior to being in the City of Billings municipal boundaries and did not receive ample design consideration for other potential construction in the area. In fact there are several significant parcels that still remain under County jurisdiction. Water and sanitary sewer services have typically been provided to these parcels under loose agreements between the City and the County in regards to operation and maintenance.

With this type of history, water main lines are typically found to be undersized because they were only designed to provide domestic services to small warehouse type facilities. A systematic program of replacing the old system with new larger diameter mains should be reviewed. It should be pointed out that there are some larger water supply mains that cross the EBURD Master Plan district, but extension and looping of local mains of sufficient size to provide both domestic and fire flow requirements will be required.

As with the water, sanitary sewer collection mains extend into the area to varying degrees. Some of these lines are again quite old but appear to be functional at this time. If new surface improvements are being completed, the entirety of the subsurface installations, including sanitary sewer should be reviewed and replaced as needed. As noted on the exhibit, the entire study area is not covered by sanitary sewer collection lines. Some of the older parcels that still remain in the City and County may be on septic tanks and drainfields at this time. Each proposed project will need to be evaluated on its own or as part of a collective upgrade and replacement program.

The operation, maintenance, upgrade or extension of either of these utilities will of course be greatly eased by bringing the county parcels into the jurisdictional boundaries of the City of Billings. By doing this, it will allow for increased access to available funding sources and mechanisms to complete needed improvements as new projects become realities and also provide for a uniform operation and maintenance program conducted under the auspices of a single entity.

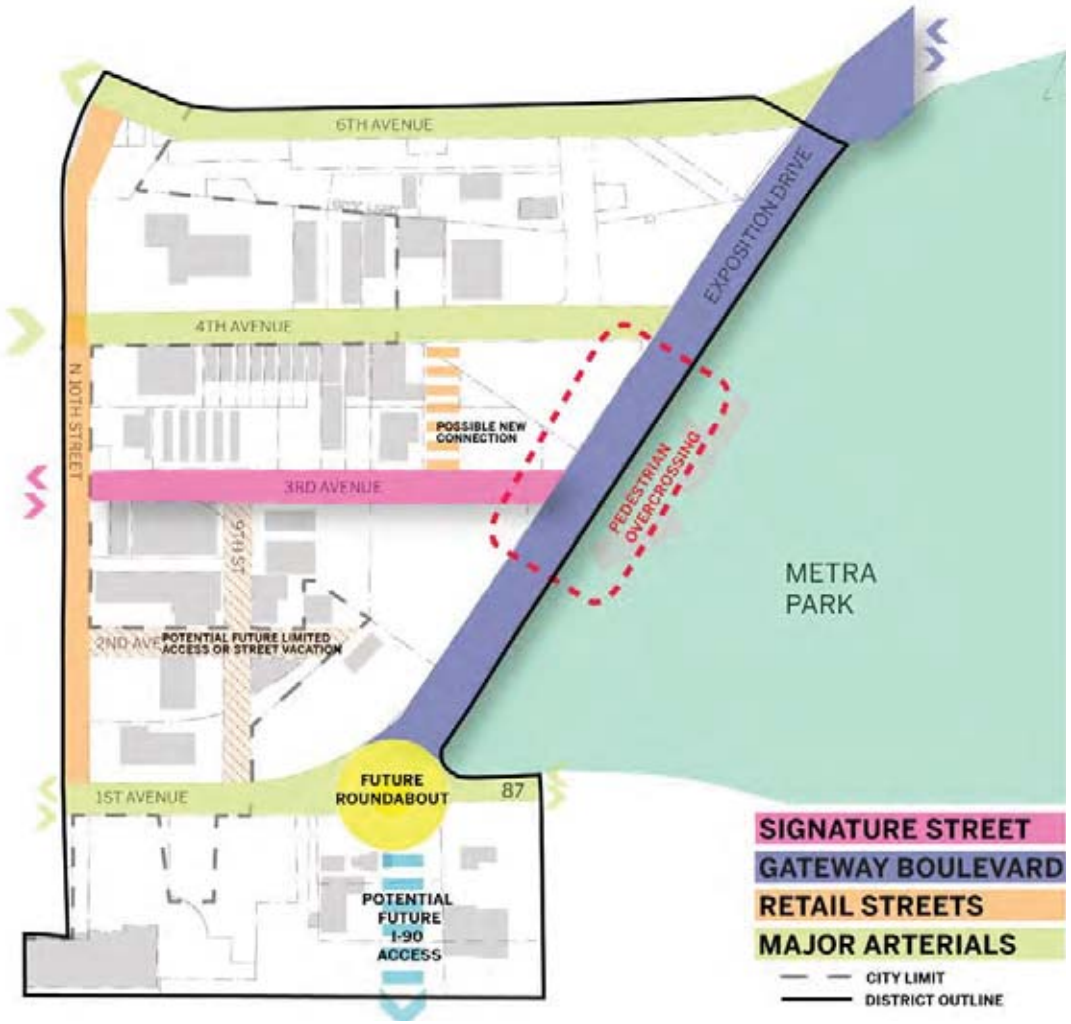

FIGURE 2-7 STREETSCAPE CHARACTER CONCEPT DIAGRAM

Street Improvements

All cities throughout history have developed with different types of streets. Some serve principally as conveyances for vehicles. They are busy, noisy, fast-moving and at times congested. Other streets serve purposes such as allowing people to have access to a variety of goods and services while on foot. These often contain street cafes, shops that spill out with their merchandise, brightly lighted showcase windows, street trees, special lighting and a host of other attributes that make for a pleasant experience. These streets do not exclude vehicles, but include measures to tame the traffic – slow it down and make it one of many uses of the street, all sharing the space. In contrast, other streets that are quiet, serene and green can serve as havens for privacy, movement by foot, and places where people live. Too often cities have made the mistake of having streets that are one-size-fits-all, in which no use is well-accommodated and everything is difficult, whether by vehicle or on foot.

The Exposition Gateway Area would benefit from a more nuanced and artful approach to its streets. Just as the EBURD plan described different functions of streets, this area would be more attractive for development if it were to contain streets that have different performance characteristics. Even so, no street should be relegated to being the ugly sacrificial lamb; all streets can be both handsome and functional.

The streets passing through and surrounding the area can be assigned different purposes and enhanced in different ways.

FIGURE 2-8 MAJOR ARTERIAL: ACCOMMODATE PARKING

FIGURE 2-9 MAJOR ARTERIAL: MULTI-MODAL ACCESS

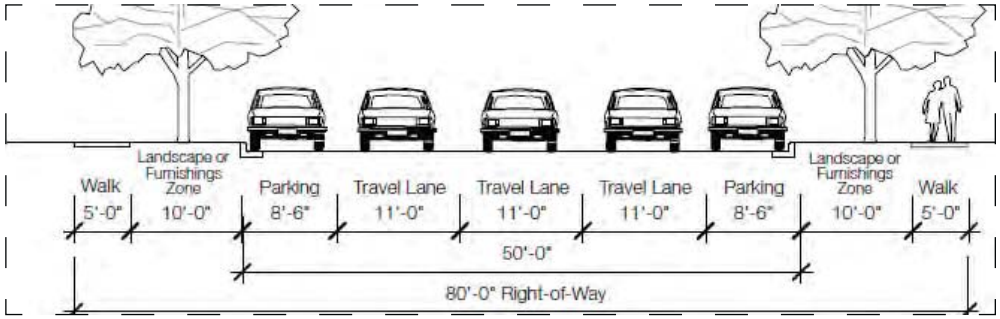

FIGURE 2-10 SECTION FROM EBURD CODE FOR 1ST, 4TH AND 6TH AVENUES

FIGURE 2-11 URBAN BOULEVARD: LANDSCAPED MEDIAN

FIGURE 2-12 URBAN BOULEVARD: PEDESTRIAN ENVIRONMENT

1st 4th and 6th Avenues: Continue as Ma or Arterials

This plan recommends some streets within the area to continue serving their current functions for through traffic, 1st, 4th and 6th Avenues North fall into that category. They are identified in the EBURD Plan as “Boulevards” and the proposed cross section would be appropriate continuing into the Exposition Gateway Area. While they might be enhanced with streetscape improvements, their essential purpose and operational characteristics would remain unchanged. They serve very important purposes in connecting traffic between the Heights and downtown and would continue to provide for the movement of trucks that serve businesses in downtown and the EBURD.

Key Intersections

Sanderson Stewart’s 6th Avenue North Bench Traffic Report (2012) provided an analysis of the intersections at 6th Avenue North and Exposition Drive and at First Avenue North and Exposition Drive. A number of different configurations were examined, including grade separations, different geometries, and roundabouts. The analysis concluded that none of these modifications were warranted in the short term at 6th and Exposition, particularly given that planning is proceeding for two large transportation projects in the area that would relieve traffic at this intersection. However, the report did suggest that a roundabout could work in the future at 1st Avenue North and Exposition Drive. This element is recommended in this concept plan.

Exposition Drive: Trans orm into an Urban Boulevard

The segment of Exposition Drive between 1st and 6th Avenues North has the potential of becoming a unique boulevard with qualities associated with a parkway. Already, the east side is heavily planted with mature trees and lawn area that lines the edge of MetraPark. Currently, this green corridor is cut off from public use because of a tall fence topped with barbed wire. This fence could be moved 20-30 feet to the east, and will still provide security and admissions control during ticketed events. The resulting wide corridor can then allow for a meandering, multi-purpose trail. The trail would allow people walking and using bicycles to connect from the Exposition Gateway Area to the Yellowstone River or the Rims with only one major street crossing.

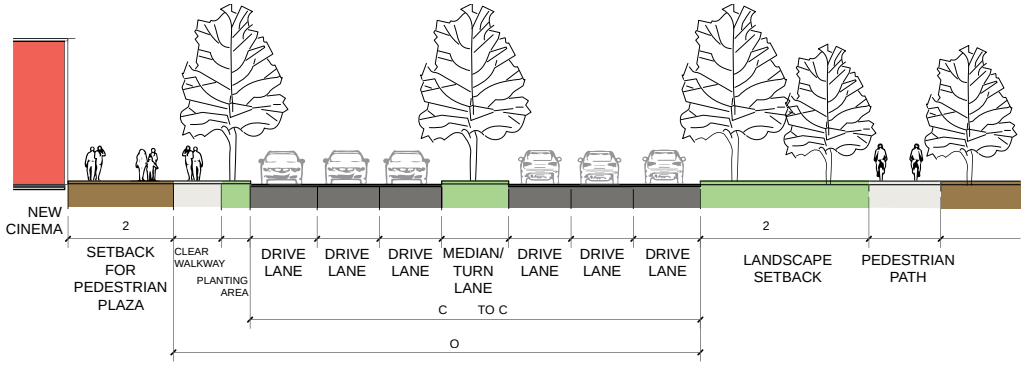

FIGURE 2-13 POSSIBLE URBAN BOULEVARD STREET SECTION FOR EXPOSITION DRIVE / MAIN STREET

FIGURE 2-14 PEDESTRIAN PASSAGE ON VACATED STREET

FIGURE 2-15 PEDESTRIAN SPINE THROUGH SHOPPING AREA

FIGURE 2-16 PEDESTRIAN ORIENTED LINKING STREET

Additionally, the median in the middle of Exposition Drive could be rebuilt to incorporate substantial planting so that a complete boulevard treatment can be created. Given the speeds involved in that corridor, there is sufficient room to install trees within the median, as well as understory. The design of the boulevard could reflect a “Gateway” treatment, with special signage, artwork, and lighting.

As development occurs on the west side, the edge along Exposition Drive should include trees, planting and other features to extend and complement the boulevard. Since it is unlikely that the frontage along the State route will allow curb cuts, this edge can be relatively continuous planting. Site and building design guidelines should be adopted, as a new part of the EBURD code, to ensure a consistent combination of elements.

North 9th Street and 2nd Avenue North East o North 1 th Street North: Candidates or Potential Street Vacation

These short street segments do not currently connect with the larger grid network and are appropriately cut off from Exposition Drive. Vacating them to adjacent property owners could allow for more flexibility in consolidation of parcels and potential redevelopment.

However, this may need to be a longer term action as there are still functioning businesses that need access by trucks for deliveries and cars by customers. Until and unless those businesses choose to relocate, public right-of-way will be needed. It might be possible to partially vacate sides or segments of these streets. Finally, there is the issue that these rights-of-way include utilities. These would need to be reconfigured and the cost of that might need to be figured into the cost of vacation. Typically, in a vacation process, adjacent property owners purchase the vacated land at fair market value from the government entity that owns it.

Vacated right of way could still allow for some amenities to increase the positive image of the district, such as landscaped storm water ponds, connecting pathways, and vehicular access to parking. There are many examples of linear, park-like settings in former streets where limited access is allowed.

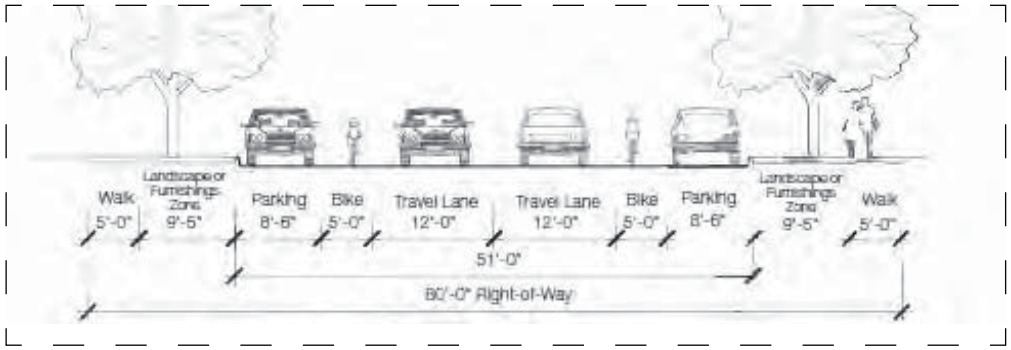

FIGURE 2-17 SECTION FROM EBURD CODE FOR 10TH STREET NORTH


FIGURE 2-18 ARTFUL ROUNDABOUT


FIGURE 2-19 MAJOR INTERSECTION ROUNDABOUT

North 1 th Street

The EBURD plan suggested that 2nd Avenue North be the main spine through that area, connecting the various subdistricts within it together and to the downtown core. This makes sense except where it reaches the Exposition Gateway Area, and 2nd Avenue North reaches a dead end. Prior concepts for the area have shown 2nd turning northward and intersecting with 4th Avenue North. However, that would divide properties and consume land otherwise already aggregated and ideal for larger scale development.

The consultant team recommends using North 10th Street as a connecting street between 2nd Avenue North and the Gateway Area. It already connects all cross streets. 10th could be designed to include on-street parking and bike lanes and offer goods and services that could be available to both the EBURD to the west and the Gateway to the east. Its intersection with 3rd Avenue North which leads to new destinations and eventually MetraPark, would be marked with public spaces surrounded by cafes and seating, creating a gateway to the Exposition Gateway Area.

1st Avenue North and Exposition Drive: Grand Roundabout

Identified as a future project in the Sanderson Stewart analysis of transportation improvements, this could assume a much more important role than merely sorting out traffic movements. By using space at the south end of MetraPark which is rarely used for programmed events, the size of the roundabout could be much larger and grander in design than typically seen in more restricted locations. There are many examples throughout Europe of roundabouts with multiple lanes and large diameters that can accommodate semi-trailer trucks. Slip ramps can help in ensuring smooth right-turn movements.

Such a roundabout could also serve as a landmark, marking the presence of MetraPark, adding a dramatic gateway feature into downtown Billings and signifying the redevelopment of the Exposition Gateway Area. The design of the roundabout could include a number of bold features. These could include trees, seasonal planting, unusual lighting such as LEDs that change in color by season or by temperature, a unique sign, large scale artwork reflecting the culture of the community, or even a unique fountain that might make use of local stone. All of these elements have been seen in other major urban roundabouts.

The design of this roundabout could be the subject of a competition – one that invites collaboration of designers, artists, and the community. It could be a lively new entrance to downtown Billings and the EBURD.

FIGURE 2-20 EXAMPLE OF PEDESTRIAN OVER CROSSING

FIGURE 2-21 EXAMPLE OF A HAWK (HIGH-INTENSITY ACTIVATED CROSSWALK). PHOTO FROM ACHDIDAHO.ORG

Pedestrian Overcrossing

One of the major problems of the Exposition Gateway Area is that it is severed from any good pedestrian connection with MetraPark by the multi-lane highway. This creates a visual and functional chasm – somewhat like a river. But in this case, the effect is not just geographic; it is economic, because the activities of MetraPark cannot be easily captured in the Exposition Gateway Area. Anecdotal evidence indicates that many people – event organizers, performers and the public – would like to stay nearby and enjoy other attractions, but few choices are available in close proximity, virtually none within walking distance. People engaged in events often prefer to have accommodations close at hand.

Sometimes this connection between events venues, off-site services, and amenities can be made through improving intersections on-grade so that pedestrian movement is enhanced. Given the presence of the heavily traveled State route, this option has a few challenges in introducing potential conflict with traffic flow. One possible solution would be to introduce an on-grade HAWK signal (High-intensity Activated crosswalk) at 3rd or 4th Avenue North. This would allow cyclists and pedestrians to cross only when the signal was activated. It could potentially be the most economical solution, but would need some further investigation to understand how the timing of the pedestrian and bicycle crossing would be coordinated with the traffic flow along Exposition Drive and the intersections at Exposition Drive and 6th Avenue North and Exposition Drive and 1st Avenue North. Also, the timing may need to be adjusted during major events at MetraPark.

Another option is a pedestrian underpass. This has been done in locations with some success, although some people do not feel comfortable walking through a tunnel, especially if it is long, which this would need to be. Underpasses can be made to feel safer using lighting, higher ceilings, and design elements that make for a natural sequence of movement. A public crossing must provide for disabled movement under the ADA statutes. Often, this means long approaches with ramps. The presence of a large underground gas pipeline that is part of a regional system may prevent this option from being economical, but it has not been studied.

An overpass option has the least impactful to current vehicular traffic patterns and safest for bike and pedestrian users. Of course, any overpass must allow for necessary clearance for vehicles traveling below it. This clearance is easy to determine because elsewhere along this corridor, there are already signal arms and sign bridges that have limited clearance. Such clearance is likely in the range of 18 to 22 feet – typically found in most pedestrian overcrossings.

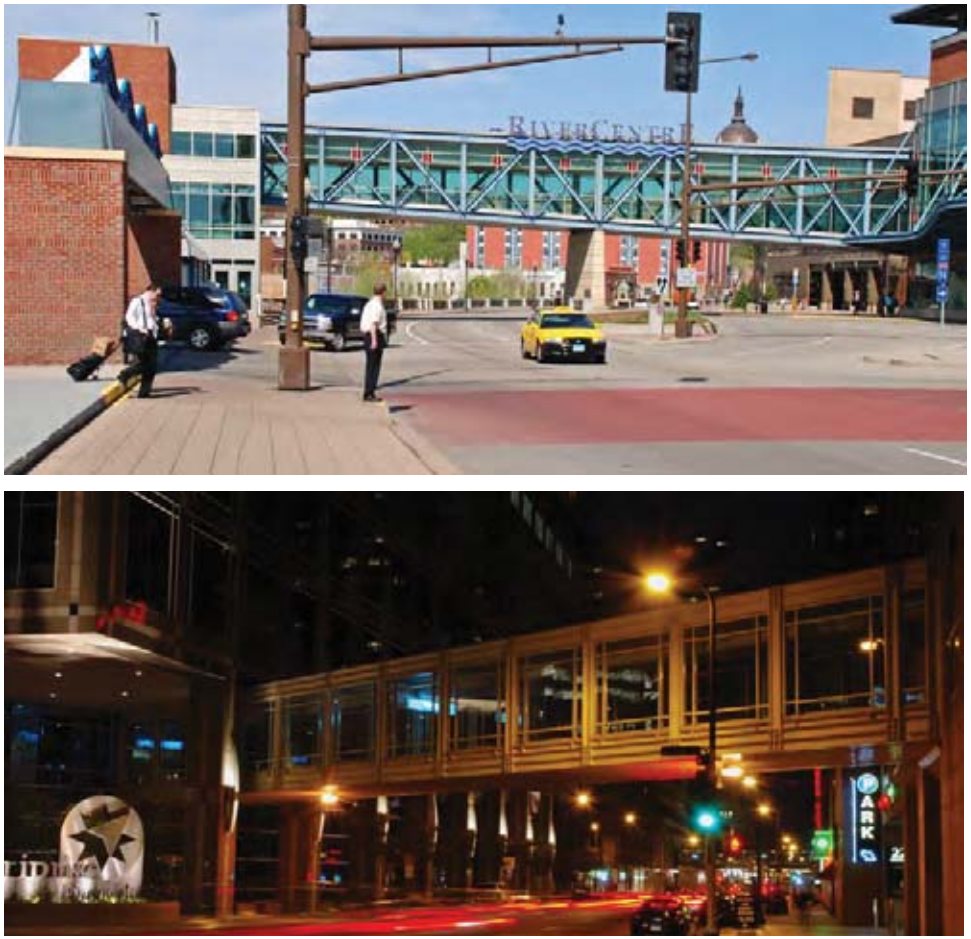

FIGURE 2-22 EXAMPLES OF A PEDESTRIAN OVERCROSSING TO A BUILDING

In hundreds of communities, pedestrian overpasses have been installed where there are 6-7 lanes of high volume traffic, including trucks, as is the case here. However, the success of these overpasses varies widely, despite initial capital costs that can range from $2 million to $10 million, depending on the design. The lower end of the range buys only a simple steel truss with corkscrew-type or switchback-type ramps at each end. The upper end buys a custom design that might serve as a bold symbol of a district or development area. (See Figures 2-2.)

There are several related issues associated with the design of pedestrian overcrossings. The least costly type of bridge has ramps at each end. These not only look out of place in an urban context, but they discourage use by people on foot as they require walking long distances to even approach the actual crossing point. Stairs can be installed, but ramps still need to be provided to meet ADA standards. This results in redundant expenses.

Some overcrossings have elevators at each end instead of ramps. Typically, elevators have high initial costs along with ongoing maintenance and repair costs. Free-standing, unmonitored elevators are often exposed to harsh weather, vandalism and other misuses. Moreover, pedestrians intuitively tend to take the shortest route possible and may find going up, across, and down inconvenient.

Pedestrian overcrossings are most successful and cost effective when they can be incorporated into adjacent buildings where vertical circulation is already necessary. That way, maintenance and observation is built-in and the movement seems more natural. Costs can be shared and the structure becomes part of the imagery of the flanking buildings. Sometimes these structures can be dramatic extensions of the development on each side. Elsewhere in this document, the consultants have suggested uses that could bracket both sides of Exposition Drive. The team has also suggested a zone between 3rd Avenue and 4th Avenue North where an overcrossing could make sense. A wholly new pedestrian only entry to MetraPark could be provided at the east end of the crossing. Regardless of any suggestions here, a pedestrian overcrossing would need to be further analyzed with regard to location, structural form, security, cost, and on-going maintenance.

FIGURE 2-23 SPECIAL STREETSCAPE AMENITIES

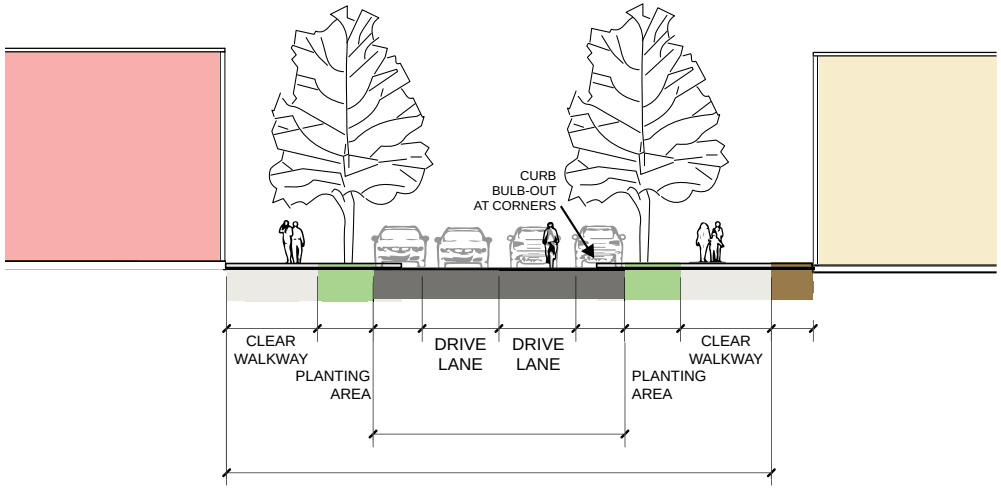

FIGURE 2-24 SIGNATURE STREET SECTION FOR 3RD AVENUE

FIGURE 2-25 POSSIBLE FREEWAY CONNECTION

Signature Street: 3rd Avenue North

3rd Avenue North should be completely re-purposed as a special kind of street that serves as the central spine for the Exposition Gateway Area. It would be narrowed to one lane each direction, with bicycle lanes and parallel parking on each side. As is currently the case today, the intersection with Exposition Drive should be right turn in / right turn out. The sidewalks should be expanded in width and fitted with trees and rain gardens. Walking surfaces should be treated with distinctive, textured paving. Additionally, special pedestrian-scale lighting should be installed.

3rd Avenue North would serve as a quiet, landscaped promenade, linking the EBURD with MetraPark. Depending on the nature of redevelopment, the eastern end could have branches that connect between buildings and lead to other destinations to the north and south. 3rd might also incorporate unusual lighting such as catenary lighting overhead, to give it a "festival street" ambiance. (See images 2-23 that depict this idea.)

Future Connection: Exposition Main to I-9

A connection between the intersection of Exposition Drive and First Avenue North with Interstate 90 has been considered in the past, since the distance between those two points is no more than 1500 feet. This connection would require constructing a grade-separated crossing so as to not disrupt mainline rail movement and it would also require purchasing right-of-way through private property. It would not require purchasing buildings and portions of the connection might allow for cross circulation between the property segments if some of the roadway were to be elevated.

An interchange with the interstate could be a partial one, allowing for west-bound I-90 access to and from the Exposition Gateway Area. Therefore, the Coulson Park area to the south along the river would not be affected. The major benefit of this interchange would be to allow through traffic, particularly trucks, not destined for downtown to avoid streets in the EBURD and downtown. Some of the traffic originating in the Heights could also access I-90 more directly. Although the volumes would remain the same on Exposition Drive (until a Bypass is built), the through traffic would decrease in the EBURD, allowing it to achieve its objectives for mixed use, residential development and walkability. This then could potentially allow portions of 4th and 6th Avenues North to be retrofitted with diagonal on-street parking, which would help support local businesses.

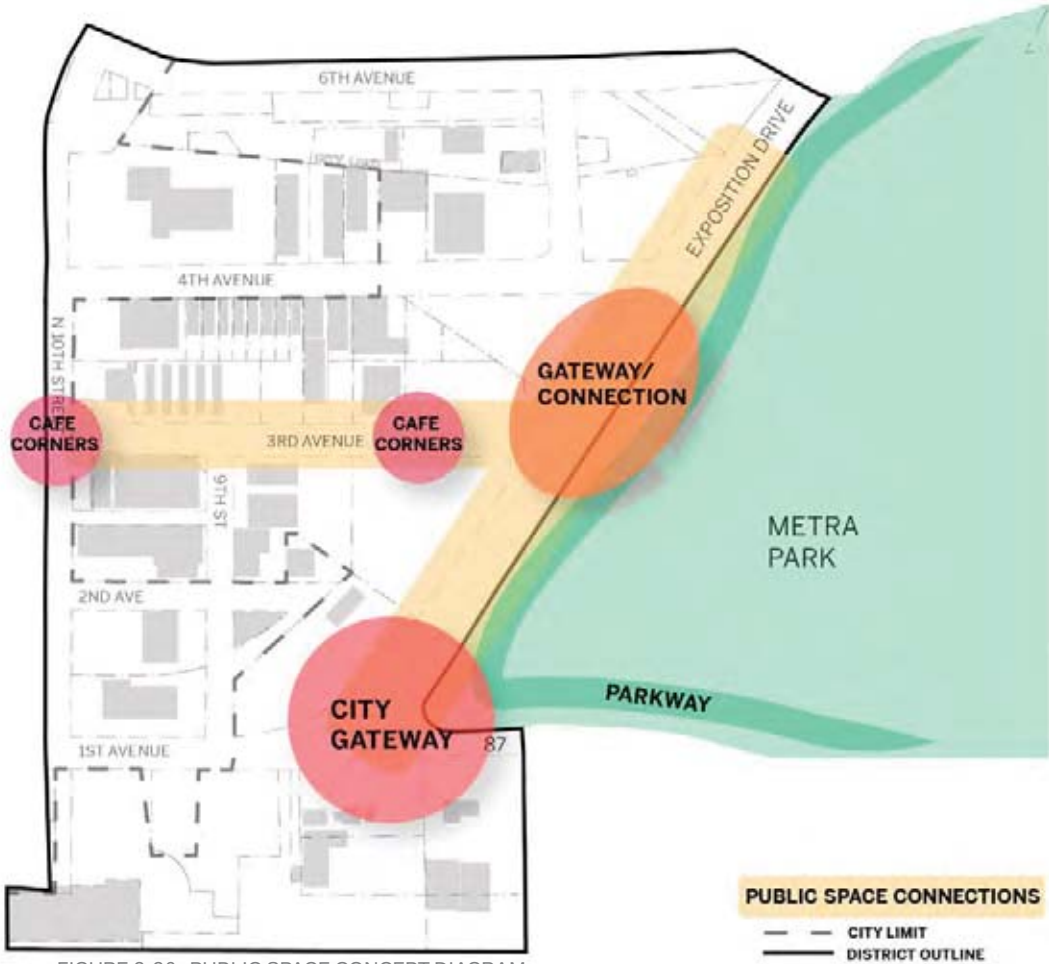

FIGURE 2-26 PUBLIC SPACE CONCEPT DIAGRAM

Public Spaces and Landmarks

3rd Avenue Corridor

A re-design of the 3rd Avenue North corridor could be the focus of many dynamic elements to create a "heart" for the Exposition Gateway Area. As previously described, the street itself can serve as a linear signature feature, with distinctive lighting and landscape design elements. There could be various forms of artwork that could reflect the history, geography and cultures found in the area. Adjacent development could include plazas, forecourts, gardens and sitting areas that help make this a desirable destination for local residents and visitors alike. It can also create a dramatic landmark element, which in this case is suggested to be a pedestrian overcrossing. In a sense, the 3rd Avenue corridor would be a linear focal point. It could be closed for festivals and celebrations. It could link the CBD and MetraPark with a continuous public space that enhances commercial and cultural activity.

First and Exposition Drive Gateway

This location has been indicated above as a place for a future roundabout. It will likely take some time to develop funding for this project. In the meantime it would still be possible to add a dramatic new element that can signal a new identity for the area.

The current sign for MetraPark is showing its age. This could be replaced with a much grander statement about the Park that involves using natural rock walls (echoing the nearby Rims), falling water, storm water retention and infiltration, lighting and artwork, along with signage that announces the place. Many public facilities with the regional significance of MetraPark have gateway markers that befit them. The entire south end of MetraPark could be redesigned to better use the mature stand of trees and gateway feature. This area could also incorporate the multi-use trail leading to the river, as described previously.

FIGURE 2-27 SPECIAL SIGNAGE WITHIN A ROUNDABOUT

A roundabout in this location will require an analysis of operational characteristics, footprint, lane configuration, diameter, and cost-effectiveness. But even before that work is done, a slip lane could be added next to the MetraPark property to make that turn smoother for longer vehicles. This lane could be retained in a future roundabout configuration. The combination of improvements that address freight mobility, circulation, non-motorized vehicles and low-impact development can make an ideal project for attracting grants.

Exposition Drive Parkway Corridor

This corridor has been described as an Urban Boulevard previously. But it is worth repeating that both the east and west sides of the street can reinforce this effect over time. The fence line on the MetraPark side can be moved back to provide a greenbelt containing the existing trees, a new sinuous multi-use trail, lighting and additional landscaping. The fence itself could be a new design, perhaps combining a low masonry wall topped by decorative metalwork. Inserts could display bold cut-out patterns of the wide range of activities within the park, from sports to animal shows to live music. The wall / fence could celebrate the edge of the park and frame the boulevard with elements of local flavor.

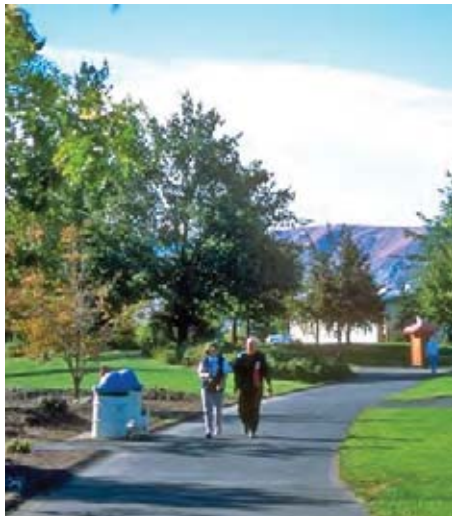

FIGURE 2-28 EXAMPLES OF LANDSCAPED PARKWAYS

The western edge of MetraPark contains two structures. One is an older exhibit barn that clearly has historic value. Preserving and restoring it could give it a new life and role as a piece of Billings' heritage. The other is a much more nondescript structure now used for storage. This building could be replaced with a new use that creates a pedestrian entrance to the park, adds a sense of drama, helps frame the boulevard and connects to a pedestrian overcrossing.

The west side of Exposition Drive should contain development that echoes MetraPark's role in agriculture, arts, sports and entertainment. Building facades could be dramatically lighted and have generous amounts of glass. Lobbies and vertical circulation elements could display people, movement and activity inside. At one or more points, vertical tower forms could mark entrances or end points. If a hotel locates there, it might incorporate a rooftop restaurant or observation deck.

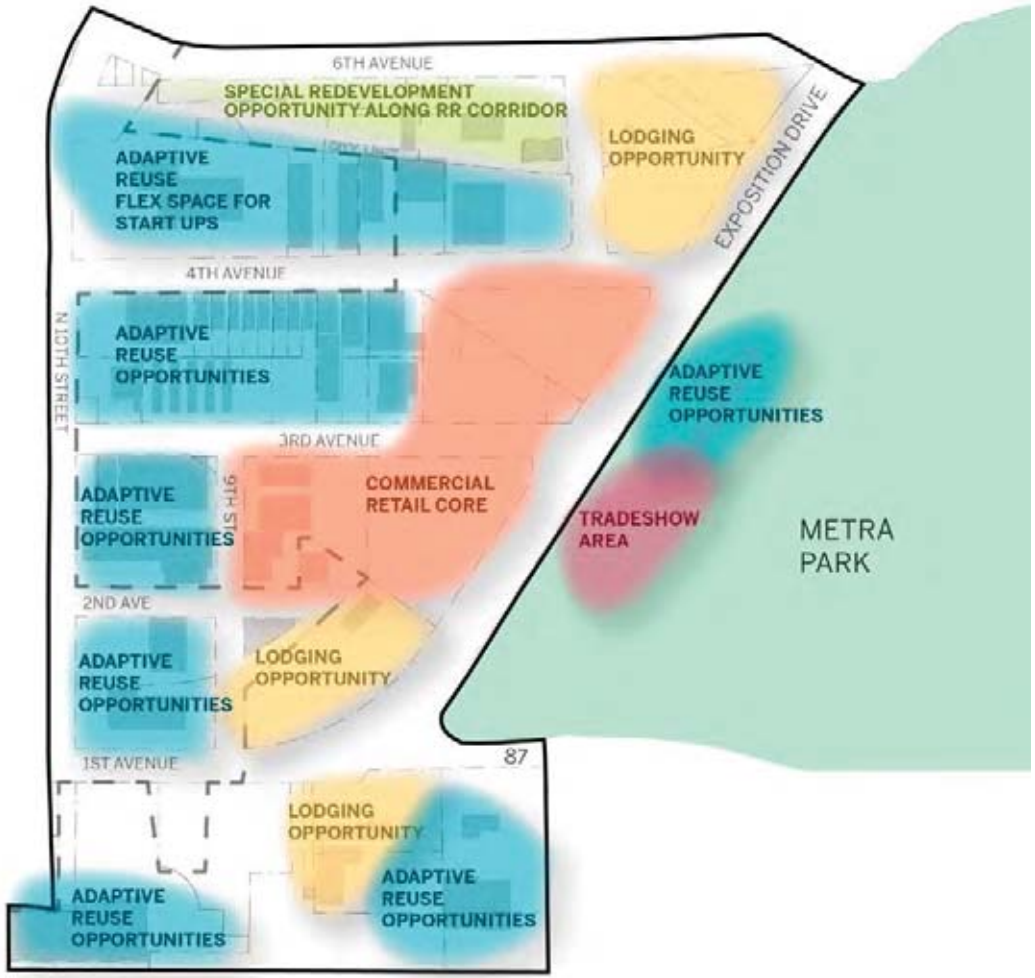

FIGURE 2-29 LAND USE CONCEPT DIAGRAM

Land Development Concept

The recommendations described above have been translated into a development concept. The recommendations have been combined with a range of uses that have been identified as desired and likely to make sense economically for the area. These include the following:

- Hotels
- Cinema Complex
- Restaurants
- Destination Retail Stores
- Start-up Businesses, some of which could involve fabrication
- Shared and Structured Parking

The introduction of new businesses does not assume the wholesale displacement of existing businesses. Rather the area could evolve into a rich mixture of the light industrial uses that are present today with infill of new uses. It is already evident that some current businesses, especially ones that involve heavy use of larger trucks, are seeking better locations with more space and easier access and maneuvering. Over time, as with other similar areas around the country, it is expected that the predominant types of businesses will change as owners reconsider business models, choose different locations, or sell properties to other parties. This could occur over decades. In the meantime, very interesting things could be done to older existing structures to adapt them to new uses. The combination of new and old, industrial and commercial would make for an interesting and dynamic identity for the area.

Over a longer time frame, it might eventually be the case that some people will choose to live there, within infill residential buildings. This phenomenon has been seen in other cities including Bozeman, Spokane, Seattle, Portland, Salt Lake City, Denver and Oakland. The initial wave of residents often is made up of artists, fabricators, and crafts people who have a higher tolerance for an “edgy” neighborhood.

FIGURE 2-30 EXAMPLES OF HOTEL DEVELOPMENT

FIGURE 2-31 CINEMA AND RESTAURANT COMPLEX

FIGURE 2-32 SMALL-SCALE RESTAURANTS

otels

This illustrative plan indicates several places for hotels. None of these are necessarily meant to be fixed or unchangeable. Indeed, there may well be a number of good sites. However, hotels do generally require exposure to highways or arterial streets. They gain great benefit from being close to venues like MetraPark. And they often require sufficient land for large parking lots, at least until land values rise enough to make a garage feasible. This, of course, can change over time, with a parking lot eventually converted to a structure, which then allows more development, whether a new wing of the hotel or another use. The plan anticipates hotels in locations where it seemed logical in the marketplace to see the first ones built. There could be more over time.

Cinema Complex

The easterly portion of the city is not currently served by any movie theaters. Yet, the area's household income and population size could support a small complex of movie theaters. There are a number of models for this around the country. Some depart from the conventional multiplex in that the seating capacities of the individual auditoriums are smaller and food is available. There are some theaters that include other forms of entertainment, such a live music on certain nights. Often, contemporary theaters offer multiple choices, even serving beer and wine with a lounge-like atmosphere. This is also a use that might start out with a large surface parking lot that would be converted to a garage over time.

This type of building is often designed to recapture the formerly popular, dramatic impact of seeing movies on the big screen. Theaters are stacked in multiple floors, there is a large, high-ceilinged lobby surrounded by glass, and a marquee that is big, bold and brightly lit. The "theatricality" of movie theaters has come back, as many people have tired of seeing great films on small screens. And seeing movies is as much about the social experience as about film-watching.

Restaurants

A wide range of restaurants could be located in this area, from national brands to local, home-grown enterprises. Some could be found with hotels or with the cinema complex, while others could be freestanding. It is also possible that some could be located within older industrial structures that have been retrofitted. One cautionary note is that larger restaurants have high demand for parking. This consumes large areas of land which might otherwise be available for buildings. Some national brands insist upon a model that has them situated in the middle of a parking lot. This is a very

FIGURE 2-33 EXAMPLES OF DESTINATION RETAIL

FIGURE 2-34 EXAMPLES OF ADAPTIVE REUSE FOR RETAIL, COMMERCIAL AND MANUFACTURING USES

suburban pattern that usually does not work well in an urban setting. One good solution is to locate them on properties where parking can be shared with other uses. The ideal situation is to have customers park once, then walk to multiple destinations. Most land use regulations today reflect the efficiency gained by shared parking facilities. At some point it might be feasible to consider a shared-use parking structure for the area. These are now being built in other cities, sometime using TIF and / or SID funds or a "fee-in-lieu-of" method that removes parking obligations from individual developments.

Destination Retailing

There are a number of larger parcels situated throughout this area that could lend themselves to special retailing. An example might be a small outlet mall carrying national brands. Another could be a sporting goods company. There are some that even like adapting an older building to their use. There are also models in which a public market like atmosphere is created in older industrial buildings where small vendors and start-up retailers can get a foothold in the market. Many people enjoy and value the opportunity to have access to small local merchants such as artist, artisans, jewelry makers, hat makers, and so on. Older buildings can easily lend themselves to a loft-like ambiance filled with smaller businesses that do not require much space. In contrast to seasonal street fairs, this gives these enterprises exposure to customers, even during periods of inclement weather. There is enough room in the Exposition Gateway Area to accommodate a variety of retail types in both new and re-used facilities.

Start-up Businesses

The number of older industrial buildings in the area could attract smaller, newer businesses that need raw, less expensive space for creating new products. These businesses initially need open, flexible space that can be adapted to widely varying combinations of fabrication, research, marketing, distribution and management. They often use one location and then expand into adjacent space or new space. These kinds of businesses have been fueling significant job growth within cities for the past ten years, even with the recession. Billings already has seen a number of these types of businesses get started and flourish, even within the EBURD. The Exposition Gateway Area has an inventory of buildings that could serve this purpose. In a sense, it's the New Economy, re-purposing structures used by the previous industrial economy. There is even a current

FIGURE 2-35 EXAMPLES OF PARKING STRUCTURES

phenomenon in some cities of a larger, older structure being redesigned to hold a number of smaller businesses that can share meeting spaces, lounge areas, and business services. Often, these can go into very minimal, raw space, as that is part of their creative, entrepreneurial image.

Shared and Structure Parking

As part of the EBURD zoning updates, a new parking overlay was adopted that establishes lower parking ratio and allows properties within the City to utilize onstreet as part of their overall parking count. Adopting this parking overlay will help to promote more dense, walkable development within the Expostion Gateway Area. However, over time, as development begins to infill into the area, the existing ample onstreet parking may begin to feel scarce. In order to accommodate the variety of proposed uses into a more successful urban pattern in the Exposition Gateway Area, it may be advantageous for the City and the County to explore the additional effective ways to accommodate parking. Placing the parking burden on each individual development is expensive and usually produces an environment that falls short of community and customer expectations. By finding appropriate ways and sites for shared surface parking initially, and when economically viable, structured parking, will help create a more lively, welcoming and robust mixed-use environment and one that will provide a greater public return on investment from jobs to taxes.

E ect on Property Values

It is expected that all of these actions by public and private entities will, over time, result in an increase in property values. This is considered desirable since it will help fund improvements to infrastructure, streets and public spaces. The suggested improvements may not benefit all property owners to the same degree. Ideally, a mechanism should be employed to grant tax relief to small properties that are not ideal for redevelopment. Each property owner will need to evaluate the costs and benefit of participation in this redevelopment initiative to determine what makes sense for them: redevelopment, sales, or status quo.

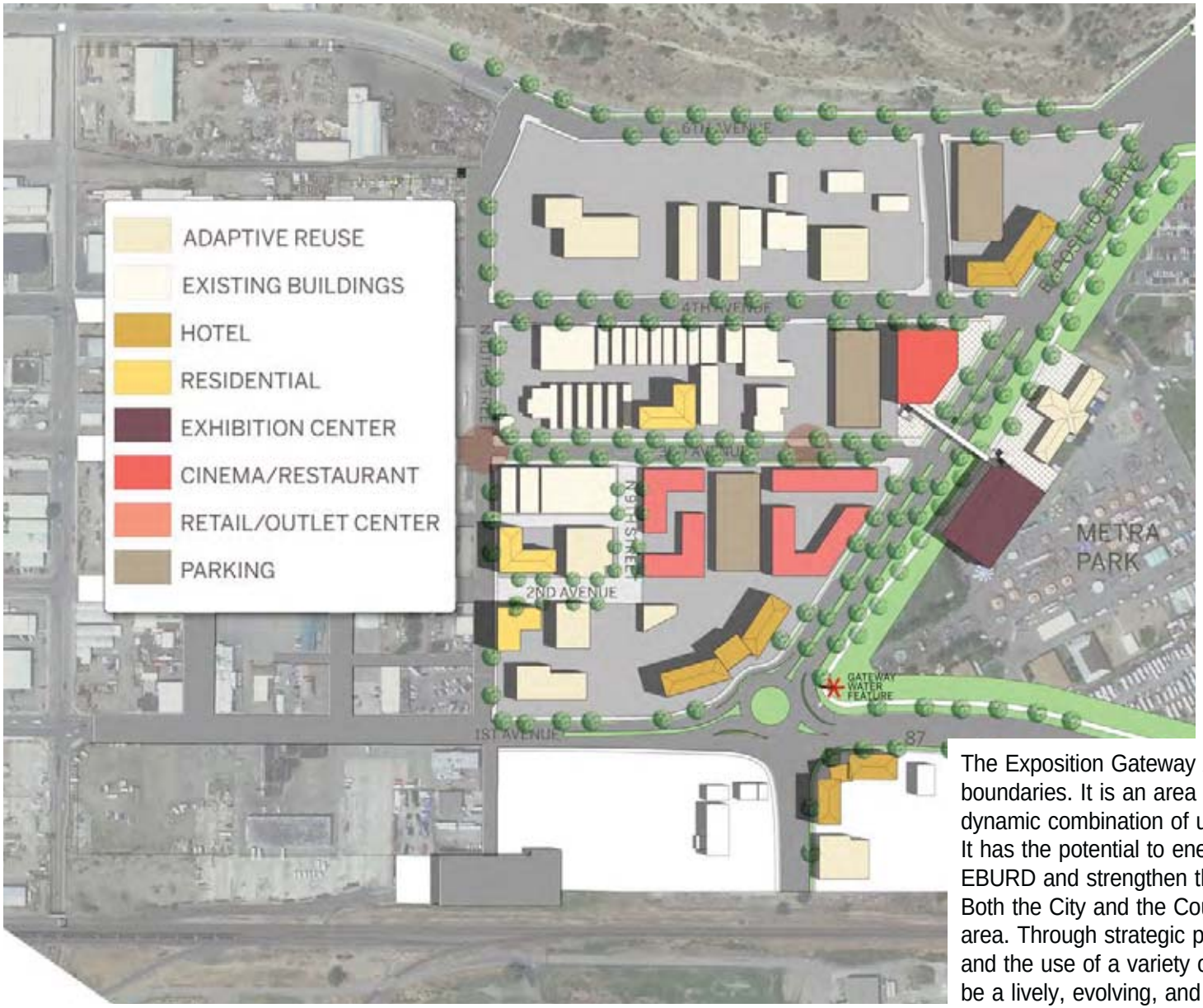

FIGURE 2-36 ILLUSTRATIVE DEVELOPMENT PLAN

The Exposition Gateway Area straddles the City and the County boundaries. It is an area that could hold a very diverse and dynamic combination of uses, activities, spaces, and streets. It has the potential to energize and anchor the east end of the EBURD and strengthen the highly valued MetraPark complex. Both the City and the County have a stake in the future of the area. Through strategic public investments, creative marketing and the use of a variety of development tools, this area could be a lively, evolving, and a unique community and regional destination.

FIGURE 3-1 FIRST EXPOSITION GATEWAY AREA PROPERTY OWNER WORKSHOP

SECTION
IMPLEMENTATION

Implementing the recommendations in this plan will require cooperation among a number of individuals, organizations and government agencies. No one party will be able to achieve all the goals for the Exposition Gateway Area alone; collaboration and coordination will be necessary.

The action items listed in this section indicate that the property owners, working within the structure of the BIRD organization, will take the lead but other agencies and organizations will be involved in the effort at various points in time.

Level o Landowner Support

A balloting process was conducted by the BIRD of all of the landowners in the study area. Landowners were contacted at least 5 times and many attended two public meetings. The results of balloting were: 21 landowners in favor of the plan; 3 landowners oppose the plan; 10 landowners did not respond. Of the Nonresponse landowners two are the BNSF railroad and Rail Link. They have been in on the planning process and it is anticipated that the agencies will review the final plan and voice their support. Several of the other nonresponsive landowners just say they want to wait. This is a tremendous positive response to such a massive project.

The following steps are roughly in order with respect to what needs to occur first to what requires a longer planning horizon. However, the first ten (A-J) are essential.

Appendix A includes a more detailed description of a number of specific implementation tools.

FIGURE 3-2 EXAMPLES OF STORM DRAINAGE IMPROVEMENTS

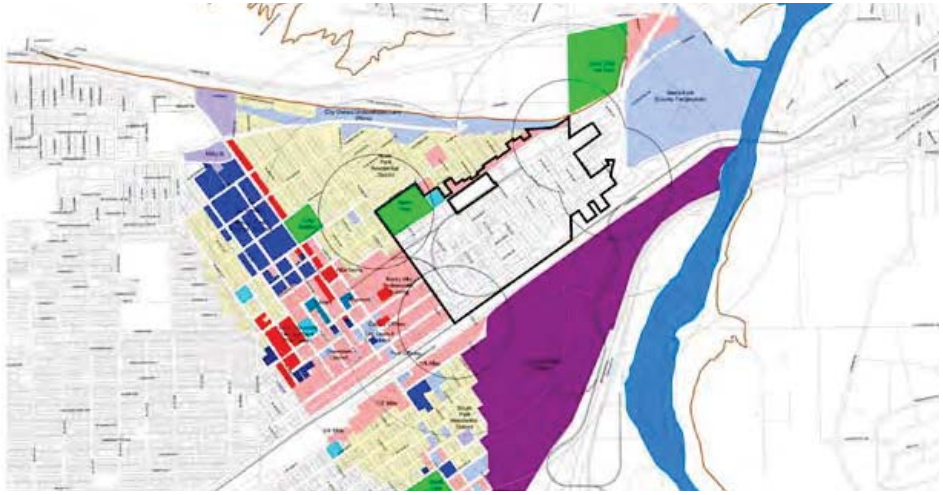

FIGURE 3-3 HOUSING STUDY FOR EAST BILLINGS TIF DISTRICT FROM EBURD MASTER PLAN

FIGURE 3-4 EXAMPLE OF URBAN BOULEVARD IMPROVEMENT

A County Commissioners Adoption o the Plan

The plan should be presented to individual commissioners and discussed, then brought to a vote for formal adoption.

B City Council Adoption o the Plan

The plan should be presented to individual city councilors and discussed, then brought to a vote for formal adoption.

C City o Billings Commence Engineering o In rastructure to Upgrade Repair Utilities Streets

The Public Works Department of the City of Billings should begin engineering, planning for the infrastructure (utilities, streets, sidewalks, curb and gutter) to be built in the Gateway area. Costs and time lines for the construction and long term maintenance should be developed in coordination with the BIRD, Yellowstone County, and the Montana Department of Transportation.

D BIRD is the organi ation that represents the Area

Encourage property owners to join the BIRD, which would drive the implementation program, working with various governmental agencies and jurisdictions.

E BSEDA and BIRD develop a Marketing Prospectus or the Area

The BIRD & BSEDA should assemble an illustrated prospectus for the purpose of marketing the area. This should include information on properties, ownerships, land values, incentives and other market information of interest to developers and businesses.

F Urban Renewal District and TIFD Inclusion

Once all parcels of the Expo Gateway Study Area are assimilated into the City, they will then be included into the East Billings Urban Renewal District (EBURD) and in to the TIFD District.

G Develop a EBURD Code designation or this Area

Develop an EBURD zoning designation within the EBURD Code for this area to suit the specific area needs, including hospitality uses. Then adopt the EBURD Zoning Code and Parking Overlay for this area.

Reconstruct Exposition Drive into an Urban Boulevard

The BIRD working with the City, the County and MDT drive the reconstruction of the segment of Exposition Drive between 1st Avenue and 6th Avenue into an urban boulevard. This would include: 1) new lighting, a planted median,

FIGURE 3-5 EXAMPLE OFUNIQUE GATEWAY WATER FEATURE

FIGURE 3-6 EXAMPLE OF ROUNDABOUT CONNECTION TO THE INTERSTATE

and trees along the edges; 2) a multi-modal trail along the east edge; 3) relocating the MetraPark fence 30 feet to the east to allow for the trail to meander and; 4) swales to collect and filter run-off, artwork, and wayfinding signage. This would require several steps: a preliminary "pre-design study" to determine the general physical elements and the costs, finding funding sources, applying for the funds, designing the corridor, and providing plans and specifications. This is, as with most similar projects, a multi-year effort.

I Develop a New Gateway Feature at MetraPark

The BIRD working with the County, MetraPark Board, BSEDA and Chamber of Commerce create a new entry gateway feature, northeast of the intersection of 1st Avenue and Exposition Drive. This should include a new sign, landscaping, major water feature and artwork that reflect the region. This project should also include moving the southern fence line to the north to allow for a continuous bike path from the river to this intersection.

Pedestrian Crossing to MetraPark

The BIRD working with the City, the County and MDT construct a pedestrian undercrossing or overcrossing of Exposition Drive This would require several steps: a preliminary "pre-design study" to determine the location, type and length, costs, finding funding sources, applying for the funds, designing the crossing, and providing plans and specifications.

K Connection to I-9

The BIRD and MDT working with the various governmental entities conduct a feasibility study of a new connection to I-90 that allows through traffic, especially truck traffic, to relieve traffic that is forced thru downtown Billings. This would also enhance transportation commerce as it shortens the time to the interstate from points north. The interchange should be an "on ramp only" to avoid impacting the riverfront park and reduce the costs of construction.

FIGURE 3-7 EXAMPLE OF EXHIBITION CENTER WITH BRIDGING ELEMENT

L Exhibition Center

The BIRD working with the County and MetraPark Board commission a study of a possible exhibition center along the west edge of MetraPark that can tie into a pedestrian crossing and create a additional entrance to the grounds. This could be combined with a project to restore the old, historic building. The exhibition center would emphasize high quality, large, flat-floor, column-free space that could be tied to nearby hotels as a destination and offer another revenue stream for MetraPark. The study would examine market demand, size, function, capital costs and operating costs, and income. The exhibition center should a distinctive, civic building that extends the character of the Rimrock Auto Arena.

IMPLEMENTATION PROGRAM -TIME FRAME

PROPERTY OWNERS		COORDINATING AGENCIES	ROLE	S ORT-TERM -3 YEARS	LONG-TERM 3- YEARS
A	County Commissioners Adoption the Plan	County/BIRD	APPROVAL		
B	City Council Adoption of the Plan	City/BIRD	APPROVAL		
C	City of Billings Commence Engineering of Infrastructure to Upgrade & Repair Utilities & Streets	City/County/BSEDA/MDT	APPROVAL/ COORDINATION		
D	BIRD is the organization that represents the Area	BIRD/Property Owners	COORDINATION		
E	BSEDA and BIRD develop a Marketing Prospectus for the Area	City/ BSEDA/BIRD	COORDINATION		
F	Urban Renewal District and TIFD Inclusion	City	SUPPORT		
G	Develop a EBURD Code designation for this Area	City	APPROVAL		
	Reconstruct Exposition Drive into an Urban Boulevard	City/MDT	APPROVAL		
I	Develop a New Gateway Feature at MetraPark	County/ MetraPark board	COORDINATION		
	Pedestrian Crossing to MetraPark	City/County/ MDT	COORDINATION		
K	Connection to I-90	City/County/ MDT	APPROVAL		
L	Exhibition Center	County/ MetraPark board	APPROVAL		

POLICY

CAPITAL IMPROVEMENTS

MARKETING AND PROMOTION

REFERENCES

2 8 Yellowstone County City o Billings Growth Policy
http: / / ci.billings.mt.us / DocumentView.aspx?DID=4281

Infill Development Policy
Adopted by City Council on December 12, 2011
http: / / www.ci.billings.mt.us / DocumentCenter / Home / View / 20851

Billings Area Bikeway Trail Master Plan
Adopted by the Policy Coordinating Committee on August 9, 2011
http: / / ci.billings.mt.us / DocumentCenter / Home / View / 6750
This Plan includes:
- Existing Bikeway and Trail Network map (Page 45)
- Proposed Bikeway and Trail Network map (Page 57)

EBURD Parking Overlay District
Adopted by City Council on April 12, 2010
http: / / www.ci.billings.mt.us / DocumentCenter / View / 21341

EBURD Code
Adopted by City Council on September 10, 2012
http: / / agenda.ci.billings.mt.us / docs / 2012 / CC / 20120910_89 / 1979_
EBURD%20Code%20Adopted.pdf

Billings Urban Area Transportation Improvement Program TIP
Amendment III, January 2012
http: / / www.ci.billings.mt.us / DocumentCenter / View / 20979

City o Billings Downtown Framework
1997
http: / / mt-billings.civicplus.com / DocumentCenter / Home / View / 1509

East Billings Urban Renewal District Master Plan
July 2009
http: / / ci.billings.mt.us / DocumentView.aspx?DID=4825

Billings Chamber Convention Visitors Bureau
Comprehensive Tourism
Research and Strategic Plan
February 2010
- http: / / www.visitbillings.com / staging / files / 4e93313031203.pdf

Billings Executive Con erence Center Study
March 2011

6th Avenue N Bench Corridor Study Presentation
(Sanderson Stewart Traffic Study), December 2012
http: / / www.ci.billings.mt.us / DocumentCenter / View / 21575

APPENDIX A- FINANCIAL ANALYSIS MEMORANDUM

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ECONorthwest
ECONOMICS • FINANCE • PLANNING

DATE: April 8, 2013 ECO Project #:20960
TO: Sara Hudson, Big Sky Economic Development and LMN Architects
FROM: Anne Fifield and Abe Farkas
SUBJECT: FINANCIAL ANALYSIS TEXT FOR BILLINGS REPORT

This memorandum provides text that describes the financial feasibility analysis for the five different building type concepts. We have written the text with the expectation that LMN Architects will be able to insert this text as appropriate into the final report. This memorandum has two sections:

- **Financial Feasibility and Financing** describes the pro forma analyses and the proposed financing plans. The text includes introductory text and five parts—one for each conceptual building type.
- **Development Schedule and Bonding Capacity** describes the order and schedule to implement the conceptual types. It also discusses some issue the estimated amount of bonding capacity generated by increment revenue from the conceptual development.

Financial Feasibility and Financing

ECONorthwest developed preliminary pro forma models for five different proposed development types in the study area: adaptive reuse, hotel, outlet retail, cinema, and a parking structure. The pro forma models compare estimated construction and development costs with potential rents to determine the financial feasibility of each development type. ECONorthwest also identified a package of potential financing tools for each development type. This section describes the assumptions and conclusions used in the pro forma models for each of the five development types. Please refer to the pro forma spreadsheets in Appendix B for the full set of data.

Adaptive reuse

The Expo Gateway area includes a variety of older industrial buildings. The team did not identify a particular building to adaptively reuse, but instead developed a pro forma for a generic 4,000 square foot (SF) building. We assumed the space would be evenly split between retail space and a restaurant.

Development Costs and Operating Revenues

To estimate construction costs, ECONorthwest interviewed commercial contractors in the Billings area. The pro forma model assumed that construction will cost $80 per SF for the retail space and $100 for the restaurant space and that both uses will include $15 per SF for tenant improvements. Total hard costs will equal $417,000. Total development costs include the cost of land ($7 per SF), the existing building ($25 per SF), developer fees (5%), soft costs (10%) and a 5% contingency. Total development costs will be $642,000.

To calculate the net operating income (NOI) and the expected market value, ECONorthwest assumed both rents and operating costs increase 3% per year. We assumed that operating expenses, including lease commissions, equal 15% of gross revenue. Operating expenses are low because the rent is triple net. The pro forma assumed the capitalization rate is 8.0%. It used the following rents and vacancy rates.

- The annual **retail** rents are $14 per SF ($1.17 per month) triple net. We assume that vacancy will be 0%, as the structure will be built to suit.
- The annual **restaurant** rents are $15 per SF ($1.25 per month) triple net. We assumed that vacancy will be 0%, as the structure will be built to suit.

The pro forma estimated that the adaptive reuse structure would have a positive net operating (NOI) in its first year of operation.

Development Financing and Resources

ECONorthwest identified a packet of financing tools for the adaptive reuse prototype. To finance the development, we identified the sources described in Table 1.

Table 1. Adaptive Reuse Concept Development Financing and Resources

Source	Amount	% of Total Costs	Explanation
Bank Loan	$370,000	58%	A loan from a private bank, at 6% over 20 years.
Loan from TIF funds	$150,000	23%	This assumes that the current urban renewal area would be extended to cover the Expo area or that a new urban renewal area would have been created. In either case the amount of TIF is relatively small. The loan will be at 1% for 15 years.
Private equity	$122,500	19%	The pro forma calculates the payment the private equity investors would receive in Year 10. Their payment (secured through a refinancing or sale) is the value of the building minus the remaining debt. The internal rate of return for the equity is 17%.

The reconstruction of an existing building would increase its value and associated property tax revenue. ECONorthwest estimated that the value of the structure would increase by about $500,000—the value brought generated by the building's rehabilitation and tenants. We estimated that the increased value would generate about $8,000 per year in tax increment for an urban renewal district.[1] The tax revenue actually generated by such a development will vary based on costs, quality of the construction, and assessed values.

[1] Based on the assumption that every $1,000,000 in new taxable value generates about $16,000 in annual tax increment revenue. Actual amounts vary based on mill levies affecting individual properties. This is a preliminary and rough estimate. Actual revenue will depend on the application of current Urban Renewal laws and rules in Montana. We recommend a more precise estimate of tax increment revenue be calculated as part of a tax increment district plan whether the City or the County administers it.

Hotel

The conceptual development plan includes a hotel. In the pro forma, we modeled a 180-room hotel with 500 gross SF per room. The gross SF figure includes the lobby, halls, conference space, and a restaurant. The net SF for the room will be between 225 and 350 SF. We assumed the gross SF for the entire structure will be 90,000 and it will be a wood-frame structure with three or four floors. The hotel will include a 2,500 SF restaurant.

Development Costs and Operating Revenues

The development costs include land, hotel construction costs, hotel furniture, fixtures and equipment (FF&E), and restaurant tenant improvement costs. To estimate construction costs, ECONorthwest interviewed a company that had recently constructed a hotel and was familiar with typical hotel costs. The pro forma incorporated the following assumptions:

- Estimated land cost $7 per SF. The total site is 2.0 acres, yielding total land costs of $610,000.
- The hotel's hard costs for construction is estimated at $152 per SF and FF&E is projected at $15,000 per room, yielding total costs of $16.4 million.
- The restaurant's construction costs were accounted for in the hotel's construction costs. The tenant improvements are assumed to be $40 per SF, for a total of $100,000.
- The total development costs include developer fees (5%), soft costs (20%) and a 5% contingency.

We estimate that total hard costs will be $16.5 million and total development costs will be $21.3 million.

To calculate the net operating income (NOI) we applied occupancy and room rates estimated to be appropriate for the Billings market, based on data from Smith Travel. We assumed the average room rate is $118 and it will increase 3% per year. We assume occupancy is 64% in Year 1 and increases incrementally to 72% by Year 5, the year we assumed it will stabilize. We assumed that the cost of operating the hotel equals 67% of gross revenues, based on a pro forma provided to ECONorthwest from a hotel operator. The pro forma assumed the restaurant use in the hotel pays $15 per SF (triple net), generating $37,500 in rent. The model estimated that the hotel structure will have a positive net operating (NOI) in its first year of operation.

The pro forma assumed the capitalization rate is 8.0%.

Development Financing and Resources

ECONorthwest identified a packet of financing tools for the hotel prototype, including private equity, a private bank loan, and financing from the federal EB-5 program. For more information about the EB-5 program, please refer to Appendix A.

The EB-5 financing is a 5-year low-cost equity injection that we assumed would be refinanced with a private bank loan. The amount of available financing from EB-5 depends on the number

of jobs the development will generate. The EB-5 program requires that at least 10 jobs be created for every $500,000 invested. To be conservative, our formula is based on creating 12 jobs for every $500,000 of EB-5 funding. For projects located within a targeted employment area (TEA) EB-5 allows the calculation to include indirect jobs associated with hard construction costs as well as longer term operating jobs, direct and indirect. We realize that Billings as a whole has a relatively low unemployment rate. TEAs can be created by identifying a qualifying census tract within a reasonable distance from the project and then asking the Governor's office to certify that the larger area (which includes the higher unemployment census tract) qualifies as a TEA. ECONorthwest's analysis assumes that it is feasible to establish a TEA in this area.

To estimate the available financing from EB-5 investors, ECONorthwest estimated the number of jobs the hotel would generate using an input-output analysis with the IMPLAN model.[2]

- For the construction phase, the input-output analysis estimated that commercial construction generates 8 indirect jobs for every $1 million in construction costs. Based on our estimated hard costs of $16.5 million, the construction of the hotel will generate 132 jobs.
- For the operations phase, ECONorthwest used input-output analysis to estimate that the hotel will create 91 jobs.

Combined, the construction and operations phases will generate 223 jobs, making it possible that the EB-5 program could bring $9.3 million to the project. ECONorthwest opted to use less than what is allowed because 1) EB-5 investors would be more likely to select this project if other partners provided a greater share of the overall financing and 2) the return for the private equity is favorable.

Table 2 summarizes the sources that could be used to finance the hotel development.

[2] IMPLAN is an input-out model used to track dollars, starting with the initial project being studied, as they ripple through an economy from one employment sector to the next. The model estimates the number of jobs, income, and economic output that can be traced to the initial project. The model estimates direct impacts, which are those directly generated by the project. It also calculates indirect impacts, which are the jobs and income earned by workers in industries supplying the project.

Table 2. Hotel Concept Development Financing and Resources

Source	Amount	% of Total Costs	Explanation
EB-5	$5.0 million	23%	An EB-5 low-cost equity amount is based on a calculation that indirect hard cost construction jobs for the project will generate 132 jobs and the operating the hotel will generate 288 jobs. The pro forma then conservatively assigns 12 jobs to every $500,000 from EB5 investors. The loan will be at 3% for 5 years. It is paid off in Year 5 with a second bank loan.
Bank Loan	$14.2 million	67%	A loan from a private bank, at 6% over 20 years.
Private equity	$2.1 million	10%	The pro forma calculates the payment the private equity investors would receive in Year 10. Their payment (secured through a refinancing or sale) is the value of the building minus the remaining debt. The internal rate of return for the equity is 32%.
2nd Bank Loan	$5.8 million	na	A loan from a private bank to pay off the EB-5 loan. It starts in Year 6. The pro forma assumes the loan is at 6.5% over 30 years.

Assuming the new hotel would be in the City, it would increase the City's tax base and associated property tax revenue. ECONorthwest estimated that the value of the site would increase by about $20.7 million—the value of the new construction. We estimated that the increased value would generate about $330,000 per year in tax increment for an urban renewal district.[3] The tax revenue actually generated by such a development will vary based on costs, quality of the construction, and assessed values.

Outlet Retail

The conceptual development plan includes 200,000 gross SF of retail space, with the expectation that the retail space would accommodate an outlet mall.

Development Costs and Operating Revenues

To estimate construction costs, ECONorthwest interviewed commercial contractors in the Billings area. The development costs include land, construction, and a tenant improvement allowance. The pro forma incorporated the following assumptions:

- The land is estimated to cost $7 per SF. The total site is 4.1 acres, yielding total land costs of $1.25 million.
- The hard costs for construction was estimated to be $100 per gross SF and the tenant improvement allowance will be $40 per leasable SF, yielding total hard costs of $26.8 million.

[3] Based on the assumption that every $1,000,000 in new taxable value generates about $16,000 in annual tax increment revenue. Actual amounts vary based on mill levies affecting individual properties. This is a preliminary and rough estimate. Actual revenue will depend on the application of current Urban Renewal laws and rules in Montana. We recommend a more precise estimate of tax increment revenue be calculated as part of a tax increment district plan whether the City or the County administers it.

- The total development costs include developer fees (5%), soft costs (15%) and a 5% contingency.

We estimated that total hard costs will be $26.8 million and total development costs will be $36.5 million.

To calculate the NOI and the expected market value, ECONorthwest assumed that both rents and operating costs increase 3% per year. We assumed that operating expenses, including lease commissions, equal 15% of gross revenue. Operating expenses are low because the rent is triple net. The pro forma assumed the capitalization rate is 8.0%. It assumed that annual rents will be $17 per SF (triple net) and the vacancy rate will be 20% in Year 1, 10% in Year 2, and 5% in Year 3 and into the future.

The pro forma estimated that the outlet retail structure would have a positive NOI in its first year of operation.

Development Financing and Resources

ECONorthwest identified a packet of financing tools for the outlet retail concept. The EB-5 financing is a 5-year low-cost equity injection that we assumed would be refinanced with a private bank loan. The amount of available financing from EB-5 depends on the number of jobs the development will generate. For reasons stated above we assume that at least 12 jobs be created for every $500,000 invested. We again assume that this development would be in a TEA, which allows the EB-5 calculation to include indirect jobs associated with hard construction costs.

To estimate the available financing from EB-5 investors, ECONorthwest estimated the number of indirect jobs the construction would generate using an input-output analysis with the IMPLAN model. The input-output analysis estimated that commercial construction generates 8 indirect jobs for every $1 million in construction costs. Based on our estimated hard costs of $26.8 million, the construction of the outlet retail space will generate 214 jobs, making it possible that the EB-5 program could bring $8.9 million to the project. ECONorthwest opted to use the full amount available because 1) even with the substantial private investment the private equity return was still on the cusp of acceptability in the market and 2) the EB-5 funds as a portion of the total project is relatively low, under 25%.

Table 3 summarizes the sources that could be used to finance the outlet retail development.

Table 3. Outlet Retail Concept Development Financing and Resources

Source	Amount	% of Total Costs	Explanation
EB-5	$8.9 million	24%	An EB-5 low-cost equity injection amount is based on a calculation that indirect hard cost construction jobs for the project would generate 214 jobs. The pro forma then conservatively assigns 12 jobs to every $500,000 from EB5 investors. The loan will be at 3% for 5 years. It is paid off in Year 5 with a second bank loan.
Bank Loan	$20.0 million	55%	A loan from a private bank, at 6% over 30 years.
Private equity	$7.6 million	21%	The pro forma calculates the payment the private equity investors would receive in Year 10. Their payment (secured through a refinancing or sale) is the value of the building minus the remaining debt. The internal rate of return for the equity is 16%.
2nd Bank Loan	$10.4 million	na	A loan from a private bank to pay off the EB-5 loan. It starts in Year 6. The pro forma assumes the loan is at 6.0% over 25 years.

Assuming the new outlet retail development is in the City, it would increase the City's tax base and associated property tax revenue. ECONorthwest estimated that the value of the site would increase by about $35.2 million—the value of the new construction. We estimated that the increased value would generate about $560,000 per year in tax increment for an urban renewal district.[4] The tax revenue actually generated by such a development will vary based on costs, quality of the construction, and assessed values.

Cinema

The conceptual development plan includes a movie theater. The movie theater concept here includes non-traditional seating with food service. A number of cities have embraced these facilities which can offer arts films as well as first-run movies—which many do after they have been out for a few days to keep their costs down. The Living Room Theater (in Portland, Oregon and Boca Raton, Florida) is a recent example (http://pdx.livingroomtheaters.com/theater_tour.html).

ECONorthwest researched the operating costs and revenue of movie theaters. The research indicated that traditional theaters have a wide range of operations expenditures, depending on the types of movies they show and their ability to sell and mark up concessions. Movie theaters make the majority of their profits from concessions, not ticket sales.

A theater's rent expense is sometimes a set percent of gross ticket sales and sometimes based on a dollar per SF rate. While rents can be based on gross revenues or a combination of a base rent and gross revenues, ECONorthwest relied on a $14.50 per SF rate in the pro forma model

[4] Based on the assumption that every $1,000,000 in new taxable value generates about $16,000 in annual tax increment revenue. Actual amounts vary based on mill levies affecting individual properties. This is a preliminary and rough estimate. Actual revenue will depend on the application of current Urban Renewal laws and rules in Montana. We recommend a more precise estimate of tax increment revenue be calculated as part of a tax increment district plan whether the City or the County administers it.

because it was an efficient way to test this product at an early stage. That is a reasonable rate for retail space in Billings, and at the low end for new space.

Development Costs and Operating Revenues

To estimate construction costs, ECONorthwest interviewed commercial contractors in the Billings area. The development costs include land, construction, and tenant improvement allowance. The pro forma incorporated the following assumptions:

- The land will cost $7 per SF. The total site is 2.5 acres, yielding total land costs of $760,000.
- The hard costs for construction will be $127 per gross SF and the tenant improvements will cost $40 per leasable SF, yielding total costs of $6.7 million.
- The total development costs include developer fees (5%), soft costs (15%) and a 5% contingency.

We estimated that total hard costs will be $6.7 million and total development costs will be $9.2 million.

To calculate the NOI and the expected market value, both rents and operating costs are assumed to increase 3% per year. We assumed that operating expenses equal 15% of gross revenue. The pro forma assumes the capitalization rate is 8.0%. It assumed that annual rents will be $14.50 per SF (triple net) and the vacancy rate will be 0%.

The pro forma estimated that the cinema concept would have a positive NOI in its first year of operation.

Development Financing and Resources

ECONorthwest identified a packet of financing tools for the cinema concept. In this case, we propose using New Market Tax Credits (NMTC), which the City has already used in the EBURD area. NMTC program enables very low interest rate financing to be injected into a project as a loan or equity for a required seven years. The project must be in a NMTC-qualified census tract. For a more detailed description of the NMTC program, please refer to Appendix A.

Table 4 summarizes the sources that could be used to finance the cinema concept.

Table 4. Cinema Concept Development Financing and Resources

Source	Amount	% of Total Costs	Explanation
NMTC	$2.1 million	23%	Federal tax credit program available for a portion of the development. The project pays 1.0% on the value of the credits for the first seven years.
Bank Loan	$6.0 million	65%	A loan from a private bank, at 6% over 30 years.
Private equity	$1.1 million	12%	The pro forma calculates the payment the private equity investors would receive in Year 10. Their payment (secured through a refinancing or sale) is the value of the building minus the remaining debt. The internal rate of return for the equity is 19%.

A new cinema development would increase the City's tax base and associated property tax revenue. ECONorthwest estimated that the value of the site would increase by about $8.4 million—the value of the new construction. We estimated that the increased value would generate about $130,000 per year in tax increment for an urban renewal district.[5] The tax revenue actually generated by such a development will vary based on costs, quality of the construction, and assessed values.

Parking Structure

The conceptual development plan includes 230-space public parking garage. ECONorthwest estimated that it will be 86,250 gross SF, and at four stories will require 0.54 acres. The parking structure would replace some of the area's surface parking.

Development Costs and Operating Revenues

To estimate construction costs, ECONorthwest interviewed a commercial contractor in the Billings area. The development costs include land and construction. The pro forma incorporated the following assumptions:

- The land will cost $7 per SF. The total site is 0.54 acres, yielding total land costs of $163,000.
- The hard costs for construction will be $56 per gross SF, yielding total costs of $4.8 million.
- The total development costs include developer fees (5%), soft costs (10%) and a 5% contingency.

We estimated that total hard costs will be $4.8 million and total development costs will be $5.9 million.

[5] Based on the assumption that every $1,000,000 in new taxable value generates about $16,000 in annual tax increment revenue. Actual amounts vary based on mill levies affecting individual properties. This is a preliminary and rough estimate. Actual revenue will depend on the application of current Urban Renewal laws and rules in Montana. We recommend a more precise estimate of tax increment revenue be calculated as part of a tax increment district plan.

ECONorthwest assumed that the parking structure will not charge fees—it will offer unpaid parking. Therefore, the NOI is $0 throughout the period modeled in the pro forma. It is possible, as other cities have experienced, that over time the garage may become a pay-to-park facility. This evolution would more likely take place when/if paid on street parking became are reality.

Development Financing and Resources

Because ECONorthwest assumed that parking structure will operate with zero revenues, it must be entirely funded by the public sector unless an agreement is struck with developers of the retail center and hotel to help with ongoing costs, as the garage primarily benefits them. If developers opted to participate in the financing it could be done through establishment of a special improvement district (SID) that could be a complement to TIF. To be conservative in this case, we assume the parking structure would be financed with bonds supported by TIF revenue generated from the other four development concepts.

We estimate that the four developments will yield a little over $6 million in bonding capacity, enough to cover our estimated cost of a 230-space parking structure. If more TIF is generated then the garage size can be increased.

ECONorthwest estimated the bonding capacity created by each development concept and calculated the total bonding capacity available to finance the parking structure. We provide the figures in the section titled Development Schedule and Bonding Capacity.

Summary of Financial Feasibility

The pro forma analyses for the five proposed uses show that all uses but the parking structure have net positive revenue beginning in the first year of operations. Actual profitability of any of these uses will vary with current constructions cost, achievable rents, and financing terms.

The first four uses—adaptive reuse, hotel, outlet retail, and a cinema are all financed primarily with funds from the private sector. They all include a mix of private equity and a conventional loan financed by a bank. The financial feasibility analyses shown in the pro formas also show a mix of quasi-public funding, including EB-5 or New Market Tax Credits. The conceptual development plans shows how those four uses could be used to generate enough tax increment revenue to fully fund the construction of a parking garage. Because the parking garage would be publicly owned and serving multiple blocks, and because these kinds of garages have been funded with TIF in many communities, ECONorthwest believes that using TIF for this facility is viable.

Table 5 shows the portion of each financing tool we applied to this preliminary financing plan for the conceptual development. The total private investment in the area, based on the assumptions shown in this conceptual development plan, will actually depend on the size of any actual development, the quality of the development, current market conditions in the local market for each use, and other factors that affect private investors' appetite for investing in these uses at this location.

Table 5. Portion of Financing Tool Applied to Each Use in the Conceptual Development Plan

	Bank Loan	Private Equity	TIF Loan	EB-5	NMTC
Adaptive Re-use	58%	19%	23%	0%	0%
Hotel	67%	10%	0%	23%	0%
Outlet Retail	55%	21%	0%	24%	0%
Movie Theater	65%	12%	0%	0%	23%
Parking Structure	0%	0%	100%	0%	0%

Estimated Employment

ECONorthwest conducted an input-output analysis using the IMPLAN model to estimate the number of jobs in Yellowstone County associated with implementing the conceptual development plan.[6] The actual number of jobs that will be generated by developing the area will vary, depending on the value of the construction, the types of businesses that locate in the area, and the size of those businesses. This estimate is preliminary by necessity, based on the conceptual plan.

For this project, ECONorthwest estimated the number of jobs for two distinct phases: construction and operations. Construction impacts are temporary in nature and occur as construction spending unfolds. Operating impacts will continue annually as long as the use in the structure continues to operate. Jobs include both full- and part-time employment.

We estimated two different types of jobs. The **direct jobs** comprise those held by contractors and workers building the structure (direct construction impacts), and the number of employees working at the structure (direct operating impacts). The **secondary jobs** include those associated with the ripple effects of the direct jobs.[7] The secondary jobs include two general types of impacts.

- **Supply-chain impacts.** In order to operate, the structure will purchase a range of goods and services including raw materials, spare parts and equipment, repair services, electricity, water and sewer, etc. This spending generates the first round of secondary impacts. Suppliers and vendors to the structure will also have to purchase additional goods and services. This spending leads to additional rounds of indirect impacts.
- **Consumption-driven impacts.** The direct and supply-chain increases in employment and income enhance the overall purchasing power in the economy, thereby inducing further consumption- and investment- driven stimulus. Workers at the proposed development,

[6] IMPLAN is an input-out model used to track dollars, starting with the initial project being studied, as they ripple through an economy from one employment sector to the next. The model estimates the number of jobs, income, and economic output that can be traced to the initial project. The model estimates direct impacts, which are those directly generated by the project. It also calculates indirect impacts, which are the jobs and income earned by workers in industries supplying the project.

[7] Secondary jobs include those defined as 'indirect' and 'induced'. Indirect are the supply-chain impacts, and induced are the consumption-driven impacts. We combine them into 'secondary' impacts in the text for simplicity.

for example, will use their income to purchase groceries. Workers at businesses who supply the structure will do the same.

For this analysis, ECONorthwest did not measure potential counterfactual scenarios that consider how scarce resources would be allocated if the conceptual development plan is not implemented, or how the development could potentially divert spending away from other Yellowstone County businesses.

Table 6 shows the estimated number of jobs the input-output model generated with the construction and operation of the conceptual development plan.

Table 6. Estimated Number of Jobs Generated by Implementing the Conceptual Development Plan

Period/Development Type	Direct	Secondary
Construction	**441.4**	**519.3**
Operations		
Retail	1.6	0.5
Restaurant	3.8	1.1
Hotel	61.6	29.6
Outlet Retail	160.5	43
Cinema	32.1	16.2

Development Schedule and Bonding Capacity

This section describes a possible development schedule for the five development concepts. This schedule should be interpreted as a guide. We have identified a possible order that the City could work to develop the different concepts. The actual year of implementation should vary, based on market conditions and developer interest.

We recommend the City work to implement the adaptive reuse concept first. The City should address a range of items before attempting to bring about the other conceptual developments. We recommend the City work with existing property owners to resolve these issues. These items include:

- Zoning.
- Consider if these properties should be brought into the City. If they are part of the City, they will have access to important development assistance tools.
- Consider whether the area should become a new urban renewal district or appended onto an existing urban renewal district if partner entities elect to bring their land into the City. It is possible the existing district may not have sufficient time remaining to bring about this concept plan or it may already have existing obligations it is trying to meet.

- Should the City wish to use EB5 resources it will need to secure a TEA designation for the area from the state that would then register this with the United States Customs and Immigration Service (USCIS).
- Identify the significant infrastructure improvements (such as stormwater) that should be made and how they will be funded.

We crafted the development program so that the first four uses will generate increment revenue that can be used to finance the parking structure. We used conservative assumptions regarding the debt coverage ratio and the interest rate to provide an approximation of the bonding capacity the four conceptual developments could generate. Actual increment revenue and bonding capacity will vary.

To estimate the bonding capacity generated by the first four uses, we identified the incremental increase in taxable value from all the contributing taxing jurisdictions generated by each use, the associated tax increment revenue, and the bonding capacity generated by that increased tax revenue.

- To estimate the incremental increase in the taxable value, we assumed the taxable value equals the cost of replacement (the construction cost) minus existing value (land and existing structure).
- To estimate the tax increment value, we assumed that every $1,000,000 in new taxable value generates about $16,000 in annual tax increment revenue. This is, by necessity, a rough estimate. Actual amounts vary based on mill levies affecting individual properties, whether properties are in the City, or the County, should the latter create an urban renewal area (if it gains the legal ability to do so). Given the preliminary nature of this conceptual plan, future planning will need to calculate more precise increment estimates.
- To estimate bonding capacity, we assumed that the agency could bond $6 for every $1 in tax increment revenue. This is, by necessity, a rough estimate. Actual bonding capacity will depend on the use, tax revenue, timing, and other factors dictated by the bond market. Factors that affect the bond market fluctuate, and the terms of any bond vary with national and global financial markets.

Table 7 shows the estimated incremental increase in value and the potential tax increment revenue. It is important to note that actual values and tax revenue will vary based on the individual locations of the development, the size of the development, the method used by the Assessor to estimate taxable value, timing of development, and application of urban renewal tools in Montana. These figures are preliminary estimates, based on hypothetical financial pro forma models.

Table 7. Estimated Potential Value and Tax Increment Revenue

Development	Potential New Value	Potential TIF Revenue
Adaptive Re-use	$502,500	$8,000
Hotel	$20,720,800	$332,000
Outlet Retail	$35,242,000	$564,000
Movie Theater	$8,400,100	$134,000
TOTAL	$64,865,400	$1,038,000

Source: ECONorthwest.

Table 8 shows the potential proposed year of completion for the five conceptual development types, the estimated bonding capacity for the first four types, and the cumulative bonding capacity that could be used to finance the parking structure. The table shows that we estimate the four conceptual types could generate just over $6 million in bonding capacity if they are all located in the City.

Table 8. Conceptual Development Program

Development	Year Completed	Bonding Capacity ($millions)	Cumulative Bonding Capacity ($millions)
Adaptive Re-use	2015	$0.05	$0.05
Hotel	2016	$1.99	$2.04
Outlet Retail	2017	$3.38	$5.42
Movie Theater	2019	$0.81	$6.23
Parking Structure	2019		
		$6.23	$13.74

Source: ECONorthwest.

APPENDIX B- PROFORMA DEVELOPMENT TYPES

Adaptive Re-Use = input

Development Inputs and Costs

Gross SF	4,000	
Gross SF-Retail	2,000	
Gross SF-Restaurant	2,000	
Efficiency Ratio	95%	
Leasable SF-Retail	1,900	
Leasable SF-Restaurant	1,900	
FAR	0.70	
Estimated Acres	0.13	
Land Cost per SF	$7	
Total Land Cost	$40,000	
Builidng cost/sF	$25	
Total Building Cost	$100,000	
Total Property Cost	$140,000	
Construction Cost/ GSF-Retail	$80	<<ECO estimate
Construction Cost/ GSF-Restaura	$100	
Tenant Improvement/LSF-Retail	$15	
Tenant Improvement/LSF-Restaur	$15	
Developer fee (% of construction)	5%	
Soft costs (% of construction)	10%	
Contingency (% of soft & hard costs)	5%	
Total Hard Costs	$417,000	
Developer fee	$20,850	
Soft Costs	$41,700	
Contingency	$22,935	
Total Construction Costs	$502,485	
Total Development Costs	**$642,485**	

Operating Costs and Revenues

		Notes
Annual Rent-Retail	$14	<<NNN
Annual Rent-Restaurant	$15	<<NNN
Annual rent increase	3%	
Vacancy, Yr 1	0%	<<built to suit
Vacancy, Yr 2	0%	<<built to suit
Vacancy, Yr 3 and stabilization	0%	<<built to suit
Leasing Commission	5%	
Management/operations (% of reve	10%	
Capitalization Rate	8%	

Capital Resources Summary

		% of Total Dev't Costs
Bank Loan	$370,000	**58%**
TIF Loan	$150,000	**23%**
Private Equity	$122,485	**19%**
Total	**$642,485**	**100%**

Assumptions about Capital Resources

Bank Loan	
interest rate	6.00%
Term	20
Principle	$370,000
Annual Pmt	$32,258
TIF Loan	
interest rate	1.00%
Term	15
Principle	$150,000
Annual Pmt	$10,819

Financial Measures

	Year 1	Year 3	Year 10
Net Operating Income (NOI)	$45,733	$48,518	$59,671
Value at 0.08 cap rate	$571,663	$606,477	$745,890
DCR (=NOI / Total Debt Service)	1.1	1.1	1.4
LTV ([Bank loan] / Value)	0.6	0.6	0.3
IRR in 10 years, 0.08 cap rate			17%

TIF Revenue Estimate

Estimated Annual Increment	$8,039.76	<<based on construction cost
Estimated Bonding Capacity	$48,239	

Hotel = input

Development Inputs and Costs

Gross SF	90,000	<<includes lobby, halls, conference, restaurant.
Gross SF per Room	500	<<Rooms range from 225-350 net SF
Number of Rooms	180	
Hard Costs per SF	$152.00	<<From Jerry Jones
Furniture,Fixtures & Equipment (F,F & E)	$30.00	<<includes lobby, halls, conference
Hard Costs per Room	$76,000	
FF&E per Room	$15,000	<<from other hotel project data
Restaurant		
SF	2,500	
TI per SF	$40	
Land		
Acres	2.0	
FAR	1.03	
Land Cost per SF	$7.00	
Total land cost	$609,840	
Developer fee (% of construction)	5%	
Soft costs (% of construction)	20%	
Contingency (% of soft & hard costs)	5%	
Total Hard Costs	$13,680,000	
Total FF&E	$2,700,000	
Restaurant TIs (2,500 SF)	$100,000	
Developer fee	$684,000	
Soft Costs	$2,736,000	
Contingency	$820,800	
Total Construction Costs	$16,480,000	
Total Development Costs	**$21,330,640**	

Operating Costs and Revenues

Average Room Rate Sold	$118	
Room Nights Available	65,700	
Occupancy, Yr 1	64%	
Occupancy, Yr 2	66%	
Occupancy, Yr 3	68%	
Occupancy, Yr 4	70%	
Occupancy, Yr 5 and stabilization	72%	
Annual room/rent rate increase	3%	
Hotel Operations (% of revenue)	67%	
Restaurant Rent (NNN) per foot	$15	
Restaurant Rent	$37,500	
Capitalization Rate	8.0%	<<from Dick Zeir

Capital Resources (see below for terms)

		% of Total Dev't Costs	
EB5	$5,000,000	23%	**$ in Year 0**
Conventional Bank Loan	$14,197,576	67%	**$ in Year 0**
Private Equity	$2,133,064	10%	**$ in Year 0**
2nd Bank Loan	$5,796,370	na	**<<payback EB5**
Total	**$21,330,640**	**100%**	

Financial Measures

	Year 1	Year 3	Year 10
Net Operating Income (NOI)	$1,549,741	$1,746,107	$2,272,922
Value at 0.08 cap rate	$19,371,761	$21,826,334	$28,411,523
DCR (=NOI / Total Debt Service)	1.3	1.4	1.3
LTV ([Bank loan] / Value)	0.7	0.6	0.5
IRR in 10 years, 0.08 cap rate			32%

TIF Revenue Estimate $20,720,800

Estimated Annual Increment	$331,533	<<based on construction costs
Estimated Bonding Capacity	$1,989,197	

Assumptions about Financing Tools

EB5		
8 Jobs/$1million cost	131.8	<<jobs created from total hard costs
1.6 jobs per room	288	<<jobs created from total operations
Total jobs	419.8	
$500k/12 jobs created	35.0	
Potential Loan	$17,493,333	
interest rate	3.0%	
Term	5	
Actual Loan	$5,000,000	
Payment	$5,796,370	<<Paid with 2nd bank loan
Conventional Bank Loan		
interest rate	6.0%	
Term	20	
Loan Amount	$14,197,576	
Annual Pmt	$1,237,809	
2nd Bank Loan		
interest rate	6.5%	
Term	20	
Loan Amount	$5,796,370	
Annual Pmt	$526,058	

Outlet Retail = input

Development Inputs and Costs

		Notes
Gross SF	200,000	~3,750/store, this is ~50 stores
Efficiency Ratio	85%	
Leasable SF	170,000	
FAR	1.12	2 stories
Estimated Acres	4.10	<<Trucking site.
Construction Cost per GSF	$100	<<from Jerry Jones Construction in Billings
Tenant Improvement per LSF	$40	<<from Jerry Jones Construction in Billings
Land Cost per SF	$7	
Developer fee (% of construction)	5%	
Soft costs (% of construction)	15%	
Contingency (% of soft & hard costs)	10%	
Site acquisition	$1,250,172	
Total Hard Costs	$26,800,000	
Developer fee	$1,340,000	
Soft Costs	$4,020,000	
Contingency	$3,082,000	
Total Construction Costs	$35,242,000	
Total Development Costs	**$36,492,172**	

Financial Measures

	Year 1	Year 3	Year 10
Net Operating Income (NOI)	$1,832,260	$2,394,547	$188,540
Value at 0.08 cap rate	$22,903,250	$29,931,835	$36,812,381
DCR (=NOI / Total Debt Service)	1.3	1.6	1.3
LTV ([Bank loan] / Value)	0.6	0.4	0.30
IRR in 10 years, 0.08 cap rate			16%

TIF Revenue Estimate

Estimated Annual Increment	$563,872	<<based on construction costs
Estimated Bonding Capacity	$3,383,232	

Operating Costs and Revenues

		Notes
Retail Rent-Annual (NNN)	$17	<< High end for Billings
Annual rent increase	3%	
Vacancy, Yr 1	20%	
Vacancy, Yr 2	10%	
Vacancy, Yr 3 and stabilization	5%	
Leasing Commission	5%	
Management/operations (% of reve	10%	
Capitalization Rate	8%	

Capital Resources Summary

		% of Total Dev't Costs	
Private Equity	$7,558,839	**21%**	**$ in Year 0**
Bank Loan	$20,000,000	**55%**	**$ in Year 0**
EB-5	$8,933,333	**24%**	**$ in Year 0**
2nd Bank Loan	$10,356,182		**<<payback EB5**
Total	**$36,492,172**	**100%**	

Assumptions about Capital Resources

Bank Loan		
interest rate	6.00%	
Term	30	
Principle	$20,000,000	
Annual Pmt	$1,452,978	
EB 5		
8 Jobs/$1million cost	214.4	<<jobs created from total hard costs.
$500k/12 jobs created	17.9	
Potential Loan	$8,933,333	
interest rate	3.0%	
Term	5	
Payment at Year 5	$10,356,182	<<Paid with 2nd bank loan
2nd Bank Loan		<<pays off EB 5
Principle	$10,356,182	
interest rate	6.0%	
Term	25	
Annual Pmt	$810,130	

Movie Theater = input

Development Inputs and Costs

		Notes
Gross SF	40,000	8 to 10 screens, based on ULI examples
Efficiency Ratio	100%	
Leasable SF	40,000	
FAR	0.37	
Estimated Acres	2.50	<<1-story
Construction Cost per GSF	$127	<<from Jerry Jones Construction in Billings
Tenant Improvement per LSF	$40	<<for food prep areas
Land Cost per SF	$7	
Developer fee (% of construction)	5%	
Soft costs (% of construction)	15%	
Contingency (% of soft & hard costs)	5%	
Site acquisition	$762,300	
Total Hard Costs	$6,680,000	
Developer fee	$334,000	
Soft Costs	$1,002,000	
Contingency	$384,100	
Total Construction Costs	$8,400,100	
Total Development Costs	**$9,162,400**	

Operating Costs and Revenues

		Notes
Rent-Annual	$14.50	<<estimate based on local rents
Annual rent increase	3%	
Vacancy, Yr 1	0%	
Vacancy, Yr 2	0%	
Vacancy, Yr 3 and stabilization	0%	
Leasing Commission	0%	
Management/operations (% of reve	15%	
Capitalization Rate	8%	

Capital Resources Summary

		% of Total Dev't Costs
Private Equity	$1,100,860	**12%**
Bank Loan	$6,000,000	**65%**
NMTC	$2,061,540	**23%**
Total	**$9,162,400**	**100%**

Assumptions about Capital Resources

Bank Loan		
interest rate	6.00%	
Term	30	
Principle	$6,000,000	
Annual Pmt	$435,893	
NMTC		
Eligible Basis	$9,162,400	<<Total development costs
Percent	22.5%	
Interest rate	1.00%	
Term	7	
Credit	$2,061,540	
Interest Payment	$20,615	

Financial Measures

	Year 1	Year 3	Year 10
Net Operating Income (NOI)	$481,400	$510,717	$628,118
Value at 0.08 cap rate	$6,017,500	$6,383,966	$7,851,473
DCR (=NOI / Total Debt Service	1.1	1.1	1.4
LTV ([Bank loan] / Value)	0.7	0.6	0.4
IRR in 10 years, 0.08 cap rate			19%

TIF Revenue Estimate

Estimated Annual Increment	$134,402	<<based on construction cost
Estimated Bonding Capacity	$806,410	

Parking Structure = input

Development Inputs and Costs

		Notes
Gross SF	86,250	
Number of spaces	230	
SF per space	375	
Building footprint	21,563	4 stories
FAR	3.70	
Estimated Acres	0.54	
Construction Cost per GSF	$56	<<from Jerry Jones Construction in Billings
Land Cost per SF	$7	
Developer fee (% of construction)	5%	
Soft costs (% of construction)	10%	add land size, 3 floors
Contingency (% of soft & hard costs)	5%	
Site acquisition	$163,176	
Total Hard Costs	$4,830,000	
Developer fee	$241,500	
Soft Costs	$483,000	
Contingency	$265,650	
Total Construction Costs	$5,820,150	
Total Development Costs	**$5,983,326**	

Financial Measures

	Year 1	Year 3	Year 10
Net Operating Income (NOI)	$0	$0	$0
Value at 0.08 cap rate	$0	$0	$0
DCR (=NOI / Total Debt Service)	NA	NA	NA
LTV ([Bank loan] / Value)	NA	NA	NA
IRR in 10 years, 0.08 cap rate			NA

Operating Costs and Revenues

		Notes
Hourly Rate	$0	
Hours per Day	18	
Daily Space Hrs	4,140	
Daily Revenue	$0	
Annual Revenue	$0	
Vacancy Rate	40%	
Operations	10%	
Rate Increase	3%	
Cap Rate	8%	
Capitalization Rate	8%	

Capital Resources Summary

		% of Total Dev't Costs	
TIF	$5,983,326	**100%**	<<based on bonding capacity in 2018
Total	**$5,983,326**	**100%**	

Development Schedule

Year	Development	TIF Bonding Capacity	Cumulatvie TIF Bonding
2			
2		2	2
2			2
2	O	2 2	2
2			2
2	T		22
2			
2 2			

Year	Development	TIF Bonding Capacity	Cumulatvie TIF Bonding Capacity
2			
2			
2			2
2	O		2
2			2
2	T		2
2			
2 2			

RESOLUTION NO. 13-_____

RESOLUTION TO ADOPT THE EXPOSITION GATEWAY CONCEPT PLAN AS PART OF THE YELLOWSTONE COUNTY - CITY OF BILLINGS 2008 GROWTH POLICY.

WHEREAS, pursuant to Title 76, Chapter 1, PART 601, Montana Codes Annotated, the Billings City Council, desire to adopt a Neighborhood Plan or Area Master Plan consistent with the 2008 Growth Policy covering the entire Yellowstone County Board of Planning jurisdiction:

WHEREAS, on the 28th day of May, 2013, a public hearing was held by the Yellowstone County Board of County Commissioners for the purpose of receiving public comments on the proposed Exposition Gateway Concept Plan:

WHEREAS, on the 28th day of May, 2013, the Yellowstone County Board of County Commissioners adopted the Exposition Gateway Concept Plan:

WHEREAS, The Yellowstone County Board of Planning at is meeting of May 14th recommended the Billings City Council and Yellowstone County Board of County Commissioners adopt the proposed Exposition Gateway Concept Plan and any ordinances and resolution for its implementation:

WHEREAS, on the 24th day of June, 2013, the Billings City Council held a public hearing to receive comment on the plan:

NOW, THEREFORE, BE IT HEREBY RESOLVED that the Billings City Council adopts the Exposition Gateway Concept Plan as part of the Yellowstone County – City of Billings 2008 Growth Policy.

APPROVED AND PASSED by the City Council of the City of Billings this 24th day of June, 2013.

THE CITY OF BILLINGS:

BY:_____
Tom Hanel, MAYOR

ATTEST:

BY:_____
Cari Martin, CITY CLERK

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: Public Hearing and Approval of Resolution Approving and Adopting 4th Quarter Budget Amendments for Fiscal Year 2012/2013

PRESENTED BY: Patrick M. Weber Finance Director

Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

Various City Funds have incurred expenses that are greater than anticipated when the FY 13 budget was developed almost 18 months ago. Budget amendments are accomplished in the same manner as the original budget: public hearing and resolution. Staff is requesting that the Council conduct a public hearing and approve the attached resolution that will amend various Funds for the FY 13 budget year. All of the Funds have adequate reserves or other revenue sources to accommodate the added expenses, as is explained for each item.

Utility and water costs for various Park Maintenance Districts were higher than were originally anticipated and budgeted in FY13. Fund reserves will be used for these added costs. Reserves will be replenished in future years by increasing district charges to property owners within the districts.

City offices including Planning, Code Enforcement, Building and, Community Development are moving from the current location in the Library to the Miller Building. Costs associated with the move include network fiber and telephone line installation. Also, new and larger network fiber lines are needed at the Parks and Recreation Center, Public Works Administration office at the Depot, and the 9-1-1 Center in order to provide continuous City services. Costs will be split between the Central Telephone Fund and the Information Technology Fund. Yellowstone County will participate in the project and reimburse the City almost $85,000 in FY 14. The remaining expenses will come from fund reserves to be recovered in future years with increased charges to the departments that are benefitting from the improvements. Council approved the construction contracts for this work on April 22, 2013.

Site development for the new library building began in FY12. The building construction contract wasn't executed by the end of FY 12 and no budget authority was created in the original FY13 budget due to not knowing which contracts would be approved by the end of FY12. Bonds were sold for the new library and will be sufficient to pay for construction costs. This budget amendment is for the construction contracts that were executed in FY 13 and for the bond issuance costs.

The Library Fund will be paying for a new security system in the new library building. The City Council approved a contract for this purchase on April 22, 2013. Reserves will be used to pay for these costs.

City staff is requesting a budget amendment to its Airport Improvement Program (AIP) Grant Fund. On April 8, 2013, Council approved the bid award for the Cargo Ramp Slot Four Expansion Project that adds ramp space to accommodate FedEx's move to the west side of the Airport to use the larger cargo ramps due to their conversion to larger aircraft. Airport cash is sufficient to pay for this project up front. AIP Grant Funds will reimburse 90% of the costs at a later date.

Parking completed a retail space remodel at Park I and special assessment costs exceeded the budgeted amounts in FY13. Also, costs associated with debt refinancing in order to obtain a lower interest rate were incurred. Bond proceeds and reserves will be used for the expenses.

City Council approved purchasing land beside the Police Evidence Building on Midland Road for future expansion. General Fund reserves will be used. Lower debt payments from advance refunding the BOC bonds will help replenish the reserves.

City staff is requesting a Downtown Tax Increment District budget amendment for costs related to the construction of the Empire Parking Garage. The FY 13 budgeted amount was lower than actual cost. Bond proceeds will be used to pay these costs.

Bond issuance costs were incurred while refinancing the debt associated with the Billings Operations Center. Bond proceeds were used to pay for these costs.

During FY13, more investment income has been earned due to higher rates of return than anticipated. The Cemetery Perpetual Care Fund transfers these earnings to the General Fund to be used by the Cemetery for operating costs. An increase in the transfer in/out is being requested to accommodate the additional money that is available in order to comply with the Cemetery Perpetual Care Fund purpose and state law. The increase in the transfer out expense corresponds with the increase in investment earnings. Therefore, no reserves were used.

One of the Park Program Funds uses revenues from Kiwanis' license plates to pay for trees to be planted around the City. Trees were purchased in FY13 in excess of amounts budgeted. Reserves will be used to fund the additional trees.

City staff is requesting additional budget authority for assessment costs for the Rimrock Road – Forsythia to Shiloh construction project. Property owners will bear a portion of the sidewalk construction costs and budget authority is needed in the Sidewalk Construction Fund for the expenses. These costs will be recovered in FY 14 from bond sale proceeds. Until bonds can be sold, interim financing will come from an interfund loan from the gas tax fund.

In FY12, the South Park gazebo was budgeted, but the contract was not signed until FY13. Work was completed in FY13. General Fund reserves were used to fund this project.

ALTERNATIVES ANALYZED

The Council may: Approve the requested budget amendments; or Not approve the requested budget amendments, which would put the City in violation of Montana Code Annotated.

FINANCIAL IMPACT

The requested budget amendments will be funded by reserves and existing revenues as indicated.

RECOMMENDATION

Staff recommends that the City Council conduct a public hearing and approve the resolution approving and adopting the budget amendments for Fiscal Year 2012/2013.

APPROVED BY CITY ADMINISTRATOR

Attachments

Resolution

Exhibit A

Attachment A

RESOLUTION 13-

A RESOLUTION TO MAKE **FISCAL YEAR 2012/2013** ADJUSTMENTS TO APPROPRIATIONS PURSUANT TO M.C.A. 7-6-4006 AS AMENDED, AND PROVIDING TRANSFERS AND REVISIONS WITHIN THE GENERAL CLASS OF SALARIES AND WAGES, MAINTENANCE AND SUPPORT AND CAPITAL OUTLAY.

WHEREAS, M.C.A. 7-6-4006 provides that the City Council, upon proper resolution, adopted by said Council at a regular meeting and entered into its Minutes, may transfer or revise appropriations within the general class of salaries and wages, maintenance and support, and capital outlay, and

WHEREAS, based upon a Budget Review **(FY 2012/2013**), it is necessary to alter and change said appropriations.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA:

That the attached transfers or revisions are hereby adopted.

(SEE EXHIBIT A)

PASSED AND APPROVED by the City Council, this 24th day of June, 2013.

THE CITY OF BILLINGS:

BY:_____
Thomas W. Hanel, MAYOR

ATTEST:

BY:_____
Cari Martin, CITY CLERK

EXHIBIT A

	Revenue	Expenditure	
Fund 8720 - Park Maintenance Districts Fund			
Operating costs for various Park Maintenance Districts such as utilities and water usage are higher than were originally anticipated and budgeted in FY13. Fund reserves will be used for these added costs. Reserves will be replenished in future years by increasing district charges to taxpayers.			
8720-51980-403420		100,000	
8720-51980-403968		60,000	
Fund 6060 - Central Telephone Services Fund; Fund 6200 - Information Technology Fund			
City offices including Planning, Code Enforcement, Building and Community Development are moving from the current location in the Library to the Miller Building. Costs associated with the move include network fiber and telephone line installation. Also, new and larger network fiber lines are needed at the Parks and Recreation Center, Public Works Administration office at the Depot and the 9-1-1 Center in order to provide continuous City services. Costs will be split between the Central Telephone Fund and the Information Technology Fund using fund reserves to be recovered in future years with increased charges to departments. Council approved the contracts for this work on April 22, 2013.			
6060-19310-409480		105,000	telephone fund portion of fiber costs
6200-19110-409480		135,486	IT fund portion of fiber costs
Fund 4980 - New Library Construction Fund			
No budget authority was created in the original FY13 budget due to not knowing which contracts would be encumbered by the end of FY12 due to bond sale timing. Bonds were not closed on for the new library until after the start of the FY 13 budget. This budget amendment is for the contracts that were not entered into by the end of FY12 and the bond issuance costs not budgeted for in FY13.			
4980-55110-409220		15,571,550	construction costs
4980-55110-405510		220,757	bond issuance costs
Fund 2600 - City-County Library Fund			
The Library Fund will be paying for a new security system in the new library building. The City Council approved a contract for this purchase on April 22, 2013. Reserves will be used to pay for these added costs.			
2600-55120-409292		47,993	security system
Fund 4050 - Airport Fund			
City staff is requesting a budget amendment to its Airport Improvement Program (AIP) Grant Fund. On April 8, 2013, Council approved the bid award for the Cargo Ramp Slot Four Expansion Project that adds ramp space to accommodate FedEx's move to the west side of the Airport to use the larger cargo ramps due to their conversion to larger aircraft. Airport cash is sufficient to pay for this project up front. AIP Grant Funds will reimburse 90% of the costs at a later date.			
4050-71250-331990	900,000		AIP Federal Grant Revenue
4050-71250-307525	100,000		Transfers from Operating
4050-71250-409697		900,000	AIP Federal Share
4050-71250-409698		100,000	AIP Local Share

Fund 5210 - Parking Fund

Various Parking Fund accounts have incurred costs in excess of budgeted amounts. Parking completed a remodel at Park I. Special assessment costs exceeded the budgeted amounts in FY13. Also, costs associated with debt refinancing in order to obtain a lower interest rate were incurred. Bond proceeds and reserves will be used for the amendment.

5210-15950-409390	25,000	Park I space remodel
5210-15940-405410	16,800	special assessments
5210-15210-405410	10,200	special assessments
5210-15910-405410	7,500	special assessments
5210-15950-405410	5,700	special assessments
5210-15920-403590	16,600	refinance costs

Fund 0100-14120 - General Fund - Non-Departmental

City Council approved purchasing land beside the current Police Evidence Building for future expansion. General Fund reserves will be used.

0100-14120-409120	603,555	land purchase

Fund 2030 - North 27th Street District Tax Increment Operating Fund

City staff is requesting a budget amendment for costs not budgeted in FY13 related to the construction of the Empire Parking Garage. The FY 13 estimate for the project was lower than the actual cost of the project. Bond proceeds will be used for these costs.

2030-15130-409224	900,000	construction costs

Fund 6500 - Facilities Management Fund

Bond issuance costs were incurred while refinancing the debt associated with the Billings Operations Center. Bond proceeds were used to pay for these.

6500-15660-405512	213,514	bond issuance costs

Fund 7010 & 7030 - Cemetery Perpetual Care Fund; Fund 0100-51400 - General Fund - Parks, Recreation, and Public Lands Department

During FY13, more investment income has been earned due to higher rates of return that anticipated. The Cemetery Perpetual Care Fund transfers these earnings to the General Fund to be used by the Cemetery for operating costs. An increase in the transfer in/out is being requested to accommodate the additional available in order to be compliant with the Cemetery Perpetual Care Fund purpose and state law. The increase in the transfer out expense corresponds with the increase in investment earnings. Therefore, no reserves were used.

7010-51700-376310	1,000		investment earnings
7030-51720-376310	100		investment earnings
7010-51700-408216		1,000	transfer out
7030-51700-408216		100	transfer out
0100-51400-307514	1,000		transfer in
0100-51400-307565	100		transfer in

Fund 7720 - Park Programs Fund

One of the Park Program Funds uses revenues from Kiwanis' contributions from license plates. Previous years revenue was used to pay for trees to be planted around the City. Trees were purchased in FY13 in excess of amounts budgeted. Reserves will be used to fund the additional trees.

7720-51660-407249	6,628	trees purchased

Fund 4340 - Sidewalk and Curb District Fund (Capital Projects)

City staff is requesting additional budget authority for assessment costs for the Rimrock Road – Forsythia to Shiloh construction project. Property owners will bear a portion of the sidewalk construction costs and budget authority is needed in the sidewalk construction fund for the expenses. These costs will be recovered in FY 14 from the proceeds from the sale of bonds. Until bonds can be sold, interim financing will come from an interfund loan from the gas tax fund.

4340-31650-409311	90,000	Capital

Fund 0100-51120 - General Fund - Parks, Recreation and Public Lands Department

In FY12, the South Park gazebo was budgeted, but the contract was not signed until FY13. Work was completed in FY13. Reserves were used to fund this project.

0100-51120-409370	200,000	South Park gazebo

Regular City Council Meeting

Meeting Date: 06/24/2013

TITLE: Ordinance Proposing a Charter Amendment to Authorize Boards, Commissions or Committees to Have Administrative Authority if Allowed by Federal or State

PRESENTED BY: Brent Brooks, City Attorney

Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

During the March 4, 2013, Work Session, Assistant City Administrator Bruce McCandless gave a presentation on creating a Billings Parking Commission. Cities are statutorily allowed, but not required, to have Parking Commissions. However, the language of the City Charter requires boards, commissions, and committees to be advisory only, "unless specifically required by federal or state law, or interlocal agreement." Parking Commissions are not "required" by state law, so the Charter must be amended in order to create a Commission with administrative authority. Billings voters must approve all Charter amendments. The City Council asked staff to draft an ordinance that proposes the Charter amendment and places the issue on the ballot at the next municipal election.

The proposed amended Charter would allow the City Council to create a board, commission or committee with administrative duties if allowed by federal or state law, or interlocal agreement. If voters approve the amendment, the City Council would have the option of forming a Parking Commission.

ALTERNATIVES ANALYZED

The Council may approve, disapprove or amend the proposed Ordinance.

FINANCIAL IMPACT

Other than the cost of referring this Charter amendment to the electors, there is no other financial impact to the City.

RECOMMENDATION

Staff recommends that the City Council conduct a public hearing and approve the ordinance that proposes a Charter amendment that allows the City Council to create boards, commissions and committees with administrative authority, if allowed by federal or state law or inter-local agreement.

APPROVED BY CITY ADMINISTRATOR

Attachments

Charter amendment ordinance

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF BILLINGS PROVIDING THAT THE BILLINGS CHARTER BE AMENDED TO REVISE SECTION 5.01; PROVIDING FOR ADVISORY BOARDS, COMMISSIONS, AND COMMITTEES OF THE CITY TO HAVE ADMINISTRATIVE AUTHORITY IF ALLOWED BY STATE OR FEDERAL LAW OR INTERLOCAL AGREEMENT, AND SUBMITTING THE PROPOSED AMENDMENT TO THE ELECTORS OF THE CITY AS PROVIDED BY LAW.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BILLINGS, MONTANA:

Section 1. That Article V of the Billings Charter be amended by revising Section 5.01, so that such section shall read as follows:

"Section 5.01. Powers.

Boards, commissions, or committees of city government shall be advisory only. They shall have no administrative authority unless specifically ~~required~~ allowed by federal or state law, or interlocal agreement."

Section 2. REFERRAL TO ELECTORS. This ordinance with amendments to the Billings Charter is referred to a vote of the electors of the City of Billings at the November 2013 regular election.

Section 3. EFFECTIVE DATE. This ordinance shall be effective thirty (30) days after second reading and final adoption. These amendments to the Billings Charter shall become effective immediately upon approval by the electors as provided by law.

PASSED by the City Council on first reading this _____ day of _____, 2013.

PASSED, ADOPTED and APPROVED on second reading this _____ day of _____, 2013.

CITY OF BILLINGS

By _____
Mayor

ATTEST:

By _____
City Clerk

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Cancellation of Billings Community Youth Foundation, Inc., Centennial Park Lease
PRESENTED BY: Tina Volek
Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

The City Council directed at its March 25, 2013, meeting that staff send a registered letter to the Billings Community Youth Foundation, Inc. (BCYFI), warning that the Council intended to terminate a lease for an amateur ice arena on 8 acres in the southeast part of Centennial Park unless the BCYFI provide documented proof of its compliance with all provisions of the lease. The City Council originally approved a lease with the Billings Amateur Hockey League for an arena on May 8, 2000. The Council then approved transferring the lease to BCYFI on June 23, 2003, because the hockey league was not in a position financially or organizationally to build such a facility, according to a letter from BCYFI. The lease automatically renewed in 2010 under terms that allowed the hockey league to do so unless it was in breach of the lease agreement.

The registered letter requested by the Council was signed by the Mayor and sent by staff on March 26, 2013. It required that BCYFI show its compliance with the following four requirements stated in the lease:

- Pay a nominal annual rent of $10;
- Keep the Council informed of its fundraising status through periodic reports;
- Make reasonable efforts to develop the facility contemplated in the lease; and
- Provide proof of annual liability insurance for the leased area, naming the City as an additional insured.

No reply was received by the 60-day deadline. Staff subsequently inquired of Leslie Albright, Secretary/Treasurer of the BCYFI about a response, and was told the organization would stand on an extensive packet provided to the City Council for its March 25, 2103, meeting. That packet included a letter purporting to cure any potential default in the lease, and indicating that the BCYFI had elected new leadership in 2013, and received a $25,000 donation in 2013 as seed money. Attachments included:

- An economic feasibility study and market analysis dated March 22, 2013.
- Lease payments for $80 made in 2013 and of $20 made in 2012, along with a letter from the former BCYFI president, stating he had made such payments every year from 2003 to 2010. Parks staff has confirmed the payments were made in 2006-08.
- A fundraising status and periodic report showing organizational activities and donations in 2003-05, and in 2012-13. However, the report showed no meetings

were held and no additional information was provided to the City from 2006-11.
- An insurance certificate dated March 22, 2013, that names the City as an additional certificate holder on a liability insurance policy. There was no proof of insurance for previous years.

The Parks, Recreation and Cemetery Board has recommended the lease be terminated. Several other groups have expressed an interest in the park land such as Little League, a lacrosse group and the dog park committee, but the Council needs to decide whether BCYFI is in breach of its lease before discussions can occur. The Centennial Park Master Plan includes the ice arena, so the plan ultimately would have to be amended before future changes could occur.

ALTERNATIVES ANALYZED

The City Council may:

- Accept the BCYFI report from March 25, 2013, as adequate and allow the organization to continue working toward construction of an amateur ice arena;
- Declare BCYFI to be in breach, and begin a process to consider other options for development of the park; or
- Declare BCYFI to be in breach and let the land continued to be occupied only for Park purposes.

If the Council decides to allow BCFYI to continue the lease, the City Attorney's Office strongly recommends that it be rewritten. The current lease does not conform to other City leases and was not recommended by the City Attorney's
Office originally.

FINANCIAL IMPACT

BCYFI paid $20 in 2012 and $80 in 2013 toward its nominal lease payments. Staff did find records of other payments in 2006-08.

Amendment of the Centennial Park Master Plan to include another purpose will require $5-10,000, and should be paid for by whatever group, if any, that the Council determines that it wishes to consider proposals for occupying the site.

RECOMMENDATION

Because of BCYFI's failure for at least 2006 through 2011 to make periodic reports and for its apparent failure to provide liability insurance including the City of Billings as a named insured for the Centennial Park site prior to 2013, it is recommended that the Council declare the group to be in breach of the lease agreement. Further, it is recommended that the Council ask the Parks, Recreation and Cemetary Board to consider proposals for other uses at Centennial Park and to make a recommendation to the Council on which group, if any, should be allowed a new lease agreement.

APPROVED BY CITY ADMINISTRATOR

Attachments

Mayor's Letter to BCYFI

CITY OF BILLINGS

THOMAS W. HANEL, MAYOR

P.O. BOX 1178
BILLINGS, MONTANA 59103
(406) 657-8296
FAX (406) 657-8390

March 25, 2013

Leslie Albright, President
Billings Community Youth Foundation Inc.
2933 Stinson Avenue
Billings, MT 59102Billings, MT

Re: Assignment of Centennial Park Lease Dated June 23, 2003

Dear Ms. Albright:

The above-captioned lease Assignment to Billings Community Youth Foundation, Inc. (BCYFI) from Billings Amateur Hockey league was approved by the Billings City Council on June 23, 2003. The lease was intended to facilitate and assist in the funding and construction of an indoor hockey arena in the southeast corner of Centennial Park in west Billings. The executed original lease and subsequent assignment are both enclosed for your review and labeled as Exhibits 1 and 2.

Under the terms of the lease assumed by BCYFI, the group was required to do the following:

(1) Pay a nominal annual rent of $10 per year (Section 4 of the lease),
(2) Keep the City Council informed of its fundraising status through periodic reports (Section 5 of the lease),
(3) Make reasonable efforts to develop the facility contemplated in the lease (Section 5),and
(4) Provide proof of annual liability insurance covering the leased area naming the City of Billings as an additional insured. (Section 14).

Since the assignment was approved in June 2003, there is no record with the City Clerk or Parks, Recreation and Public Lands (PRPL) department indicating full compliance with any of these four provisions noted above. This brief letter and enclosures serve as formal notice that the Mayor and City Council are advising BCFYI that it is in default of the lease terms and has sixty (60) calendar days to bring itself into compliance with all provisions of the lease. BCYFI must include documented proof that the above four items have been complied with over the past ten (10) years since BCFYI assumed this lease and are current as of the date of this Notice. If proof of compliance by BCYFI is not provided by the end of sixty (60) calendar days beginning the date this letter was received Certified Return Receipt, then the City intends to terminate the lease and take possession of the applicable portion of Centennial Park as provided in Section 10 of the lease.

Please direct all future inquiries and questions about this matter to:

Thomas W. Hanel, Mayor
City of Billings
P.O. Box 1178
Billings, MT 59103

Very truly yours,

Thomas W. Hanel

Thomas W. Hanel, Mayor

Enclosures

Cc:

City Council
Tina Volek, City Administrator
Mike Whitaker, Director, PRPL
Rick DeVore, Chair, Parks, Recreation and Cemetery Board
Brent Brooks, City Attorney

LEASE

This Lease Agreement is entered into this 8th day of May, 2000 by and between THE CITY OF BILLINGS, a Montana Municipal Corporation, by and through its duly constituted Park and Recreation Department, of Billings, Montana (the "City"), and THE BILLINGS AMATEUR HOCKEY LEAGUE, a non-profit corporation, of P.O. Box 21562, Billings, MT. 59104 (the "Association").

In consideration of the mutual covenants contained herein, the parties agree as follows:

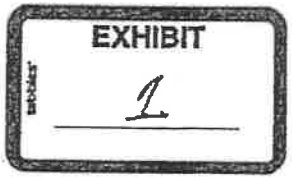
1. The City hereby leases to the Association, and the Association hereby leases from the City, the parcel of unimproved land consisting of approximately 8 acres, located on 32nd Street West and St. John's Avenue, in Billings, Montana, and more particularly described in the attached Exhibit A, which Lease shall be pursuant to the terms and conditions set forth herein (the Premises"). The Association accepts the Premises in their "as is" condition.

2. The initial term of this Lease shall be for a period of 10 years commencing on the date hereof and ending on the 10th anniversary date of the commencement date.

3. Assuming that the Association is not, at the time of the exercise of its option, in breach of the terms of this Lease, the Association shall have successive options to extend this Lease for additional 10 year periods, on the same terms and conditions, which options shall be deemed to have been exercised by Association unless Association notifies City of its intent to terminate this Lease at the end of a term.

4. Rent during the term of this Lease shall be at a nominal rate of $10 per year, payable in advance on the first day of each year of this Lease.

5. The Association intends to develop on the Premises a facility, which will include an indoor hockey arena, but which may, at the discretion of the Association, include other recreational uses and supporting uses such as a concession and retail store (the "Facility"). The Association is highly confident that it will over a period of time be able to raise sufficient funds to construct the Facility. The precise time frame for the raising of funds and the development of the facility is not known. Once funding is secured, the Association shall open up the Master Plan for Centennial Park for Public review and comment regarding the location and design of the Hockey Arena. The Association shall keep the City informed of its efforts and shall provide periodic progress reports to the City. The Association shall be deemed to be in compliance with this provision so long as the Association is making reasonable efforts to develop the Facility.



5. All costs associated with the development and construction of the Facility shall be borne by the Association. The City may provide in its budget such financial or other support as its consistent with its Charter and budgetary constraints. The Facility shall be constructed in compliance with all applicable city, and state building requirements. In addition, the Association shall be responsible for the payment of:

   a. all taxes, if any, on the Premises or the Facility during the term of this Lease;

   b. all utilities servicing the Premises or the Facility. The City shall, at no additional charge, turn on the irrigation lines to the Premises each year by May 1st and shall drain and disconnect the lines during the fall of each year;

   c. all costs associated with the maintenance and repair of the Facility.

7. Notwithstanding the terms of the preceding section, the City shall maintain the Premises consistent with the maintenance practices in effect from time to time, pertaining to City parks.

8. Upon construction, the operation of the Facility shall be subject to the exclusive control of the Association. Moreover, the Facility shall not be used in any manner which would discriminate against any person on the basis of sex, marital status, age, physical or mental handicap, race, creed religion, color or national origin.

9. The City shall have the right to schedule events at the Facility, upon not less than 30 days' written request, but shall be obligated to pay the standard fee imposed by the Association for use of the Facility, and the Association agrees to cooperate with the City in scheduling such events. The Association may reject the City's request based on prior commitments or extraordinary circumstances, and the reasons for the rejection shall be set forth in writing.

10. In the event the Association should default in the performance of any covenant or condition of this Lease (including the payment of any rental installment due hereunder) and such default is not cured or removed within sixty (60) days after service of written notice of default upon the Association, then in any such events, the City shall have the right and option to terminate this Lease, to re-enter the leased premises, to evict the Association and to remove the Association's possessions, all without being deemed guilty of any trespass, and without prejudice to any claim by the City for damages for breach of covenant or for arrears of rent. Upon termination of this Lease, the Facility shall revert to and become the property of the City.

11. In the event either party resorts to judicial proceedings to enforce any rights under this Lease or to obtain relief for the breach of any covenants hereof, the party ultimately prevailing in such proceedings shall be entitled to recover from the defaulting party the costs of such proceedings, including reasonable attorneys' fees.

12. The Association shall permit the City, or the City's duly authorized agents, employees or representatives to enter upon the Premises at all reasonable times for the purpose of inspecting the same.

13. The Association hereby indemnifies and agrees to hold the City harmless from and against any and all actions, claims, losses, judgments, payments, recoveries and demands arising out of the use, occupancy, or non-use of the Premises as herein provided, including, but without limitation on the foregoing, any carelessness, negligence, improper conduct or breach of this Lease, by the Association or its agents, employees, patrons, suppliers or licensees, and any costs, expenses and fees, including attorneys' fees, incurred by the City incident thereto. Notwithstanding the foregoing, the Association shall indemnify and save the City harmless from any such action, claim or demand arising out of the City's failure to perform its obligations under this Lease.

14. To further protect the City and ensure compliance by the Association with the foregoing provisions of this Lease, the Association shall obtain and maintain at all times during the term hereof, with a responsible insurer, NAMING THE CITY AS AN ADDITIONAL INSURED, comprehensive general liability insurance against any loss or liability, personal injury or property damages, and any expenses of the parties against any claim, demands, payments, suits, actions, recoveries or judgments for damages which might might result from the use, occupation or condition of the Premises in the amount of the then existing statutory limits of municipality liabilities presently codified in M.C.A. Section 2-9-108 (1999) and presently established as $750,000 for each claim and $1.5 million for each occurrence. The Association shall furnish a copy of such insurance policy and renewals thereof to the City and such policy shall not be canceled without a 30-day written notice to the City.

15. The Association shall not assign this Lease or any part thereof or sublet the whole or any part of the Premises without the prior written consent of the City, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, the Association may transfer this Lease to i) a successor related supporting non-profit entity, or ii) a bank or other financial institution as security for financing obtained by the Association in connection with the construction or repairs of the Facility, so long as the City's short term or long-term lease hold and ownership interests are not adversely affected, in the opinion of the City Council. The City shall execute such documents as are reasonably requested by a bank or financial

institution to reflect the City's consent to assignment of this Lease.

16. Any notice given hereunder shall be in writing and shall be sent by certified or registered mail, postage prepaid, addressed to the party to receive same at the address of such party shown above or such other address a such party may hereafter furnish to the other in writing. Any notice mailed in accordance with the preceding sentence shall be deemed to have been given at the time it is deposited in the mail.

IN WITNESS WEREOF, the parties hereto have executed this Lease the day and year First above written.

THE CITY OF BILLINGS

BY Charles F. Tooley
CHARLES F. TOOLEY, MAYOR

ATTEST:

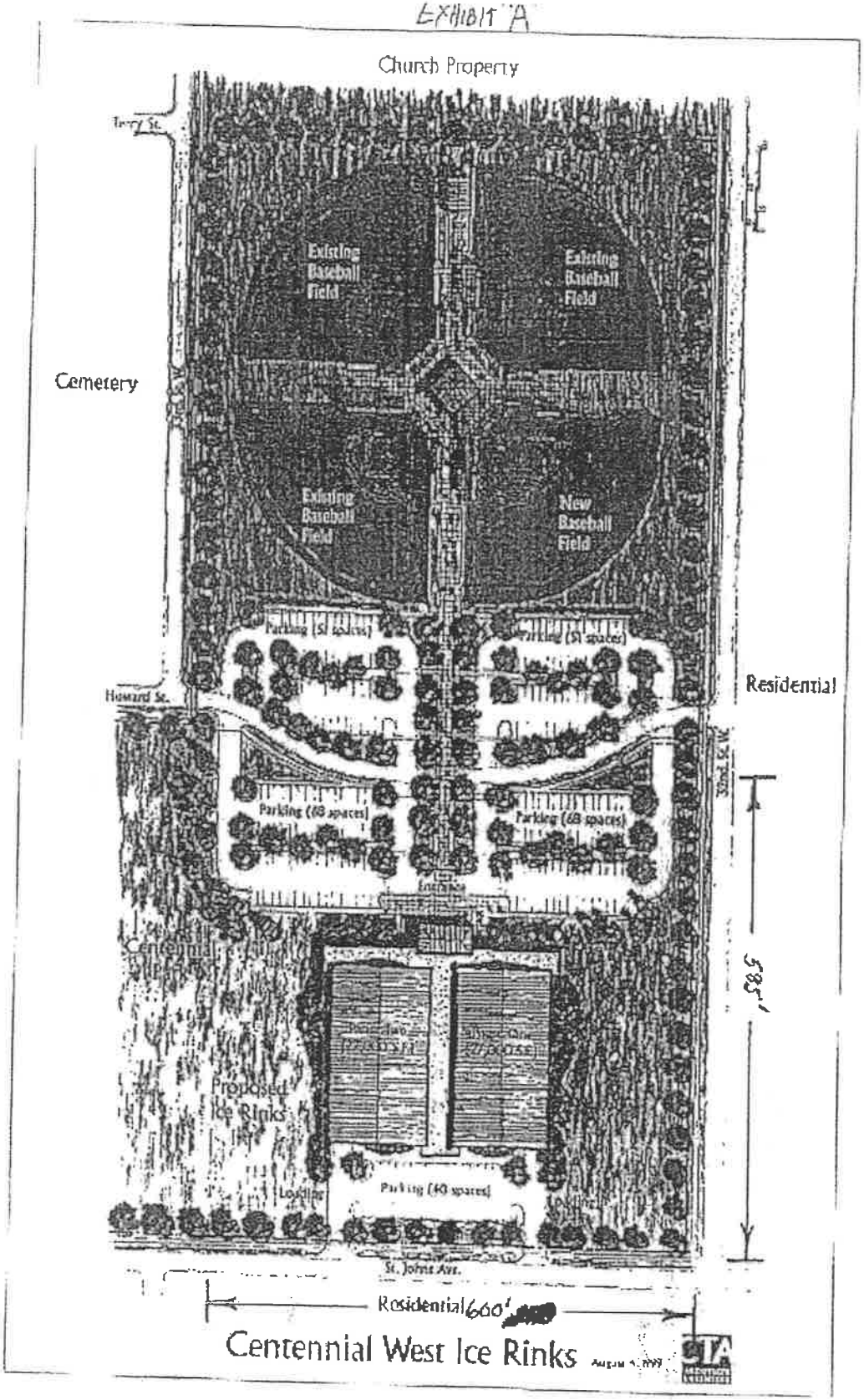
Colleen P. Schell-Berg Deputy City Clerk
MARITA HEROLD, CITY CLERK

THE BILLINGS AMATEUR HOCKEY LEAGUE

BY: Dennis Dewes

Its: President

EXHIBIT A


Church Property
Terry St.
Existing Baseball Field
Existing Baseball Field
Cemetery
Existing Baseball Field
New Baseball Field
Parking (51 spaces)
Parking (51 spaces)
Howard St.
Residential
Parking (68 spaces)
Parking (68 spaces)
Entrance
Centennial
585'
Proposed Ice Rinks
Loading
Parking (40 spaces)
Loading
St. Johns Ave.
Residential 660'
Centennial West Ice Rinks

ASSIGNMENT OF LEASE

BE IT KNOWN, this ASSIGNMENT OF LEASE, is entered into and made between the undersigned:

BILLINGS COMMUNITY YOUTH FOUNDATION, INC. (BCYFI)("Assignee") whose address is 2070 OVERLAND AVE #104, BILLINGS, MT and

BILLINGS AMATEUR HOCKEY LEAGUE (BAHL) ("Assignor") whose address is P.O.BOX 21562,BILLINGS, MT on

this 23RD day of JUNE, 2003.

By a certain Lease Agreement dated 05/08/2000 (the "Lease"), THE CITY OF BILLINGS, MONTANA ("Landlord") leased to Assignor as lessee the property more particularly described as: the parcel of unimproved land consisting of approximately 8 acres, located on 32nd Street West and St. John's Avenue, in the City of Billings, County of Yellowstone, State of Montana, and more particularly described in the attached Exhibit A of the lease herein assigned, hereinafter referred to as the "Property". All are attached as Exhibit 1.

Assignor desires to assign to Assignee, and Assignee desires to assume, all of Assignor's rights and obligations as lessee under the Lease.

Therefore, in consideration of the mutual covenants contained in Exhibit 2 and other valuable consideration received, and with the intent to be legally bound, the parties agree as follows:

Assignor hereby assigns the Lease and all of its right, title and interest thereunder to Assignee. Assignee hereby accepts such assignment. Assignee shall have all of the rights of Assignor under the Lease including, without limitation, any option to renew or extend the Lease and option to purchase the Property now held by Assignor, should any of the foregoing exist.

Assignee hereby assumes and agrees to be bound by all of Assignor's obligations under the Lease. Assignee shall perform all the terms, covenants and conditions of the Lease, including the payment of any required amounts to Landlord, after the date hereof.

Assignee shall indemnify and hold Assignor harmless from any and all claims, damages, expenses and liabilities of whatever nature, including attorneys' fees, arising under the Lease or relating to the Property after the date hereof.

Except as specifically modified herein, the Lease will continue in full force and effect.

This Assignment shall be binding upon and shall inure to the benefit of the parties and their respective heirs, legal representatives, successors and assigns.

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

ASSIGNOR- THE BILLINGS AMATEUR HOCKEY LEAGUE

BY: _____ DATE: 7/3/03

ITS: President

ASSIGNEE- BILLINGS COMMUNITY YOUTH FOUNDATION, INC.

BY: _____ DATE: 6/23/03

ITS: PRESIDENT

LESSOR CONSENT TO ASSIGNMENT:
THE CITY OF BILLINGS

BY: _____

ITS: Mayor

EXHIBIT
2

Regular City Council Meeting
Meeting Date: 06/24/2013
TITLE: Cable Television Franchise Transfer
PRESENTED BY: Tina Volek
Department: City Hall Administration

Information

PROBLEM/ISSUE STATEMENT

An agreement to transfer control of Bresnan Communications, its Billings cable franchise and the local cable system to Charter Communications Operating, LLC, was entered into in February by CSC Holdings, LLC, an indirect parent of Bresnan and a wholly owned subsidiary of Cablevision Systems Corporation. Cablevision Systems (doing business as Optimum West) acquired the franchise from Bresnan in December 2010.

The Federal Communications Commission (FCC) requires cable companies to seek consent to the change in control from 150 cities in Montana, Wyoming, Colorado and Utah that have issued franchises to Bresnan Communications. The cities have 120 days to accept or deny the request for transfer; if the cities take no action, they are presumed to have agreed to the transfer. For the City of Billings, the deadline for approval is June 25, 2013.

Staff has been working with Cablevision and Charter since April through the City Attorney's Office and special counsel at Best, Best & Krieger, LLP. The approval will include a transfer agreement that the attorneys say should clearly document existing conditions as the ownership of this franchise is sold for the second time in three years. Among the issues are continuation of franchise fees that totaled more than $800,000 in City General Fund revenue in 2013; maintenance of more than 500 jobs in Billings, including those at a call center paid for with economic development funds; continued support for Channel 7; and the impact on customer service.

Additionally, the City is scheduled to renew Bresnan's non-exclusive franchise agreement by July 31, 2013. Based on discussions on June 13, it appears that Charter will agree to a resolution extending the current agreement by at least three years, allowing the City time to evaluate how well Charter meets its obligations before a longer-term contract is considered.

Charter is a Delaware corporation headquartered in Stamford, CT. It provides cable service to about 3,100 communities nationwide. The parties continue to work on a transfer agreement and a resolution that will be provided to the City Council in the Friday packet of June 21.

ALTERNATIVES ANALYZED

The City Council may:

- Approve the transfer agreement and resolution, authorizing the change of control of Bresnan, its Billings cable franchise and the local cable system to Charter Communications Operating, LLC;
- Modify the transfer agreement or resolution, but authorize the change of control; or
- Deny the transfer agreement and resolution. Charter would be able to conclude the transfer since it has the approval of a majority of the cities in the Optimum West area, but would have to reopen negotiations for the renewal of its non-exclusive franchise in Billings.

FINANCIAL IMPACT

The City received a $5,000 fee with the request for approval of the change of control, as required by BMMC 7-902.

Charter says it has no current plans to change the terms, conditions of service or operations of the system, including subscriber rates and services. However, it noted that it has no intent to prevent any changes in rates or services currently planned by Bresnan. It also notes that it will evaluate subscriber rates and services after the close of the transfer and reserves the right to make changes that customer and company needs dictate, based on market and operational factors. The proposed transfer agreement now under negotiation prohibits Bresnan from increasing rates solely based on the amount Charter paid for the system.

The transfer agreement now being negotiated also requires that the local office staffing levels remain at the same level as of Jan. 1, 2013. Further, it requires that a 25-cent per month per subscriber PEG support fee and the franchise fee to the City continue to be paid at the same rate as in the past.

RECOMMENDATION

With negotiations continuing, a recommendation will be made to the Council in the Friday packet of June 21, 2013.

APPROVED BY CITY ADMINISTRATOR