



Department of Administration
Budget and Policy Division

Tom Barrett
Mayor

Sharon Robinson
Administration Director

Mark Nicolini
Budget and Management Director

February 12, 2007

Ref: SF, Capital Improvements

Alderman Robert J. Bauman, Chair
Public Works Committee
City Hall, Room 205

Subject: Annual Capital Report - 2006

Dear Alderman Bauman:

As required by Council resolution, the Department of Administration is submitting an annual Capital Monitoring Report. This communication includes reports prepared for the Accountability in Management (AIM) program, which the Mayor initiated in December 2005. This communication also, more importantly, identifies key projects to assist the city with monitoring and will shape future capital reports to the Public Works Committee.

Prior audit findings and communications emphasized the need for more communication in the capital planning process and better monitoring of capital expenditures. The limitations of our existing financial information system have created challenges for our capital monitoring. "Real time" capital expenditure and project progress information is not available through our system. Therefore, tracking has been a very labor intensive process.

The Department of Administration and the Department of Public Works have collaborated in the development of new applications that will enable more accurate and timely project monitoring during 2007. We expect these applications will make meaningful and accurate quarterly reporting on capital projects more feasible during 2007.

Accountability In Management (AIM)

AIM is modeled on the Baltimore CitiStat process and assists the Mayor in leading city government and improving the quality of city services. AIM is a systematic management process that reviews and analyzes service data on a regular basis through critical questioning and discussion in a group setting in order to identify strategies for improving service results.

Through monthly meetings with major departments, AIM involves the Mayor, department managers, and the AIM analysis team to set quantitative service goals, discuss recent performance toward meeting those goals and strategize ways for improving services. The use of accurate, real-time data on service performance allows the Mayor and his staff to target resources in a timely manner, identify and solve problems in a proactive manner, improve communication among departments, and reduce the time needed to respond to problems.

The Mayor is directly involved in attending the meetings and asking questions of department heads regarding their performance. Although AIM requires a critical review of performance, the process offers constructive direction to departments and collaboration among key management staff.

Through AIM, Project Status Reports (attached) have been developed for major capital projects to monitor whether they are on budget and on schedule. These reports have been developed and continually refined to promote better capital project monitoring. The reports identify and track three fundamental components: completing projects on time, maintaining expenditures within budget, and ensuring that the project scope (technical objectives) is clear and completed to specifications, essentially capital management. Improving capital management has entailed these following tasks:

- **Clear Project Scope:** More clearly identifying the scope of “major” capital projects. Identifying the scope entails specifically describing what is included in the project and what is excluded. For large scale infrastructure projects, the project scope should be geographically defined and include all capital costs within those geographic boundaries, such as site acquisition costs, soil remediation, design costs, and all infrastructure components such as street paving, water and sewer mains, street lights, landscaping, traffic signals, etc.
- **Project Monitoring Using Milestones:** The project should be divided according to “milestones” that identify key events in the project plan. These milestones can be used to identify if the project is on-time and on-budget at various points in the project. By tracking milestones more clearly, policy makers will have better information on how projects are proceeding, and will have the ability to make critical funding decisions before it is too late.
- **Clear Management Accountability:** While the Commissioner of DPW is ultimately responsible for management of major capital projects, AIM reports identify the project manager on the ground that will ensure that the subcontractors are completing project components correctly, on-time, and on-budget. This is especially important for projects that involve multiple departments.
- **Encumber Funds:** City departments must “encumber” funds in the FMIS financial systems when they make contractual commitments to expend funds at a later date.
- **Comptroller Countersignature on Change Orders:** Per a letter from the Comptroller, dated July 19, 2005, change orders for capital projects must be countersigned by the Comptroller before the work is begun.
- **Improve Construction Cost Estimates:** While project cost estimates cannot be verified until the project has been bid out to contractors, DPW must improve systems to provide accurate cost estimates by ensuring that appropriate inflationary factors are included in the cost estimate. DPW progress is outlined later in this communication.
- **Clear Project Status Reporting to Common Council Committees:** DPW now provides a history of cost information, project timing, and a current estimate of the project within the capital account every time a project appears in a Council resolution.

AIM, Project Status Reports (attached)

The attached AIM Project Status Reports are from the February 2007 meetings with DPW. These projects were selected by the Mayor and the AIM analysis team based on some of the following criteria:

- Projects with considerable costs, local and state;
- Projects with high impact to residents, other users, traffic flow, and city business;
- Projects with high cost exposure if significant change orders or cost overruns occur;
- Projects that are not routine infrastructure maintenance, repair, or replacement, such as local street repaving (program).

These projects are reviewed throughout the design and construction phases. Any deviation that occurs to the project's scope, approved budget, estimate versus received bid, or anticipated timeline are fully discussed to determine their impact to the city's finances, other projects' funding and timing, and impact to the residents who will ultimately utilize the infrastructure.

Matrix Review of Capital Management

The City of Milwaukee has contracted with Matrix Consulting Group to review and analyze several critical issues including project scope definition, cost estimating, and management of capital projects. Matrix is currently in the process of performing the following tasks:

- Review of the organizational structure and allocation of staff focusing on the ability of DPW to effectively management the CIP with focus on issues such as:
 - Span of control for supervisors;
 - Levels of accountability;
 - Opportunities to streamline procedures;
 - Ability to enhance services through further cross training of staff.
- Financial status monitoring of capital projects including issues related to:
 - Initial project costs;
 - Bidding process and validity of initial estimates compared to bid prices;
 - Determining total project costs including funding from all sources;
 - Effective management of the change order process - both in terms of the process utilized, as well as, the number, frequency, and reasons for change orders;
 - Timely close out of projects upon completion.
- Review of the software systems currently utilized and under development to determine the sufficiency of these systems to enable staff to manage projects under their control. Specific attention is being placed on the identification of additional changes and/or programs that would be beneficial in improving timeliness of financial reporting, increase staff productivity by reducing manual work/entry, and the ability to generate reports needed to monitor and evaluate progress on capital project completion.

Matrix has received and are evaluating preliminary data regarding project status (financial and progress). They will also be evaluating a sampling of the estimates prepared against the bid prices received in order to make an assessment of the effectiveness of the initial staff estimates for capital projects. Matrix is targeting completion of draft reports in the coming weeks. Future capital reports to this committee will present and discuss Matrix recommendations and their implementation.

DPW Project Reporting System

Starting in the mid 1970s, Department of Public Works staff developed a number of computer systems in order to support their work functions. Running on terminals to the city main frame, they were used for various tasks such as keeping an inventory of:

- City infrastructure of pavements,
- sewers and water mains,
- to retrieve property owner information from the city property files,
- to estimate grading quantities for paving projects and;
- to document the application for State Aids for Paving and Sewers.

Subsequently, as technology changed, many of the applications were redeveloped in new computer operating languages and applications. In the 1980s and 1990s new processes were developed, primarily in dBase, to assist the Project Programming, Estimating, Special Assessments, Street Construction, Walk Construction, and Contract Offices in processing the city Paving Program. DPW has been converting these applications to web based programs using an Oracle database.

DPW is also developing an application that will track a project from its conception through its final billing and assessments. Through the city's web site, residents, policy makers, employees, and contractors will find up to date project information by clicking on highlighted street segments through the Map Milwaukee application. This application can be modified to provide additional information if users or Council members desire such information. Such information that will be available includes:

- Pavement type
- Pavement history
- Bid information and links
- Current project status and project schedule
- All related project costs, including sewer, water, forestry, street lighting, and/or signal work
- Work planned by outside utilities (gas, electric, phone)
- Project construction cost and timeline estimates through closeout
- Public hearings and Common Council file history

One of the keys to provide current project information to the public is the conversion of the Paving Construction applications, including development of a new process for partial payment preparation and review based on information from daily site inspector reports. This procedure will replace a paper based review and authorization process with one that is expected to be nearly completely electronic, incorporating explicit authorization tracking through emails, links, and electronic signatures. The process will begin in Infrastructure Construction and proceed to Infrastructure Accounting, the DPW Contract Office, Infrastructure Administration, and DPW Administration Accounting. DPW is continuing to work on this program to include scheduling, estimating, and contracting Water and Sewer projects sometime in the near future.

February 12, 2007

With the data provided through the new databases, DPW will be able to more accurately build paving estimates, track project and contractor progress, track and analyze material volume and costs estimates versus actuals, and project change orders and variances.

Upon request, the Budget Office will report on specific capital projects that are of interest to the Public Works Committee and the Common Council. We request that you contact David Schroeder of the Budget Office with any questions, requests of specific projects to report on, or other specific information that the Committee would want to receive in the future. He can be contacted at extension 8524 or at dschro@milwaukee.gov.

Sincerely,



Mark Nicolini
Budget and Management Director

Cc: Public Works Committee
Alderman Willie Hines Jr.

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Summerfest Advanced Parking Guidance

Automated, real-time information system for downtown parking structure availability
 Report as of January 30, 2007

Contractor
 Project Mar
 Design Mar
 Constructio

A	B	C	D	E	F	G	H=F+G	I=E-H	I	J	K	L
Item No.	Description - Task	Fund Share	FMIS Account	Approved Budget	Bid or Scheduled Value	Approved Change Orders	Total Approved Contract	Deviation (Budget vs. Approved Contract)	Encumbrances	Expenditures	Total Costs Incurred to Date	Percent Complete Project
Design Phase by Consultant												
1	Design	20% City 80% WIDOT	ST32002201	\$ 290,000	\$ 290,000	\$ -	\$ 290,000	\$ -	14,957	\$ 260,198	\$ 275,155	95%
Construction Phase by City												
2	Construction	20% City 80% WIDOT	ST32002210	\$ 1,210,000	\$ 1,210,000	\$ -	\$ 1,210,000	\$ -	-		\$ -	0%
TOTAL COSTS												
3	Total Project Costs			\$ 1,500,000	\$ 1,500,000	\$ -	\$ 1,500,000	\$ -	14,957	\$ 260,198	\$ 275,155	18%

Teutonia Bridge over Union Pacific RR

Fixed bridge rehabilitation
Report as of January 30, 2007

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A	B	C	D	E	F	G	H=F+G	I=E-H	I	J	K	L
Item No.	Description - Task	Fund Share	FMIS Account	Approved Budget	Bid or Scheduled Value	Approved Change Orders	Total Approved Contract	Deviation (Budget vs. Approved Contract)	Encumbrances	Expenditures	Total Costs Incurred to Date	C A
Design Phase by City												
1	Design - Bridge	20% City 80% WIDOT	BR32000201	\$ 275,000	\$ 275,000	\$ -	\$ 275,000	\$ -	\$ -	\$ 132,125	\$ 132,125	
2	Design - Street	20% City 80% WIDOT	ST32001901	\$ 39,000	\$ 39,000	\$ -	\$ 39,000	\$ -	\$ -	\$ 37,228	\$ 37,228	
Non-reimbursable												
3	Railroad portion		ST32001950	\$ 5,000	\$ 5,000	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ -	
Construction Phase by WisDOT/City												
4	Construct - Bridge	20% City 80% WIDOT	Not set-up	\$ 3,100,000		\$ -	\$ -	\$ 3,100,000	\$ -	\$ -	\$ -	
5	Construct - Street	20% City 80% WIDOT	Not set-up	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOTAL COSTS												
6	Total Project Costs			\$ 3,419,000	\$ 319,000	\$ -	\$ 319,000	\$ 3,100,000	\$ -	\$ 169,353	\$ 169,353	

Kilbourn Ave Bascule Bridge over Milw River

Moveable bridge removal and replacement
Report as of January 30, 2007

60-Day Project Outlook
Site mobilization and staging.
Abutment repair work.
Sand blasting/painting.

Contractor
Project Manager
Design Manager
Construction Supervisor

A	B	C	D	E	F	G	H=F+G	I=E-H	I	J	K	L	M=E-I
Item No.	Description - Task	Fund Share	FMIS Account	Approved Budget	Bid or Scheduled Value	Approved Change Orders	Total Approved Contract	Deviation (Budget vs. Approved Contract)	Encumbrances	Expenditures	Total Costs Incurred to Date	Percent Complete Approved Project	Proj Balan
Design Phase by City													
1	Design - Bridge	20% City 80% WIDOT	BR32090701	\$ 1,072,000	\$ 1,072,000	\$ -	\$ 1,072,000	\$ -	\$ 128,996	\$ 885,638	\$ 1,014,634	95%	\$ -
2	Design - Street	20% City 80% WIDOT	ST32090701	\$ 268,000	\$ 268,000	\$ -	\$ 268,000	\$ -	\$ 32,067	\$ 220,506	\$ 252,573	94%	\$ -
State Non-reimbursable (Not on FMIS)													
3	Bridge portion			\$ 150,000	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	0%	\$ 1
4	Paving portion			\$ 10,000	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ -	0%	\$ -
Construction Phase by WisDOT/City													
5	Construct - Bridge	20% City 80% WIDOT	BR32090710	\$ 5,758,100	\$ 4,763,000	\$ -	\$ 4,763,000	\$ 995,100	\$ -	\$ 7,354	\$ 7,354	0%	\$ 5
6	Construct - Street	20% City 80% WIDOT	ST32090710	\$ 146,000	\$ 146,000	\$ -	\$ 146,000	\$ -	\$ -	\$ 1,124	\$ 1,124	1%	\$ -
State Non-reimbursable (Not on FMIS)													
7	Bridge portion			\$ 13,161,000	\$ 13,161,000	\$ -	\$ 13,161,000	\$ -	\$ -	\$ -	\$ -	0%	\$ 13
8	Paving portion			\$ 331,000	\$ 331,000	\$ -	\$ 331,000	\$ -	\$ -	\$ -	\$ -	0%	\$ -
TOTAL COSTS													
9	Total Project Costs			\$ 20,896,100	\$ 19,901,000	\$ -	\$ 19,570,000	\$ 995,100	\$ 161,063	\$ 1,114,622	\$ 1,275,685	6%	\$ 19

OTHER RELATED WORK

Activity	Work
Sewer	No
Water	No
Street Lighting	No
Private Utility	No

STATE CONTRACT AWARD

State share	\$13,226,996
City share	\$3,306,749
Total Contract	\$16,533,745

State St Bascule Bridge over Milw River
 Moveable bridge removal and replacement
 Report as of January 30, 2007

60-Day Project Outlook
 Structural steel girder delivery & installations
 Trunnion bearing installations
 New bridge house installation.

Contractor
 Project Manager
 Design Manager
 Construction Supervisor

A	B	C	D	E	F	G	H=F+G	I=E-H	I	J	K	L	M=E-K
Item No.	Description - Task	Fund Share	FMS Account	Approved Budget	Bid or Scheduled Value	Approved Change Orders	Total Approved Contract	Deviation (Budget vs. Approved Contract)	Encumbrances	Expenditures	Total Costs Incurred to Date	Complete Approved Project	Project Balance
Design Phase by City													
1	Design - Bridge	25% City 75% WIDOT	BR30280301	\$ 1,373,000	\$ 1,373,000	\$ -	\$ 1,373,000	\$ -	\$ 5,096	\$ 1,247,496	\$ 1,252,592	91%	\$ 120
2	Design - Street	25% City 75% WIDOT	ST30280301	\$ 113,250	\$ 113,250	\$ -	\$ 113,250	\$ -	\$ -	\$ 113,129	\$ 113,129	100%	\$ -
State Non-reimbursable (Not on FMIS)													
3	Paving portion			\$ 7,500	\$ 7,500	\$ -	\$ 7,500	\$ -	\$ -	\$ -	\$ -	0%	\$ -
Construction Phase by WisDOT/City													
4	Const Mngmt - Bridge	100% WIDOT	BR30280310	\$ 1,513,000	\$ 1,513,000	\$ -	\$ 1,513,000	\$ -	\$ 89,139.00	\$ 360,731	\$ 449,870	30%	\$ 1,063
5	Const Mngmt - Street	100% WIDOT	ST30280310	\$ 52,000	\$ 52,000	\$ -	\$ 52,000	\$ -	\$ -	\$ 6,637	\$ 6,637	13%	\$ 45.3
State Non-reimbursable (Not on FMIS)													
6	Bridge portion			\$ 10,086,000	\$ 10,086,000	\$ -	\$ 10,086,000	\$ -	\$ -	\$ 0	\$ 0	0%	\$ 10,081
7	Paving portion			\$ 334,000	\$ 334,000	\$ -	\$ 334,000	\$ -	\$ -	\$ 0	\$ 0	0%	\$ 334
OTHER RELATED WORK													
8	Lighting	25/75	ST30280302	\$ 2,000	\$ -	\$ -	\$ -	\$ -	\$ 2,000	\$ -	\$ -	0%	\$ -
9	Conduit	25/75	ST30280303	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ -	0%	\$ -
	Traffic AUP			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
	Private Utilities			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
TOTAL COSTS													
8	Total Project Costs			\$ 13,510,750	\$ 13,478,750	\$ -	\$ 13,478,750	\$ -	\$ 32,000	\$ 94,235	\$ 1,727,993	13%	\$ 11,1

STATE CONTRACT 20050208012	
100% State share	\$11,650,969
Change orders #1 to #12	\$569,074
Total contract to date	\$12,220,043

**Milw CBD Ped Corridor-E/W Wisconsin Ave
(N.10th St - E. Mason St)**

Asphalt roadway decorative walk, streetscape and amenities
Report as of January 30, 2007

60-Day Project Outlook

Construction suspended until Spring 2007
Design work for Phase V commencing.

Contract
Project
Design
Constru

A	B	C	D	E	F	G	H=F+G	I=E-H	J	K	L	
Item No.	Description - Task	Fund Share	FMS Account	Approved Budget	Bid or Scheduled Value	Approved Change Orders	Total Approved Contract	Deviation (Budget vs. Approved Contract)	Encumbrances	Expenditures	Total Costs Incurred to Date	Perc Com Appn Proj
Design Phase by City												
1	Design - Phase I	20% City 80% WIDOT	ST32092301	\$ 985,300	\$ 985,300		\$ 985,300	\$ -	\$ 3,114	\$ 979,455	\$ 982,569	100
2	Design - Phase II	20% City 80% WIDOT	ST320030301	\$ 618,750	\$ 618,750		\$ 618,750	\$ -	\$ -	\$ 613,341	\$ 613,341	99
3	Design - Phase III	20% City 80% WIDOT	ST320030401	\$ 562,500	\$ 562,500		\$ 562,500	\$ -	\$ -	\$ 243,755	\$ 243,755	43
4	Design - Phase IV	20% City 80% WIDOT	ST320050401	\$ 700,000	\$ 700,000		\$ 700,000	\$ -	\$ 172,729	\$ 127,698	\$ 300,427	43
Construction Phase by WisDOT/City												
5	Phases I, II, and III	20% City 80% WIDOT	ST32092310	\$ 8,215,940	\$ 7,263,882	\$ 21,300	\$ 7,285,182	\$ 930,758.00	\$ 470,177	\$ 6,450,541	\$ 6,920,718	88
6	Phase IV	20% City 80% WIDOT	ST320050410	\$ 5,100,000	\$ 5,100,000	\$ -	\$ 5,100,000	\$ -	\$ 3,769,107	\$ 667,597	\$ 4,436,704	88
OTHER RELATED WORK												
7	Sewer	100% City	SM495040125/7	\$ 654,302	\$ 654,302	\$ -	\$ 654,302	\$ -	\$ -	\$ 654,302	\$ 654,302	100
8	Traffic AUP	100% City	ST32092315	\$ 21,985	\$ 21,985	\$ -	\$ 21,985	\$ -	\$ -	\$ 20,311	\$ 20,311	93
9	Parking ID & Wayfinding	20% City 80% WIDOT	ST320050301	\$ 81,000	\$ 81,000	\$ -	\$ 81,000	\$ -	\$ -	\$ -	\$ -	0
10	Private Utilities	Private	N/A									
TOTAL COSTS												
11	Total Project Costs			\$ 16,939,777	\$ 15,967,719	\$ 21,300	\$ 16,009,019	\$ 930,758	\$ 4,415,127	\$ 9,757,000	\$ 14,172,127	