

March 12, 2008

To the Public Works Committee

Subject: File Number 070683 Communication from the
Budget and Management Division relating to a
Best Practices Review of Capital Project Management

Dear Honorable Members:

We have reviewed the subject report and appeared in front of the Finance & Personnel committee (F&P) on the subject file. The F&P asked that the file be referred to the Public Works committee (PW) and further asked that DPW provide a written response to the recommendations found in the report. Attachment A gives our response directly to each of the thirty-seven recommendations in the final report.

Mr. Alan Pennington gave a PowerPoint presentation to the F&P called, "Final Report Presentation for the Best Practices Review of the Capital Project Management Process." The bullet point presentation which is included as an attachment to the subject file contains "Key Strengths of Existing Processes" and many "Improvement Opportunities" identified within several areas. This Final Report Presentation summarized the thirty-seven recommendations in a clear manner and we have provided our response to these bullet points as well below. While DPW is pleased and agree with the Key Strengths identified in the report, we believe you are more interested in our position relative to the "Improvement Opportunities" bullet points. We offer the following comments:

- Technology and Reporting
 1. The suggestion is made to implement a financial planning, budgeting and project costing software that will integrate with the existing FMIS system at a cost of roughly \$1 million dollars. Within the Infrastructure Services Division, we have and continue to develop a new database management system (ODB) that integrates our processing of projects from inception through construction. This ODB will provide the information necessary for financial planning, budgeting, scheduling and project costing. This system was developed in-house with the assistance of ITMD and the Budget office. We are working toward integrating the ODB with the FMIS. However, we will work to ensure that the two systems will provide a checks and balances to minimize

errors. We are working with the Budget & Management office as well as the Comptroller's office to ensure that these checks and balances accent each other in a most economical way. Within Buildings and Fleet, the Construction Section has used Primavera P3 for fourteen years as our data base for the six year CIP. P3 assists us in planning, budgeting, scheduling, tracking and maintaining all information on past, present and future projects. Presently, a request to upgrade to

Primavera P6 is in Purchasing and it is our intent to use this next generation of Primavera software to further refine the management of projects from a risk, schedule and cost-to-date perspective. P6 is Oracle based and can integrate into FMIS as with the ODB. ODB is being administered by current budgets and done through our normal operating budget without the need for purchasing a system as suggested by Matrix. Primavera P6 is a licensed, proprietary software used nationwide by major construction entities and tailors to the suggested system recommended by Matrix.

2. The ODB will not only provide expansion of the AIM reports but will allow the information to be posted real time on Map Milwaukee for any citizen to view on a total project basis. We are looking into providing a similar reporting system with P6.
 3. These systems are designed to monitor projects as Inspector reports are turned in for all projects, not just high risk or atypical projects as Matrix suggests.
 4. We are willing to work with other city offices to developed reports specific to their needs directly from source.
- Policies and Procedures
 1. We have already assigned a risk factor to our AIM reports and will be incorporating this into our 2009 capital budget submittal.
 2. The ODB and P6 will provide an opportunity to summarize reports on estimates and schedules as recommended.
 3. The ODB and P6 will provide the communications mechanism to keep all stake holders informed about projects and can be custom fit to their interests.
 4. All projects within the ODB will be available on the city's web site where a total project cost basis will be displayed. We will work to develop this with P6 as well.

- DPW Project Management
 1. As we continue to develop the ODB, scheduling charts will become an integral part of the database as is with the P6. This will include internal as well as external utilities such as electric, gas and telecommunications companies. This will assist in the overall coordination of the projects construction schedule while keeping the general public informed as well.
 2. Historical data will be used to accent current estimates in terms of dollars
 3. As the ODB is developed and integrated with the FMIS, staff hour data can be used to target future staff hour needs. P6 has a 'resource leveling' module to maximize the efficient allocation of resources during the progress of the work. This not only assists in day-to-day project management, but also refines the planning and estimating process for future, similar projects.
 4. The report suggests that engineering consulting firms be utilized off a Master Contract list for capital projects good for two years. This list can then be used on routine and/or recurring projects thus saving time and money from developing RFP's for each project. Within Infrastructure Services, we agree and will process a resolution through the Common Council to approve this. B&F Design Section utilizes the RFP process to create a list of Architectural and Mechanical Design Firms from which we can select firms based upon our current work load demands and particular expertise required for proposed work.
 5. The report suggests adding one position to handle increased reporting requirements. Although the ODB will simplify this process, we agree with the concept of having one person overseeing ODB operations and how it can be expanded and/or used for administration purposes. We will include a proposal in our 2009 budget submittal to add such a position. As P6 is rolled out division wide, the need for a person to oversee and administer the program is likely. However, we believe this can be done with current staff.
 6. Matrix suggests that an evaluation system be established for each engineering consultant used in an RFP. We agree and will establish an exit survey to provide this evaluation.
 7. The ODB will be providing the reporting suggested by Matrix with no added staff time needed to prepare the reports.
 8. Matrix further suggests that contingencies be provide with each project. We currently include contingencies as a part of our construction engineering estimate. On larger projects such as the City Hall restoration, we agree with this concept. On all projects, we in B&F include

- contingencies which vary according to the risk associated with that particular project. On average, it is ten percent.
9. Statistics could be obtained from the ODB to manage and evaluate the sufficiency of estimates, bids and change orders. In B&F it is our goal to keep the estimate to bid ratio within a ten percent margin of error. P6 will bring uniformity to our estimating process and assist in meeting that goal. It has been our experience that change orders are minimized when proper design considerations are thorough. This relates to Item #4 and we depend upon the competency and thoroughness of consultants. Their success in being selected for future work holds in the balance and we tell them that up front.
 10. The Matrix report recommends moving the Water Works Division's (WW) design and engineering functions into the Infrastructure Services Division (ISD) under the direction of the City Engineer. We strongly disagree with this recommendation. This disagreement is not based on conjecture but on actual experience. Water Engineering was moved from the WW to the Division of Engineers (Now ISD), Environmental Section in 1993. This reporting relationship proved unsatisfactory, for all the reasons that it would be unsatisfactory today, and the design and engineering functions were returned to WW in 1997. The consultant did not have the benefit of an in-depth discussion about this important aspect of their recommendation. We were told we would have the opportunity to discuss this issue with Matrix at a draft review meeting on July 27, 2007. This did not take place. Attachment B provides a detailed summary of our position on this issue.

Within the report itself, the majority of the critique places a cookie cutter approach to all of the capital programs. The report addresses the program vs. project form of budgeting. However, it does not recognize that, as appropriate, some of our program budgets actually are established on a project basis within the program. This is true for our Bridges and Major Streets. We do not see a need to make any changes to the way capital programs have been budgeted in the past. We do agree that the budget submittals should include additional information to assist in the budget evaluation process and are working with the Budget office to have this in place for the 2009 budget submittal.

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The Matrix audit, along with several audits on DPW projects and processes in the past, was taken into consideration in the development of the ODB. This process started two years ago when we identified a need to integrate our many stand alone data base systems into one coordinated database. The benefits internally relative to ease of operation and coordination of projects will be enjoyed. The added benefit of being able to display the projects on Map Milwaukee with a direct link to the data has opened the door to increased accountability, tracking and reporting both internally and externally. We look forward to working with all offices within the city to provide capital project design, construction and monitoring activities in an atmosphere of complete and open accountability in a useful and economic fashion.

Very truly yours,

Jeffrey S. Polenske, P.E.
City Engineer

Jeffrey J. Mantes
Commissioners of Public Works

