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W.E. Bowers and Associates, Inc. Financial Operations Manual for Construction Cost Accounting

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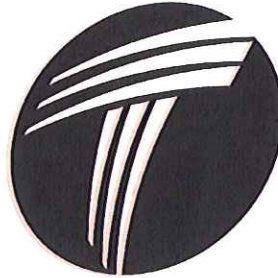
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College of Technology

W.E. Bowers and Associates, Inc. Financial Operations
Manual for Construction Cost Accounting

In partial fulfillment of the requirements for the
Degree of Master of Science in Technology

A Directed Project Report

By

Stephen E. Brown

11-28-11

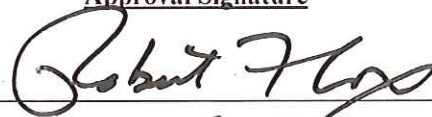
Committee Member

Robert F. Cox, Chair

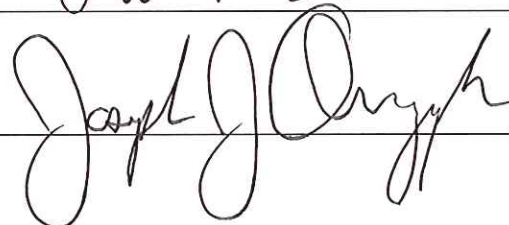
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Graduate Studies**

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(must be included as page 2 of the Directed Project Report)**

Title of Directed Project: W.E. Bowers and Associates, Inc. Financial Operations Manual for
Construction Cost Accounting

For the degree of Master of Science in Building Construction Management

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STEPHEN E. BROWN 
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11/28/11
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W.E. Bowers and Associates, Inc. Financial Operations Manual for Construction Cost
Accounting

Stephen E. Brown

Purdue University, West Lafayette

Abstract

W.E. Bowers and Associates, Inc. typically hires experienced project managers eager to diversify their work experience. W.E. Bowers and Associates, Inc. verbally instructs project managers to properly utilize the companies forms and the processes for financial management of projects. The verbal training typically occurs in a piecemeal fashion. It occurs only when a new project manager asks "How To" perform specific tasks. The project managers all come with different backgrounds and with different backgrounds, come different business management strategies. The creation of this financial operations manual will aid in the training of project managers and provide the company with a baseline for how job cost management is performed at W.E. Bowers and Associates, Inc utilizing the WennSoft cost accounting system.

Introduction

W.E. Bowers and Associates, Inc. has grown significantly since the owner, Wayne Bowers, began working out of his garage. It now has 150 Million Dollars in annual revenues for fiscal year 2009 and has the potential for even greater expansion in the decades to come. A mechanical project manager is not born with the project management skills, the skills are taught by their employer and acquired through work experience. W.E. Bowers and Associates, Inc. has experienced growth in the past five years. The volume has increased by 200% (from \$50 Million to \$150 Million) while the project management staff has increased by only 100% (from 11 to 22 people). The staff growth has been from outside sources as the rapid growth the company has not allowed for a large number of managers to be grown from the current employees. Because the staff is growing by obtaining managers from outside the company, many foreign ideas of

how business is to be performed at W.E. Bowers has created an environment where you have many managers building projects with different methods of financial cost management. The company needs to have standardized policies and procedures for project managers as the company continues to grow. The training can be accomplished by developing a financial project manager's manual to be utilized as a reference for all employees. The financial project manager's manual will also need to be updated as the needs and technologies utilized change.

Statement of the Problem

W.E. Bowers and Associates, Inc. is a growing company that has experienced project managers with a variety of different backgrounds and training. The standardization of company procedures will provide consistency when analyzing financial cost data for each project and provide the management staff overseeing the project managers a tool to analyze how the projects are performing to determine which projects need additional resources to make the job more profitable. The lack of consistency between project managers creates confusion because the methods used for cost management are not the same for each project manager.

Significance of the Problem

The lack of standard methods and procedures creates lost time and money whenever a project manager leaves the company, changes job responsibilities or is out of the office. The project manager that takes over the project needs time to learn the job, while being overwhelmed by the general contractor's staff and then spending an exorbitant amount of time looking for the documentation that may or may not have been done by the previous project manager. This transition could be improved by the standardization of procedures.

The standardization for the company's policies and procedures could improve the production and profitability for the company.

Statement of Purpose

This directed project will develop a project manager's financial operations manual to be utilized by employees as a reference to standardize the job cost management of each project. W.E. Bowers and Associates, Inc. transitioned to WennSoft in October 2007, but did not purchase any procedures specific to the use of the program by project managers. The manual will be created by the author creating a step by step procedure for the tasks that a project manager utilizes in the WennSoft accounting package. The manual will then be user tested to verify that the author's processes are valid and the author will make modifications to the procedures. This will provide the basis for the project managers financial operations manual and provide the standardization of these procedures.

Definitions

WennSoft -An add on program to the Microsoft Dynamics Great Plains accounting software platform that has been modified for the management of costs for construction projects.

Great Plains ó a financial accounting package developed by Microsoft Corporation.

Assumptions

The group that the financial operations manual is intended to be utilized by employees of W.E. Bowers and Associates, Inc. only and may not be applicable to other corporations utilizing the WennSoft accounting package. It is also assumed that upper management staff will be receptive to the standardization and enforcement of the policies and

procedures listed in the manual. The project managers will be receptive to standardizing procedures for all project managers and follow the procedure contained in the financial project managers manual.

Delimitations

The responsibilities and procedures for foremen will not be covered. The support staff (accounting, clerical, etc.) responsibilities will not be included in the manual. The manual will be specific to the business operations of W.E. Bowers and Associates, Inc. The manual will need to be kept current for modules and add-ons implemented into the WennSoft system. These will be added for project managers to utilize in the operations side of the accounting software. The Service Management functions and Project Management Portal are functions used by the Service side of the company and will not be covered in the manual.

Limitations

The WennSoft program is not capable of writing a negative purchase order as this is a function of Microsoft Dynamics Great Plains platform and can not be modified. This manual is limited for internal company use and not intended for use outside of the company.

Review of Literature/Background

History of Company

Wayne Bowers began business in 1984 as W.E. Bowers and Associates, Inc. The firm started April of 1984 in the garage of Mr. Bowers. The first projects were small HVAC jobs and service work. In September of 1984 W.E. Bowers and Associates moved out of Mr. Bowers' garage and into a small office in Beltsville, MD. The company had 10

employees on the payroll in 1984. When 1986 rolled around the company had grown to 30 employees and moved into a townhouse office in Laurel, MD. The company was still performing small projects and service work. During the early 90s the company began working with James G. Davis Construction performing tenant work. The company continued to grow and in the mid 90s Mr. Bowers hired Dave O'Donnell. Dave brought larger Davis work with him because of the relationship he had established with Davis and the company continued to grow. During 1997 the company had outgrown the townhouse and moved to 12401 Kiln Court and acquired Suite A. Shortly thereafter more PMs were hired and the company continued to grow. The Bowers Group was formed in 2005 to bring the companies under one corporate umbrella. The company currently employs 410 field and office personnel.

History of WennSoft Software used in Construction Cost Accounting

WennSoft began in the Operations Department of a construction services company. The Company sought to develop a software solution to manage large construction projects and service operations. W.E. Bowers is divided into 3 separate companies comprised of a service group, a national service contract group and a new construction group. The process began in 1989 and the solutions were implemented into the construction service company to enhance and expedite reporting. WennSoft was formed in 1995 as a spin-off from the construction services company to a privately held company and is headquartered in New Berlin, Wisconsin with an office also located in Fargo, North Dakota. WennSoft provides business management software for the private and public sectors. The Job Cost function of the program integrates with the accounting functions of Microsoft Dynamics Great Plains and allows for the management of labor, equipment, materials and

subcontractors. The Service Management function allows for the capture of expenses to scheduled service through maintenance contracts and to allow for additional costing of work outside of the service contracts. The WennSoft program was chosen primarily for the service management functions that will not be covered in the project managers manual as this is a different part of the company that the author has no involvement. The Project Management Portal provides a central repository for documents to manage projects from a central location which is utilized by the service group to manage fast track service construction projects.

Training

Research shows that training not only increases knowledge, but also motivates people and creates loyalty to the company. (Bell, 2009). Increasing knowledge concerning company policies and procedures provide guidelines for employees to follow and allows for upper management to be able to track individual projects and to look for trends in jobs. This increased knowledge also provides motivation to employees by providing the standard for managing the job processes. The standards will motivate people to be loyal to the company and a sense of belonging as they follow the guidelines and procedures. Companies with the highest rate of success have a chief executive officer who ensures that training and learning are high priorities (Boomer, 2007). The evaluation and implementation of training is a four step process that involves reaction (evaluation), learning (attitude, knowledge, skill) behavior (change) and results (improved quality of work life) (Kirkpatrick & Kirkpatrick, 2006). The procedures manual has established evaluation through the survey which provides the author with feedback from the users of the procedures manual. Learning through the procedures providing knowledge and skill

for the processes contained in the manual. The project managers will have changed behavior through the implementation of the procedures manual and for project managers to know the expectations of using the program. Results, through the use of the procedures manual as the manual provides a resource to implement the procedures and a resource to learn how to perform project manager tasks.

Procedures / Methodology

The methodology to be utilized will involve the writing of procedures for the WennSoft construction accounting program developed by the author having 13 years of experience to produce standards for the company.

Step 1. The author looked at the WennSoft program and began with logging into the system for the first time and wrote a step by step procedure for logging in to the WennSoft System.

Step 2. The author wrote procedures for common activities that the author had utilized within the WennSoft system.

Step 3. The author created a table of contents to provide a guide for writing the procedures based on the common activities utilized within WennSoft.

Step 4. The author found tools within the WennSoft program that the author had not seen before or utilized and incorporated the tools into the WennSoft Manual and the table of contents was expanded.

Step 5. The manual was assembled as written procedures without screen shots.

Step 6. The manual was uploaded to the company's WEB Forms on the server for project managers to use as a reference tool for the WennSoft procedures.

Step 7. The Vice President of the company sent the manual out to team leaders established at the launch of WennSoft in 2007. The manual sat for several months on the server until the summer.

Step 8. The manual was user tested by a summer intern to validate the procedures. The summer intern then made notes on the procedures for things that were confusing to him or did not make sense and marked up the procedures with his comments. The summer intern had interned previously in the accounting department and was familiar with the data entry side of the WennSoft System for cost accounting, but had limited experience with the WennSoft System for project management functions within the WennSoft System.

Step 9. The summer intern and the author reviewed the procedures the intern had identified as procedural or confusing instructions by marking the section or writing questions in the margins.

Step 10. The author made revisions to the procedures.

Step 11. The intern reviewed the procedures to verify that the procedures were valid.

Step 12. The author used the validated procedures and generated screen shots for each procedural step and inserted the screen shots into the written procedures.

Step 13. The manual with screen shots was then user tested by a newly hired employee. The new project manager had started a new project and applied the procedures in the manual for setting up the vendor purchase orders and subcontract purchase orders to be entered into the WennSoft System and validated that the procedures were correct as written and shown in the Manual.

Step 14. A survey was developed by the author to issue to project managers who utilize the WennSoft program to obtain feedback from the users.

Step 15. The survey was submitted to Purdue University's Institutional Review Board (IRB) for review.

Step 16. The IRB assigned Protocol 1102010472 to this survey and requested additional information not provided in the original submission. The IRB requested the following information based on their preliminary review:

- A permission document from an authorized individual at the place of work.
- A clarification if any member of the research team has authority over the potential subjects.
- Inclusion of a cover letter to alleviate the possibility of undue influence on the potential subjects and to provide the purpose of the study, voluntary nature and how confidentiality will be maintained.
- Clarification if the subjects could be identified due to the questions asked.

Step 17. The researcher then provided a written response to each of the items requested by IRB. The documents that were provided were:

- A permission document signed by Jay H. Schwab, Vice President for Construction with W.E. Bowers.
- The authors had no authority over the potential subjects.
- A cover letter was developed and submitted to IRB
- The survey will be anonymous and the response will not be identifiable back to a particular person.

Step 18. The survey was administered anonymously to W.E. Bowers and Associates, Inc. project managers who utilized the manual.

Step 19. The survey was returned to a secretary who then printed the responses for the author to provide anonymous feedback to the author.

Step 20. The author then reviewed the responses to gain additional feedback for the manual.

A survey of the employees utilizing the procedures will be issued to provide feedback on the use of the system prior to implementation of the procedure manual and also for the outcomes associated with using the manual in the daily operation and functions of the project managers.

Results and Analysis of Results

A total of 22 surveys were sent out to construction project managers with 17 responding to the request for a 77% participation rate. The intent of the survey was to gain an understanding of the comfort, proficiency and functionality (use of system) in utilizing the WennSoft program prior to the issuance of the procedures manual. The survey also looked for areas of additional focus training for future follow-up by looking at additional tools and reports that project managers discovered during the use of the manual that were not utilized previously. The survey also asked for input of the likes and dislikes of the manual to improve future revisions to the manual. The survey asks the project managers the impact of the manual in the responsibilities of a project manager. A copy of the survey can be found in Appendix A and the results in Appendix B. The Manual that was created can be found in Appendix C.

Experience of the Personnel using WennSoft

The seventeen project managers that responded to survey question #1, nine have more than ten years of experience in the mechanical contracting industry. Survey question #2 indicated over 90 % of those surveyed have less than 5 years experience with WennSoft. All of the project managers have a high school diploma and most of the project managers had been trained by the union training schools and have achieved journeyman status in the union as indicated in the response to question #3. There were six project managers with a higher education degree of Associates or Bachelor's degrees.

Comfort in using the WennSoft program

The project managers indicated in survey question #4 their comfort in using the WennSoft program prior to using the procedures manual. Fifteen (15) of the seventeen (17) respondents were either not comfortable using the WennSoft program or were less than moderately comfortable. The mean score for comfort was 2.18 on a scale of 1 to 7 in terms of comfort. The mode and median were 2. This would lead the author to believe that the project managers were predominately not comfortable with the WennSoft system prior to the operations manual being introduced. None of the respondents indicated that they were extremely comfortable with using the WennSoft system. Two (2) respondents indicated a comfort level of moderately comfortable and two (2) respondents that had previous experience with the program. Four (4) project managers indicated that they were not comfortable with the WennSoft program prior to being introduced to the procedures manual.

Proficiency in using the WennSoft

The project managers responded to survey question #5 for proficiency with the WennSoft system indicated a mean of 2.173 with a mode and median of 2. The author believes that most are not proficient with the WennSoft System prior to the introduction of the procedures manual. There were no respondents providing a response of 5, 6 or 7 on a scale of 1 to 7. This leads the author to believe that most of the project managers are either moderately proficient or not proficient with the WennSoft system and additional training is necessary for continued improvement in proficiency in using the WennSoft system.

Functionality (use) of the WennSoft System

The functionality or use of the system in survey question #6 provided a scale of: 1 being not functional or they do not use the system at all, 4 being moderately functional or they use the system to write Purchase Orders in the system and then write the Purchase order in Microsoft Excel to send to the vendor/subcontractor, 7 being they are extremely functional and perform all tasks in WennSoft. The mean score was 3.59 with the mode and median both at 4 showing that most project managers are duplicating efforts in the accounting system to commit purchase order costs and also not comfortable with using the WennSoft Purchase Order module to issue a purchase order to the vendors and subcontractors. Additional training needs to happen in this area to improve the proficiency and minimize a duplication of effort.

Additional tools utilized

The project managers were surveyed to indicate what additional tools they discovered using the WennSoft procedures manual in survey question #7. The project managers indicated:

- Adding Change Order Bill Codes in WennSoft
- Editing Purchase Orders
- Opening Closed Purchase Orders
- Reports that were included that the project managers were not aware were readily available
- Routine project manager functions were performed in a more timely manner using the procedures in the manual

These responses indicate that additional training is needed in these areas for project managers in order to perform these tasks and incorporate the tasks to report in a timelier manner.

Reports in WennSoft

The project managers were asked in survey question #8 about the reports section of the procedure manual asking if the section aided project managers in printing reports that they did not know how to use or were not aware of before the manual and if there were added benefits to having these reports available. Two (2) project managers indicated that they reports provided no added benefit to them. This is concerning to the author as to how the project managers are measuring progress and profitability on their projects as the reports provided in the reports sections can be utilized as tools to measure progress and potential areas of problems on their projects. Most of the project were unaware of the

reports and have not utilized the reports. Three (3) project managers were aware of the reports, but did not utilize the reporting function. Most of the project managers find that the reports will aid them in managing the construction process.

Likes and Dislike of the Procedures Manual

The project managers were asked in survey questions 9 & 10 for likes and dislikes with the procedures manual. Most project managers indicated that they liked having a quick reference guide to answer any procedural question for using the WennSoft system. The project managers indicated that they liked having a higher level of detail and that it provides a shorter learning curve with the system. Dislikes were not having screen shots to verify that the locations that the information was entered were correct. Another dislike was the length of time it took to have a tool available for the WennSoft procedures when the program has been in use for 2 years.

Project Manager Impacts

The project managers were asked in survey question #11 to state the biggest impact that the manual has had on their purchase order responsibilities and the project managers answered as follows:

- Helped to Correctly enter purchase orders into the system
- Aided in tracking job cost Committed Costs and Actual Costs equal to the Forecast
- Allows project manager to perform job duties with out asking too many questions of supervisors or peers
- The manual aids in the speed of entry of the information and tracking process

Question #12 on the survey requested that the project managers rate the impact of the manual to their job responsibilities. The mean is 5.71 with a mode and median of 6. This indicates that most of the project managers rated the manual to have some impact to great impact on their job responsibilities.

Conclusions / Lesson Learned

Benefit/ Impact on W.E. Bowers

W.E. Bowers and Associates did not have a resource for project managers that provided instruction on the use and procedures for the WennSoft program. The project managers were instructed at the implementation of the program by the software suppliers showing the different tools in the program. This left the project managers to take notes during the presentation and then apply the notes on their own time to the functions of the system. The reaction (evaluation) indicated in the Kirkpatrick model utilized a survey to determine the effectiveness of the prior learning performed by the WennSoft company compared to the knowledge provided in the user's manual created by the author. The project managers have different levels of computer abilities and needed a reference to minimize interruptions to the project managers that learned the processes quickly. Certain functions such as Vendor and Subcontractor purchase orders are a common task on every project, but may only be performed at the job set-up for a multi-year project once or twice a year. When the processes are not performed on a regular basis the retention of the processes can be easily lost. The learning (attitude, knowledge and skill) as indicated in the Kirkpatrick model shows that the procedures manual was a valuable resource in using the WennSoft System. This is also supported by the impact of the procedures manual to job responsibilities. The procedures manual provides a quick reference for the

project managers to minimize the disruption to other project managers. The author was the person with the best knowledge of the system and in the behavior (change) portion of the Kirkpatrick model, the change was seen in the number of questions fielded on a weekly basis from other project managers was 2 to 3 questions a day. The manual has now dropped the number of questions to 1 or 2 questions every other week, which has increased the author's productivity which shows the results (improved quality of work life) as indicated in the Kirkpatrick model. The company continues to grow and this provides a guide for new project managers to learn the processes involved with the use of WennSoft and minimizes the learning curve for the use of the system.

Improvements

The manual is based on WennSoft Version 9. The company has implemented WennSoft Version 2010. The author believes that the user manual has succeeded in aiding the project managers to adapt to the new environment created in version 2010 by project managers utilizing the manual as a reference for the menus which remained unchanged. The new version provides additional functionality and methods for accessing data in the WennSoft program. The project managers should have a roundtable discussion on the current use of the system and use the knowledge of all the project managers that use the system to gain a better understanding of how the process and procedures can be improved to maximize productivity using the system and to minimize the duplication of efforts in the WennSoft System and the use of forms created over the years in Microsoft Excel and Word. Discussions should be held with the program developer to show them the duplication that we have and to discover if there are functions or add-ons available to

eliminate the duplication. The more times that data is entered the greater the possibility for error in data entry.

The WennSoft system needs to be utilized in a more efficient manner than it is presently used and this can only be done with management reviewing and enforcing the use of the purchase order modules to track costs and to be able to see when jobs are tracking to lose profit. The solidification of the costs sooner in the project will enable project managers to focus on getting materials and equipment into the field while being able to look at the purchase orders when approving invoices to ensure that the costs being approved match the purchase orders and double billing and approvals do not occur.

The survey process would have been better served by performing a survey prior to development of the manual to gain a better understanding of the comfort, proficiency and functionality of the system and to discover what improvements and issues could have been solved and focused on during the design of the manual to aid the company in training during the initial implementation of WennSoft. A second survey to follow-up after the implementation of the manual on the same questions issued in the first survey I would expect to see a greater improvement in the comfort, proficiency and functionality by the project managers. The surveys might also have been better if the author had discussions with each project manager as an interview and focused on each project manager's ability with the WennSoft system to provide a farther reaching training program. The manual accomplished what I sought to develop for W.E. Bowers to eliminate some of the questions and issues that project managers have asked repeatedly of the author during the initial implementation of the WennSoft System. Knowing that a new system is going to be implemented in 2011, but there are issues with the

programming for additional features being added and not knowing how the systems will work will require the manual to be updated and revised as needed. However, we do know that the menu appearance will visually change, but the titles will remain the same as will the drop down menus. What the new system adds are quick links to the individual screens instead of relying on the drop down menus that the current system does not have. The new system will also add a vendor button on the job status screen that will allow the project managers to view what the vendors and subcontractors have been paid with check numbers which will improve customer relations in process and application of payments to subcontractors and vendors when issues arise.

Future Modifications and Additional Procedures

Future Modifications and additional procedures should be conducted in the following areas:

- Job Entry (new Project Set-up) is currently performed by project managers in Microsoft Excel and then Accounting enters the information into WennSoft.
- Implement Project Mangers entering and processing invoices in WennSoft using DocLink program.
- Labor Code Entry is currently broken down by project managers in Excel and then given to accounting for entry into WennSoft. Providing the project managers the ability to enter and modify the labor codes as changes are entered or an error is found during estimate review. The labor is presently entered as a lump sum for plumbing (154-00-L) and steam fitting (155-00-L) from the job entry form from estimating and doesn't always get broken down. This is aid in better labor tracking and evaluation of labor.

- Updating of the manual to reflect the WennSoft 2010 program and short cuts to screens.
- Training in classroom should also be implemented to review and standardize company procedures so that the expectations are known to the project managers

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Appendix A: Survey

Project Mangers
W.E. Bowers and Associates, Inc.
12401 Kiln Court, Suite A
Beltsville, MD 20705

Re: WennSoft Survey Questionnaire

Attached please find a brief voluntary survey to be used to gain feedback and improvements to the W.E. Bowers and Associates, Inc. WennSoft Project Managers Manual and also to provide management with future training topics related to WennSoft. The intent of the survey is for you to write your answers in the space provided. Please DO NOT put any personal identifiers (such as your name or e-mail address) on the survey. Please DO NOT e-mail your responses to the survey as the intent of the survey is to remain anonymous. Upon completion of the survey and to place the completed surveys in the Mailbox of Stephen Brown in the Main Office. We appreciate your participation in the survey.

Sincerely,

Stephen E. Brown
Project Manger
W.E. Bowers and Associates, Inc.

Robert F. Cox
Department Chair
Building Construction Management
Purdue University

WennSoft Survey

1. How Long have you been working in the construction industry?

0-2 years 3-5 years 6-10 years 11-15 years over 16 years

2. How many years have you used WennSoft at Bowers or a previous employer?

0-2 years 3-5 years 6-10 years 11-15 years over 16 years

3. What is the Highest Level of Education or Trade Classification achieved?

High School 2 years of College 4 years of College Graduate Degree

4. Prior to being introduced to the WennSoft Project Managers Manual what was your comfort level using the program on a scale of 1 to 7.

1 2 3 4 5 6 7

Not
Comfortable

Moderately
Comfortable

Extremely
Comfortable

5. Prior to being introduced to the WennSoft Project Managers Manual what was your proficiency using the program on a scale of 1 to 7.

1 2 3 4 5 6 7

Not
Proficient

Moderately
Proficient

Extremely
Proficient

6. Prior to being introduced to the WennSoft Project Managers Manual what was your functionality in using the program. 1 meaning not functional, I do not use the system at all, 4 – moderately functional meaning I write PO's in WennSoft for accounting and write a separate PO in excel to the vendor and 7 – meaning I do all functions in WennSoft and Maintain my Green sheet?

1 2 3 4 5 6 7

Not
Functional

Moderately
Functional

Extremely
Functional

7. After Being introduced to the WennSoft Project Managers Manual did you find additional tools or functions within the WennSoft system that you were not aware of before or not comfortable using? What functions were these?

8. After being introduced to the WennSoft Project Managers Manual, the reports section assist in printing reports that you did not know how to use before? Were there added benefits tot these reports?

9. What did you like about the WennSoft Project Managers Manual?

10. What did you like least about the WennSoft Project Managers Manual?

11. What has been the biggest impact this manual has had on your purchase order responsibilities?

12. Overall, How would you rate the WennSoft Project Managers Manual impact on your job responsibilities on a scale of 1 to 7?

1

2

3

4

5

6

7

No
Impact

Some
Impact

Great
Impact

13. What would you add to the WennSoft Manual?

14. What does not need to be included in the WennSoft Manual?

Appendix B: Survey Results

WennSoft Survey

1. How long have you been working in the construction industry?

	1	2	3	4	5	
	0-2 years	3-5 years	6-10 years	11-15 years	over 16 years	Total
# of Responses	2	4	2	5	4	17
% of response	12%	24%	12%	30%	24%	100%

MEAN - 3.29 Most working in industry 6-15 years

MEDIAN- 4

MODE - 4

2. How many years have you used WennSoft at Bowers or a previous employer?

	0-2 years	3-5 years	6-10 years	11-15 years	over 16 years	Total
# of Responses	7	9	1	0	0	17
% of response	41%	53%	6%	0%	0%	100%

MEAN - 1.65

MEDIAN -2

MODE -2

3. What is the Highest Level of Education or Trade Classification achieved?

	High School	Associates	Bachelors	Graduate	Journeyman
# of Responses	11	2	4	0	13
% of response	65%	12%	24%	0%	76%

4. Prior to being introduced to the WennSoft Project Managers Manual what was your comfort level using the program on a scale of 1 to 7.

	1	2	3	4	5	6	7
# of Responses	4	8	3	2	0	0	0
	Not Comfortable			Moderately Comfortable			Extremely Comfortable

Mean - 2.18

Median - 2

Mode - 2

5. Prior to being introduced to the WennSoft Project Managers Manual what was your proficiency using the program on a scale of 1 to 7.

	1	2	3	4	5	6	7
# of Responses	3	9	4	1	0	0	0
	Not Proficient			Moderately Proficient			Extremely Proficient

Mean - 2.17

Median - 2

Mode - 2

6. Prior to being introduced to the WennSoft Project Managers Manual what was your functionality in using the program. 1 meaning not functional, I do not use the system at all, 4 – moderately functional meaning I write PO’s in WennSoft for accounting and write a separate PO in excel to the vendor and 7 – meaning I do all functions in WennSoft and Maintain my Green sheet?

	1	2	3	4	5	6	7
# of Responses	1	1	4	9	2	0	0
	Not Functional			Moderately Functional			Extremely Functional

Mean - 3.59

Median - 4

Mode - 4

7. After being introduced to the WennSoft Project Managers Manual, did you find additional tools or functions within the WennSoft system that you were not aware of before or not comfortable using? What functions were these?

Write in Answers	# of Responses	% of Respondents
Opening Closed PO’s	4	24%
Adding Addresses to the PO	5	29%
All of the processes in the manual	2	12%
Adding comments & Notes to PO’s	2	12%
Writing PO’s	3	18%
Adjusting Forecasted Costs	6	35%

Responses total more than 100% as some of the respondents provided more than one answer

8. After being introduced to the WennSoft Project Managers Manual, did the reports section assist in printing reports that you did not know how to use before? Were there added benefits to these reports?

Write in Answers	# of Response	% of Respondents
No added Benefit	2	12%
Labor Reports	9	53%
Tracking Labor Better	5	29%
Sub Payment Status	12	71%

Responses total more than 100% as some of the respondents provided more than one answer

9. What did you like about the WennSoft Project Managers Manual?

Write in Answers	#of Responses	% of Respondents
Everything	8	47%
Level of Detail in instruction	6	35%
PO procedures	4	24%

10. What did you like least about the WennSoft Project Managers Manual?

Write in Answers	# of Responses	% of Respondents
Nothing	11	65%
All the pictures	6	35%
Size of the manual	4	24%

11. What has been the biggest impact this manual has had on your purchase order responsibilities?

Write in Answers	# of Responses	% of Respondents
Editing PO's	4	24%
Modifying PO's/Writing Multiple PO's	12	71%
Data Entry	1	6%

12. Overall, How would you rate the WennSoft Project Managers Manual impact on your job responsibilities on a scale of 1 to 7?

	1	2	3	4	5	6	7
# of responses	0	0	0	2	5	6	4
	No Impact			Some Impact			Great Impact

Mean - 5.71

Median - 6

Mode - 6

13. What would you add to the WennSoft Manual?

Write in Answers	# of Response	% of Respondents
Doc Link Instructions	14	82%
Nothing	3	18%

14. What does not need to be included in the WennSoft Manual?

Write-in Answers	# of Responses	% of Respondents
Nothing	12	71%
Pictures	5	29%

Appendix C: WennSoft Operations Manual

Appendix C is a proprietary document available in the BCM offices for review. No part of this document may be copied or used without the prior written consent of W.E. Bowers and Associates, Inc. and the author.