



**STATEMENT OF WORK (SOW)  
PROJECT SCOPE  
PHASED WORK BREAKDOWN STRUCTURE (WBS)**

**BOSTITCH HOSPITAL SYSTEMS  
1010 ANATOMY WAY  
CLEVELAND, OHIO 44114**

OCTOBER 21, 2018



**TABLE OF CONTENTS**

**Introduction/Background** .....3

Electronic Maintenance Management System (EMMS).....3

Current BHS Maintenance Management System.....3

Purpose and Objectives .....4

Goal .....4

Objectives .....4

Scope of Work .....5

Period of Performance .....5

Place of Performance .....5

Acceptance Criteria .....5

Other Requirements.....6

Acceptance .....7

**Project Scope** .....8

Project Justification .....8

Project Objectives (revised).....8

Overview of Deliverables.....8

Acceptance Criteria .....9

Period of Performance .....9

Stakeholders.....9

**Phased Work Breakdown Structure (WBS)**.....11

**Project Schedule & Resource Allocation Part A** .....12

**Project Schedule & Resource Allocation Part B** .....13

Communication Plan .....14

**Project Monitoring Matrix A** .....15

**Project Close-Out** .....16

**Acceptance**.....17



## Introduction/Background

### Electronic Maintenance Management System (EMMS)

The need for electronic systems for storing information has increased dramatically over the last 20 years as small and large businesses develop more complex databases. Bostitch Hospital Systems (BHS) is committed to technological change and providing staff a more efficient, less cumbersome, and cost-effective system for maintaining maintenance records.

### Current BHS Maintenance Management System

Since 1997, BHS has been recording maintenance procedures on paper and keeping these records on file for a minimum of three years and a maximum of 10 years based on Joint Commission regulations. Records include, but are not limited to:

- Preventative Maintenance – Daily, weekly, monthly and yearly maintenance schedules (critical and non-critical) completed on specific equipment and structures to prevent minor and catastrophic failures. (e.g. air handler filters, boiler systems, maintenance machinery and tools, etc.). Filed for 10 years.
- Maintenance Time Accountability – Hand-written time accountability on printed spreadsheets. Accountability records consisted of date and time a project was started, completed, and personnel responsible, and justification of delays in completion. Filed for five years.
- Cost analysis and breakdown for projects exceeding \$5,000 including personnel required for project, materials, tools (specialized), contractors, safety provisions, licenses, and permits. Printed and filed for seven years.
- Vacation/Leave Requests – Current forms are printed and filled in by hand by personnel to request vacation time or sick leave. These forms are then filed for three years.
- Performance Evaluation Reports – Performance evaluations are administered bi-annually to all maintenance personnel by the maintenance manager. Printed and signed evaluations are placed in an employee folder and securely filed for five years.



## Purpose and Objectives

Following a needs analysis, it has been identified storage space for these records is becoming a problem in each of BHS's six hospital branches. BHS has expanded their network of clinics and hospitals by nearly double over the last seven years. This expansion has also shown an increase in patient bed count and additional, specialized medical services and equipment (e.g., cancer treatment, MRI, mammogram and radiology technology, pediatric and mental health departments). Bulky file cabinets are filling valuable space needed for these expansions. In lieu of the current paper system and to maintain consistency in electronic record keeping system-wide (clinical staff has been using electronic health records over the last eight years), it is imperative a contemporary system of maintenance record keeping be implemented to modernize the current filing system, organize, by keeping all records in one, convenient electronic file system, and solve the demand for needed space.

## Goal

The overarching goal for this training is all maintenance staff, system wide (6 hospitals/clinics), are competent and comfortable with the EMMS software and understand the value the new system brings. The EMMS will provide BHS with a modern, record keeping solution for system-wide maintenance departments; saving time and man hours, providing accurate and accessible records for Joint Commission, and a one-stop source for maintenance records.

## Objectives

- Participants will gain knowledge of how to operate the EMMS software via an online, asynchronous training module that provides meaningful visual and audible cues along with section assessments and surveys verifying content is being learned.
- Learners will gain knowledge and demonstrate in each training module what they have learned by successfully passing (via assessment) each applicable training module.
- Following completion of the EMMS software training module, maintenance staff will be able to successfully demonstrate data input in the EMMS software.



## Scope of Work

The scope of work for an EMMS includes all planning, execution, implementation, and training. The training will be divided into two phases. In phase one, Mark.it will train supervisors in a classroom setting on the training software as well supervisor-specific content. This will ensure at the time of deployment, supervisors are competent in the EMMS training modules and will act as a support unit to maintenance personnel. In phase two, following supervisor training, Mark.it will deploy the online EMMS software training module online to hospital group 1 of 6. Mark.it will provide computer training workstations and work with supervisors and/or managers for optimal training locations inside each hospital group. Each maintenance staff member will be responsible for comprehension and progression of each of the modules of training and will be required to pass each module in order to move on to the next one.

## Period of Performance

The period of performance for the EMMS software training program is six months (182 days) beginning on the first day of the fiscal year, October 1, 2018 and ending March 30, 2019. It is anticipated all maintenance staff within BHS will be EMMS certified at this closing date. Monthly evaluation of program progress will be submitted to hospital management during this timeframe. Adjustments will be made if necessary.

## Place of Performance

Following completion and certification of the EMMS software training module and corresponding software, managers and supervisors will facilitate implementation of the EMMS software training module to their staff. Maintenance staff will train asynchronously during normal business hours and at their respective BHS locations. Although self-paced, each staff member will be required to complete the EMMS software training module within allotted times based on priority, availability and schedule. Following the completion of the EMMS software training module and proven competency, maintenance staff members will be awarded EMMS certification.

## Acceptance Criteria

For the EMMS software training program the acceptance of all deliverables will reside with BHS's Vice President of Operations. The VP of Operations will maintain a small team of three advisors in order to ensure the completeness of each stage of the training and that the scope of



training has been met. Once each phase has been completed and the Mark.it provides their report/presentation for review and approval, the VP of Operations will either sign off on the approval for the next phase to begin, or reply to the vendor, in writing, advising what tasks must still be accomplished.

Once all project tasks have been completed, the program will enter the handoff/closure stage. During this stage of the program, Mark.it will provide their program closure report and project task checklist to BHS's VP of Operations. The acceptance of this documentation by BHS's VP of Operations will acknowledge acceptance of all project deliverables and that the Mark.it has met all assigned tasks.

Any discrepancies involving completion of project tasks or disagreement between BHS and the Mark.it will be referred to both organizations' contracting offices for review and discussion.

#### Other Requirements

All Mark.it programmers and quality control team members will be granted access to the EMMS software back end programming and the online EMMS software training module including server access and necessary IT functions. They will also be given temporary EMMS software training module accounts, which are to be used only for work pertaining to the online EMMS software training module. Upon completion of the program these accounts will be closed.



Acceptance

Approved by:

\_\_\_\_\_

Approvers Name & Title

Date: \_\_\_\_\_



## Project Scope

**Project Name:** Electronic Maintenance Management System Date: September 16, 2018

**Project Manager:** Tim Pike

**Project Tracking Number:** 12345678

## Project Justification

The need for electronic systems for storing information has increased dramatically over the last 20 years as small and large businesses develop more complex databases. Bostitch Hospital Systems (BHS) is committed to technological change and providing staff a more efficient, less cumbersome, and cost-effective system for maintaining maintenance records.

## Project Objectives (revised)

- Provide an intuitive, self-paced training program that familiarizes BHS maintenance personnel on how to navigate, input data, export reports and retrieve pertinent maintenance information (i.e., material safety data (MSD) sheets, administrative forms)
- Research and compare competitive EMMS software vendors. Following strict budget guidelines, a vendor that meets BHS's EMMS requirements, will be selected and awarded a contract
- Implement and manage relevant training customized for BHS initiatives and requirements. (Vendor to provide training)
- Following completion of the EMMS software training module, maintenance staff will be able to successfully demonstrate data input and other tasks using the EMMS software.

## Overview of Deliverables

ABC (vendor) has been contracted by BHS to provide online software for a contemporary electronic maintenance management system. Deliverables include:

- Classroom EMMS how-to training for BHS managers and supervisors facilitated by ABC training personnel





- Online training and certification program for non-manager maintenance staff. This program will be initiated by BHS maintenance management following classroom training.

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### Stakeholders

**Hospital Board Members** – The EMMS will provide BHS with a more efficient workflow, record details on jobs and administrative forms, detailed reports, material safety data sheets accessibility, and personnel accountability. Combined, these will contribute to cost savings, legal protection, higher hospital scores, increased funding, and lower personnel turnover rates. This project helps to promote a healthy hospital community.



**Chief Executive Officer** (CEO, Bostitch Hospital Systems) – Given the details provided above, the EMMS will promote positive growth in the BHS system. This is a reflection of senior leadership and the positive direction of BHS. The CEO will be at the forefront of the implementation of the project. The CEO will be consulted at critical junctures of the project and will make formal decisions-based vendor consultation, BHS agendas, and financial capabilities.

**Chief Financial Officer** (CFO, Bostitch Hospital Systems) – The CFO’s main role will be to manage and allocate funding for the EMMS project. The CFO and CEO will consult with each other and preferred vendor on important financial decisions. The CFO will make financial decisions regarding the EMMS project based on predefined budget analysis and vendor disclosures.

**Maintenance Personnel** – The EMMS software will provide maintenance personnel with a one-stop-shopping virtual interface for recording and inputting maintenance data. This will help to keep maintenance staff more organized. In the event of a Joint Commission (JC) visit, maintenance staff will be confident when approached and ready to deliver, records and other pertinent maintenance information JC requires without hesitation or trepidation. Because of the maintenance staff’s acute knowledge on BHS specific tasks, maintenance personnel will be consulted and informed on various aspects of the EMMS software prior to the training module.

**Patients** – The patients at BHS will also be beneficiaries of the EMMS software. Maintenance staff will be able to work more efficiently and effectively, which will allow most tasks to be completed in timely manner allowing personnel to quickly attend to patient-critical tasks. Patients will not be consulted.

### EMMS Training

Project Tasks	RACI Responsible   Accountable   Consulted   Informed	Stakeholders   Personnel
<b>Identification</b> Identify Need Identify Stakeholders Identify EMMS Vendor(s) Identify Areas of Training Identify Federal Requirements Identify BHS Requirements Identify Remote Training Location (s)	<b>Identification</b> CEO, CFO - C, I CEO, CFO, MGR - C, I, PM - R, A, SUP, SEC, VEN, DEV, TRA - I CEO, CFO, MGR - C, I, PM - R, A, SUP, SEC, VEN, DEV, TRA - I CEO, MGR, SUP, MAI - C, I, PM - R MGR, PM - R, A CEO, MGR - C, I, A PM - R PM - R, A, SEC - R, A	Chief Executive Officer (CEO) Chief Financial Officer (CFO) Project Manager (PM) Managers (MGR)
<b>Communication</b> Discuss Needs with Maintenance Managers & Executives Create a Budget Discuss Budget with CFO, CEO Contact EMMS Vendor(s) CFO, CEO Approvals	<b>Communication</b> PM - R CFO - R, CEO - C, I, PM - I, A PM - R PM - R CEO, CFO - A, C, I, PM - R	Supervisors (SUP) Secretary (SEC) Maintenance Staff (MAI)
<b>Development</b> Develop Timeline Customize BHS Prototype Test Prototype Evaluate Prototype Revise Prototype Approve Prototype Pay Developers	<b>Development</b> PM - R, A, MGR - R PM - A, VEN - R, A VEN - R, A, PM, MGR, CEO - C, I PM, MGR - C, I VEN - R CEO, PM, MGR - A, VEN - R CFO - R, PM - A	Vendor(s) (VEN) Developers (DEV) Trainers (TRA)
<b>Training</b> Develop Training Schedule Prepare Identified Training Location Acquire Needed Technologies Initiate Training Pay Training Facilitators Participate In Training	<b>Training</b> PM, MGR, SEC - R, A PM - C, A, VEN - R VEN - R, PM - A VEN - R CFO - R, PM - A MGR, SUP - R	

### Note:

The following assumptions can be made:

- Multiple vendors exists that provide customized EMMS software to hospital systems.
- EMMS software is already developed and includes training programs from a variety of vendors.
- EMMS software is typically customizable based on hospital needs and regulations.
- EMMS software varies in complexity, capability, and cost from vendor to vendor.

Reference:

Greer, M. (2010). The Project Management Minimalist: *Just Enough PM to Rock Your Projects!* (p.15) Laureate International Universities.

Doglione, C. (2018). Understanding Responsibility Assignment Matrix (RACI Matrix). Retrieved from <https://project-management.com/understanding-responsibility-assignment-matrix-raci-matrix/>



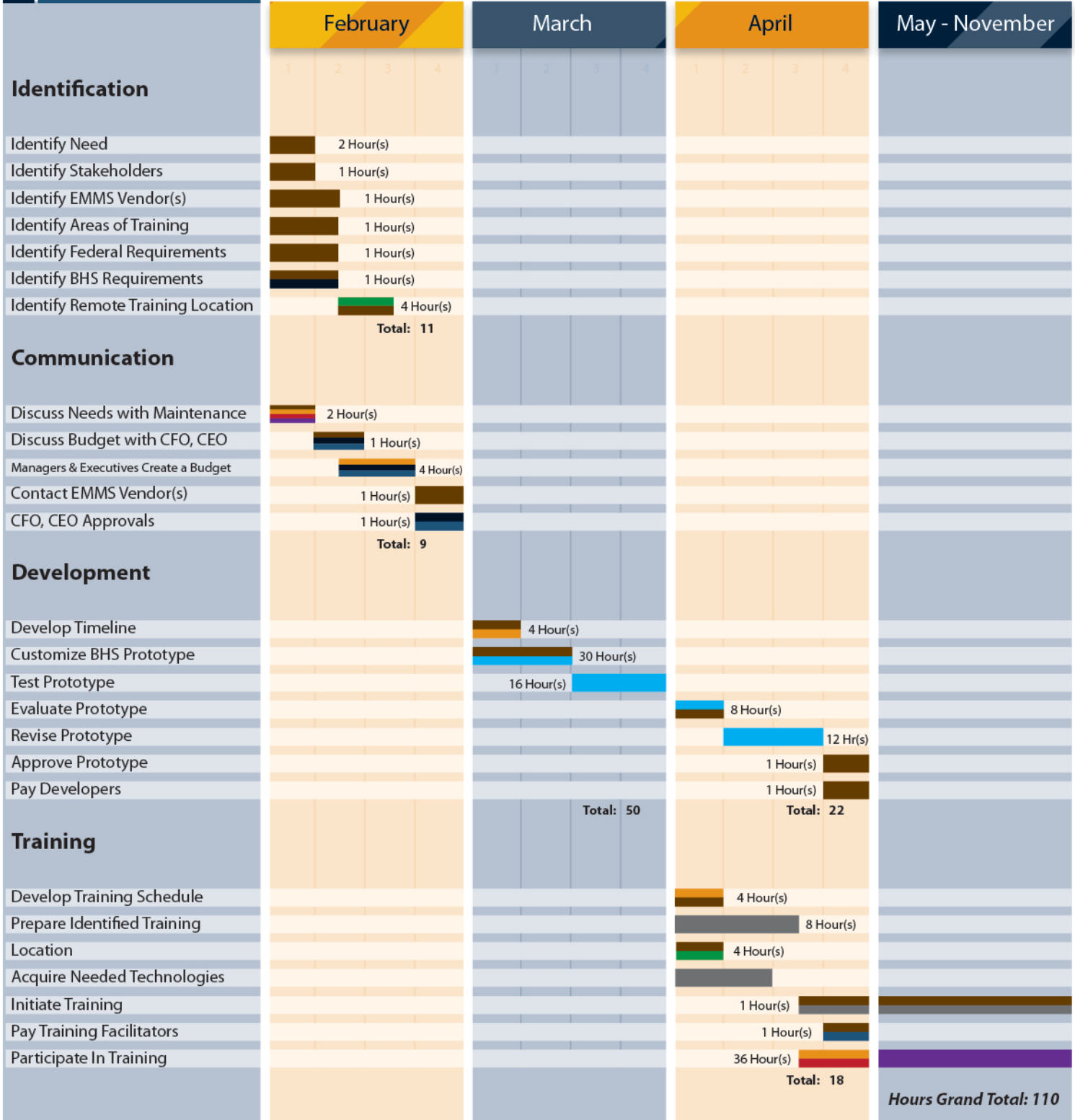
# Project Schedule & Resource Allocation

Bostitch Hospital Systems Electronic Maintenance Management System (EMMS)

2019

- Chief Executive Officer
- Supervisors
- Trainers
- Chief Financial Officer
- Secretary
- Project Manager
- Maintenance Staff
- Managers
- Vendor (Design/Dev)

## EMMS Training





# Project Schedule & Resource Allocation

Bostitch Hospital Systems Electronic Maintenance Management System (EMMS)

## Cost Breakdown

\*All costs are approximate.

### Identification:

Project Manager:  $\$29/\text{hr}(7) = \$203$   
Secretary:  $\$18/\text{hr} (4) = \$72$

Total: \$275

### Communication:

Project Manager:  $\$29/\text{hr}(4) = \$116$   
Managers:  $\$35/\text{hr} (2 \cdot 4 \text{ managers}) = \$280$   
Supervisors:  $\$22/\text{hr} (\text{avg}) (2 \cdot 4 \text{ supervisors}) = \$176$   
Maintenance Staff:  $\$20/\text{hr} (\text{avg.}) (2 \cdot 16 \text{ staff}) = \$640$

Total: \$1212

### Design & Development:

Project Manager:  $\$29/\text{hr}(36) = \$1,044$   
Vendor: Flat rate \$20,000

Total: \$21,044

### Training:

Project Manager:  $\$29/\text{hr}(10) = \$290$   
Trainers: Flat rate \$5,000  
Secretary:  $\$18/\text{hr} (4) = \$72$   
Managers:  $\$35/\text{hr} (36 \cdot 4) = \$5,040$   
Supervisors:  $\$22/\text{hr} (36 \cdot 4) = \$3,168$

Total: \$13,570

**Estimated Total Cost: \$36,101**

## Rationale

This project schedule and resource allocation document is formatted under the resources allocated and contracted by Bostitch Hospital Systems (BMS). BMS is in need of an electronic maintenance management system (EMMS) for record and documentation keeping. This document outlines the project and cost schedules from concept and training to completion. The EMMS software is in compliance with OSHA and The Joint Commission standards and guidelines. BMS

# Communications Plan

Bostitch Hospital Systems Electronic Maintenance Management System (EMMS)

## EMMS Training

Who	What Information	When	How	Who / Distribution
<b>Chief Executive Officer (CEO)</b>	Progression of phase one & phase two of training initiative	Phase 1: Post training. Phase 2: Bi-monthly.	Executive progress meetings	Project Manager and Maintenance Managers
<b>Chief Financial Officer (CFO)</b>	Itemized cost breakdowns, scope changes affecting budget.	Two weeks prior to Phase 1 and following any change in costs.	Executive progress/finance meetings	Project Manager
<b>Maintenance Managers &amp; Supervisors</b>	Results of training, improvement requests, list of trained employees and stats.	Daily/Weekly as training progresses and/or per request	Statistic reports via email and/or hand delivery	Project Manager or via web statistic reports
<b>Project Secretary</b>	Confirmations of training dates, locations, cost	Two weeks prior to initial training	Email/Follow in-person or landline	Project Manager
<b>Project Manager</b>	Progression of training, revisions in budget, scope, trainee dynamics, feedback, etc.	Daily/Weekly as training progresses or changes/revisions are requested	Face-to-face conversation, emailed status reports, site stats	Project Manager via follow up, statistic reports, meetings
<b>Project Design &amp; Development Team Leaders</b>	Scope change requests, design change request, progression of training	Immediately upon request and weekly as training progresses	Web help form requests, landline, email support requests	End-users, Project Manager, Managers, Supervisors
<b>Phase 1 Training Team</b>	Training success/failure results, feedback	Concurrently through training. Post phase 1 training	Follow-up meetings	Project Managers, Managers, Supervisors



## Project Monitoring Matrix

Bostitch Hospital Systems Electronic Maintenance Management System (EMMS)

### EMMS Training

#### Accomplishments Since Last Report:

Phase 1 training complete. All BMS managers and supervisors have participated in and successfully passed the face-to-face training program aimed at providing managers and supervisors administrative training on the EMMS software training module.

Connectivity, internet speed and security administration issues have been resolved at each BMS facility that is participating in the EMMS software training module (BMS Cleveland, BMS Lindhurst, BMS Cuyahoga Falls, BMS Geneva).

Sixty-day maintenance staff schedules have been tentatively implemented.

Budget concerns identified and resolved.

#### Upcoming Activities:

Phase 2 of training: Maintenance staff EMMS software training

Continuous improvements and/or revision requests in the EMMS software training module.

#### Summary of Issues, Concerns, and Recommended Actions:

Unresolved issues:

Training space concerns at BMS Lindhurst, Staff requests for time off (medical leave, vacation requests), Possible training conflicts at each BMS facility with HVAC inspections and Joint Commission reviews pending.

Issues are currently being analyzed. Accommodations, decisions are in progress.

#### Comments:

Congratulations to the Phase 1 training team and participants for success in their initial training. Mark.it and BMS have formed a positive relationship and look forward to continued success in Phase 2.



# Project Close-out Checklist

Bostitch Hospital Systems Electronic Maintenance Management System (EMMS)

## EMMS Training

### Team Members

**Chief Executive Officer (CEO)** - Mick Jagger

**Chief Financial Officer (CFO)** - Sheryl Crow

**Maintenance Managers** - John Lennon, Paul McCartney, George Harrison, Ringo Starr

**Maintenance Supervisors** - James Hetfield, Lars Ulrich, Kirk Hammet, Jason Newsted

**Project Secretary** - Janis Joplin

**Project Manager** - Timothy Pike, Mark.it Design

**Project Design and Development Team Leaders** - Ronnie Van Zant, Billy Powell, Larry Junstrom, Cassie Gaines, Gary Rossington, Allen Collins

**Training Team** - Frank Zappa, Alice Cooper, Ozzy Osbourne, Axl Rose

**Vendor** - Mark.it Design

### Action Items | Responsibilities

#### Deliverables | PM, V, PDDT, TT

- Itemized Cost Breakdown & Analysis  
Phase 1: Face-to-Face EMMS Training Program (Managers & Supervisors).
- Phase 2: EMMS software training module (Maintenance staff).
- Supplemental Training Materials & Documentation

#### Documentation | PM, V, MM, CEO, CFO

- Financial Reports
- Legal /HIPAA/OSHA Documentation
- Training Reports
- Statistical Reports (via individual modules)
- Trend Reports
- Content Reports

#### Transition Support | TT, MM, MS, PM, V

- Manager & Supervisor post EMMS software training transition support documents.
- 12-month continued training support
- Lifetime technical support

#### Resources | V, PM, TT, PDDT, PS, MM, MS

- Training personnel
- Training location(s)
- Information Technology Support
- Computer Equipment Support
- EMMS Software Training Module
- EMMS Software

CEO - Chief Executive Officer

PS - Project Secretary

CFO - Chief Financial Officer

PM - Project Manager

MM - Maintenance Managers

PDDT - Project Design and Development Team Leaders

MS - Maintenance Supervisors

TT - Training Team

V - Mark.it





## Acceptance

Approved by:

\_\_\_\_\_

Approvers Name & Title

Date: \_\_\_\_\_