PROPOSAL

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Revision Date	Revisions Description	Author(s)
Original 6/20/19	Preliminary SOW based on general conversations and documentation.	Lani Trotter
8/14/19	Updated from decisions and technical details determined during conference call with Tyler (Dianne and Scott) and San Marcos (Addison and Steve) on 8/2/19.	Lani Trotter

1   Purpose

This document is an agreement between the City of San Marcos, Texas ("San Marcos") and Starboard Consulting, LLC ("Starboard") for the performance of services related to Integration between Maximo 7.6.1 and Tyler Technologies – MUNIS (Tyler-MUNIS).   Upon mutual execution, Starboard shall perform the Services described in this SOW.

2   Detailed Description of Work

San Marcos is using IBM's Maximo® Enterprise Asset Management (EAM) System version 7.6.1 for tracking work and asset management activities across multiple city departments.

San Marcos desires to integrate Maximo with the financial system, MUNIS by Tyler Technologies for use by the Water, Wastewater and Electric departments. The decisions made by San Marcos designate the system of record for each of the data elements in the interface and how transactions will be handled between the two systems.

3   Services to be Provided

3.1   Project Approach

Starboard Consulting intends to utilize our proven methodology to configure Maximo for the San Marcos' Maximo Integration to Tyler-MUNIS Project. Starboard believes the success of any technology project requires consideration of the people as much as the technology. Project success is accomplished by using our proven, systematic approach which has four critical phases that tie the people and technology components together throughout the project: Discover, Define, Develop and Deliver. Working together with the Tyler and San Marcos teams, Starboard will gather requirements, design the Maximo configurations needed, support testing and production deployment.

A. Project Assumptions

The project assumptions in this section apply to the entire project throughout all tasks. Specific task assumptions are stated in each relevant section of the Project Scope.

3.2 Consultant Work Area and System Access Assumptions

Starboard proposes to do some work on-site in San Marcos offices, and other tasks remotely from Starboard offices. On-site work may include configuration workshops, business process reviews, some development and configuration tasks, user acceptance testing and training. Starboard assumes the following related to work areas and system access.

- San Marcos will provide office space, Internet access and printing capabilities to Starboard personnel for on-site work.
- San Marcos will provide meeting space, including white board or easel, projector, and outside line with speaker phone for this project.
- San Marcos will grant Starboard a secure remote access capability (VPN) to connect to Maximo remotely as needed through-out the duration of this process.
- San Marcos will provide administrative access to the virtual and physical servers, database, WebSphere, and Maximo 7.6 application in the development and production environment for the purposes of configuring Maximo.

3.3 Core Team Participation

Starboard assumes that San Marcos will designate a Core Team of users to participate in the project and be empowered as decision makers during the integration. Starboard recommends that the Core Team be no larger than 4-6 members who represent San Marcos organization and business processes. Subject matter experts in a specific area may also be asked to participate in the design workshop and testing.

The responsibilities of the Core Team include but are not limited to:

- Participate in the Design Workshop
- Participate in Testing Activities
- Participate in and Support Training Activities
- Responsible for Communication and Coordination with their respective Work Groups
- Participate in the change control process as Maximo representatives

3.4 Change Orders

This project scope is priced and based entirely on the information and the requirements provided by San Marcos for a financial interface to Tyler-MUNIS. If any variances are determined by Starboard or requested by San Marcos, a change order for adjustment to scope, schedule, or cost will be submitted. Due to the dynamics of the organization and project, some change orders may be simply to document revisions to the project schedule with no cost impact to San Marcos. In all cases, the change will be documented in a Change Order form that will be submitted to the San Marcos Project Manager for approval processing. Once approved, the

San Marcos Project Manager will sign the Change Order and then will notify Starboard of the approved change. Starboard will act on the Change Order only upon receipt of the signed document from the Project Manager.

Reasons for a change order include but are not limited to:

- San Marcos presenting an exceptional business situation that forced the complexity of the configurations to be much higher than originally stated.
- The Core Team and subject matter experts being unable to make design decisions within the time allocated in the project plan.
- San Marcos designated members are not available for workshops and meetings as scheduled and agreed to by Starboard and San Marcos.
- Core Team members requesting requirement changes after approval.
- San Marcos modifying the business processes upon which the configuration workshops were based.
- San Marcos changing organizational initiatives during the course of the Maximo integration that impact the project.
- Timeline slippage occurs in the expected delivery dates of other City initiatives that are or could become critical path dependencies for the Maximo integration.
- San Marcos does not adopt a change management process resulting in a lack of control over user configuration or customization requests.

B. Project Scope

The following tasks to be performed by Starboard are included in this proposal.

3.5   Task - Project Management

San Marcos and Starboard Project Managers will work collaboratively to provide oversight of the Maximo integration project. The tasks and deliverables identified in this section will be recurring for the duration of the integration project.

The San Marcos Project Manager will be responsible for:

- Managing San Marcos Human Resources for the Project
- Preparing Meeting Minutes for Meetings Facilitated by San Marcos
- Serving as the Liaison between the Project Team and the Overall Stakeholder/User Community
- Managing Defects, Actions, and Issues
- Managing Starboard Deliverables

The Starboard Project Manager will be responsible for:

- Managing the Starboard Human Resources for the Project
- Preparing Meeting Minutes for Meetings Facilitated by Starboard

- Creating Bi-Weekly Status Reports
- Preparing Change Orders (if necessary)
- Developing and Managing the Project Schedule, if required
- Developing Invoices and Managing the Budget
- Submitting deliverables for the project tasks

If required by San Marcos, Starboard will provide a Project Plan. This document will include all tasks to be completed as part of the project, the estimated level of effort, the dependencies between tasks, and an indication of when San Marcos or Tyler is responsible for delivery. Otherwise, Starboard assumes that the San Marcos Project Team will provide a project plan for Starboard to follow.

3.5.1   Assumptions

The Starboard Project Manager is Amy Terry. Starboard assumes the San Marcos Project Manager will work collaboratively with the Starboard Project Manager to fulfill the duties as listed above.

The San Marcos Project Manager will be responsible for all communications to the project team and employees with Starboard's Project Manager providing input into these communications via the deliverables below and as requested by the San Marcos Project Manager.

3.6   Task – Design Integration

Starboard will prepare an integration design document that closely aligns with standard interfaces we have implemented for numerous Maximo clients. The design document will contain the functional and technical requirements for each of the integration points. This document will be provided to the Tyler Technologies team to coordinate the transmission methods and transaction flows. The data elements that were considered and team workshops are listed below; the integration design will include a total of six (6) interface points.

Interface #	Data Element (System of Record)	Data Element (Receiving System)	Method	Description	Frequency
FOUNDATIONAL DATA RECORDS					
	Commodity Codes (MAXIMO)	Commodity Codes (TYLER-MUNIS)	No Interface	Manual entry in each system	As needed
	Vendors (TYLER-MUNIS)	Companies (MAXIMO)	No Interface • Flat File Export / Import for initial load • Maintain manually in Maximo	New vendors are not added frequently. A business process will be needed to make sure information is communicated between Procurement and Maximo.	As needed

Interface #	Data Element (System of Record)	Data Element (Receiving System)	Method	Description	Frequency
	Units of Measure (MAXIMO)	Units of Measure (TYLER-MUNIS)	No interface • Flat File Export from MUNIS and Import into Maximo	Manual entry in each system	As needed
1	GL Accounts (TYLER-MUNIS)	GL Accounts (MAXIMO	MUNIS - Existing GET Operations MAXIMO – Scheduled system cron that queries for GL data and writes to interface tables for processing via the MIF	Maximo to pull GL Accounts from MUNIS using database to database queries Purchase requisitions must be allocated to valid General Ledger accounts before processing in Maximo and in MUNIS. San Marcos uses a separate set of GL Accounts known as Project GL Strings. This data may be passed on the PR along with the GL Account if the work order is project related. The PR and PO applications in Maximo will need to be modified to add the additional field and lookup list to store the Project GL String.	Daily
	Item Master (MAXIMO)	Item Master (TYLER-MUNIS)	No Interface	No need to sync items between Maximo and MUNIS Item information to be transmitted via PR	N/A
TRANSACTIONAL RECORDS					
2	Purchase Requisitions (MAXIMO)	Requisitions (TYLER-MUNIS)	MUNIS - Existing SOAP XML API and Requisition Import using end point of web service MAXIMO – Publish Channel that sends transaction information on approval of PR in Maximo	Tyler will need to be able to record the Maximo PR# and PR Line # on the Requisition for cross referencing on the Purchase Order.	Near real time
3	Purchase Orders (TYLER-MUNIS)	Purchase Orders (MAXIMO)	MUNIS - DB View / DB Links for Maximo to query PO #s issued for Maximo PRs. Tyler can provide a reporting service (SSRS view) MAXIMO – Enterprise Service that polls for new data in Tyler and creates corresponding records in Maximo	Maximo will retrieve PO#s and create PO and update PR in Maximo	Near real time

Interface #	Data Element (System of Record)	Data Element (Receiving System)	Method	Description	Frequency
4	Purchase Order Price and Costing Changes (TYLER-MUNIS)	Purchase Orders (MAXIMO)	Option 1: (Preferred) DB View / DB Links for Maximo to query changed PO #s for Maximo PRs MAXIMO – Enterprise Service that polls for new data in Tyler and creates corresponding records in Maximo	Maximo will retrieve any changes to POs related to Maximo PRs and update the POs in Maximo. This method will bypass the revision business process in Maximo and simply update the PO as exists in MUNIS.	Near real time
5	Receipts (MAXIMO)	Receipts (TYLER-MUNIS)	Existing SOAP XML API MUNIS - Spec reference inwsscan_savePurchaseOrderReceipt MAXIMO – Publish Channel to send transaction data when entered in Maximo	Maximo Integration Framework sends SOAP xml message to MUNIS MUNIS creates PO receipt in MUNIS	Near real time
	Invoices (TYLER-MUNIS)	Invoices (MAXIMO)	No Interface	Not required by San Marcos	N/A
	Inventory Transactions (MAXIMO)	Inventory (TYLER-MUNIS)	No Interface	No need to send individual inventory transactions to MUNIS	N/A
6	Inventory Costs Update (MAXIMO)	Inventory (TYLER-MUNIS)	MUNIS - Existing xml service MAXIMO – Scheduled system cron that summarizes data and generates the summarized GL journal entries and corresponding Publish Channel to deliver XML to the Tyler end point	Maximo to send summarized GL Journal entry and Project GL String to post to the Inventory and Project GL accounts in MUNIS with a Reference ID. Maximo will have the detailed transactions that are marked with the same Reference ID that can be presented in a report or list when needed.	Weekly or Monthly

3.6.1 Assumptions

Starboard will conduct an integration design workshop with the San Marcos project team via teleconference and online screen sharing to finalize decisions and gather details about each integration point from the Maximo perspective. San Marcos will be responsible for coordinating the facility and scheduling the participants for the session.

3.6.2 Deliverables

- Integration Design Document

3.7 Task – Develop Integration

Starboard will implement the integration in Maximo and other configurations documented in the Integration Design Document according to our standards with minor adjustments, if needed.

3.7.1 Assumptions

Starboard assumes that the integration development will occur in the Maximo development environment and that the Tyler-MUNIS system will have a corresponding development environment to which Starboard will interface. Starboard further assumes that all testing and training will be done in the development environment as the only other Maximo environment is production.

Starboard assumes that San Marcos is responsible for the Tyler-MUNIS system side of the integration design and build. Starboard will be responsible for all Maximo Integration Framework development necessary to send the message to the Tyler-MUNIS system or process the transaction received from the Tyler-MUNIS system but will not perform any development activities within Tyler-MUNIS system. Those will be the responsibility of San Marcos.

Starboard assumes that any transformation of data contained in the interface files or messages that is needed to successfully post the transaction will be the responsibility of the receiving system.

Starboard assumes the interfaces will exchange data routinely expected in financial interfaces and will not require any customization of the class files invoked by the delivered Maximo Integration Framework (MIF). All configuration will be accomplished using the capabilities provided within the Maximo Platform Configuration tools and MIF user interface.

3.7.2 Deliverables

- Integration in the Development Environment

3.8 Task – Configuration of Maximo Applications

Starboard will configure the Maximo applications as needed to support the interfaces, including screen changes, database configurations, and other modifications using the delivered configuration tool sets provided with Maximo. We will provide a record of all Maximo objects configured.

3.8.1 Deliverables:

- Maximo application configuration checklist

3.9 Task – Testing

Starboard will work with San Marcos to test the interfaces to ensure that data is exchanged as designed and all records are viewable and editable as expected within the receiving system.

Assumptions:

San Marcos will be responsible for creating test scripts and maintaining a defect log of all issues found. San Marcos will be responsible for organizing the user test sessions and documenting the results thereof.

Starboard assumes the testing will be conducted in the development environment prior to production deployment. Starboard will support the users while they perform User Acceptance Testing of the integrations which is assumed to last no longer than five days in duration.

Starboard will perform all testing support and defect resolution remotely. Starboard will be responsible for defect resolution for the Maximo side of the interface; any issues on the Tyler-MUNIS side will be the responsibility of San Marcos. Should testing result in requests for new functionality or enhancements, those Items will be tracked separately, subject to a change order or a future project.

3.9.1 Definitions
To understand the difference between a defect and an enhancement, the following definitions will be used:

Enhancement – the provision of new functionality for the user community created by a request for:
- new functionality not currently provided by the interface to support an initiative or policy of San Marcos
- changes to the Maximo user interface not identified in the original requirements
- changes to the integration to remove a bottleneck or hardship for data entry or system use
- changes to the integration due to missed requirements or missed test scenarios

Defect – the correction of functionality for the user community caused by:
- integration not working as per the approved requirements
- integration not working as approved during acceptance testing
- user discovered defect in the out of the box functionality as delivered by the vendor

Starboard will be responsible for curing all defects introduced by their development activities but will not be responsible for any defects in the out of the box functionality as delivered by the vendor, IBM. Starboard will log the known defect from the vendor and will work with IBM to determine within what fix pack or version the fix will be delivered.

3.9.2 Deliverables

- Production ready Maximo/Tyler-MUNIS integration

3.10 Task - User and Administrator Training

Starboard will provide IT and business user training on the integration, specifically around error processing and interface processing rule maintenance.

3.11 Task - Deployment to Production

Starboard, working collaboratively with the San Marcos Core Team and IT production support, will plan and perform the migration of the modified objects from the development to the production environment. The production cutover should follow end-user training as closely as possible to allow staff to begin capitalizing on their knowledge. The production cutover will involve migration of all configurations from the development environment and a final conversion of data from enterprise systems and legacy data sets. The San Marcos

Core Team will perform a test of the production environment using the Acceptance Test plan to confirm the success of the migration.

3.11.1 Deliverables

- Migration and Deployment Checklist

3.12 Task - Production Support

Once the production migration is complete, Starboard will provide remote technical and functional support to the users for five days. This period of post-implementation support will provide a level of comfort to the San Marcos team and enable quick responses to any interface issues that may arise.

3.13 Task - Ongoing Support

Once the Production Support period has expired, Starboard will provide ongoing support of the interface as designed and deployed for a period of one year or 100 hours.

4   Estimated Costs

The table below includes the estimated costs of effort for all tasked activities.

Resource	Description	Effort	On-Site	Cost
Sr. Application Developer	Develop Interface, Deployment, Support	264	No	$44,880
Application Developer	Configure Maximo Applications	8	No	$ 1,360
Functional Lead	Design Requirements, Testing, Support	82	No	$15,990
Solutions Director	Design, Development, Deployment Oversight	30	No	$ 5,850
Project Manager	Project Management and Oversight	18	No	$ 3,510
Total Estimated Costs				**$71,590**

5   Hourly Rates

The following table shows the hourly rates per team members for this proposal.

Starboard Role	Hourly Rate
Project Manager	$ 195
Solutions Director	$ 195
Functional Lead	$ 195
Technical Architect	$ 195
Senior Application Developer	$ 170
Application Developer, Report Writer	$ 170

The total estimate for this effort is not to exceed estimate of **$71,590** as a time and material project.   San Marcos will be invoiced only for actual hours and expenses incurred.

6   Invoicing

Starboard will invoice San Marcos monthly on a time and material basis for actual hours incurred. All work will be performed remotely, though if any travel is required, expenses would be reimbursed at actual expenses incurred.

7   Client Acceptance

The undersigned representative of San Marcos agrees that the services outlined in this Proposal accurately describe the scope of the work required and authorizes Starboard Consulting to perform the work contained within this document.

Please return signed acknowledgment copy promptly.

SAN MARCOS	Starboard Consulting
Gene Sipes San Marcos Program Manager, Public Services 630 E. Hopkins San Marcos, TX 78666	Karen Buck Engagement Manager 2170 West State Road 434 Longwood, FL 32779
_____ Signature	_____ Signature
_____ Date	_____ Date