

# **STATEMENT OF WORK (SOW)**

**City of San Antonio**

**Department(s)**

**ABA Apprenticeship Management**

**Workforce Development Office**

January 05, 2024



**What is a Statement of Work?**

The Statement of Work defines the boundaries for the project. It describes in detail the scope of the project, within which all deliverables must be produced. Activities outside the defined scope of the project requires a valid 'change request form' approved by the Project Sponsor

**When do I use a Statement of Work?**

The Statement of Work is completed after the Project Initiation Process. The Statement of Work is created by Empyra with the inputs from COSA team and presented to an identified Business Sponsor for agreement and approval.



Approval of the SOW indicates an understanding of the purpose and content described in this deliverable. By signing this deliverable, everyone agrees work should be initiated on this project and necessary resources will be committed as described herein.

Approver Name	Title	Signature	Date



## 1 Introduction

The purpose of this Statement of Work is to define the responsibilities, deliverables, assumptions, constraints, application development process, and the project management methodology, as well as establish Empyra.com, Inc. and COSA responsibilities for the *myOneFlow Social Services Network* Project to support data collection, client/case management, and reporting processes for COSA’s Apprenticeship Building America (ABA) Grant Program, with the ability to expand to support other programs in future.

## 2 Project Background

### Apprenticeship Building America (ABA) Grant Program

The COSA Workforce Development Office (WDO) proposes to expose over 11,500 and serve 1,105 San Antonio and Bexar County residents. ABA will create 4 Registered Apprenticeship Programs (RAP)s and expand to 8 RAPs. ABA will create 16 Pre-Apprenticeships (Pre-Apps) and expand 8 Pre-Apps that align with RAPs.

WDO is required to adhere to OMB-approved performance reporting requirements. This includes submitting a Quarterly Progress Report containing updates on the implementation and progress specified in the grant’s Statement of Work and the status of grant program outcomes for all participants that receive grant-funded services. Performance reporting for these grants aligns with the Department of Labor (DOL) Only Performance Accountability Information and Reporting System (OMB Control No. 1205-0521) information collection request, specifically the requirements identified for apprenticeship grants data reporting into the Workforce Integrated Performance System (WIPS). As part of quarterly performance reporting, DOL requires grant recipients to conduct data validation to ensure the validity of data submitted to DOL (see [TEGL-23-19 https://wdr.doleta.gov/directives/corr\\_doc.cfm?DOCN=9155](https://wdr.doleta.gov/directives/corr_doc.cfm?DOCN=9155)).

The Federal Department of Labor (DOL) requires the submission of a quarterly narrative report (QNR) and quarterly performance report (QPR) which gathers standardized data (102 data elements) for 1,500 apprentices within a three-year time frame. In order to align performance indicators, detailed information about ABA activities is required. This includes outcomes, strategic partnerships, technical assistance, and success stories.

In addition to appropriate financial management tracking systems to provide accurate financial tracking and reporting, we are expected to have our own case management or management information system to utilize for grant participant enrollment, onboarding and tracking during the period of performance, which allows for a .csv file export and upload into the Department’s Workforce Integrated Performance Reporting System (WIPS) data files.

The City requires an electronic Case Management System (CMS) to support secure access by staff, participants, and employer partners for data collection which supports reporting efforts and conforms to the Participant Individual Record Layout (PIRL). The PIRL includes 102 data elements. These data elements are extremely sensitive and must confirm with prescriptive rules for Workforce Integrated Performance System (WIPS) reporting. The PIRL data elements can change from time to time as required by DOL. The CMS must be flexible to add, edit, or remove data fields within a quarterly time frame due to the QPR requirement.

Empyra has experience in tracking and enabling the apprenticeship process while providing participants and employers to engage via their portal and to complete their parts of the process in their portal, as well as in tracking and providing the PIRL data extracts required for WIPS.

### Future State Vision

COSA envisions managing multiple grants and programs in one enterprise platform that enables members of the public (applicants) to be able to connect to services and grants from multiple providers in one portal, and enable braiding of funding from multiple grants, while providing the ability to report on outcomes across the board. It will enable the City of San Antonio to provide services to its citizens in a more streamlined and intelligent manner. For members of the public, it will make the services and programs more accessible, by using an intelligent recommendation-based approach to bring the right services to

them at the right time.

### 3 Project Goals and Objectives

#### Data Collection

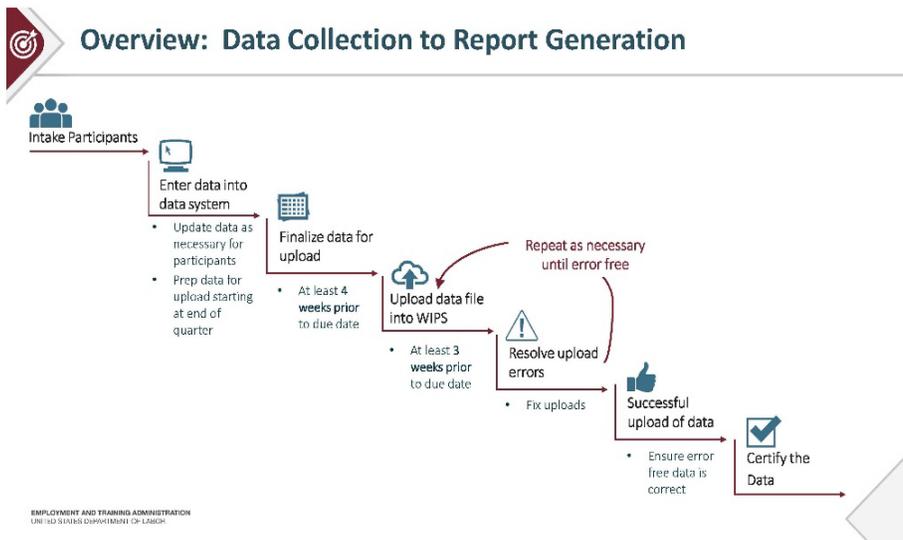
- Apprentice aggregated level data for all apprentices who receive grant funds
- Ability for participant Self-registration, and documentation uploads
- Training/OJT outcomes for all participants
- Performance follow-up and tracking activities during the quarters
- Apprenticeship expansion measures
- Employer management (job board, etc.)

#### Reporting

- Determine eligibility
- Collect apprentice data at intake (mapped to PIRL data elements and modified data elements as needed)
- Track apprentice through case management process
- Update apprentice data in a tracking system as they progress
- Data segregation

#### Transmitting Data to DOL

1. Upload PIRL data file into WIPS
2. Resolve data file errors.
3. Trouble shoot issues in WIPS. (All errors must be resolved before certification)
4. WIPS Certifies QPR & QNR data.



#### Personas

The CMS will include portals where the various user types (apprentice, employer and COSA program staff) can use their portal to execute their parts of the process. It is Empyra’s objective and goals to support the City’s NASW’s Standardized Case Management process which is described below.



- **Participant** can start their apprenticeship journey by engaging with the COSA Apprenticeship team by creating a username and password with continued access to their next steps in their apprenticeship journey. Assessing the participants journey includes a process of application and eligibility, employer hiring and ongoing tracking of data (such as documentation, form completion and tracking of time) during the active participation in the apprenticeship with the employer and post-exit. The city of San Antonio staff can create and utilize a service plan which will include measurable gains such as wage progression, credentials, skill gains, and more.
- **Employer** can apply to become an active apprenticeship provider, and after approval with a pre-apprenticeship and/or registered apprenticeship, can post apprenticeship jobs. Once participants are paired up with the employer, the employer should be able to see the apprentices in their program and continue to engage in their portal for all their tracking needs, such as reviewing and approving timesheets.
- **City of San Antonio Staff** can assist participants and employers through their process, view and update participant and employer progress and data elements. City staff must be able to manage their WDO ABA grant program in the platform, including status review and have the ability to meet reporting requirements of the WIPS. The staff will be able to coordinate and monitor the progression of the apprentice in the program and the engagement with the employers.
- **Stakeholders** can access dashboards to understand the key metrics of the Apprenticeship program to understand if the goals are being met, and gain insight into the process from a metrics perspective.

myOneFlow’s Registered Apprenticeship Module includes the following:

Feature name	Description	Use Case Ideas
<b>Translation Support</b>	Instant translation to over 130 languages for websites and forms in myOneFlow	Remove barriers to access for apprentices.
<b>Workflow Engine</b>	A no-code ability to build automatic actions based on form responses, elapsed time, missing forms, and more.	Route forms to various staff members for approvals and/or signatures
<b>Forms</b>	Digital version of paper data collection forms	Reduce apprentice intake time by 67%!! Data common to many forms (name, address, etc.) is autopopulated on forms
<b>Documents</b>	Upload and connect documents to records for apprentices, staff members, and others.  Auto-create documents with data populated from apprentice records.	Apprentices easily upload proof of identity using only a smartphone.  Automatically generate personalized CEU certificates and email them to staff.
<b>Services</b>	Document internal and external services provided to apprentices, either ad hoc or automatically	Staff can quickly view all apprentice services and actions in one central location.
<b>Events</b>	Create complete events in myOneFlow, including registration and follow up actions.	Schedule events like job fairs, orientation meetings and assessment sessions inside myOneFlow.  The calendar synchs with Office 365 to save your staff time.
<b>e-Signatures</b>	Digitally manage signatures on forms.	Apprentices can complete and sign forms anywhere, rather than an onsite orientation session.
<b>Communications (email and text messages)</b>	Manually or automatically send communications to apprentices and staff.	Create automated nudges that keep apprentices engaged and students on track.



Feature name	Description	Use Case Ideas
<b>Notes</b>	All staff notes are tied to the apprentice’s record.	Permissioned staff can view all information related to the apprentice’s activity in one central location.
<b>Case Assignment</b>	Build workflows that automatically assign caseloads based on intake form responses. Or manually assign cases with the click of a button.	If a case manager leaves, it’s easy to reassign their caseloads with all relevant information attached.
<b>Apprenticeship Program(s)</b>	Set up workflows to automatically manage all aspects of your programs, including budgets, eligibility, enrollment, and more.	Track activity and spending at the program level or break it down by individual or organization. Everything is in one place, so it’s easy to stay organized.
<b>Training &amp; Implementation</b>	The myOneFlow Solution Delivery approach consists of seven stages that ensure projects are delivered on time, on budget, and to specification. It leaves room to consider and incorporate changes while keeping in mind cost and delivery timeline. The myOneFlow Training team is involved throughout the solution design, configuration, delivery, and post-implementation lifecycle.	Training sessions occur both before and after go-live. They are live and either virtual, in-person, or a combination. Additional training materials include links to pre-recorded videos, written “how-to” user guides, searchable context-based help, and a user community.
<b>Ongoing Support</b>	Empyra provides phone and email support from 8:00 AM to 5:30 PM EST. Service requests can also be raised 24x7x365 days a year via Empyra’s Jira Service Desk.	During the initial post go-live period, the implementation team will be available for any issues or questions related to configuration or workflows. The development team will also be available in case there are any issues with integrations or data migration which were not found during testing.
<b>Mobile App</b>	Apprentices can use the mobile app to take pictures of documents and upload them directly into their portal.	The mobile app reduces barriers to access by making it easy to connect without a computer or internet connection.
<b>Training &amp; Work Experience</b>	Manage all the moving parts of an apprenticeship program through one integrated platform. Keep everyone connected, including apprentices, staff, employer-sponsors, and other stakeholders.	Automate compliance, track program outcomes, manage apprentices, connect with employers, and more.
<b>Jobs</b>	Job seekers and employers can connect via an integrated job board.	Job matching allows apprentices to find employment opportunities that match their skills within the city.
<b>CRM for Employers</b>	Employers can connect with applicants, manage their job postings, and track their recruiting progress, all within myOneFlow.	Employers can set interview availability, upload jobs, see how many views their job has received, host career fairs, and more.
<b>Time Tracking &amp; Approvals</b>	Track RTI & OJT hours. With flexible time-tracking workflows, apprentices, trainers and staff can all engage to ensure the correct time is recorded.	Easily allows the apprentice to document their activity and hours and receive approval.



Feature name	Description	Use Case Ideas
<b>Work Experience Matching</b>	The system’s job-matching functionality helps pair eligible apprentices with open positions based on work experience, qualifications & job description.	Staff no longer need to spend time using spreadsheets for manual job matching.
<b>Course Management</b>	Manage and track course enrollment, attendance, and outcomes.	Automate nudges to go out when apprentices miss class.
<b>Reporting &amp; Compliance</b>	A full suite of pre-built and ad-hoc reports makes it easy for staff to compile & share data, identify bottlenecks and improve program outcomes. All PIRL data is automatically integrated into a pre-built template that can be easily downloaded and submitted.	Easily create standardized RAPIDS & WIPS reporting dashboards to help your office visualize the progress and compliance of your apprenticeship program.

Empyra will deliver and support two non-production environments and one production environment.

**Case Management Framework**

Empyra will be required to conform with Attachment C – NASW Case Management Framework.

**Technology Standards**

Empyra will be required to conform with Attachment F – COSA Information Technology Standards.

**Additional Technical Requirements**

Empyra will be required to conform with Attachment E – Empyra Technical Requirements.

**Cloud Security Requirements**

Empyra will be required to conform with Attachment D – Empyra Cloud Security Questionnaire.

**Usability and Accessibility**

The City of San Antonio embraces the principles of Trust, Quality, and Inclusion (including access, usability, and usefulness to the resident and employee) through Human-Centered Design (HCD) and data-informed decisions. All digital products developed or delivered for the City will be required to conform with Attachment G - Experience Design Standard and Attachment H – DAO Contract Language.

Vendors who develop, deliver, and/or modify City of San Antonio (City) digital assets and channels must meet a fundamental requirement that all information and communications technology (ICT) must adhere to the City of San Antonio brand standards as outlined on [SA.gov/Brand](http://SA.gov/Brand).

Adherence to the standards is essential for conveying a consistent and unified message about the City to a range of audiences in various mediums, helps to create a professional and recognizable appearance that builds trust and recognition with residents and employees, and ensures that the City of San Antonio is represented in a consistent and cohesive way that reflects positively on our community and organization.



## 4 Project Execution Approach and Methodology

The project will be implemented using Empyra’s standard implementation methodology. The main stages of this methodology are:



The activities performed in each stage are described below:

### 4.1 Initiate

- Planning the kick-off meeting
- Working on the Integrated Project Management Plan
- COSA’s review and approval of the Integrated Project Management Plan

### 4.2 Define

- Planning the Requirements sessions
- Gathering Requirements for
  - Process
  - Data Mapping
  - Integrations
  - Branding and User Experience
- Documenting the Requirements gathered
  - Functional Specifications Document
  - Integrations Document
  - Customizations Document
  - System Implementation Plan
- COSA’s review and approval of the Requirements

### 4.3 Design

- Updating the Project Schedule
- Working on the Functional Design Document
- COSA’s review and approval of updated Project Schedule and Functional Design Document

### 4.4 Implement

- Configuring myOneFlow as per the Functional Specifications & Design Documents

### 4.5 Develop

- Working on the Customizations
- Working on the Data Migration



- Working on the Integration

#### 4.6 Verify

- Empyra's internal QA of
  - Configured Application
  - Customizations
  - Data Migration
  - Integration(s)
- Deployment Preparation
  - User Documentation
  - Training Plan and Schedule
  - Prepare Go-Live Checklist

#### 4.7 User Acceptance

- COSA's User Acceptance Testing of
  - Configured Application
  - Customizations
  - Data Migration
  - Integration(s)

#### 4.8 Go-Live

- User Training
- Execute Go-Live Checklist
- Provide Hypercare Support
- Support Handover



## 5 Roles and Responsibilities

The following defines the roles and responsibilities of each Project resource for the COSA and Empyra. Roles and responsibilities may not follow the organizational chart or position descriptions but are roles defined within the Project. It is common for individual resources on both the Empyra and COSA project teams to fill multiple roles. Similarly, it is common for some roles to be filled by multiple people.

### 5.1 Vendor Roles and Responsibilities

The Empyra Project Manager is the City of San Antonio’s (COSA) primary point of contact for this engagement. The Empyra Project Manager is accountable for ensuring resource availability, managing communications across project teams, monitoring project progress against the project timeline and ensuring that the work deliverables are appropriately developed based on the scope and requirements of the project.

The Empyra Project Manager and other key personnel shall support overall project objectives and work effectively with the COSA’s Project Manager, Project Team and Stakeholders (as required) and shall function as the liaison between the COSA’s Project Manager and Empyra on all matters relating to the project.

If Empyra employees are located on-site, Empyra shall provide it’s own hardware, computer equipment and software to fully satisfy all operational requirements of the Contract. Empyra employee’s equipment and software must be compatible with COSA Security standards and comply with vendor provided company annual security awareness training.

COSA, at its sole discretion, shall have the right to remove any of the Empyra employees or subcontractors with a notice of at least 30 days. Upon written notifications, Empyra shall remove and replace any employee or subcontractor without affecting stated timelines, deliverables, or service levels.

Empyra shall have sole responsibility to coordinate Empyra’s work to meet project requirements and to notify COSA of all conflicts that cannot be accommodated through proper coordination of the project.

Empyra shall submit copies of each Major Deliverable, according to the acceptance criteria defined in this SOW, for review and evaluation by the COSA Project Manager.

Submitted deliverables found unsuitable, rejected or returned for revision by COSA, shall be reworked by Empyra and resubmitted. Payment will not be made until submitted items are found suitable and accepted by COSA.

Contract deliverable shall be submitted for a minimum of one round of review and comments by COSA. Empyra shall be responsible for incorporating all comments and resubmitting as directed by COSA.

Unless noted otherwise, one (1) electronic copy of all deliverables shall be provided.

Empyra shall provide all applicable test plans, test cases and test scripts to COSA for review.

Empyra shall perform agreed upon tests to validate that the system meets the requirements.

Empyra shall assist COSA in user acceptance testing.

Table: Vendor Roles and Responsibilities

Vendor Role	Responsibilities
Executive	<ul style="list-style-type: none"> <li>Will be responsible for reviewing progress of the project and ensuring the success of the project. This includes ensuring adequate staffing, implementation strategy and process.</li> </ul>



Vendor Role	Responsibilities
Project Manager	<ul style="list-style-type: none"> <li>• Will be present at all stages of the project.</li> <li>• Coordinating calendars for meetings, ensuring resources are available when needed.</li> <li>• Coordinate project review meetings and participate in other meetings taking place (technical and requirements discussions) to facilitate progress and decision-making.</li> <li>• Document meeting decisions, action items and updates</li> <li>• Develop the project plan, monitor the progress of the project and provide regular project status reports. When progress shows deviation from the plan, ensure that action is taken to achieve the timeline of the project.</li> <li>• Review and acceptance of PM deliverables</li> <li>• Work with COSA PM on prioritization, planning and decision making</li> </ul>
Project Team	<ul style="list-style-type: none"> <li>• Contribute to the project goals and objectives</li> <li>• Complete individual tasks within the expected time frame</li> <li>• Collaborate with other team members</li> <li>• Communicate with the project manager about roadblocks</li> <li>• Assist the project manager in planning work packages and creating schedules</li> <li>• Identify risks and opportunities throughout the project, and may help in formulating the appropriate responses to these</li> <li>• Actively participate in project team meetings and promptly communicate issues to the project manager</li> </ul>

5.2 COSA Roles and Responsibilities

COSA will designate a COSA Project Manager, responsible for all Empyra coordination activities.

COSA will provide a full time Project Manager for this project and access to technical personnel. Empyra will work with the COSA Project Manager to provide all necessary information required for satisfactory performance of their tasks. Empyra will direct all communication to and take direction from the COSA Project Manager, Product Manager, and Stakeholders.

Project meetings will be scheduled on a regular basis and will serve as a means of identifying emerging issues and reporting on progress. The COSA Project Manager and Project Team will be responsible for contributing to and reviewing weekly progress reports, reporting project issues, and contributing to updates of the project plan and schedule.

With proper notice and scheduling, COSA will make available the necessary technical, business, testing, and training personnel to support the deployment throughout the project.

COSA will be responsible for ensuring that all discovery, discussion, workshop, and training sessions are attended by COSA personnel, as scheduled.

COSA, if required, will provide necessary access to the Empyra personnel working on this project, including remote privileges (VPN), network and systems access. Empyra agrees to follow any applicable COSA policies and/or guidelines for appropriate use of COSA infrastructure (Ex: internet, network, etc.)

COSA will provide the following in support of Empyra’s system implementation:

1. Timely feedback on the deliverables submitted by Empyra (Refer to Section 15 Deliverables)
2. Access to IT staff to support the implementation
3. Access to business staff for configuration testing
4. Timely approval of technical design
5. Review and approval of system tests



- 6. Assistance in scheduling staff for testing and training
- 7. Access to Workspace if required

COSA will schedule and perform User-Acceptance Testing (UAT).

Table: COSA Roles and Responsibilities

COSA Role	Responsibilities
Executive Sponsor	<ul style="list-style-type: none"> <li>• Provides leadership, support and direction</li> <li>• Champion the project and remove any roadblocks</li> <li>• Ensuring a project’s goals are aligned with the overall strategy</li> <li>• Act as an escalation point and help to resolve issues beyond the project manager</li> </ul>
Project Manager	<ul style="list-style-type: none"> <li>• Develop, monitor, and review project management deliverables and activities within the project plan               <ul style="list-style-type: none"> <li>• Communicate to and receive feedback from the project team</li> <li>• Escalate and resolve issues as needed</li> <li>• Initiate project meetings in consultation with project team and sponsor</li> <li>• Develop project and implementation plans</li> <li>• Prepare deliverables for approval by stakeholders</li> <li>• Schedule and track resource</li> <li>• Communicate project status to Project Sponsors and stakeholders</li> </ul> </li> <li>• Approve or deny scope change requests that have minimal project impacts to schedule, budget and/or scope.</li> <li>• Facilitate scope change requests.</li> <li>• Evaluate impact of scope change requests</li> <li>• Organize and facilitate change control meetings.</li> <li>• Communicate outcomes of scope change requests</li> </ul>
Product Manager	<ul style="list-style-type: none"> <li>• Defines the product vision, strategy and roadmap</li> <li>• Product support after implementation and project closeout</li> <li>• Facilitates SOW development, reviews, edits and approval</li> <li>• Manage product team resources</li> <li>• Review and approve system design and technical documents</li> <li>• Provides inputs on technical requirements</li> <li>• Review and approve milestones and deliverables</li> <li>• Facilitates system testing (as applicable to the project scope)</li> <li>• SLA/OLA development, review and approvals</li> </ul>
Project Team, Subject Matter Experts	<ul style="list-style-type: none"> <li>• Contribute to the project goals and objectives</li> <li>• Complete individual tasks within the expected time frame</li> <li>• Collaborate with other team members</li> <li>• Communicate with the project manager about roadblocks</li> </ul>



	<ul style="list-style-type: none"><li>• Assist the project manager in planning work packages and creating schedules</li><li>• Identify risks and opportunities throughout the project, and may help in formulating the appropriate responses to these</li><li>• Actively participate in project team meetings and promptly communicate issues to the project manager</li><li>• Has advanced knowledge of a specific area, practice, or process and provide guidance and strategy to the project team</li><li>• Participate in testing</li></ul>
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## 6 Scope

The scope of this engagement includes all tasks and activities required to support the deliverables and activities including Project Initiation, Project Planning, Solution Demo, Discovery or Design workshops, Development (Software Installation, Customization, Configuration, Integrations, Data Transfers/Migrations, Reports, Change and Release management,) Testing, Training, Go-live readiness, Go-live Deployment, Go-live Production support/Warranty, Final acceptance, and Closeout.

### 6.1 Project Initiation

A Project Initiation (Project Kick-Off) shall be held to formally notify all COSA team and Vendor team members and stakeholders that the Project has begun and to ensure all team members have a shared understanding of their roles and the contract requirements. COSA and Empyra shall coordinate a mutually agreeable date and time for the Project Kick-Off meeting to occur.

Empyra shall plan the Project Initiation meeting with COSA Project Manager. Empyra shall prepare draft material at least 48 hours in advance of the meeting and work with COSA to develop a shared agenda.

### 6.2 Project Kick-Off Presentation

#### **Deliverable 1 – Project Initiation/Kick-off Presentation Document**

COSA Project Manager will finalize the agenda of the project Kick-Off Presentations and facilitate any questions. Empyra shall present a portion of the agenda items at meeting(s) to adequately provide COSA and Vendor team members and Project stakeholders with an overview of the Project approach and expectations.

Empyra shall be prepared to answer questions that arise during the meeting. Any decisions or agreements from the Kick-off Meeting will be documented by Empyra and submitted to COSA Project Manager for review and acceptance.

### 6.3 Project Planning

Empyra will work with COSA to coordinate and plan a formal Project planning meeting(s). This meeting signifies the start of the Project and provides an opportunity for Empyra to introduce its implementation methodology, terminology, and Project management best practices to the COSA Project Team. This will also present an opportunity for project managers and Project sponsors to begin to discuss Project communication, metrics, status reporting and tools to be used to measure Project progress and manage change. During project planning, Empyra and COSA will agree on the project management tools and that will be used throughout the implementation.

### 6.4 Project Management Plan

#### **Deliverable 2 – Project Management Plan/s**

Empyra and COSA shall put together a set of documents that, when taken together, constitute the Solution Project Management Plan that describes how Project objectives shall be met and provides a road map for executing the Project. The approach shall be consistent with the Project Management Institute (PMI) Project Management Methodologies stated in the Project Management Body of Knowledge (PMBOK) or equivalent. Empyra shall use COSA’s central repository for all Project artifacts and required documentation identified in the contract. The Solution Project Management Plan shall be maintained and kept accessible in the central repository for Project artifacts.

The Solution Project Management Plan shall address the initiating, planning, controlling, executing, and closing of activities and processes. Empyra shall provide Project management activities for the entire project from initiation to close.

At a minimum, with the support of COSA staff, Empyra shall include the following components in the Project Management Plan, as defined, and in accordance with the contract requirements.



## 6.5 Project Work Plan and Schedule Development

### Deliverable 3 - Project Work Plan and Schedule Document

Vendor shall provide a draft high-level project work plan addressing the tasks specified in the SOW.

Empyra shall build out and further define the planned Project schedule. Empyra shall deliver a baseline Project Work Plan and Schedule, including a Work Breakdown Structure (WBS), Gantt chart(s), and a Project calendar in a format approved by COSA.

The Project Schedule shall be consistent with available COSA resources. These resources will be identified by COSA and communicated to Empyra prior to Schedule development. COSA shall have direct electronic access to the Project schedule as well as all deliverables and working papers for immediate review and coordination of schedules and plans via an agreed sharing and planning tools.

## 6.6 Project Status Reporting meetings and Reports

### Deliverable 4 – Project Status Reports Documents

Empyra shall be required to provide, at minimum, a Weekly Status meetings and Reports. The report shall address overall Project status against the current and baseline (if different) Project schedule. It shall cover progress against plans for the previous review period and identify work planned for the next work period, or longer if circumstances dictate. The periodic Status Report shall address issues and concerns, action items, and other pertinent information needed by Empyra or requested by COSA as necessary and applicable to that Project task or phase. The presentation of the Status Reports shall be written. The progress reports shall cover all work performed and completed during the week for which the progress report is provided and shall present the work to be performed during the subsequent week.

The progress report shall identify any problems encountered or still outstanding with an explanation of the cause and resolution of the problem or how the problem will be resolved.

The meetings will be held on specify day of each week - at a time and place so designated by the COSA Project manager. The meetings can be in person or virtual at the discretion of the COSA Project Manager

The **Status Reports** shall include a minimum of the following elements:

1. Milestones reached
2. Major tasks accomplished
3. Schedule Performance
4. COSA Approved Scope Changes
5. Risks/problems identified and a detailed report of the planned or completed mitigation thereof
6. Milestones not met on schedule
7. Milestones or critical path items expected to occur during the next month

{If using Agile or Hybrid approaches}

- i) Empyra will report progress in a weekly sync call, time and duration to be agreed by the project team, where they will indicate the following items:
  - a. Status
  - b. Activities planned for the day for the project
  - c. Issues and impediments blocking them to continue their work
- ii) The progress will be reported in COSA proprietary Agile project Board (PPM Pro, Project Place or any other tool designated by the project team)



- iii) NOTE: It will be COSA’s responsibility to grant access to the project board to Vendor team members who will be performing tasks during the project duration.

### 6.7 Solution Orientation Demo

Empyra shall provide the Solution Orientation Demo to the Project stakeholders a high-level understanding of the solution functionality prior to beginning the current and future state analysis. The primary goal is to establish a foundation for upcoming Discovery and Design workshop conversations regarding the design and configuration of the solution. Solution orientation will provide a basic understanding of system functionality and prepare the COSA for Discovery and design workshop for current and future state analysis.

### 6.8 Discovery and Design sessions

In order to ensure that Empyra fully understands the System requirements, Empyra shall conduct and lead discovery and design sessions with appropriate staff from COSA to fully explore and understand existing myOneFlow component functionality that Empyra shall be leveraging for the new system, and to identify any gaps that Empyra shall address in order to comply with the requirements identified in this SOW and the contract. Based upon the outcome of the sessions, Empyra shall document in detail the design, development, customization, and configuration actions necessary to fully meet myOneFlow requirements.

### 6.9 Develop Functional Specifications and Design Documents

#### Deliverable 5 - Functional specifications document

Empyra shall provide detailed functional specifications document, review draft functional specifications with the appropriate stakeholders, allowing time for those stakeholders to return comments or clarifications, prepare final functional specifications based on updates from appropriate stakeholders.

Empyra Response: Empyra will provide flow diagrams that will be organized by user type. These diagrams will be created using Figma, which allows for collaboration with COSA users. The process flow diagram will indicate all the steps and will have exit criteria for every step of the process including numbered workflows that must be executed. This finalized flow diagram, together with the detailed tables and documentation that it references will provide the functional specifications document for this project. The final approved flow diagram will be saved and made read only, and a PDF copy will be placed in the project library.

#### Deliverable 6 - Functional Design Document

COSA acceptance of the initial **Functional Design Document** is required before system development/configuration can begin. Empyra shall support the user review and acceptance process throughout the software development lifecycle and shall maintain the Functional Specifications and Functional Design Document throughout the Project appropriately updating the document when any System design changes occur.

### 6.10 Develop Interface/Integrations Specifications and Design Document

#### Deliverable 7 - Interface Specifications and Design Document

Empyra to conduct discovery integration sessions and will result in an integration document deliverable, which will detail the design of the integrations.

Empyra shall develop an Interface Specifications and Design Document that includes, at a minimum, interface-relevant architecture models and interface management specifications pertaining to the use of the ’s system. The document shall provide insight on how different integration technologies can be used together.

Empyra shall provide COSA with the **Interface Specifications and Design** document, and shall provide support, guidance and



knowledge transfer to COSA for integration technologies.

### 6.11 Develop Data Conversion Plan

#### Deliverable 8 - Data Conversion Plan Document

Empyra to conduct discovery Data conversion and Migration sessions and will result in a Data conversion plan document deliverable, which will detail the Data Conversion and migration details.

Empyra must support the data conversion processes, including the design, support, maintenance, test, and execution of data conversion processes to enable the conversion of Legacy system(s) data into their proposed system. Empyra must work with COSA to recommend data conversion strategies and develop a Data Conversion Plan that will facilitate converting the current data in a seamless and timely manner. The Data Conversion Plan should include a detailed data roadmap for successful population of data staging tables. These strategies must take into consideration the impacts on the business processes and staff resources. COSA expects data conversion responsibilities to be as follows:

1. COSA will be responsible for making the Legacy systems available for data conversion, extracting data, performing data cleansing, and populating data staging tables
2. Empyra will be responsible for providing detailed data conversion staging tables aligned with their proposed system’s data structure and values (Empyra will not be responsible for the accuracy of legacy systems data)
3. Empyra will be responsible for loading the populated staging tables into the proposed myOneFlow database and resolving any exceptions. Empyra will be responsible for performing all data testing to confirm successful conversion, and provide detailed reports to COSA
4. COSA will be responsible for the final validation and approval of converted data

Empyra shall provide COSA with the Data Conversion Plan document, and shall provide support, guidance and knowledge transfer to COSA for data conversion.

### 6.12 Develop System Implementation Plan

#### Deliverable 9 - System Implementation Plan

Empyra shall develop a System Implementation Plan document that incorporates the final Design Documents for the overall proposed system implementation. This document shall be developed based on outputs from the planning and design sessions conducted with Empyra and COSA team.

### 6.13 Development of the Solution

#### 6.13.1 SaaS Setup

As Empyra’s solution is a hosted SaaS solution, there will be no software installation, per se. The following SaaS environments will be provisioned for COSA:

- Development – this is the instance where all data migration and integration testing will take place.
- Test /Implementation (Pilot) – this is the instance that will be used for configuration. This instance, along with configurations, will be copied to production and all transactional test data will be cleared out. Pilot will be updated with pre-production releases to ensure that all flows are not impacted by updates to the software release.
- Production: This instance will be active after the configurations are completed in the Test/Implementation instance. Once the system is live, production will only be updated with bug fixes. Any new features or enhancements will only be deployed to production when the next production release is approved. If COSA needs a feature prior to its production release, COSA will agree to implement a Beta release that includes the needed changes to the production instance. This



will enable increased stability of the production environment.

### 6.13.2 Customizations

#### **Deliverable 11 – Customizations Document**

System customizations efforts shall be guided by the Functional Specifications, Functional Design Document and Technical Design Document. This ensures that the System is developed/configured according to the documented functional and technical specifications. Unless otherwise agreed to, in writing, by COSA, Empyra shall not initiate the System development and/or configuration activities until COSA has formally accepted the Functional Specifications and FDD and the TDD Deliverables.

Empyra shall customize and test each functional module of myOneFlow in accordance with approved document.

During customizations, Empyra shall fully document or update the customizations document. This documentation shall support knowledge transfer to the COSA team.

### 6.13.3 Configurations

#### **Deliverable 12 – Configurations Document**

System configurations efforts shall be guided by the Functional Specifications, Functional Design Document and Technical Design Document. This ensures that the System is developed/configured according to the documented functional and technical specifications. Unless otherwise agreed to, in writing, by COSA, Empyra shall not initiate the System development and/or configuration activities until COSA has formally accepted the Functional Specifications and FDD and the TDD Deliverables.

Empyra shall configure and test each functional module of myOneFlow in accordance with approved document. During customizations, Empyra shall fully document or update the configurations document.

This documentation shall support knowledge transfer to the COSA team.

### 6.13.4 Integrations

#### **Deliverable 13 – Integrations document**

System integration efforts shall be guided by the Interface Specifications and Design Documents. This ensures that the System is developed/configured according to the documented Interface Specifications and Design Documents. Unless otherwise agreed to, in writing, by COSA, Empyra shall not initiate the System integration development and/or configuration activities until COSA has formally accepted the Interface Specifications and Design Documents.

Empyra shall do integrations and test each integration of myOneFlow in accordance with approved document. During Integrations, Empyra shall fully document or update the integrations documents.

This documentation shall support knowledge transfer to the COSA team.

### 6.13.5 Data Conversion and Migration

#### **Deliverable 14 - Data Migration, Conversion and Synchronization**

Empyra shall perform the necessary data migration, conversion, integration, and synchronization work to implement the System in compliance with the requirements of the Scope of Work and the Data Conversion Plan. Empyra shall develop a detailed plan to validate all integration and synchronization routines have been successful, as well as the accuracy and integrity of all data integrated from the provided staging tables.

Data Conversion is divided into the following steps:



Step	Data Conversion Activity	Responsibility
0	Data object identification and format provided to extract the required data. Also provide sample data file for each data file format.	Empyra will provide the format of the data files that are currently supported for each object to be imported into staging tables. If COSA has critical data that needs to be migrated but are not in these specifications for the import format, COSA will identify such data and Empyra and COSA will identify how to support these.
1	<i>Data extraction</i> –Data is extracted from the legacy systems based on specified selection criteria (parcel number, business account number, etc.).	<b>COSA</b> is responsible for legacy data extraction. Empyra shall support COSA efforts.
2	<i>Data Purification</i> – Each data element is validated for acceptable data values. Exceptions to the data validation rules are reported during dry runs for correction. Data that fails purification is not converted into the proposed system but identified as a conversion failure further analysis.	<b>COSA</b> is responsible for the maintenance and purification of data prior to being entered/uploaded to a myOneFlow staging table. Empyra shall support COSA efforts.
3	<i>Data Merge</i> – Data from all systems are merged together on the basis of identifying characteristics (e.g., parcel numbers, owner accounts, etc.).	<b>COSA</b> is responsible for the maintenance and purification of data. COSA will then merge all extracted and purified data into a succinct data file to be shared with Empyra prior to being entered/uploaded to a myOneFlow staging table. Empyra shall support COSA efforts.
4	<i>Data Translation</i> – Data that has successfully passed the purification process is translated into the proposed myOneFlow values on the - provided data staging tables, converted into the myOneFlow structure and loaded into the myOneFlow database.	<b>Empyra</b> is responsible for design and building any/all ETL logic required to translate the data from COSA provided data files to the myOneFlow Staging Tables. <b>Empyra</b> is responsible for providing all Staging Tables, populating the Staging Tables based on the data file provided by COSA, and for maintaining the tables once translated and populated.
5	<i>Data Load</i> – Data populated onto the myOneFlow staging tables is loaded into the myOneFlow database. Data that has been loaded is tracked to monitor Data Conversion progress.	<b>Empyra</b> is responsible for loading all populated System Staging tables into the proposed system database and managing/tracking the Data Conversion process and progress, including reconciliation of the data migration iterations.
6	<i>Data Test</i> – Once the data is loaded into the myOneFlow database, the conversion of data shall be thoroughly tested and verified as successfully converted, without significant discrepancy.	<b>Empyra</b> is responsible for testing the conversion of legacy data from the point of populating myOneFlow staging tables to completed conversion. Empyra is responsible to work with COSA to identify any root-cause issues preventing data conversion from being fully successful and conduct any reconciliation necessary to ensure success.



Step	Data Conversion Activity	Responsibility
7	<i>Data Validation</i> – Once data has been tested by Empyra, COSA will perform final data validation and approval.	<i>COSA</i> is responsible for the final validation and approval of converted data. Empyra shall support COSA team by providing easy access and issue identification reporting tools. Issues identified will be referred back to the <i>Data Test</i> activity phase for correction

6.13.6 Reports

**Deliverable 15 – Reports**

Empyra will create accurate reports to the specifications that COSA will identify. Empyra to develop the reports which are specified below and any reports identified during Discovery and Design Workshops.

Empyra to develop canned operational reports which include RAPIDS, WIPS reports. The COSA team can create an unlimited number of ad hoc group reports.

6.13.7 Change and Release Management

**Deliverable 16 – Change and Release Management Document**

As part of the proposed Solution, Empyra shall be responsible for Change and Release Management activities. These include all tasks required to manage and document (e.g., through impact analysis, version control, library management, turnover management, build management, parallel development) changes to the system and any of the system components being developed. Change and Release Management also includes all tasks required to appropriately manage and document changes to the underlying System development environment components. activities shall include the following:

**Library Management**—the classification, control, and storage of components of the System

**Version Control**—the maintenance, tracking, and auditing of modifications to a System’s components over time, facilitating the restoration of the System to prior development stages

**Turnover Management**— promotion of software changes across different phases of the life cycle (e.g., development/configuration, unit test, systems test, and production), including management of the approval process, production turnover, and software migration control.

6.14 Testing

A well-defined risk based continuous testing approach with continuous feedback is a mandatory part of any COSA project. At a minimum the following t will be performed as part of this project.

Empyra to perform Unit, Integration, System, Regression testing and User Acceptance testing will be performed for this project.

6.14.1 Unit Testing

**Deliverable 17 – Unit Testing Status Report**

Unit testing is the first level of testing done before integration testing. A unit is a single testable part of a software system and tested during the development phase of the application software. The aim behind unit testing is to validate unit components and checking every component of the module or module of the application independently. Empyra



will do the Unit testing in Development environment involving the testing of each smallest unit or an individual component of the software application. Empyra will lead and complete the effort.

STAGE	Unit Testing	
RACI MATRIX KEY: R = Responsible A = Accountable C = Consulted I = Informed	Vendor	COSA
Unit Testing Execution	R	A, C, I
Documentation of test results	R	A, C, I
Defect and Resolution logs	R	A, C, I

6.14.2 Integration Testing

**Deliverable 18 – Integration Testing Status Report**

Integration testing is typically performed after unit testing and before system testing. Integration testing focuses on determining the correctness and interaction of the system integrations, and components interoperability and compatibility. This term is commonly used for both the integration of components and the integration of entire systems.

It also tests the data exchange between different components or systems and identify any problems or bugs that arise when different components and systems are combined and interact with each other. Empyra will perform Integration testing to test the interface between components or systems. Empyra will lead the effort and city will support where required. COSA will require the presentation of Integrations testing status and results during scheduled review meetings.

STAGE	Integration Testing	
RACI MATRIX KEY: R = Responsible A = Accountable C = Consulted I = Informed	Vendor	COSA
Integration Testing Execution	R	A, C, I
Testing scripts	R	A, C, I
Test schedule	R	A, C, I
Documentation of test results	R	A, C, I



Defect and Resolution logs	R	A, C, I
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6.14.3 System Testing

- Deliverable 19 - System Test Plan**
- Deliverable 20– System test Acceptance document**
- Deliverable 21– Test Cases, Scripts, Scenarios**
- Deliverable 22 – Defect and Resolution Logs**

System testing is performed after the integration testing and before the acceptance testing. It is conducted on a complete integrated system to evaluate the system’s compliance with its specified functional and technical requirements. Integration testing passed components and integrations are also taken as input. System testing detects defects within both the integrated components and the whole system. Empyra will perform System Testing on a complete integrated applications and systems to evaluate the compliance of the system with the corresponding functional and technical requirements. Empyra will manage test management and defect management. Empyra will fix all high and critical issues part of exit criteria for system testing. System test completion and certification along with a demo of core functionalities in COSA test environment is mandatory to move into User Acceptance Testing (UAT). Empyra will lead the system testing effort and COSA will support where required. This testing shall be performed by Empyra but may be supported by a limited number COSA Technical and power-users (not end-users) at the sole discretion and to the limit deemed appropriate by COSA. COSA will require the presentation of System testing status and results during scheduled review meetings.

STAGE	System Testing	
RACI MATRIX KEY: R = Responsible A = Accountable C = Consulted I = Informed	Vendor	COSA
System Testing Execution	R	A, C, I
Develop System Test Plan	R	A, C, I
Testing scripts	R	A, C, I
Test schedule	R	A, C, I
Documentation of test results	R	A, C, I
Defect and Resolution logs	R	A, C, I



System Test Completion Certificate	R	A, C, I
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6.14.4 User Acceptance Testing

**Deliverable 23 - Test cases, Scripts and Scenarios**

City of San Antonio (COSA) creates and conducts User Acceptance Testing (UAT) in coordination with Empyra technical support and end users. Empyra shall provide any test scripts used for UAT so that COSA can review and customize these to conduct our user acceptance testing. A formal UAT shall be conducted by the City of San Antonio’s business end user to determine acceptance of the system for operational use. Empyra shall support the UAT and fix any defects found during the testing. UAT completion and certification is mandatory to move the implementation into production.

User Acceptance testing - A formal UAT shall be conducted by the City of San Antonio’s business end users to determine acceptance of the system for operational use. Actual user acceptance testing for this project starts when City of San Antonio (COSA) creates and conducts their User Acceptance Testing (UAT) in coordination with Empyra technical support and COSA end users. The Empyra shall provide any test scripts used for System Testing so that COSA will review and customize these to conduct City’s user acceptance testing. Empyra shall support the UAT and fix any defects found during the testing. UAT completion and certification is mandatory to move the implementation into production. COSA will require the presentation of User Acceptance testing status and results during scheduled review meetings.

STAGE	User Acceptance Testing	
RACI MATRIX KEY: R = Responsible A = Accountable C = Consulted I = Informed	Vendor	COSA
UAT Testing Execution	C, I	R, A
Develop UAT Test Plan	C, I	R, A
Develop Test scripts	R	A, C, I
Test schedule	C, I	R, A
Documentation of test results	C, I	R, A
Defect and Resolution Logs	C, I	R, A
User Acceptance Test Completion Certificate	C, I	R, A

6.14.5 Regression Testing

Empyra shall perform Regression Testing throughout the testing process to verify System integrity after functional improvements or fixes have been made as a result of System Integration and User Acceptance test activities. COSA has a preference for using automated scripts, although it is not required. Regression Testing shall be designed to confirm that fixes have not created any new problems and that the results are as planned. The results will also define the System baseline configuration to be released to COSA. Empyra team shall document all tests performed



and provide the results to COSA. It shall be the responsibility of Empyra to ensure all automated test scripts have been assessed to ensure their proper function.

STAGE	Regression Testing	
RACI MATRIX KEY: R = Responsible A = Accountable C = Consulted I = Informed	Vendor	COSA
Regression Testing Execution	R	A, C, I
Develop Regression Test Plan	R	A, C, I
Testing scripts	R	A, C, I
Test schedule	R	A, C, I
Documentation of test results	R	A, C, I
Defect and Resolution logs	R	A, C, I
Regression Test Completion Certificate	R	A, C, I

**6.14.6 Test Coverage and Defect Resolution Logs**

Empyra shall maintain and provide the test coverage and Defect Resolution logs. Empyra shall review and discuss results with City of San Antonio (COSA) Team Members. Empyra shall provide System testing completion acceptance and signoff from COSA and it is mandatory to move the implementation into production.

**6.14.7 Defect Classification**

Defect Classification - Defect Severity must be defined when a defect is created. Track issues encountered during testing and classified their severity using the following criteria:

Defect Classifications	
Defect Severity	Defect Definition
<b>Critical</b>	This is a “showstopper” issue. The problem is causing a major system error, fatal error, serious database corruption, serious degradation in performance, major feature malfunction, or is preventing a major business goal from being realized. The issue does not have a workaround that is reasonably acceptable to the corresponding end-users.
<b>High</b>	This is an issue that is causing significant loss of feature functionality, but the system can recover from the problem, and it does not cause total collapse of the system. The issue does have a workaround that is reasonably



	acceptable to the corresponding end-users.
<b>Medium</b>	This is an issue that is causing minor loss of feature functionality. Optional workarounds reasonably acceptable to the corresponding end-users are available.
<b>Low</b>	These are minor issues, misspellings, cosmetic changes, etc.

## 7 Training

### 7.1 Training Plan & Materials

#### Deliverable 24 – Training Plan and Training Materials

Empyra is responsible for creating those Training plans and materials, implementing the Training Plan, and delivering the training for the duration of the contract. Empyra shall provide effective training on the required knowledge, skills, and abilities necessary to use and administer the proposed System and be responsible for the development of user training curricula, schedules, training material. Be responsible for conducting virtual, face-to-face, hands-on, user training in logical groupings at locations and delivery method determined by COSA, and for managing all training planning and logistics in coordination with COSA.

For those users engaged in UAT, training shall be provided prior to UAT for those users to ensure a complete understanding of the system prior to testing. For all other users, training shall be provided “just in time” prior to deployment and must comprehensively address all System operations.

If the implementation of myOneFlow is delayed after initial training has been completed, Empyra shall provide refresher training.

List of training

Training Courses	Quantity	Number of Students per Course	Number of Days per Course
<i>myOneFlow User training</i>	1	8	2
<i>Technical Administrator training</i>	1	5	2
Train the Trainer training	1	9	2
<i>Report Development training</i>	1	8	2
<i>Power User training</i>	1	5	2



## 7.2 Documented Evidence of Successful Training

### Deliverable 25 - Documented Evidence of Successful Training

Empyra shall provide Documented Evidence of Successful Training at the end of each phase of training. Evidence shall include at a minimum:

1. Tracking of employee attendance and completion of training courses and modules
2. An evaluation of training effectiveness using a COSA-approved measurement instrument
3. Actions addressing any deficiencies in the proficiency of the current cohort of trainees based on the results of the evaluation of training effectiveness
4. An action plan to adjust or modify future training based on the evaluation outcomes

## 8 Go-live Readiness

Pre go-live planning should include a handoff and knowledge transfer to the teams who will maintain the application after deployment, ensuring ongoing support for Infrastructure, platform, and the application to be provided. There should also be a deployment plan with specific steps for go-live and the owners responsible for executing the steps should be identified, as well as any post go-live smoke tests or other tests to validate the production deployment. There should also be steps for post-production release monitoring, to identify any adverse impacts or issues. A go/no-go meeting should be held with the team and other key stakeholders to review any open issues, open risks, and unresolved defects to collectively decide if the application is ready for production.

### 8.1 Develop System Maintenance, Support and Transition Plan

#### Deliverable 26 - System Maintenance, Support and Transition Plan

Empyra shall provide a written plan for the maintenance, support, and transition of the System into the Production Environment. Empyra shall provide support, guidance, and knowledge transfer to COSA for technologies to be used by the System ongoing.

The following documentation, at a minimum, shall be prepared by Empyra and included in the System Maintenance, Support and Transition Plan provided to COSA:

- 1 Development of a System support structure and organization, including estimates of Empyra and COSA team manpower requirements to support operation and maintenance of the System.
- 2 The skill sets required to operate and maintain the System should be specified, with recommendations of the skills, knowledge, and abilities required by COSA team business and technical staff.
- 3 System Installation and Administration Manual
- 4 Operating procedures manual, including diagnostic procedures, backup and restore procedures and disaster recover procedures
- 5 Maintenance manual, including Information to aid in analyzing and debugging the software, apart from information already available in other delivered documentation
- 6 Maintenance and repair policies and procedures
- 7 Updated system architecture diagrams and inventory (systems, servers, etc.) that clearly identify what is in pre-production environments and what is in production use
- 8 myOneFlow Database Schema
- 9 Complete Data Dictionary (leveraging COSA’s current data initiatives and data dictionary)



- 10 System “Run Book” as defined by COSA
- 11 Data flow diagrams, system flow diagrams, interface diagrams and relevant workflow diagrams.
- 12 Updated configurations and customizations documents

Empyra shall provide a *System Maintenance, Support, and Transition Plan* to include the elements defined above.

## 8.2 Develop Deployment Plan

### Deliverable 27 - Deployment Plans Document

Empyra shall provide a detailed Deployment Plan that documents all the activities (COSA, and any identified supporting contractors) that need to be accomplished to successfully migrate the new myOneFlow release from a pre-Production environment to the Production environment. The Plan shall provide a detailed schedule of activities with key “go-no go” decision points identified throughout the deployment process (including any data conversion steps necessary for go-live). In addition, the plan shall detail a back-out and recovery process to be triggered in the event the release to production fails.

Empyra shall provide a *Deployment Plan* to include the elements described above and the following components:

1. The specific time frame and activities associated with the full functionality roll-out of each functionality grouping, any other proposed myOneFlow phases, and the overall complete roll-out of all functionalities into the production environment
2. All critical resources (, COSA, and/or any identified third parties) have been identified and are available to support deployment activities
3. Key resources needed to support critical or new technologies have been identified. A developed, documented and accepted Communication Plan and command structure that define the decision process and any “go / no go” decision events
4. Communications have been developed, documented, and provided to stakeholders informing them of the deployment process and status
5. Contingency plans are in place to deal with System Deployment issues that may arise.
6. A detailed back-out and recovery Process has been documented that will be triggered if the release to production fails. The back-out and recovery process shall ensure that the old System is maintained and restored if necessary and all data remains available to COSA users with no impact to their job function or activities

## 8.3 Finalize System Security Plan

### Deliverable 27 – System Security Plan

EMPYRA shall assist COSA in the development of the system security plan and where identified will assist in security testing.

## 8.4 Finalize Service Level Agreement

### Deliverable 28 – Service Level Agreement

EMPYRA provides SLA to the COSA prior to Go-live. The SLA will be completed and signed at the earliest opportunity during the project.



## 9 Go live Deployment.

### Deliverable 29 - System Incident and Corrective Action Reports

Empyra shall deploy the myOneFlow in accordance with the Deployment Plan deliverable. Empyra shall track and monitor progress towards the Deployment Plan deliverable and identify, escalate, and resolve issues and risks in accordance with the Project Management Plan.

#### System Incident and Corrective Action Reports

Empyra shall document all incidents and defects that occur during System Deployment that are part of the defined system scope and communicate with COSA within a reasonable, agreed upon time frame.

The System Incident Report must contain the priority of the incident, a description of the incident, incident resolution status, and the proposed course of action for remedying all open incidents.

All within scope defect resolution requests that occur during the sign off period must be documented and communicated with COSA within a reasonable, agreed upon time frame. The Defect Resolution Report must contain the description of the maintenance request, resolution status, and the proposed course of action for remedying all open defect resolution requests.

All changes and fixes will be implemented based on a mutually agreed upon schedule. Changes will go through all phases of testing by Empyra and COSA. Empyra shall document the test results and provide them to COSA for approval before a decision is made to put into production. At the conclusion of any myOneFlow changes, Empyra shall update all required system documentation as appropriate and provide it to COSA.

## 10 Go-live Production Support/Warranty

Empyra shall provide production support for 90 days (or the time period agreed upon in the final contract) before Final Acceptance. The period after full deployment and prior to Final Acceptance is intended to stabilize the System and minimize the impact of any early System issues. Empyra's Project Team shall:

1. Closely monitor the newly deployed System and user activity
2. Assign appropriate resources to resolve issues
3. Rapidly detect and escalate issues as required and quickly resolve and communicate resolution.

## 11 Final Acceptance

Prior to Final Acceptance Empyra and COSA will jointly assess the status of the implementation and review the status of outstanding issues. The purpose of the assessment will be to provide written verification in the Documented Implementation Closeout and Final Acceptance that the myOneFlow operates as expected.

## 12 Implementation Closeout

The implementation portion of the project will conclude with the Project Closeout.

### 12.1 System Documentation



### Deliverable 30 – System Documentation

At the completion of the Project, Empyra shall conduct a review with COSA and identify any documentation that must be updated as a result of changes during the 90 days Sign Off period. The sign off period shall start after COSA's final acceptance of the proposed Implementation activities. Empyra shall update the documentation and provide it to COSA for review and Final Acceptance.

The following documents shall be updated and provided to COSA at the completion of the Project:

1. Functional Specifications and Design Documentation
2. System Architecture
3. Technical Design Documentation
4. System Interfaces Documentation (Integration with other systems)
5. Data Architecture and Data Dictionary
6. System Configuration Documentation
7. System Customization Documentation
8. System Operations Documentation
9. Data Management and Synchronization Plan
10. Test Cases and Test Scripts
11. Any and all Help Desk scripts developed for Production support
12. Training Manuals, End-User Guides, and Materials
13. System Administration Documentation
14. System Maintenance Documentation

Empyra shall also transfer all finalized required documentation to COSA. The format and transfer medium will be at the discretion of COSA.

## 13 Closeout

### Deliverable 31 - Project Closeout documents

The purpose of Implementation Closeout activities is to identify the conclusion of the Implementation Project and gather the required approver signatures. This document will signify that all required deliverables for the Implementation Project have been completed and approved with the date of approval for each deliverable indicated. The document shall also list the status of each of the Exit Criteria.

Empyra shall provide **Documented Implementation Project Closeout** to include, at a minimum, the elements described above and the following components:

1. COSA validation that all exit criteria have been met for the Implementation Project, inclusive of any/all proposed phases of delivered functionality
2. COSA validation that all deliverables for contracted requirements, functionality, and system capabilities have been provided, accepted, and placed in the Project Artifact repository
3. COSA validation of the Requirements Traceability Matrix
4. COSA validation of the complete and accurate Configuration Management



- 5. COSA validation of the complete and accurate management of defect and issue tracking.

## 14 Out of Scope

Anything not included in the Requirements Traceability Matrix (RTM), Proposal document, and SOW is considered out of scope. This may change based on meetings when additional functionality is identified. Any future changes or additional functionality not represented in the RFP, response, and this SOW will result in a Change Request (CR) with potential additional costs.

## 15 Deliverables

### 15.1 Deliverables Ownership

The following table identifies the roles and responsibilities associated with documentation and delivery of required deliverables services. The table attempts to define the lead role, but it is expected that both EMPYRA and the COSA will work collaboratively to develop the documentation.

Deliverable	Responsibilities	
RACI MATRIX KEY: R = Responsible A = Accountable C = Consulted I = Informed	Empyra	COSA
Project Kick-Off Presentation Document	R	A, C, I
Project Management Plan/s	R	A, C, I
Project Work Plan and Schedule Document	R	A, C, I
Project Status Reports	R	A, C, I
Functional Specifications Documents	R	A, C, I
Functional Design Documents	R	A, C, I
Interface/Integrations specifications and design document	R	A, C, I
Data Conversion Plan	R	A, C, I
System Implementation plan	R	A, C, I
Installation Document	R	A, C, I
Customizations Document	R	A, C, I
Configurations Document	R	A, C, I



Deliverable	Responsibilities	
Integrations	R	A, C, I
Data Migration, conversion and synchronization	R	A, C, I
Reports	R	A, C, I
Change and Release Management Document	R	A, C, I
Unit Testing Status Report	R	A, C, I
Integration Testing Status Report	R	A, C, I
System Test Plan	R	A, C, I
System Test acceptance document	R	A, C, I
Test Cases, Scripts and Scenarios	R	A, C, I
Defect and Resolution Logs	R	A, C, I
UAT Test cases, Scripts and Scenarios	R	A, C, I
Training Plan	R	A, C, I
Training Materials	R	A, C, I
Documented Evidence of Successful Training	R	A, C, I
System Maintenance, support and transition plan	R	A, C, I
Deployment Plan	R	A, C, I
System Security Plan	R	A, C, I
Service Level Agreement	C	R, A
System Incident and Corrective Action Reports	R	A, C, I
System Documentation	R	A, C, I
Project Closeout documents	R	A, C, I

15.2 Payment Milestones and Deliverables

The Emprya shall develop the Project Deliverables in the form and format agreed upon with COSA.

Gather lists of deliverables from the deliverable section of each task and consolidate them in this section.



EMPYRA will provide this service to the City of San Antonio on a fixed fee with deliverables-based payments. The projected cost of this project is \$70,000. The City of San Antonio will be billed on the invoice schedule below.

#	Milestone/Deliverable Description	Scheduled Date	Contract %	Value
1	Kickoff	Dependent on the Timeline	10% Set Up fee	\$2,915
2	Functional Design Document	Dependent on the Timeline	40% Set Up Fee	\$11,660
3	Go-Live	Dependent on the Timeline	Year 1 annual maintenance and support	\$49,500
4	Final Acceptance	Dependent on the Timeline	50% Set Up Fee	\$14,575
Total			100%	\$78,650

### 15.3 Deliverables and Milestones Acceptance Criteria

The following process will be used for acceptance of deliverables / sign off on milestones:

- COSA shall have 10 business days from the date of delivery, or as otherwise mutually agreed upon by the parties in writing, to accept each Deliverable or milestone.
- If the COSA does not agree the Deliverable or milestone meets requirements, COSA shall notify Empyra project manager(s), in writing, with reasoning within 5 business days, or the otherwise agreed-upon timeframe, not to be unreasonably withheld, of receipt of the Deliverable or Milestone.
- Empyra shall address any deficiencies and redeliver the Deliverable or Milestone. COSA shall then have 5 business days from receipt of the redelivered Deliverable to accept or again submit written notification of reasons for rejecting the deliverable or milestone.

#	Milestone/Deliverable Description	Acceptance Criteria
1	Project Kick-off Presentation Document	Upon Contract signed and project kickoff has occurred
2	Project Management Plan/s	Upon PMP reviewed and acceptance occurred
3	Project Work Plan and Schedule Document	Upon Project Work Plan and Schedule Document reviewed and acceptance occurred
4	Project Status Reports	Upon completion of the status meetings and reports delivered



#	Milestone/Deliverable Description	Acceptance Criteria
5	Functional Specifications Document	Upon Review draft functional specifications with the stakeholders and acceptance occurred
6	Functional Design Document	Upon finalized document review and acceptance
7	Interface/Integrations specifications and design document	Upon finalized document review and acceptance
8	Data Conversion Plan	Upon finalized document review and acceptance
9	System Implementation plan	Upon finalized document review and acceptance
10	Installation Document	Upon Installations completed and finalized document acceptance
11	Customizations Document	Upon Customizations completed and finalized document acceptance
12	Configurations Document	Upon Configurations completed and finalized document acceptance
13	Integrations	Upon completion of all Integrations
14	Data Migration, conversion and synchronization	Upon completion of Data Migration, conversion and synchronization
15	Reports	Upon Completion of development, testing and acceptance of the reports
16	Change and Release Management Document	Upon finalized document review and acceptance
17	Unit Testing Status Report	Upon completion of Unit testing and acceptance
18	Integration Testing Status Report	Upon completion of Integrations testing and acceptance
19	System Test Plan	Upon review and acceptance occurred
20	System Test acceptance document	Upon completion of System testing and acceptance
21	Test Cases, Scripts and Scenarios	Upon review and acceptance occurred
22	Defect and Resolution Logs	Upon completion of System testing and acceptance
23	UAT Test cases, Scripts and Scenarios	Upon review and acceptance occurred
24	Training Plan	Upon review and acceptance occurred



#	Milestone/Deliverable Description	Acceptance Criteria
25	Training Materials	Upon review and acceptance occurred
26	Documented Evidence of Successful Training	Upon completion of training
27	System Maintenance, support and transition plan	Upon review and acceptance occurred
28	Deployment Plan	Deployment Plan that documents all the activities (Empyra, COSA, and any identified supporting contractors) that need to be accomplished to successfully migrate are documented, reviewed and accepted
29	System Security Plan	Upon review and acceptance occurred
30	Service Level Agreement	Upon review and acceptance occurred
31	System Incident and Corrective Action Reports	Upon Empyra shall document all incidents and defects that occur during System Deployment that are part of the defined system scope and communicate with COSA within a reasonable, agreed upon time frame.
32	System Documentation	Upon At the completion of the Project, Empyra shall conduct a review with COSA and identify any documentation that must be updated as a result of changes during the 90 days Sign Off period. The sign off period shall start after COSA’s final acceptance of the proposed Implementation activities. Empyra shall update the documentation and provide it to COSA for review and Final Acceptance.
33	Project Closeout documents	Upon review, final signoff and acceptance occurred

**16 Proposal and SOW discrepancies**

Throughout the project milestones, Empyra and the City of San Antonio (COSA) will reconcile the requirements to the actual application or system. Should it be determined that a discrepancy, or discrepancies, exist between the SOW and the proposal, COSA will retain the privilege of determining which solution best meets the requirements. Any work associated with this decision would thereby be considered ‘in scope’ of the project.

**17 Project Management**

**17.1 Communications Management**



17.1.1 Approach

This Communications Management Plan sets the communications framework for this project. It will serve as a guide for communications throughout the life of the project. The Empyra and COSA Project Managers will ensure effective communications on this project. The communications requirements are documented in the Communications Matrix (Table 1). The Communications Matrix will be used as the guide for what information to communicate, who is to do the communicating, when to communicate it and to whom to communicate.

17.1.2 Methods and Technologies

City of San Antonio’s Information Technology Services Department (ITSD) maintains a SharePoint platform within the Project Management Office (PMO) and Innotas software which all projects use to provide updates, archive various reports, and conduct project communications. COSA’s project manager shall update the Share Point and Innotas software respectively to post the project data at all times. This platform enables senior management, as well as stakeholders with compatible technology, to access project data and communications at any point in time. SharePoint and Innotas Software also provide the ability for stakeholders and project team members to collaborate on project work and communication.

What?	When?	How?	Who?
Kick-Off Meeting	At project initiation	Teams	Empyra and COSA team
Team Meeting	Weekly	Teams	COSA team
Bi-Weekly Status Report	Bi-Weekly	Teams	Empyra
Project Meetings	As required	Teams	COSA team

Table 1 –Communications Matrix

Empyra and COSA will coordinate on the required attendees for each meeting based on the topic and decisions. Empyra and COSA will work together to ensure that each meeting will include topics/agenda to be discussed and desired outcomes.

17.1.3 Escalation Process

Efficient and timely communication is the key to successful project completion. As such, it is imperative that any disputes, conflicts, or discrepancies regarding project communications are resolved in a way that is conducive to maintaining the project schedule, ensuring the correct communications are distributed, and preventing any ongoing difficulties.

In order to ensure the project stays on schedule and issues are resolved, the Project Team will use this standard escalation model to provide a framework for escalating communication issues. The table below defines the priority levels, decision authorities, and timeframes for resolution.



Priority	Definition	Decision Authority	Timeframe for Resolution
1	<b>Major</b> impact to project or business operations. If not resolved quickly there will be a significant adverse impact to budget and/or schedule.	Project Sponsor	Within 4 hours
2	<b>Medium</b> impact to project or business operations which may result in some adverse impact to budget and/or schedule.	Project Sponsor	Within one business day
3	<b>Minor</b> impact which may cause some minor scheduling difficulties with the project but no impact to scope, schedule, or budget.	Project Manager	Within two business days
4	<b>Insignificant</b> impact to project but there may be a better solution.	Project Manager	Work continues and any recommendations are submitted via the project change control process

Table 2 – Project Escalations

## 17.2 Risk Management

### 17.2.1 Approach

The purpose of the Risk Management Plan is to establish the framework in which the Project Team will identify risks and develop strategies to mitigate or avoid those risks. The approach taken to identify risks includes a methodical process by which the Project Team identifies scores and ranks the various risks. The most likely and highest impact risks can be added to the project schedule to ensure that assigned risk owners take the necessary steps to implement the mitigation response at the appropriate time during the schedule.

### 17.2.2 Qualification and Prioritization

In order to determine the severity of the risks identified, a Probability and Impact factor is assigned to each risk. This process allows the COSA Project Manager to prioritize risks based upon the effect or Risk Exposure they may have on the project.

		Impact of Risk				
		1	2	3	4	5
Probability of Risk Occurring	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25
	<b>G</b>	LOW Risk	The <b>Risk Exposure</b> in the matrix is determined by multiplying			
	<b>Y</b>	MED Risk	the <b>Impact of the Risk x Probability</b> that the risk will occur			
	<b>R</b>	HIGH Risk				

Table 3 –Risk Exposure Matrix



17.2.3 Risk Monitoring

The most likely and greatest impact risks can be added to the project plan to ensure that they are monitored during the time the project is exposed to each risk. At the appropriate time in the project schedule a Risk Owner is assigned to each risk. Each Risk Owner is responsible for tracking, providing status and managing the risk to resolution.

Risk monitoring is a continuous process throughout the life of this project. As risks approach on the project schedule the COSA Project Manager will ensure that the appropriate Risk Owner provides the necessary status updates, which include the risk status, identification of trigger conditions, and the documentation of the results of the risk response.

17.2.4 Mitigation and Avoidance

As more risks are identified, they will be qualified, and the Project Team will develop avoidance and/or mitigation strategies. These risks will also be added to the Risk Log and the project plan to ensure they are monitored at the appropriate times and are responded to accordingly.

The risks for this project will be managed and controlled within the constraints of time, scope, and cost. All identified risks will be evaluated in order to determine how they affect this triple constraint. The COSA Project Manager will determine the best way to respond to each risk to ensure compliance with these constraints.

17.2.5 Risk Log

The Risk Log for this project is a log of all identified risks, their probability and impact to the project, the category they belong to, mitigation strategy, and when the risk will occur. The Risk Log also contains the mitigation strategy for each risk as well as when the risk is likely to occur.

Based on the identified risks and timeframes in the risk register, each risk can be added to the project plan. At the appropriate time in the plan—prior to when the risk is most likely to occur—the COSA Project Manager will assign a Risk Owner to ensure adherence to the agreed upon mitigation strategy. The COSA Project Manager will track status and manage the risk to resolution.

Table: Sample Risk Log

No	Project	Risk Statement	Negative Impact	Status (Open / Closed)	Probability (1-6)	Impact (1-6)	Risk Exposure	Risk Mitigation Action	Date Identified	Assigned To
1	FASTER Web	Current hardware/software configuration may not meet vendor minimum requirements for the software upgrade	If hardware/software upgrades are required, will affect schedule and budget	Open	3	5	15	Need to conduct hardware/software review to determine if upgrades are required	09/04/18	IT, BESD, SAFD
2	FASTER Web	Handheld hardware requirements not identified (scanners, tablets, phones)	If handheld hardware is required, may affect schedule and budget	Open	3	4	12	Need to identify handheld needs, cost and timeline	09/04/18	IT, BESD, SAFD
3	FASTER Web	Vendor SOW costs exceed current budget	If activities and budget cannot be reconciled, will not be able to complete required vendor activities without additional budget	Open	5	3	15	Need to review vendor SOW to determine if all activities identified are required and at the best possible price	09/04/18	PM, BESD
4	FASTER Web	Full-time System Administrator(s) not identified and assigned	If not identified, will not have key SME(s) to support the system	Open	5	5	25	Need to identify full-time System Administrator(s) ASAP	09/04/18	BESD, SAFD
5	FASTER Web	Training needs are extensive and exceed SOW costs	If minimum training requirements not met, will not be able to conduct successful Production deployment	Open	5	5	25	Will use 'train the trainer' method to complete additional training needs	09/04/18	BA, BESD, SAFD, Training Dept (?)
6	FASTER Web	Production data migration mappings not confirmed	If not confirmed, data may not be migrated as expected	Open	2	5	10	Review data mappings to confirm all required Production data will be migrated	09/04/18	BA, BESD, SAFD

17.3 Scope and Change Control

Should the need for a change to Project scope, schedule, and/or cost be identified during the Project, the change will be brought to the attention of COSA Project Control Board and Empyra does an assessment of the change. Any changes to the Project scope, budget, or timeline must be documented and approved in writing using a Change Request form.

The Change Request will include the following information:

- The change description
- Reason and nature of the change.
- Impact of change on all aspects of the project scope, budget, timeline, resources, communications, etc.



- Proposed action with the Outline of the steps required to address the change.
- A good faith estimates of the additional cost
- The timetable for implementing the change.

Once reviewed and approved by COSA these changes constitute a formal amendment to the Statement of Work and will supersede any conflicting term in the Statement of Work.

17.3.1 Scope Verification

Scope Verification is the responsibility of the Project Team. The original scope for this project is defined by the Statement of Work. Scope Verification within this document refers to the management of deliverables identified as the scope of the project. The COSA Project Manager will oversee the Project Team and the progression of the project to ensure that this scope control process is followed.

As this project progresses the COSA Project Manager and Project Team will verify project deliverables against the latest, approved scope and the Acceptance Criteria for that deliverable. Once verified that a deliverable meets the scope and acceptance criteria, the Project Manager and Sponsor (or designated representative) will meet for review and formal acceptance of the deliverable. The COSA Project Manager will present the deliverable Acceptance Criteria and the Sponsor will accept the deliverable via email or document signature.

17.3.2 Roles and Responsibilities

The COSA Project Manager, Sponsor and Project Team will all play key roles in managing the scope of this project. The table below defines the roles and responsibilities for the scope management of this project.

Role	Responsibilities
Project Manager	<ul style="list-style-type: none"> <li>• Approve or deny scope change requests that have minimal project impacts to schedule, budget and/or scope</li> <li>• Facilitate scope change requests</li> <li>• Evaluate impact of scope change requests</li> <li>• Organize and facilitate change control meetings</li> <li>• Communicate outcomes of scope change requests</li> </ul>
Sponsor	<ul style="list-style-type: none"> <li>• Approve or deny scope change requests</li> <li>• Evaluate need for scope change requests</li> <li>• Review and accept/deny project deliverables</li> </ul>
Project Team, Subject Matter Expert(s)	<ul style="list-style-type: none"> <li>• Participate in defining change resolutions</li> <li>• Evaluate the need for scope changes and communicate them to the Project Manager, as necessary</li> <li>• Update project documents upon approval of all scope changes</li> </ul>

Table 5 – Scope Management Roles and Responsibilities

17.3.3 Scope Change Control

Proposed scope changes are initiated with a scope change request by the COSA Project Manager, Sponsor, Project Team or Key Stakeholders. The Scope Change Control process will ensure that all proposed changes are defined, reviewed and agreed upon so they can be properly implemented and communicated to all stakeholders. All changes will be analyzed and evaluated for impact on:



- Timeline, including impact to other work, deliverables, and/or milestones
- Budgets
- Resource assignments and availability
- Technical architecture, application design and/or technical requirements
- Meeting apprentice requirements and expectations
- Risks including any additional risks added or mitigated by the proposed change

#### 17.3.4 Definitions of Change

There are several types of changes:

- **Schedule Changes** – changes which will impact the approved project schedule. These changes usually require re-baselining the schedule, depending on the significance of the impact.
- **Budget Changes** – changes which will impact the approved project budget. These changes may require additional funding and/or releasing funding no longer required.
- **Scope Changes** – changes which will impact the project’s scope and are typically the result of adding or removing requirements which were not initially planned for. These changes may also impact the budget and schedule.

COSA may request scope changes in or additions to the services being provided hereunder by completing a Change Control Approval Request Form. If Empyra deems the changes feasible, Empyra will provide a quote for any increase or decrease in the cost or time required for performance of the Services as amended. Once parties agree to the modified scope and related fees a representative of each party will sign the Change Control Approval Request Form. The Project Manager will communicate the scope change to all project team members and stakeholders and initiate update of the relevant project documents.

If the scope change request is NOT approved, no further action is required.

#### 17.3.5 Change Control Board

The CCB is the approval authority for all proposed scope change requests. The purpose of the CCB is to review scope change requests, impacts on the project risk, scope, cost, and schedule, and to approve or deny each change request. The CCB is comprised of the Sponsor, Project Team and Key Stakeholders.

#### 17.3.6 CCB Roles and Responsibilities

The following are the roles and responsibilities for all change management efforts related to the project:



Role	Responsibilities
<b>Project Sponsor</b>	<ul style="list-style-type: none"> <li>Review and approve/deny scope change requests to budgets, schedules and/or project deliverables</li> </ul>
<b>Project Manager</b>	<ul style="list-style-type: none"> <li>Receive and log all scope change requests received.</li> <li>Work directly with vendors, appropriate ITSD technical resources and apprentice SMEs to collect information needed to estimate and complete the request</li> <li>Maintain Change Request Log</li> <li>Approve/deny changes that have minimal impact to scope, cost and/or schedule</li> <li>Update the Change Control Board as needed</li> </ul>
<b>Project Team, Subject Matter Expert(s)</b>	<ul style="list-style-type: none"> <li>Originate change requests based on project needs</li> <li>Provide all applicable information and detail on change request forms</li> <li>Be prepared to address questions regarding any submitted change requests</li> <li>Provide feedback as necessary on impact of proposed changes</li> <li>Requests from team members should be discussed with the Project Manager and/or Team Lead prior to submitting an official change request</li> <li>Review change requests pending approval and provide input as needed / requested</li> </ul>

*Table 6 – Change Management Roles and Responsibilities*

## 17.4 Work Breakdown Structure and Schedule

### 17.4.1 Schedule Management Approach

The Empyra Project Manager is responsible for scheduling the contract Scope of Work. <Vendor's management personnel shall actively participate in the development of the project schedule so that the intended sequences and procedures are clearly understood by Vendor's organization. The COSA Project Manager will review and approve the final tasks that appear in Empyra's project schedule.

Project schedules are created using MS Project (or equivalent software) starting with the deliverables and milestones identified in the project's Work Breakdown Structure (WBS). Activity definition identifies the specific work packages which must be performed to complete each deliverable and milestone. Activity sequencing is used to determine the order of work packages and assign relationships between project activities. Activity duration estimating is used to calculate the number of work periods required to complete work packages. Resource estimating is used to assign resources to work packages in order to complete schedule development.

The project schedule shall identify detailed activities, scheduling, and show relationships between activities and similar milestone activities. Once a preliminary schedule has been developed, it is reviewed by the Project Team. The Project Team and resources must agree to the proposed work package assignments, durations, and schedule. Once this is achieved the COSA Project Manager will baseline the schedule.

### 17.4.2 Schedule Control

The project schedule is reviewed and updated as necessary on a weekly basis with actual start, actual finish, and completion percentages. The COSA Project Manager is responsible for holding weekly schedule updates/reviews, determining impacts of schedule variances, processing schedule changes and reporting schedule status in accordance with the project's communications plan.

The Project Team is responsible for participating in weekly schedule updates/reviews, communicating any changes to actual



start/finish dates to the project manager and participating in schedule variance resolution activities as needed.

17.4.3 Schedule Changes and Thresholds

If a schedule change is necessary, the COSA Project Manager and Project Team will review and evaluate the change. They must determine which tasks are impacted, variance as a result of the potential change and any alternatives or variance resolution activities they may employ to see how it would affect the scope, schedule, and resources. If, after this evaluation is complete, the COSA Project Manager determines that any change will exceed the established boundary conditions, then a schedule change request must be submitted.

Submittal of a schedule change request to the project sponsor for approval is required if either of the two following conditions is true:

- The proposed change is estimated to increase the duration of an individual work package by 10% or more.
- The change is estimated to increase the duration of the overall baseline schedule or deliverable.

When agreement has been reached on the number of days to be included in an overall time extension or an extension to an intermediate milestone, the COSA Project Manager will take the Change Request to the CCB. Upon the CCB approval, the revised project schedule with the extensions will become the basis for any future approved changes.

Empyra's Project Manager shall incorporate activities representing the total value of approved change orders as each is approved. Change order activities shall be assigned unique activity codes such that they can be segregated in the project schedule.

18 Assumptions and Constraints

To identify and estimate the required tasks and timing for the project, certain assumptions and constraints were made and are listed below. If an assumption is invalidated at a later date, the activities and estimates will be adjusted accordingly.

18.1 Assumptions

- Resources will be available throughout the project.
- The project scope will remain unchanged. If any scope changes are required, they must undergo the change management process.

18.2 Constraints

List constraints here

19 Recurring Costs

List if any recurring costs exist for this project. Include any specific licenses, subscription costs, maintenance costs etc

No	Description	Amount
1	Year 2 annual SaaS subscription	\$49,500
2	Year 3 annual SaaS subscription	\$49,500
	<b>TOTAL</b>	<b>\$99,000</b>