



09/23/21 11:20:51
WV Purchasing Division

West Virginia Department of Transportation

Fleet and Equipment Management System RFP

Response to Request for Proposal CRFP DOT220000001

Submitted by AgileAssets Inc.
3001 Bee Caves Road, Suite 200
Austin, Texas 78746
Phone: 800.877.8734 | Fax: 512.328.7246
Stuart Hudson, CEO
shudson@agileassets.com

A handwritten signature in blue ink that reads 'Stuart Hudson'.

September 16, 2021

ORIGINAL Technical Proposal



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Austin, TX 78749
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FAX

To Bid Clerk
Company State of West Virginia
Fax number 304-558-3970
Date 9/23/21
Job number _____

From Kate Smiths - Agile Assets
Phone number 512-327-4200
Fax number ~~304-558-3970~~
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Proc Folder: 887002			Reason for Modification: Addendum No. 3 - to provide responses to timely submitted questions and move the bid opening to 09/23/2021.
Doc Description: Addendum No 3 - FLEET MANAGEMENT SYSTEM			
Proc Type: Central Master Agreement			Version 4
Date Issued	Solicitation Closes	Solicitation No	
2021-09-13	2021-09-23 13:30	CRFP 0803 DOT2200000001	

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

Vendor Customer Code:

Vendor Name : AgileAssets Inc.

Address : 3001

Street : Bee Caves Road, Suite 200

City : Austin

State : Texas **Country :** US **Zip :** 78746

Principal Contact : Stuart Hudson, CEO

Vendor Contact Phone: (512) 658-3804 **Extension:**

FOR INFORMATION CONTACT THE BUYER

Tara Lyle
 (304) 558-2544
 tara.l.yle@wv.gov

Vendor Signature X *Stuart Hudson* **FEIN#** 74-2715168 **DATE** September 22, 2021

All offers subject to all terms and conditions contained in this solicitation

Sep 23 2021 11:23am P002

Attachment 2 - Addendum Acknowledgement Form

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: CRFP DOT220000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input checked="" type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

AgileAssets Inc.

Company

 Stuart Hudson, CEO
Authorized Signature

September 22, 2021

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.



	Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130	State of West Virginia Centralized Request for Proposals Service - Prof
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Proc Folder: 887002 Doc Description: Addendum No 2 - FLEET MANAGEMENT SYSTEM		Reason for Modification: Addendum No. 2	
Proc Type: Central Master Agreement			
Date Issued	Solicitation Closes	Solicitation No	Version
2021-09-03	2021-09-16 13:30	CRFP 0803 DOT2200000001	3


BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Customer Code:
 Vendor Name : AgileAssets Inc.
 Address : 3001
 Street : Bee Caves Road, Suite 200
 City : Austin
 State : Texas Country : USA Zip : 78746
 Principal Contact : Stuart Hudson, CEO
 Vendor Contact Phone: (512) 658-3804 Extension:

FOR INFORMATION CONTACT THE BUYER
 Tara Lyle
 (304) 558-2544
 tara.l.yle@wv.gov

Vendor Signature X  FEIN# 74-2715168 DATE September 16, 2021

All offers subject to all terms and conditions contained in this solicitation



REQUEST FOR PROPOSAL
WVDOT FLEET AND EQUIPMENT MANAGEMENT SYSTEM RFP
CRFP DOT22*01

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

AgileAssets Inc.

(Company)

Stuart Hudson Stuart Hudson, CEO

(Representative Name, Title)

(512) 658-3804 / (512) 328-7246

(Contact Phone/Fax Number)

September 16, 2021

(Date)



4.3.5. Transmittal Letter

September 16, 2021

Ms. Tara Lyle, Buyer Supervisor
2019 Washington Street, East
Charleston, WV 25305

Dear Ms. Lyle,

Attached please find the AgileAssets Inc. (AgileAssets) proposal for the provision of a fleet and equipment management system.

Based on the requirements stated in the Request for Proposal (RFP) and from extensive prior engagement with West Virginia Department of Transportation (WVDOT), we are confident our solution meets the needs of a comprehensive software system for the fleet and heavy equipment management and maintenance responsibilities that are part of your overall mission. This includes the specified services to configure and implement our software for the benefit of WVDOT users, specifically the Division of Highways (WVDOH), and users affiliated with the State Rail Authority (SRA).

The proposed AgileAssets solution provides the asset inventory/registry, work management, warranty management, planning and budgeting, modeling and analytics, and management reporting capabilities requested by WVDOT. The entire proposal, including pricing, is binding upon AgileAssets in all aspects for a period of 180 days from WVDOT's receipt of the Best and Final Offer (BAFO), or from the date of submission, if no BAFO is requested.

AgileAssets will be the designated firm (primary contractor) in response to this RFP. No subcontractors or partner or prime firms will participate in this project. AgileAssets confirms it is the original equipment manufacturer (OEM) of the proposed software.

AgileAssets presently has no interest, direct or indirect, which would conflict with the performance of services under this contract and shall not employ, in the performance of this contract, any person having a conflict. All staff members of the proposed AgileAssets team shall follow all WVDOT and State of West Virginia administrative policies, procedures, requirements, specifications, and standards.

If you have any questions, please reach out to Dan Collins, Senior Account Executive, at dcollins@agileassets.com or (781) 361-0560 —or feel free to contact me directly.

Authorized individual to make representations on behalf of and legally bind AgileAssets Inc.:

Sincerely,

A handwritten signature in blue ink that reads "Stuart Hudson".

Stuart Hudson, CEO
shudson@agileassets.com
(512) 658-3804

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TAB 1 - 4.3.7. Executive Summary

In the Executive Summary, the Vendor shall condense and highlight the contents of the proposed solution in such a way as to provide the WVDOT with a broad understanding of the proposal in ten (10) pages or less. Vendors should provide a concise summarization of the proposed products and services and how these proposed products and services address the requirements presented in the RFP.

Vendors shall present a summarization of their planned approach, their successful public sector implementations of the proposed solution, highlight the relevant public sector experience for all key staff included in the proposal and describe why the product and service providers assembled in the proposal are best qualified to perform the work required.

Understanding of Goals and Objectives

WVDOT has ably defined its needs and requirements for a fully functioning modern fleet and equipment management system as described in the RFP. These requirements align directly with the capabilities of the proposed AgileAssets product and AgileAssets' ability to deliver a complete solution. We understand WVDOT's needs and requirements.

This RFP response includes a comprehensive description of our proven approach to implementation and configuration of our fleet and equipment management solution. The proposed software has been implemented at multiple state DOTs to meet state-level fleet management requirements. For this RFP, we have brought together our best experts and will leverage our firsthand experience with WVDOT, as well as more than 26 years of experience as an asset management solutions provider to similar DOTs, to meet your agency's needs.

Company Overview

AgileAssets was founded in 1994 and has grown to be a leading global provider of transportation asset management solutions. We currently count 22 U.S. state DOTs among our global customer base. With our headquarters in Austin, Texas, we have more than 100 remote employees throughout the U.S. and Europe. Our founders are civil engineers and engineering researchers. The company is firmly rooted in civil engineering and infrastructure asset management expertise.

AgileAssets is the sole provider of the solution to meet WVDOT's requirements. No subcontractors or partner or prime firms are part of our bid.

Software Overview

The proposed solution, AgileAssets Fleet & Equipment Manager™, is an advanced, web-based fleet management system that enables users to track information about vehicle and equipment maintenance, repairs, labor hours, materials and parts, usage, and fueling to improve decision-making for preventive maintenance, repairs, and purchases.



The solution provides the diverse work management and reporting capabilities that WVDOT will need to manage the full lifecycle of its fleet assets—from purchase to equipment retirement and replacement. Multiple reporting capabilities are available, including standard (out-of-the box) reports as well as ad hoc reporting options. In addition, dashboards provide intuitive data visualizations and give users the ability to track key utilization and performance metrics at a glance. The combination of dashboards and interactive reports allows users to make better-informed decisions at all levels of the organization—whether for executive-level strategic planning, operational budgeting, or work project execution.

A companion mobile application, Fleet Maintenance Manager, provides mobile capabilities to improve data accuracy and efficiency in the field. Users can look up and manage vehicle maintenance and warranty information or enter labor, materials, and equipment data while on the go.

We will deliver the Fleet & Equipment Manager solution through a cloud-hosted, software-as-a-service (SaaS) deployment, which will provide WVDOT with the most up-to-date software option available in the market. With SaaS, all software, licensing, hardware, system security, maintenance, support, and upgrades are included in one annual subscription fee. This means that WVDOT will have much lower upfront IT costs and a minimal need for in-house IT support compared to a traditional on-premise deployment.

AgileAssets provides cloud hosting through Amazon Web Services (AWS), a state-of-the-industry option that includes multiple layers of security as well as scalability not available with most on-premise data centers. Having a cloud-hosted solution will streamline software maintenance, making upgrades into a “non-event,” and ensure that the software runs on the highest-performing, quickly augmentable hardware and network resources. The labor and expertise to provide software maintenance, support, and upgrades are all part of the SaaS subscription, reducing the resource demands on WVDOT staff over the entire life of the system.

Our extensive process of software maintenance includes regular communication and collaboration with our clients to ensure that risks and issues are known in advance and are well documented and understood by all parties involved in the software use. This maintenance approach closely tracks to our software engineering and project management standards, which emphasize iterative cycles of planning and delivering robust, working solutions and upgrades to our clients.

Fleet & Equipment Manager is part of the AgileAssets integrated enterprise asset management platform, as show in the graphic below. This holistic approach provides built-in integration with other AgileAssets products and enables seamless interfaces with WVDOT’s other third-party systems.

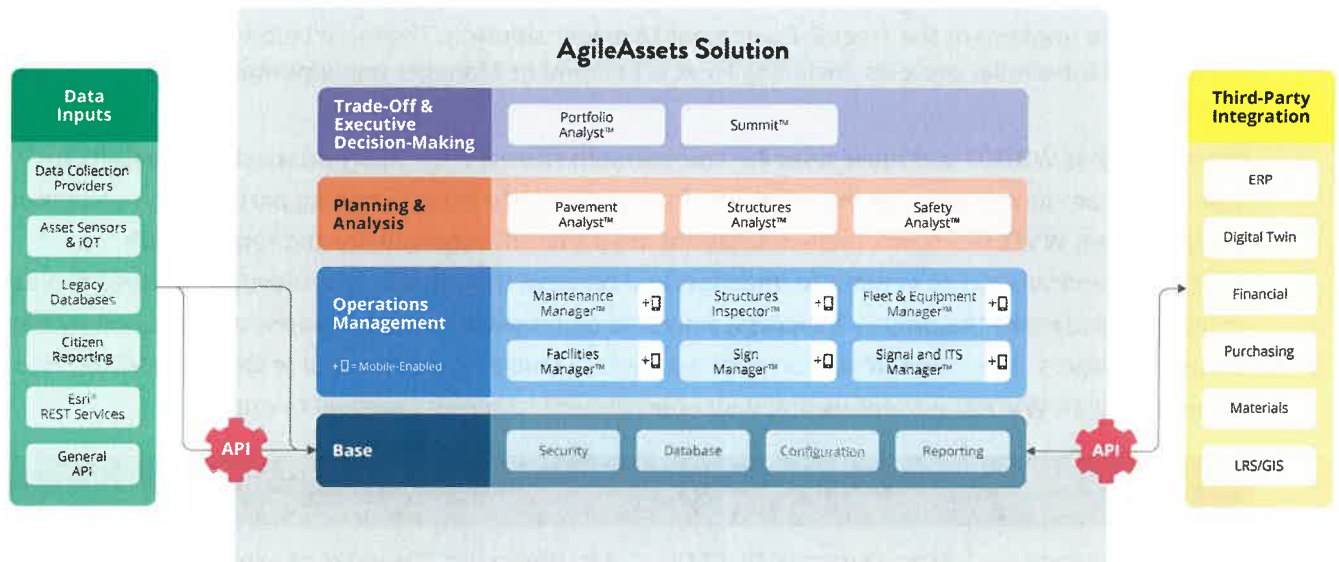


Figure 1 - AgileAssets Integrated Transportation Asset Management Solution

References and Experience

Several key reference accounts included here are all long-term AgileAssets state DOT clients or large state organizations. These referenced fleet customers are the Texas Comptroller of Public Transportation, a customer since 2009; the Oklahoma Department of Transportation, also a fleet customer since 2009 with a current upgrade in 2021; and the Kentucky Transportation Cabinet, a fleet customer since 2003 with a recent upgrade in 2021. These represent just three of the many Fleet and Equipment Manager™ customers AgileAssets is proud to support. In addition, they represent long-term commitments to our fleet software and investment in maintaining current fleet technologies and capabilities, with sustained customer satisfaction. In staying current across the years, these major agencies give proof to the ongoing, constant integration of new capabilities in our Fleet and Equipment Manager™ solution.

Staff Overview

The proposed AgileAssets team includes experienced and expert technical staff performing a variety of roles, each with skillsets that perfectly complement each other using an Agile Scrum project methodology. The Agile Scrum method consists of an iterative approach to providing high-quality, working software in a regular cadence, with frequent opportunities for client feedback, to ensure consistent alignment of the software development with the client’s business goals and project requirements.

The team consists of a Project Manager, Product Owner/Subject Matter Expert (SME), Business Process Expert, Technical Expert, Trainer, Scrum Master, and Development and QA resources to ensure a fully functional process. Additional IT resources such as the Release Manager, Database Administrator (DBA), and Application Administrator also support the build and release process for the project. Together, we have developed an integrated code management and release process that prioritizes the quality of the software implementations and ongoing operations within the Agile Scrum framework.



The project staff résumés highlight the team’s expansive education, qualifications, and proven experience to implement the Fleet & Equipment Manager solution. The table below details our team’s experience with similar projects, including Fleet & Equipment Manager implementations for other DOT clients.

We expect that WVDOT will make a similar commitment to assign the appropriate staff members for the appropriate amount of time for the duration of the project. We expect ongoing participation and timely feedback from WVDOT. Project implementations are a shared responsibility and require both AgileAssets and WVDOT to commit to, manage, and perform their duties to achieve the defined project milestones and make the project a success, delivered on time and to specifications agreed upon by both project managers. This commitment on both our parts is crucial to a successful project at WVDOT. Our experience with WVDOT assures us that your commitment to success is equal to our own.

Proposed Role(s)	Consultant Name	Experience Summary
Project Manager	Brian Duran, PMP, CSM	Mr. Duran has 20+ years of experience leading IT projects. He has completed several large-scale implementations of similar size and scope while at AgileAssets and understands the collaborative relationship with DOTs to make implementations successful. He was instrumental in managing and implementing the first deployment of a standard fleet management module for our West Virginia Parkways customer in August 2021.
Technical Architect	Terry Dexter	Mr. Dexter has decades of experience across multiple sectors, including asset management, risk management, and industrial optimization. He maintained over a decade of leadership roles from systems architecture to management, with an emphasis on improving quality and efficiency through team communication and education.
Functional Lead / Product Owner	Arif Beg	Dr. Beg is Principal Product Owner in AgileAssets. He has a Ph.D. in Transportation Engineering from The University of Texas at Austin. He has twenty-five years of experience in the field of transportation asset management systems implementation. He has implemented asset management solutions, including fleet management, maintenance management, pavement management, and other assets, for several USA agencies: Alaska DOT, Texas DOT, City of Austin, West Virginia DOT, Utah DOT, Wyoming DOT, Kentucky DOT, Montana DOT, New Mexico

Proposed Role(s)	Consultant Name	Experience Summary
		DOT, as well as international public works agencies.
Trainer	Nyekan Cummings	Mr. Cummings has conducted extensive training activities for AgileAssets system implementations with many DOTs, including Minnesota Department of Transportation, Nevada Department of Transportation, Montana Department of Transportation, Illinois Department of Transportation, Pennsylvania Turnpike Commission, New Mexico Department of Transportation, New York State Department of Transportation. Activities include Webinars, Technical Writing, User Guide (material-based) Self-Paced Training, Administer On-Site and Remote Training.

Implementation Overview

Based on more than 26 years of experience with dozens of agencies, we have identified the necessary steps to ensure a successful project. This includes significant planning and process work before we kick off the project jointly with WVDOT’s project manager and team. This vital work after the contract execution and before the official project kick-off sets up the project artifacts in preparation for the start of the project. Project resources are allocated and assigned in a project resourcing tool to reserve each team member’s availability based on the planned phases of the project. This pre-planning has been a successful preparation component in many previous similar Fleet & Equipment Manager projects with major DOTs and other state agencies.

AgileAssets proposes a 17-month project, including approximately 16 months prior to go-live, followed by a 1-month standard warranty period. This period of performance includes the five core phases of the Work Plan (Planning, Development, User Acceptance Testing, Training, and Go-Live and Project Close).

We expect there will be 24 development sprints of 2 weeks each to complete the development objectives included in this proposal. After every pair of sprints, a software build will be prepared and made available to WVDOT. At the conclusion of the development sprints, the application will be installed for a client user acceptance test (UAT) pass. If high-severity defect resolution is required after UAT, defects will be resolved, followed by another round of UAT.

Finally, once the project is accepted for go-live deployment, the project team will remain available to prioritize the resolution of any defects identified during the post-go-live warranty period. Once this period is complete and the project is accepted, the SaaS agreement will go into effect, and defect

resolution will transition to the AgileAssets Client Success team.

Project Methodology

Agile Scrum is the implementation methodology that we use to deliver projects. Scrum methodology is an iterative approach that prioritizes delivery goals around providing the highest business value in the least amount of time. This methodology represents a change in the way we approach projects from our prior engagement with WVDOT. The Agile Scrum methodology has proven to be successful with requirements gathering, planning and delivery of configurations, reporting, data conversions, and interfaces as key components of our enterprise-level implementations. North Carolina DOT, Minnesota DOT, Texas DOT, New York State DOT, Alaska DOT, Georgia DOT, Nevada DOT, New Mexico DOT, Virginia DOT, Kentucky Transportation Cabinet, and Indiana DOT are examples of state-level agencies that have benefited from this implementation methodology.

Using the Scrum methodology ensures that business value is delivered based on WVDOT's highest priorities. Although the process requires earlier and more frequent engagement by the client project team, it minimizes the need for considerable engagement when approaching the later phases of the project (e.g., UAT and go-live) because the system is validated incrementally and efficiently over time.

Scrum methodology uses iterative development. The goal of each iteration (sprint) is to have working software that is validated by WVDOT. The active participation of WVDOT SMEs in software demonstrations is vital to provide the context of the relevant requirements. In addition, active participation allows WVDOT to understand how the requirements are being implemented and provides frequent opportunities to give valuable feedback on the implementation. Support from both WVDOT's executive and steering committee and AgileAssets is critical for the project's success.

The documentation and validation of requirements begins prior to contracting and continues through User Acceptance Testing (UAT). During the early stages of our proposal development, Product Owners/Subject Matter Experts (SMEs) conduct discovery sessions with WVDOT for each module to be implemented. During this phase, we begin documenting our understanding of each requirement, including creating use cases (also referred to as user stories), outlining data dependencies, and estimating the level of effort associated with meeting each WVDOT requirement. Through the iterative and cooperative working relationship that our methodology encourages, AgileAssets and WVDOT teams contribute to a joint effort throughout the project.

Our proven methodologies for managing our software solutions and their implementation have several key elements: project management, risk management and mitigation, issues identification, and a well defined and delivered project governance process and cadence to ensure a successful implementation project for WVDOT.

Project Management

The Project Management Plan (PMP) will outline the key considerations of project management for the duration of the project. This document will serve to outline scope, define initial assumptions, detail communication management, quality management, issues and risk management, and include key schedule details to maintain the target timeline. The project managers will outline the expectations of the project. The requirements will be analyzed and refined for project scope definition. Work tickets that map to the requirements are kept in Jira (project management software), and are exportable and accessible to all project and WVDOT participants.

Risks and Mitigation

Knowing how to mitigate and deal with common problems efficiently is critical to the overall project timeline and success. From our experience working with dozens of transportation agencies over more than 26 years, we have the knowledge and skills to resolve the problems, large and small, that inevitably arise.

Key risks in any project of this size are subject to mitigation by both AgileAssets and our partners at WVDOT:

- Lack of committed resources by the client
- Delays in responding to questions and issues that impact schedule and scope
- Lack of testing resources or delays in performing testing
- Close cooperation and collaboration with DOT IT teams
- Access to database content
- Access to third party systems necessary for integration and interfaces

Insufficient user adoption and resistance to change are also common problems that many DOTs experience. To minimize these issues, we have successfully used several practices to increase user adoption and help users embrace change in systems and processes.

The most important aspect in promoting user adoption and acceptance of change is stakeholder/manager-level engagement with the implementation. This includes stakeholder involvement in governance and encouraging users to adopt and use the new software.

Risks and issues management for the project will be the responsibility of the AgileAssets and WVDOT project managers. For both technical and non-technical items, the standard issues management workflow will be consistent: Risks and issues will be tracked using a risks and issues log and will be addressed during the regularly scheduled project status meetings with WVDOT.

Validation of Requirements

The documentation and validation of requirements begins prior to contracting and continues through User Acceptance Testing (UAT). During the early stages of our proposal development, Product Owners/Subject Matter Experts (SMEs) conduct discovery sessions with WVDOT for each module to be implemented. During this phase, we begin documenting our understanding of each requirement,

including creating use cases (also referred to as user stories), outlining data dependencies, and estimating the level of effort associated with meeting each requirement.

After contracting and following the initial project kick-off, Product Owners work with the agency to validate user stories and ensure consistent understanding of each system requirement and how our solution addresses the requirement. User stories are leveraged throughout the deployment and during UAT to ensure that requirements are fulfilled and validated by WVDOT with actual use cases.

Project Governance

The approach to project governance entails setting expectations for active participation by WVDOT and AgileAssets. Participation includes the ongoing and active involvement of key personnel within WVDOT. At the kickoff meeting, WVDOT and AgileAssets project teams will formalize the implementation process, documents, communication, and status reporting.

In addition, one of the most critical aspects of project governance is committing to and holding a recurring project governance meeting between both parties. The focus of this meeting is to keep stakeholders actively engaged and up to date on the progress of the project.

Statement of Work

The draft statement of work provided details the 16-month implementation cycle and schedule and will be a document that both the AgileAssets team and the WVDOT team will further develop and finalize by implementing the project methodology and implementation described above. The preparatory period before the project begins is crucial to the final form of the Statement of Work (SOW). The finalized SOW will be the basis of the contracted work that will be the result of the award of this project. This SOW will guide the WVDOT and AgileAssets PMs in the construction of the Project Management Plan and all other necessary project documents and schedules.

Summary

AgileAssets has answered the requirements of the WVDOT's RFP in their entirety. Where noted, some customizations to align to interfaces required by the department are indicated. As to the requirements matrices, our Fleet and Equipment Manager™ module provides all the key elements requested by WVDOT. We bring to bear significant experience in fleet management across multiple DOTs and state agencies, and the successes of those implementations will be borne out by our references and the thoroughness of our approach and methodologies. The strength of AgileAssets lies in its commitment to client success and to the excellence of our software engineering and project management and implementation teams. We look forward to leveraging our understanding of WVDOT and other DOT clients in the implementation of our fleet management solution for WVDOT.

Vendors should also include a list of each specific terms that it proposes to modify with the requested changes identified by using strike-through for proposed deletions and underlines for proposed additions to the term. Additionally, the Vendor should provide compelling justification for any proposed changes.

AgileAssets does not request modifications to the specified terms and conditions.

TAB 2 - 4.3.8. Vendor Company Profile

The Vendor shall include a detailed narrative description of its organization. The information should include the following:

- *Brief overview of business operations, with an emphasis on the development and implementation of Fleet and Equipment Management System solutions for state departments of transportation and other public sector organizations*

The proposed AgileAssets fleet management solution supports the full asset lifecycle management of fleet and equipment assets. This solution is currently in use at 14 U.S. state DOTs and several toll agencies. These organizations manage fleets that are equal in size or larger than WVDOT.

- *Date established*

AgileAssets Inc. (AgileAssets) was incorporated in the State of Texas in 1994.

- *Ownership (public, partnership, subsidiary, etc.)*

AgileAssets is privately held.

- *Location in which the Vendor is incorporated*

AgileAssets is incorporated in the State of Texas.

- *Office location(s) responsible for the performance of proposed tasks*

AgileAssets office location responsible for the performance of proposed tasks is located at:

3001 Bee Caves Road, Suite 200; Austin, Texas 78746

- *Full disclosure of any proposed off-site activity and the locations involved*

The AgileAssets home office is located in Austin Texas, but we are a “remote-first” workforce, which includes our development and QA resources. We view on-site presence as a bonus factor to be used as needed, but not as a necessary element for project success.

AgileAssets works with internal software development scrum teams as part of the Agile Scrum implementation methodology. Developers will not work on site and are not considered key personnel identified in the organizational chart provided with this proposal. Relevant development works will be completed per AgileAssets resourcing requirements, and all code will be submitted to a central and secure repository owned by AgileAssets for nightly quality assurance (QA) build testing.

Security of remote work is vital. VPN access is required by the project resources to access the implementation environments and to perform configuration, development, and data migration activities.

All on-site meetings will be coordinated with WVDOT management. We do not anticipate having a large on-site presence, which is generally fueled by two chief considerations: client requests and project need. Overall expectations are for minimal on-site presence.

We do plan on having some of the key personnel on-site for key activities, including discovery/requirements gathering sessions, training, and during other sessions that are deemed necessary. During the project kickoff, AgileAssets and WVDOT will mutually agree to the frequency and

specific activities for on-site presence. Even with such agreement, on-site meetings still may not be possible, depending on COVID-related travel limitations and social distancing guidelines. The plan for in-person meetings will remain fluid until the pandemic is over.

During the pandemic, AgileAssets teams have proven to be just as effective working remotely as we have been with previous projects that required extensive on-site presence and travel. We have all been forced to adapt to a new norm of social distancing, reduced travel, and working remotely.

Our recent implementations have been conducted 100% remotely, and our current projects have not been negatively impacted by remote work. Video conferencing and web applications have allowed communication to be very effective, including showing work and the progress being made. We have been able to keep current projects on schedule while significantly reducing travel costs by working remotely. Less travel also allows individuals to have more focused productive time, without the interruptions caused by frequent travel.

- *Vendor's organizational chart relevant to this project*

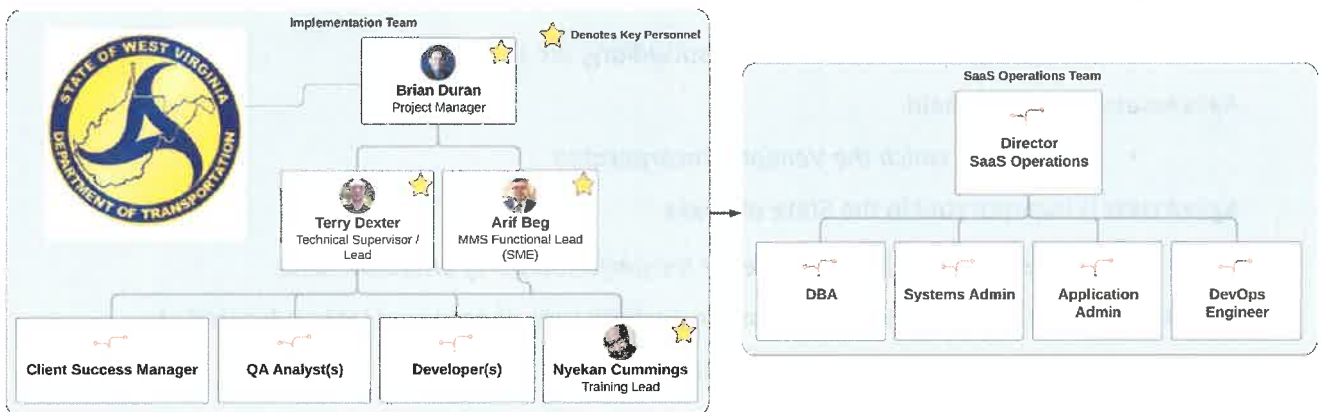


Figure 2 – Project Organizational Chart

- *Full disclosure of any potential conflict of interest*

AgileAssets has no current or potential conflicts of interest.

- *A Statement of whether, in the last ten (10) years, the Vendor and any officers in their individual or professional capacity or associated with another company have filed (or had filed against it) any bankruptcy or insolvency proceeding, whether voluntary or involuntary or undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors, and if so, an explanation providing relevant details*

In the last ten (10) years, AgileAssets and its officers, in their individual or professional capacity or associated with any company, have not filed (or had filed against it) any bankruptcy or insolvency proceeding, whether voluntary or involuntary, nor undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors.

- *A Statement of whether there are any pending Securities Exchange Commission investigations involving the Vendor, and if such pending or in progress, an explanation providing relevant details and an attached opinion of*

counsel as to whether the pending investigation(s) may impair the Vendor's performance in a Contract under this RFP

AgileAssets does not have any pending Securities Exchange Commission investigations.

- *A Statement documenting all open or pending litigation initiated by Vendor or where Vendor is a defendant in a customer matter*

AgileAssets has no open or pending litigation.

- *Full disclosure of any public sector Fleet and Equipment Management System related contracts terminated for cause or convenience in the past five (5) years*

AgileAssets has not had any public sector contracts terminated for cause or convenience in the past five (5) years.

- *Full disclosure of any criminal or civil offense*

AgileAssets has no criminal or civil offenses.

- *Statements of financial stability, indicating that the Vendor has the financial capacity to provide the entire solution and that the Vendor has adequate resources to continue as an ongoing concern*

AgileAssets is financially stable, has the financial capacity to provide the entire solution, and has adequate resources to continue as an ongoing concern.

TAB 3 - 4.3.9. Subcontractor Company Profiles

4.3.9.1. Fleet and Equipment Management System Software Provider

For the Fleet and Equipment Management System Software Provider, the Vendor shall provide the same information as the Vendor Company Profile listed above in Section 4.3.8. (if the Vendor is not the Software Provider). If the Vendor is the Software Provider, no information is required in this subsection.

AgileAssets is the software provider.

4.3.9.2. Third-Party Software Providers

For any Third-Party Software Provider included in the proposal, Vendor shall provide the same information listed for the Vendor Company Profile in Section 4.3.8. If there are no Third-Party Software Providers, no information is required in this subsection.

AgileAssets is the software provider.

4.3.9.2.1. Service Providers

For any Service Providers included in the proposal, Vendor shall provide a description of the role and level of involvement proposed for the Subcontractor and shall provide the same information listed for the Vendor Company Profile in Section 4.3.8, as applicable. Vendor shall include a copy of the teaming agreement or subcontracting agreement between the Vendor and each Service Provider as an attachment to its proposal. Subcontractor Corporate Information is not required if the Subcontractor is providing five (5) or fewer staff members in the proposal.

AgileAssets is the software provider.

TAB 4 - 4.3.10. Licensed Product Information

4.3.10.1. Business Applications

In this section, the Vendor shall provide a detailed product summary chart that lists:

- *Each Software Provider (please list the primary Fleet and Equipment Management Software Provider first)*

AgileAssets is the software provider.

- *The different product sets to be provided by each Software Provider*

AgileAssets® Fleet & Equipment Manager™ and the companion mobile application AgileAssets Fleet Maintenance Manager™

- *The modules/functions within those product sets*

AgileAssets Fleet & Equipment Manager supports the following functions:

- Vehicle and equipment inventory and tracking
- Labor, parts, and fuel management
- Warranties management
- Vehicle usage and maintenance record tracking
- Preventive maintenance scheduling
- Repair orders management
- Motorpool reservations
- Tracking depreciation and calculating equipment rental rates
- Utilization and replacement analysis
- Forecasting vehicle and equipment life
- Integrating with automated vehicle location (AVL) systems that track GPS-based locations

The Fleet Maintenance Manager mobile application supports the following actions:

- View and search for inventory
- Create repair orders
- Edit unapproved repair orders
- Manage labor, parts, and resources
- *The release level of the products to be used*

The proposed release level is 7.6.5.

- *The next release/version level to be released*

The next major release will be 7.7.

- *The planned release date of the next release/version*

The next major release (7.7) is scheduled to be available in March 2022.

4.3.10.2. Technology Products

The Vendor shall take the following into account when addressing the technology components of their proposal:

- *The Vendor shall provide the WVDOT with network, desktop, and server requirements for all software.*
- *The Vendor shall specify the requirements for all required cache servers, web servers, application servers, and database servers for installation per the Vendor's specifications.*

AgileAssets proposes to provide the solution in a software-as-a-service (SaaS) delivery. Therefore, the part of this requirement that includes network specifications and server requirements may not be applicable.

Regarding client-end requirements, users of the web-based solution will need to use supported browsers—Chrome®, Microsoft® Edge, or Firefox®, the applicable versions of which would be available at the time of system go-live.

Users of the mobile application will be able to use supported mobile devices (iOS and Android™ tablet and phone formats). Supported operating system versions and applicable device specifications will be provided closer to the go-live date. For an estimate of current specifications, please see AgileAssets Release Notes from the latest release: <https://docs.agileassets.com/display/PD10/Release+Information>

4.3.10.2.1. Ad Hoc Reporting Tools

A reporting solution shall enable business users to create their own reports and explore enterprise data by downloading data or utilizing standard ad hoc reporting tools.

The AgileAssets solution is designed to address the needs of users from all tiers within a transportation agency such as WVDOT. For the most common use cases, the solution provides several out-of-the-box reports, such as equipment utilization reports and equipment replacement due reports.

In addition to these standard reports, the system is built with a reporting engine that is based on JasperReports Server. This allows for any reports to be easily created ad hoc, as per the agency's requirements.

Reports may also be created to address the needs of different user personas within the organization, whether at the executive level or operationally focused. The AgileAssets built-in reporting function is extremely flexible and makes data available in the desired format (tabular or graphical).



Figure 3 - A typical graphical report in the AgileAssets solution

A report may be represented using visually appealing formats such as charts. Chart formats may be switched from bar charts to pie charts, line charts etc. with the simple click of a button. Colors make the report easy to understand. Users may “slice and dice” the data using the filters and visual tools provided in the user interface. Users may further customize the query used for generating a report, right from the user interface.

System jobs may be set up to regularly email reports to users. Reports may be emailed as attachments in all the formats that the system supports (HTML, CSV, PDF, XLSX etc.).

4.3.10.2.2. Business Intelligence Tools

It is the WVDOT's intent to take full advantage of the information captured within the new VPS to support Business Intelligence functionality in addition to operational reporting requirements. The expectation for Business Intelligence is to provide the capability for both tactical data analysis associated with program performance and strategic data analysis associated with long-term planning and measurement of operational performance against strategic goals.

The AgileAssets solution features dynamic reporting and dashboarding functions. Users may set up several types of data visualizations. Different user profiles may be set up to have different report views. For example, maintenance staff and operational personnel may want to have access to operational information, whereas executives may need access to a broader range of information.

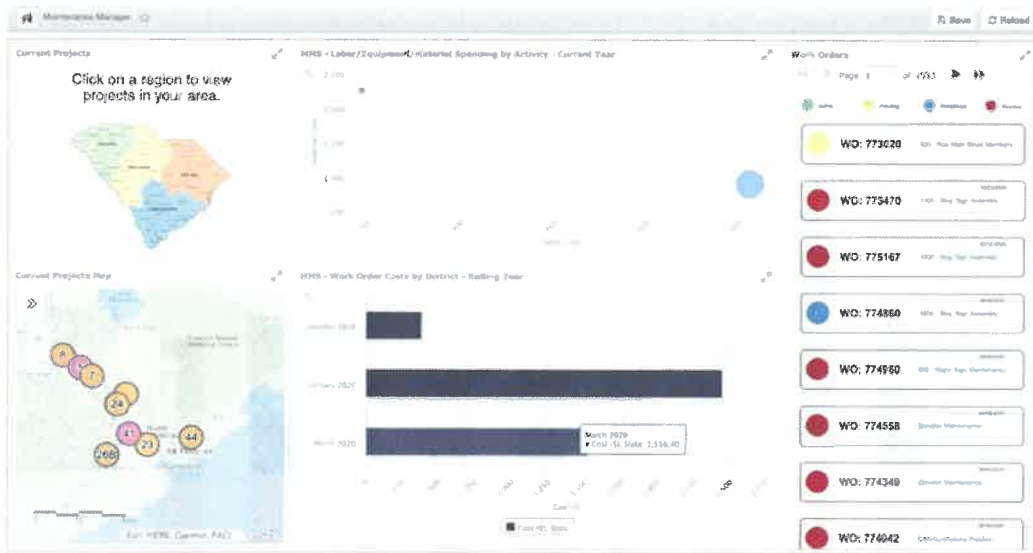


Figure 4 - A typical dashboard generated in the system

Figure 4 demonstrates an example of a typical dashboard in the AgileAssets solution. The user sees this dashboard upon login. A different dashboard may be set up for different user profiles. The dashboard displays different reports, each of a different style, laid out on a single screen. A single report on the dashboard may be expanded to a full-screen display.

When users have restricted access to data, the information presented in a report on their dashboard would be restricted to the information accessible to them.

As shown in the example, a dashboard may display a combination of operational data and higher-level, strategically relevant data. The information may be presented in aggregate for executive-level decision-making or in a more granular format for operations management.

4.3.10.2.3. Product Maintenance

In this section of the proposal, the approach of the Fleet and Equipment Management System Software Provider(s) and the Third-party Software Provider(s) to meet the WVDOT's requirements to provide product maintenance is described.

Upon notification of a maintenance problem, Vendor should perform an adequate level of problem determination to identify and resolve the issues (if possible) based upon known product or customized solution issues. After first having completed proper due diligence, problem determination, and using Software Provider resources and content to attempt to resolve the support incident, the Vendor may triage to the Software Provider and leverage the Software Provider as tier two support whereby the Software Provider may work directly with the WVDOT to fix a particular problem while the Vendor continues to take full responsibility for the outcome of the incident by monitoring progress, logging, tracking, and obtaining other resources (if the Software Provider has not solved the issues) and any other effort required to resolve support incidents that arise during the life of the Contract.

During implementation, AgileAssets will assign a Client Success Manager (CSM) to work with WVDOT. This will ensure that the CSM has time to get familiar with WVDOT's specific configurations and interfaces and make for a smooth transition after go-live from project to production mode. The CSM is the first point of contact for all communication between AgileAssets and WVDOT post go-live. The CSM will provide guidance and support to maximize the value provided by AgileAssets. The CSM is involved throughout WVDOT's entire journey of using the AgileAssets solution. They are equipped to provide product knowledge sessions and manage basic software configurations.

Once the solution is in production, a typical request to AgileAssets might include a WVDOT inquiry about the use of the application or logging an issue with the application with the customer support team. To report and track issues, WVDOT personnel will have access to the AgileAssets service desk software referred to as the Client Service Desk (CSD) portal. Issues may be created directly by WVDOT personnel and is received by a customer support engineer. The portal is self-serviced. An automated acknowledgement of the issue receipt is sent within 30 minutes. Internally, once the issue is received it is triaged by the customer support engineers and product managers. Any information needed is requested either to the CSM or directly to the reporter of the issue via the Portal. Any follow-up, updates, and resolutions are documented and communicated through the portal until the issue is resolved.

Once the issue is received by AgileAssets, it is triaged by the customer support engineers and product managers. Any information needed is requested either from the CSM or directly from the reporter of the issue via the portal.

The AgileAssets CSD portal is available 24x7, 365 days a year. The initial acknowledgement within 30 minutes is as per our standard service level agreement (SLA) target. For high-severity defects, the final resolution is targeted to be within five (5) business days. For moderate-severity defects, a fix is targeted in the next general release of the AgileAssets standard product. At any time during the issue management, if an escalation is needed, WVDOT may invoke the AgileAssets escalation process. Details and contact information for the escalation are shared with the business stakeholders and operations teams during the project.

4.3.10.2.4. Future Direction

The Vendor shall describe the future direction of the technology of the proposed products. Also, include future plans for public sector functionality for the components of the proposed solution. The Vendor should discuss in some detail the strategic product plans for the proposed software products in this response. What have been the significant enhancements to the products in the past few years, and what is expected in the next three (3) years? Describe how the proposed solution provides a stable robust environment for the WVDOT and provides a platform for growth and technological advances for the future.

The product roadmap for the development of future features of Fleet & Equipment Manager includes:

- **Service Requests:** A new Service Request workflow will enable a field user of a piece of equipment to create a service request outlining the repair needs. The service technician will then be able to create a Repair Order from the Service Request when beginning the work to address the reported issue. When the Repair Order is closed, the Service Request reporter

would automatically be notified. This process will also include REST API access to support integration with external applications or with a website portal for submitting these Service Requests.

- **AASHTO Performance Standards:** The buildout of standard AASHTO Performance Standards reports and dashboards will cover preventive maintenance timeliness compliance, replacement recommendations, utilization, availability/downtime, and planned vs. unplanned maintenance
- **Fleet Replacement Analysis:** Prediction-based Fleet Replacement Analysis will be available, based on National Cooperative Highway Research Program (NCHRP) research reports
- **Equipment Fleet Sizing Analysis:** This capability will be based on utilization, age and maintenance needs
- **Offline Support:** Offline support for the existing Fleet Maintenance Manager mobile application will allow the mobile app to be used in the field without a data connection to log work performed at the site of a piece of disabled equipment
- **Expanded Motorpool Functionality:** Extension of the fleet motorpool functionality will include API support and an Equipment Rental mobile application to allow equipment reservations to be input outside of the web application

Significant enhancements to Fleet & Equipment Manager in the last few years have included:

- **Mobile Compatibility Expansion:** The iOS-only Fleet Maintenance Manager mobile application was rewritten to a new mobile app platform to support iOS, Android, and Windows 10 operating systems. The form factor has been streamlined as well to ensure seamless support on smartphones and tablets.
- **Standard Report Templates:** A complete review and updating of the Standard Report templates shipped with the Fleet & Equipment Manager application was implemented to extend the breadth of information available in the out-of-the-box reports included with the solution.
- **Motorpool Reservation Requests:** Enhancements to the motorpool reservation request functionality were implemented to support requests for a specific vehicle type and desired accessories. The vehicle assignment process was also improved to support an auto-assign or assignment from a list of available vehicles the user is able to review. Workflows for making edits to an existing reservation and to cancel a reservation were also improved.

TAB 5 - 4.3.11. References

The WVDOT intends to conduct reference checks for account references provided by Vendors. It may, at its sole discretion, contact additional clients not presented as references.

Vendors shall provide at least three (3) client references for the implementation of the Fleet and Equipment Management System software for state or local governments. All references should be for systems in production at this time - not for implementations that are still in progress. Although, not required, state departments of transportation and public works agencies are preferred.

The following information should be provided for each reference:

Table 1 - Reference 1

<i>Organization Name</i>	Texas Comptroller of Public Transportation (TXCPA)
<i>Project Name</i>	TX CPA Fleet Management System
<i>Project Description</i>	TXCPA uses AgileAssets Fleet & Equipment Manager to manage the full lifecycle of their vehicles and equipment. Users track such things as equipment inventory, odometer readings, fueling transactions, warranties, accidents, purchases, and repair orders/history. TXCPA uses preventive maintenance to ensure equipment and vehicles are being serviced at the proper times/miles. Users mainly input data into the application via batch imports.
<i>Contact Name</i>	James Keith, CTCM, CTCD Program Specialist, OVFM and STMP Statewide Procurement Division Texas Comptroller of Public Accounts
<i>Contact Mailing Address</i>	Lyndon B. Johnson State Office Building 111 East 17th Street Austin, Texas 78774
<i>Contact Phone Number</i>	(512) 463-4974
<i>Contact Email Address</i>	James.Keith@cpa.texas.gov
<i>Fleet and Equipment Management Software Product and Release Number(s) Implemented</i>	On version 7.5.3 since September 2020
<i>Project Start and End Date</i>	April 2009 – September 2009
<i>Contract Value</i>	\$699,244



Table 2 - Reference 2

<i>Organization Name</i>	Oklahoma Department of Transportation (ODOT)
<i>Project Name</i>	AgileAssets Enterprise Asset Management Solution
<i>Project Description</i>	The solution delivered to ODOT focused on three (3) key products: Maintenance Manager™, Fleet & Equipment Manager, and Facilities Manager™. ODOT has leveraged key services provided by AgileAssets to maximize the ROI of their current solution. ODOT went live with v6.4 of their AgileAssets Enterprise Asset Management solution on Nov. 4, 2010. Since the initial on-premise implementation, ODOT has upgraded to several versions of the solution and migrated to a cloud-based provisioning on March 3, 2016. ODOT upgraded to version 7.6.1 in June 2021.
<i>Contact Name</i>	Alex Calvillo Assistant Division Engineer for Operations & Maintenance Oklahoma Department of Transportation Maintenance Division
<i>Contact Mailing Address</i>	200 NE 21 st Street Oklahoma City, OK 73195
<i>Contact Phone Number</i>	(405) 521-2557
<i>Contact Email Address</i>	acalvillo@odot.org
<i>Fleet and Equipment Management Software Product and Release Number(s) Implemented</i>	Fleet: March 2009 – November 2010 (go-live) Maintenance: March 2009 – November 2010 (go-live) Facilities: March 2009 – November 2010 (go-live)
<i>Project Start and End Date</i>	March 2009 – November 2010
<i>Contract Value</i>	\$903,000 Software - Does not include exact services charges, as the total project value was \$2,274,000 for three modules

Table 3 - Reference 3

<i>Organization Name</i>	Kentucky Transportation Cabinet
<i>Project Name</i>	KYTC Fleet Manager
<i>Project Description</i>	KYTC implemented Fleet & Equipment Manager as part of their Operations and Maintenance implementation of Maintenance Manager and Pavement Analyst
<i>Contact Name</i>	Rick Durham
<i>Contact Mailing Address</i>	200 Mero Street Frankfort KY, 40622
<i>Contact Phone Number</i>	502 564 3916
<i>Contact Email Address</i>	Rick.durham@ky.gov
<i>Fleet and Equipment Management Software Product and Release Number(s) Implemented</i>	Fleet & Equipment Manager version 7.6.0 (just recently completed upgrade)
<i>Project Start and End Date</i>	July 2001 – July 2003
<i>Contract Value</i>	\$500,000 – (Software only, service cost not available)

TAB 6 - 4.3.12. Proposed Project Staff and Organization

4.3.12.1. Project Organization

Vendors shall describe their project staffing strategy to coincide with their recommended implementation approach, including any proposed phasing. As part of this project staffing strategy, the Vendor shall recommend when WVDOT participation is expected, how the WVDOT's employees are going to be integrated into the Project Team, where the project team is primarily located and what methods are going to be used to ensure skills and knowledge transfer.

Staffing the project with the right mix of resources and setting expectations with the project team (WVDOT included) is vital to the success of the implementation. We have arguably the best implementation team in the industry. Our team is exceptionally qualified, experienced, and poised to deliver the project successfully, having finely-tuned its expertise over more than 26 years of similar implementations at comparable DOTs. Our team includes experienced and expert technical staff performing a variety of roles, each with skillsets that perfectly complement each other using an Agile Scrum project methodology.

The proposed project team consists of a Project Manager, Product Owner/Subject Matter Expert (SME), Business Process Expert, Technical Expert, Trainer, Scrum Master, and Development and Quality Assurance (QA) resources to ensure a fully functional process. Additional IT resources such as the Release Manager, Database Administrator (DBA), and Application Administrator also support the build and release process for the project. Together, we have developed an integrated code management and release process that prioritizes the quality of the software implementations and ongoing operations within the Agile Scrum framework. The project staff résumés highlight the team's expansive education, qualifications, and proven experience to implement the Fleet & Equipment Manager solution.

As part of the estimation process for the RFP, the entire proposed project team was engaged in estimating the required level of effort based on the RFP requirements. This estimation process is a holistic estimate of total effort, price, and duration. As a starting point of the estimation, we focus on standard product features as the base for the proposed solution. The standard product is based on decades of experience working with agencies across the United States to determine shared or standard characteristics that exist within the requested solution. Initially, the specific requirements from the RFP are compared against the standard product. Next, a secondary set of requirements, to be configured from the standard base, are captured to ensure the overall needs of the RFP are met.

By starting with a standard product, the implementation has a substantial foundation that enables a more cost-effective and timely approach to delivering the solution. This process has been proven to be successful at establishing realistic schedules to ensure project success. We will monitor the actual

project progress against the effort estimation throughout the duration of the project to continue to hone the accuracy of the projections to make sure the project progress is in line with the estimates.

We will continue to work after the contract execution and before the official project kickoff to set up the project artifacts in preparation for the start of the project. Project resources are allocated and assigned in a project resourcing tool to reserve staff availability based on the planned sequences and phases of the project. This pre-planning has been a successful preparation component in many previous similar projects.

The initial project schedule is scrutinized and refined as part of the discovery planning sessions that start each project implementation phase to ensure the proposed plan is still doable as agreed-upon by WVDOT and AgileAssets. If adjustments are deemed necessary, a change management plan addresses any agreed-upon changes to the schedule.

We expect that WVDOT will make a similar commitment to assign the appropriate staff members for the appropriate amount of time for the duration of the project. We expect ongoing participation and timely feedback from WVDOT. Project implementations are a shared responsibility and require both AgileAssets and WVDOT to commit to, manage, and perform their duties to achieve the defined project milestones and make the project a success.

4.3.12.2. Personnel Summary Table

Vendors shall provide a Personnel Summary Table listing each proposed project team member. The Personnel Summary Table should be presented in tabular form similar to the example provided below including the proposed role(s), consultant name, total years of relevant implementation experience with the VPS, years of experience in the proposed role, list of public sector clients in the proposed role, and relevant certifications.

Our team is the strongest group available in today's market for delivering a fleet management solution. From our highly qualified pool of staff, we have identified a specialized team that will effectively accomplish the technical goals of this project. The proposed team is comprised of a core group of experts with diverse backgrounds in the disciplines of modern software engineering, operations research, economics, transportation, and civil engineering.

These resources have substantial experience in implementing the specialized functional areas and working collectively to deliver the maximum benefits of the new functionality. The team is highly experienced in successfully implementing projects of similar size and scope.

Table 4 - Personnel Summary

Proposed Role(s)	Consultant Name	Experience Summary
Project Manager	Brian Duran, PMP, CSM	Mr. Duran has 20+ years of experience leading IT projects. He has completed several large-scale implementations of similar size and scope while at AgileAssets and understands the working partnership relationship with DOTs to make implementations successful.
Technical Architect	Terry Dexter	Mr. Dexter has decades of experience across multiple sectors, including asset management, risk management, and industrial optimization. For more than a decade, he has held leadership roles in fields from systems architecture to management, with an emphasis on improving quality and efficiency through team communication and education.
Product Owner/SME	Arif Beg, PhD	Dr. Beg is Principal Product Owner at AgileAssets. He has a PhD in Transportation Engineering from the University of Texas at Austin and 25 years of experience in the field of transportation asset management systems implementation. He has implemented asset management solutions, including fleet management, maintenance management, pavement management, and other solutions, for numerous U.S. agencies: Alaska DOT, Texas DOT, City of Austin, West Virginia DOT, Utah DOT, Wyoming DOT, Kentucky DOT, Montana DOT, New Mexico DOT, as well as international public works agencies.
Trainer	Nyekan Cummings	Mr. Cummings has conducted extensive training activities for AgileAssets system implementations with many DOTs, including Minnesota DOT, Nevada DOT, Montana DOT, Illinois DOT, Pennsylvania Turnpike Commission, New Mexico DOT, and New York State DOT. He leads training activities that include webinars, technical writing, and user guide (material-based) self-paced training, and administers on-site and remote training.

4.3.12.3. Resumes

*The Vendor shall provide resumes for each role to be filled by Vendor personnel. Proposed consultants should be available to staff the project. For purposes of planning project staffing, the Vendor should **assume** a start date of November 1, 2021.*

Brian Duran, PMP, CSM, CSPO

AREAS OF EXPERTISE

- Project Management
- Network Infrastructure Upgrades
- Desktop Transformations
- Delivery Management
- System Integration/Migration
- Highway Construction Maintenance
- ERP Software Implementation
- Agile Scrum Methodology
- PMBOK Delivery Methodology
- Waterfall Methodology
- Software Development Life Cycle

HIGHLIGHTS

Problem solver with strong program management and leadership skills. Process- and results-driven certified Project Management Professional (PMP), Certified Scrum Master (CSM) and Certified Scrum Product Owner (CSPO) with 20+ years of experience leading IT projects. Broad industry background in state and federal government, oil and gas, utilities, financial services, manufacturing, and more.

EDUCATION

BLS, Computer Information Science, St. Edward's University	1997
ASB, Computer Management, ICM School of Business	1987

LICENSES AND CERTIFICATIONS

Project Management Professional (PMP)	2006
Certified Scrum Master (CSM)	2011
Systems Integration Delivery Lead (SIDL)	2013
Quality Assurance Practitioner	2015
Certified Scrum Product Owner (CSPO)	2015

TOOLS

Microsoft Office Professional Suite (Word, Excel, Access, Project, PowerPoint, Outlook, and Visio), SharePoint, Atlassian Confluence, Team Foundation Server, Atlassian Jira, Service Now, Salesforce

EXPERIENCE

AgileAssets Inc. 2017 – Present

Senior Project Manager

Provides exceptional project leadership to keep team members engaged and meet project goals on time and on budget. Tracks key project metrics to ensure continuous progress and alignment with client- defined success. Utilize project management experience to oversee and lead software implementations to meet the asset management needs of transportation agencies. Manages multiple concurrent large projects to budgeted cost and time commitments. Coordinates project team activities and cross-team projects. Strongly motivates team to meet project goals. Well versed in the use of Agile Scrum Methodology to foster positive team behavior and maintain quality development. Develops detailed project plans, including resource allocation, development plans, test plans (functional and performance), training and implementation plans. Manages project schedule, scope and customer requirements, and conducts financial forecasting (T&M). Manages execution of project plans operating within stated deadlines and/or budgets, and takes corrective action when plan deviates from the baseline.

Directs, plans, controls, and evaluates development activities and progress for the project. Assesses and distributes resources to meet various workload pressures and variations where necessary. Proficient at maintaining communication with stakeholders and executives (internal and external). Participates in monthly customer steering committee meetings. Communicates weekly status and work required of project staff, including tracking milestones, deliverables, effort planned, actual effort expended, and percent complete. Monitors issue management and resolution as well as risk management and mitigation. Acts as an escalation point for project team members to provide issue resolution, effectively resolving conflicts and higher-level management issues. Manages Jira cases through customer UAT, attends and oversees daily scrum meetings, and performs release planning.

Avande, Inc.

June 2006 – March 2017

Director, South Central Region Marketing Unit Delivery for Cloud Services

Program Manager experienced in waterfall and Agile methodologies leading application integration and data migration projects, software development, network infrastructure upgrades and implementations, and desktop transformations at multiple customer facing projects at Fortune 100 companies with Microsoft technologies, and a career manager to six project managers.

PROJECTS

Pennsylvania Turnpike Commission LRS Bulk Data Load	May 2020 – Ongoing
West Virginia Parkways Migration to SaaS and Fleet Module Implementation	May 2020 – Ongoing
Alaska Department of Transportation MMS, Equipment Manager, and Pavement Management Implementation	July 2018 – Ongoing
Pennsylvania Turnpike Commission Tunnels Maintenance	June 2019 – Ongoing
West Virginia Department of Transportation Maintenance Manager, LRS	June 2017 – December 2018
Georgia Department of Transportation MMS Upgrade v7.3	June 2018 – May 2019
Ohio Department of Transportation, EIMS Fuel Master Interface	August 2017 – July 2019
Illinois Department of Transportation Asset Management Program	June 2017 – July 2018
Ohio Department of Transportation EIMS Phase 3 Enhancements	July 2017 – April 2018
West Virginia Parkways MMS v7.2.3 Upgrade, Culvert Management System Implementation	August 2017 – February 2018
Illinois Department of Transportation Maintenance Manager v7.2 Upgrade	August 2017 – October 2017

Terry Dexter

AREAS OF EXPERTISE

- Team Communication
- Agile Principles
- UI Frameworks and Design
- UX Principles
- Relational DB Design and Tuning
- System Integration & Migration
- Software Development
- Web Application Architecture
- Application Security
- Persistence Frameworks
- RESTful Web Services
- Machine Learning

HIGHLIGHTS

Decades of experience across multiple sectors, including asset management, risk management, and industrial optimization. Over a decade of leadership roles from systems architecture to management, with an emphasis on improving quality and efficiency through team communication and education.

EDUCATION

- | | |
|---|------|
| MS , Computer Science, Michigan State University | 1997 |
| BA , Computer Science, Calvin College | 1993 |

EXPERIENCE

AgileAssets Inc. 2015 – Present

Principal Software Developer 2015 – Present

Design and implementation of geospatial representation and editing of assets. Research, design, and implementation of new web-based frameworks. Optimization of storage and retrieval of assets across multiple asset types for both web and mobile applications. Integration and optimization of geospatial data from Esri-based technologies (ArcGIS Server, Roads and Highways, Shapefiles). Technical leadership across multiple teams.

Synergistic Solution 2003 – 2015

Team Lead and Architect

- Standardization of asset management across multiple risk pools
- Integration of insurance premiums by asset to third-party financial systems
- Optimization of premium calculations and policy documentation production
- Complete overhaul of front-end interface to improve policy manager, claims adjuster, and accountant experiences

Muhammad Arif Beg, PhD, CSPO

AREAS OF EXPERTISE

- Enterprise Systems Implementation
- Fleet & Equipment Management Systems Implementation
- Transportation Asset Management
- Agile Scrum System Development & Delivery
- System Integration/Migration
- Business Processes Analysis

HIGHLIGHTS

Dr. Beg has implemented transportation asset management solutions and sustainable business practices for numerous public agencies (USA and international) in 20+ years of professional experience. Dr. Beg is a highly motivated and results-oriented professional with exceptional expertise in transportation asset management systems. His professional work experience from 1990 to date includes projects related to transportation asset management, fleet & equipment management, roadway maintenance management, facilities management, pavement management, system integrations, and similar projects.

Dr. Beg joined AgileAssets in 2001. He has worked with several client agencies, including Alaska DOT, Texas DOT, City of Austin, West Virginia DOT, Wyoming DOT, Kentucky DOT, Kentucky State Fleet, Montana DOT, and New Mexico DOT, as well as entities in Dubai (UAE), Saudi Arabia, Guyana, Trinidad & Tobago, and Pakistan.

EDUCATION

Ph.D. , Civil Engineering, (Transportation), The University of Texas	1999
MS , Civil Engineering, (International Construction Management & Eng.) University of Leeds, UK	1993
BS , Civil Engineering, University of Engineering and Technology Lahore, Pakistan	1990

EXPERIENCE

AgileAssets Inc.	2001 – Present
Utilize asset, pavement, and fleet management expertise and project management experience to oversee and conduct software implementations to meet the asset management needs of transportation agencies.	
Principal Product Owner / Functional Lead	2018 – Present
Senior Principal Consultant	2016 – 2018
Principal Consultant	2012 – 2016
Senior Consultant	2008 – 2012
Project Manager	2001 – 2008

PROJECTS

Georgia Department of Transportation Asset Management System Upgrade	July 2018 – May 2019
Functional Lead/Product Owner for (GAMS) Georgia Asset Management System (PMS, MMS, Fleet, Signals, Bridge) modules upgrade project. Responsibilities included system development review, testing and validation and final delivery of the system.	
Kentucky Transportation Cabinet Fleet Upgrade/Enhancements	January 2018 – September 2018
Functional lead for KYTC Fleet system enhancements and upgrade. Upgraded Fleet module and enhancements for AASHTO performance reporting and system enhancements.	
State of West Virginia Fleet & DOT Equipment Asset Management	January 2012 – March 2015
Functional Lead for implementing statewide fleet and equipment asset management system for West Virginia as part of an enterprise financial and transportation asset management system implementation. Responsibilities	

included business processes review, fit-gap analysis sessions, documenting to-be business processes, conducting software prototyping sessions, interfaces design, system testing, integration testing, and training.

Oklahoma Department of Transportation AMS Fleet & MMS April 2009 – January 2011

Functional Lead for Oklahoma DOT Asset Management Project, which included roadway maintenance, equipment/fleet, and facilities/buildings management systems. Managed project implementation, conducted client business processes reviews and reconciliation sessions, configurations, testing, and training. Interfaces with financial PeopleSoft system, Fueling system, Bridge and Road asset inventory systems.

Kentucky State Fleet Management System June 2008 – August 2009

Functional Lead for Kentucky Statewide Fleet system. Configured Fleet module for fleet inventory, repairs and work orders, preventive maintenance, motor pool, monthly usage billing, fueling, and reporting.

Wyoming Department of Transportation Fleet Management System August 2005 – July 2007

Functional Lead for Fleet System implementation. Configured Fleet module for equipment inventory management, repair orders, periodic maintenance, and vehicle usage tracking, and to handle all key agency-required fleet management processes.

Montana Department of Transportation PMS/Fleet Systems January 2004 – December 2005

Project Manager/Functional Lead for PMS and Fleet modules enhancements and maintenance and support projects. Accomplished software training and software enhancements and provided support.

Other Non-Fleet Implementations:

Alaska DOT – EAMS Implementation – Maintenance Management April 2019 – Ongoing

Alaska DOT – EAMS Implementation – Pavement Management (PMS) July 2016 – January 2020

City of Austin TX – Pavement Management System Implementation September 2015 – August 2016

TXDOT– Pavement Management Information System Implementation January 2015 – September 2015

Dubai RTA – Roads and Transport Authority – PMS Upgrade and Migration January 2014 – December 2015

Saudi ARAMCO–PMS Upgrade and Migration January 2013 – February 2016

Texas DOT – Facilities Management System June 2011 – January 2012

Nyekan Cummings

AREAS OF EXPERTISE

- Software Training Preparation
- Software Training Manuals
- Software Training Delivery
- Change Adoption
- Design Integration
- Functional Analysis
- Project/Training Documentation
- Business Process Analysis
- Software Implementation
- Process Development

HIGHLIGHTS

Mr. Cummings has conducted extensive training activities for AgileAssets system implementations with many DOTs, including Minnesota Department of Transportation, Nevada Department of Transportation, Montana Department of Transportation, Illinois Department of Transportation, Pennsylvania Turnpike Commission, New Mexico Department of Transportation, New York State Department of Transportation. Activities include Webinars, Technical Writing, User Guide (material-based) Self-Paces Training, Administer On-Site and Remote Training.

EDUCATION

BS, Computer Information Systems, Strayer University 1999

EXPERIENCE

AgileAssets Inc. 2008 – Present

Training Lead 2015 – Present

Minnesota Department of Transportation, Transportation Asset Management System (TAMS) implementation 2015 – 2017

Collaborated with stakeholders to analyze business user needs for training. Facilitated TAMS configuration to support client business practices. Provided system administration and end user on-site training for client.

Illinois Department of Transportation Fleet Asset Inventory Implementation 2017 – 2018

Collaborated with stakeholders to analyze business user needs for training. Facilitated configuration to support client business practices. Provided system administration and end user on-site training for client.

Montana Department of Transportation Fleet Asset Inventory Implementation 2016 – 2018

Collaborated with stakeholders to analyze business user needs for training. Facilitated configuration to support client business practices. Provided system administration and end user on-site training for client.

Sample Developer

AREAS OF EXPERTISE

- Transportation Asset Management
- Postgres
- Business Intelligence Reporting
- Oracle SQL, MySQL
- Software Training
- Requirements Analysis
- Scrum Methodology
- Automation Testing
- Code Source Control
- Systems Integration/Migration
- Technical Documentation

HIGHLIGHTS

Through developer's years at AgileAssets, she has been engaged with numerous major AgileAssets' Asset Management System installations, including integration with financial systems such as PeopleSoft and Advantage. In between projects, developer serves as a first point of contact for AgileAssets Client Success Managers to help resolve client issues and execute client Change Requests post Go-Live.

EDUCATION

BS Business Administration, Management Information Systems

LICENSES AND CERTIFICATIONS

1Z0-047 Oracle Database SQL Expert

Microsoft Technology Associate (MTA) – Exam 364: Database Fundamentals

TOOLS

SQL, Groovy, Java Script, Jasper iReport, Tower, BitBucket, SQL Developer, Microsoft SQL Server

EXPERIENCE

AgileAssets Inc.

2014 – Present

Solution Developer

Works with Client and Project Managers to ensure all configuration development, conversion, and interface requirements and tasks are completed. Implement high-level technical business requirements into the software and relay them back to the Client in non-technical business language. Applies extensive knowledge of AgileAssets configuration to make enhancements and execute change requests.

PROJECTS

Georgia Department of Transportation

Illinois Department of Transportation

Kentucky Finance Cabinet

Kentucky Transportation Cabinet

Minnesota Department of Transportation

Montana Department of Transportation

Nevada Department of Transportation

North Carolina Department of Transportation

Sample QA Analyst

AREAS OF EXPERTISE

- Software Systems Testing (QA)
- Software Quality Control (QC)
- Regression and Negative Testing
- Data Interface
- Defect and Bug Tracking
- Test Plan Implementation and Execution
- Management of Code-Move Content and Implementation
- Performance and Stress Testing (Apache JMeter)
- Microsoft Active Directory and Domain
- Scrum Methodology
- Microsoft SQL Database Installation and Management
- Windows Server 2003, 2008, 2012
- SQL Query Writing, Script Creation, Procedure/Function Writing

HIGHLIGHTS

Through the tester's years at AgileAssets, she has been engaged with testing six major AgileAssets' Asset Management System implementations. In between projects, tester serves as a key resource to help troubleshoot issues working in tandem with AgileAssets Client Success Managers to help resolve client issues.

EDUCATION

BS, Computer Science, University of Texas
Alphaware Training Centers

LICENSES AND CERTIFICATIONS

Cisco CCENT Certification
Net+ Certification
MCP Certification

TOOLS

SQL, SQL Developer, Groovy, Java Script, Jira, Jasper iReport, TestRail, BitBucket, Microsoft SQL Server, Manual and Automated Testing, HP ALM/QualityCenter, Rational ClearQuest, GIT

EXPERIENCE

AgileAssets Inc. 2018 – Present

QA Software Tester

Develops, documents, and performs functional testing in UI and in the database. Uncovers and documents bugs for tracking and fixing. Triage and identifies location of defects. Documents actual versus expected behavior in defect write-ups. Creates and performs test plans for regression testing for release candidates. Created and executes performance tests simulating load using Apache JMeter. Ensures feature requirements are met and tested completely and managed data-import and interface runs for UAT and Production environment building.

PROJECTS

Georgia Department of Transportation

Minnesota Department of Transportation

Illinois Department of Transportation

Montana Department of Transportation

Kentucky Finance Cabinet

Nevada Department of Transportation

Kentucky Transportation Cabinet

North Carolina Department of Transportation

Sample IT Operations

AREAS OF EXPERTISE

- Database Administrator
- Software Product Development
- Dev/Ops Agile Development Environments
- Software Delivery Development
- AWS/Cloud Deployments
- Custom Development

HIGHLIGHTS

Seasoned IT Operations professional and Database Administrator for transportation asset lifecycle management, serving multiple AgileAssets hosted and SaaS clients. Provides consulting and assistance to address IT operations, product, delivery, and custom development needs.

EDUCATION

BS, Mass Communications and Media Studies, University of Texas

19

TOOLS

Oracle Database, PostgreSQL, My SQL Server, HTML/JavaScript/PHP Web Development, Perl, Python, Git/Bitbucket, Jenkins, Chef, Docker, Atlassian

EXPERIENCE

AgileAssets Inc.

2017 – Present

Database Administrator

Design, implement and maintain multiple hosted environments serving AgileAssets customers worldwide. Support for application environments and consultation for new development and performance improvement.

PROJECTS

Caltrans

Idaho Transportation Department

Illinois Department of Transportation

Kentucky Transportation Cabinet

New Mexico Department of Transportation

Nevada Department of Transportation

North Carolina Department of Transportation

Oklahoma Department of Transportation

Pennsylvania Department of Transportation

Pennsylvania Turnpike Commission

Texas Department of Transportation

Utah Department of Transportation

4.3.12.4. Staffing Changes

No change may be made in the staffing of the Fleet and Equipment Management System project without the prior approval of the WVDOT. Throughout the term of the Contract resulting from this RFP, the Vendor shall:

- *Provide qualified personnel to perform all Services required in this RFP*
- *Promptly remove and replace personnel at the request of the WVDOT*
- *Provide written notice and seek WVDOT's approval of any plan to add, remove and replace personnel*

AgileAssets will submit written notice for any personnel that require replacement due to their lack of availability to work on the proposed project. Replacements will not occur without consent from the WVDOT team.

TAB 7 - 4.3.13. Vendor's Proposed Plan for Providing Services

In order to facilitate the Evaluation Committee's comparison of proposals, the Vendor's response to this section of the RFP shall conform to the following format without exception.

4.3.13.1. Timeline and Implementation Phasing Approach

The Vendor shall describe its proposed implementation timing and phasing approach and include a phasing schedule and timeline which outlines their project plan and detailed staffing. It should be based on the Vendor's experience with the solution being proposed and provide the WVDOT with the best balance of cost and risk for the implementation of the VPS. The Vendor should also provide a thorough explanation of its rationale to support its proposed phasing. Related cost information should be presented in the Cost Proposal and shall not be included in the Technical Proposal.

Any required clarifications regarding the phasing or timelines should be addressed during the Discussion and Best and Final Offer process.

The description provided should include the following information for each module:

- *Implementation timeframes*
- *Milestones and implementation phasing (if any)*
- *Deliverables with planned approval date and mapped in the work plan*
- *Any software upgrades that should occur during the project*

AgileAssets proposes a 17-month project, including approximately 16 months prior to go-live, followed by a 1-month standard warranty period, as shown in the diagram below. The work schedule below includes a more detailed breakdown of the five core phases of the Work Plan (Planning, Development, User Acceptance Testing, Training, and Go-Live and Project Close). We expect that 18 development sprints will be needed to complete the development objectives included in this proposal. After every pair of sprints, a software build will be prepared and made available to WVDOT.

At the conclusion of the development sprints, the application will be installed for a client user acceptance test (UAT) pass. If high-severity defects are discovered during UAT, additional sprints are included to manage the development of fixes. These are unique sprints, and unlike structured development sprints (where planning is the major factor of handling work), UAT sprints are reactive and can even be partial sprints, with developers having a prioritized focus on the software in testing.

Finally, once the project is accepted for go-live deployments, the project team will remain partially available to prioritize the resolution of any defects identified during the post-go-live warranty period. Once this period is complete and the project is accepted, the maintenance agreement will take effect, and defect resolution will transition to the AgileAssets Client Success team for management.

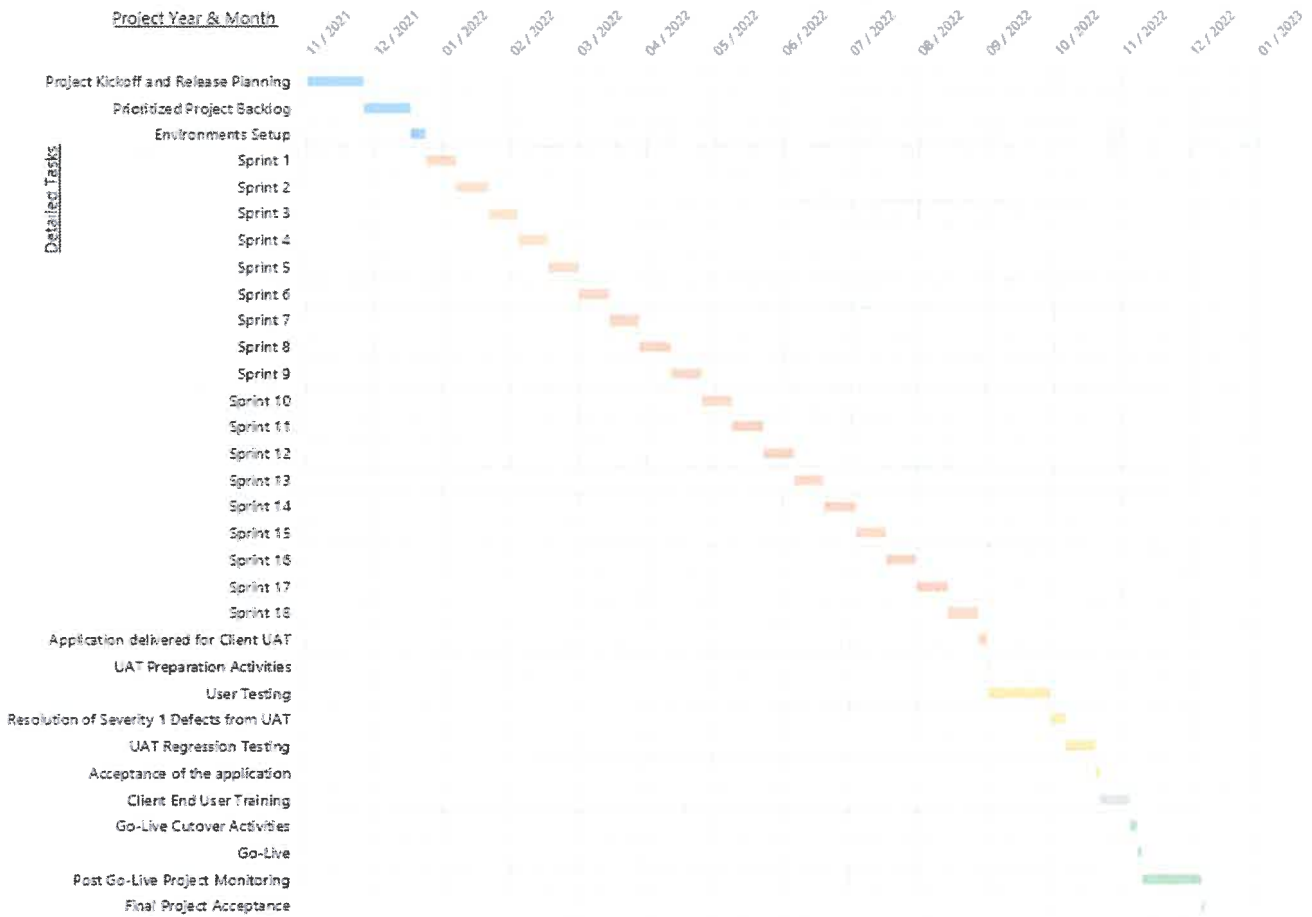


Figure 5 -Projected project timeline

4.3.13.2. System Development Methodology Overview

It is the Vendor's responsibility to propose a system development methodology (SDM) that is defined, documented, repeatable, and emphasizes project management best practices.

The project scope and cost should include training the WVDOT project team staff on the Vendor's SDM. The proposal should identify certifications the Vendor has received, such as Software Engineering Institute's (SEI) "Capability Maturity Model" (CMM) assessments, the International Organization for Standardization (ISO) 900x certifications, the "Institute of Electrical and Electronics Engineers" (IEEE) Software

Engineering Standards, and any other pertinent certifications.

Agile Scrum is the implementation methodology we will use to deliver this project. Scrum methodology is an iterative approach that prioritizes delivery goals around providing the highest business value in the least amount of time. This methodology has proven to be successful with requirements gathering, planning and delivery of configurations, reporting, data conversions, and interfaces as key components of our enterprise-level implementations. North Carolina DOT, Minnesota DOT, Texas DOT, New York State DOT, Alaska DOT, Georgia DOT, Nevada DOT, New Mexico DOT, Virginia DOT, Kentucky Transportation Cabinet, and Indiana DOT are examples of state-level agencies that have benefited from this implementation methodology.

Scrum methodology is based on translating client requirements into user stories that are progressively developed and tested in a 2-week sprint cadence. In this process, the project team has early opportunities to uncover changing needs or requirements and address them earlier, with less impact on the project schedule and cost. Using the Scrum methodology lowers the cost of rework and ensures that business value is delivered based on WVDOT's highest priorities. Although the process requires earlier and more frequent engagement by the client project team, it tends to minimize the need for considerable engagement when approaching the later phases of the project (e.g., UAT and go-live) because the system is validated incrementally and efficiently over time.

While Scrum methodology entails an iterative development, the goal of each iteration is to have working software that is validated by WVDOT. The active participation of WVDOT SMEs in software demonstrations is vital to provide the context of the relevant requirements. In addition, active participation allows WVDOT to better understand how the requirements are being implemented and provides frequent opportunities to give valuable feedback on the implementation. Support from both WVDOT's executive and steering committee and AgileAssets is critical for the project's success.

As the first phase of the methodology, the documentation and validation of requirements begins prior to contracting and continues through UAT. During the early stages of our proposal development, Product Owners/Subject Matter Experts (SMEs) conduct discovery sessions with WVDOT for the solution to be implemented. During this phase, the AgileAssets team begins documenting our understanding of each requirement, including creating use cases (also referred to as user stories), outlining data dependencies, and estimating the level of effort associated with meeting each requirement.

After contracting and following the initial project kickoff, Product Owners will work with WVDOT to validate user stories and ensure consistent understanding of each system requirement and how our solution addresses the requirement. User stories are leveraged throughout the deployment and during UAT to ensure that requirements are fulfilled and validated by WVDOT with actual use cases. This process is used to varying degrees in each of our projects, including new system deployments, system upgrades, and enhancements.

4.3.13.3. Project Management Methodology and Approach

The Vendor shall describe its approach to managing the project. As part of its project management approach, the Vendor should describe the project management tools, standards, controls, and procedures that are going to be utilized to create a proven, reliable process. This section should also include a brief description of the Vendor's approach for managing the project on a daily basis. The intent of this information is to provide assurance to the WVDOT of the Vendor's demonstrated ability to manage large, complex software projects such as the Fleet and Equipment Management System project in a manner that ensures quality, project success, long-term viability, and lowest cost of ownership.

Project Management

The Project Management Plan (PMP) will outline the key considerations of project management for the duration of the project. This document will serve to outline scope, define initial assumptions, detail communication management, quality management, issues and risk management, and include key schedule details to maintain the target timeline. During discovery, the project managers will outline the expectations of the project, then analyze and refine the requirements for project scope definition.

The primary backlog of tickets that map to the requirements is kept in Jira (project management software). This information is accessible by WVDOT and may be exported in multiple formats at any time. Jira uses tags that enable easy filtering by end users, including those at WVDOT. This makes navigating the backlog simple and straightforward.

In addition to the primary backlog, additional documents will be provided as needed to complete the project. These include interface design documents, discovery meeting summary documents, and module-specific training materials. Following the project kickoff, both parties will agree to a full listing and commitment of documents.

Potential Risks

Knowing how to mitigate and deal with common problems efficiently is critical to the overall project timeline and success. From our experience working with dozens of transportation agencies over more than 26 years, we have the knowledge and skills to resolve the problems, large and small, that inevitably arise.

One potential problem is the lack of resources or commitment from the DOT side, where staff members often have multiple commitments. It is imperative that the DOT makes the necessary commitment of resources to answer questions, review the project scope and requirements, perform testing, and validate the released functionality against expected requirements. It is also critical for the DOT's IT team to work in conjunction with the project teams to provide necessary access to the database content that will need to be migrated for use in the new system, as well as access to third-party systems for interfaces/integrations.

Insufficient user adoption and resistance to change are common problems that many DOTs experience. To minimize these issues, we have successfully used several practices to increase user adoption and help users embrace change in systems and processes.

The most important aspect in promoting user adoption and acceptance of change is stakeholder/manager-level engagement with the implementation. This includes stakeholder involvement in governance and encouraging users to adopt and use the new software. Over the past 20 years, our methodology has matured into a highly predictable approach that we have used for successful deployments at dozens of city, county, state, and national transportation agencies. We continually refine the methodology through post-project lessons-learned reviews and through the adoption of industry best-practice innovations.

Risks and issues management for the project will be the responsibility of the AgileAssets and WVDOT project managers. For both technical and non-technical items, the standard issues management workflow will be consistent: Risks and issues will be tracked using a risks and issues log and will be addressed during the regularly scheduled project status meetings with WVDOT. For technical items, the risks and issues will be reviewed and tracked in the project backlog. If necessary, change management will be used to resolve issues identified during the project.

The initial risk log for the project is created during the project's planning phase. This risk log is kept up to date with new risks identified during the project and with risk mitigation plans. Our approach to risk management is to be proactive in risk identification, strategy development, and mitigation of the risks.

Our risk assessment and mitigation approach includes identifying shared risks, predicting the likelihood of the risks occurring, quantifying the impact should they occur, and developing a plan for addressing each risk. The risk assessment and mitigation approach consists of the following steps:

1. Identify the risk by understanding the typical problems that might adversely affect projects
2. Define priority and severity based on probability of the risk occurring and impact in case it occurs
3. Define mitigation strategies to reduce the risk, including risk analysis, risk assessment, and assigning responsibility for enactment of the mitigation action
4. Monitor the progress of the mitigation strategies throughout the project by continuing to revisit the risk, re-evaluating major risks, and updating the risk log with action taken

Project Governance

The approach to project governance entails setting expectations for active participation by WVDOT and AgileAssets. Participation includes the ongoing and active involvement of key personnel within WVDOT. At the kickoff meeting, WVDOT and AgileAssets project teams will formalize the implementation process, documents, communication, and status reporting.

In addition, one of the most critical aspects of project governance is committing to and holding a recurring project governance meeting with participation from both organizations. The focus of this meeting is to keep stakeholders actively engaged and up to date on the progress of the project. We have found this meeting to be very important for project success and strongly encourage WVDOT to commit to this meeting on a regular recurring schedule.

4.3.13.4. Detailed Description of Services/ Deliverables to be Provided

The Vendor should describe in detail how each of the services listed in Section 4.2.2. shall be provided in accordance with the Vendor's methodology.

Several standard documentation artifacts are provided with the project and are overarching, being maintained throughout the entire project implementation. The project plan is the master document guiding the implementation and is continually updated. An official risk and issues log is also captured and kept up to date. In addition, if there are any material changes that are tracked throughout the project, change management documentation will be created to identify and track changes to the core scope. A list of anticipated milestones is included below.

Task	Deliverable	Deliverable Description	Acceptance Criteria	Month
1	Project kickoff and Release Plan	Project kickoff activities include a discovery session with the following deliverable: <ul style="list-style-type: none"> • Requirements/Design document • Updated project plan that details the following key information: <ul style="list-style-type: none"> ○ Project schedule ○ Project milestones 	Documents have been reviewed and approved by the designated WVDOT Project Manager	1
2	SaaS environment setup with AgileAssets application	The SaaS environment is set up with the AgileAssets application for WVDOT	WVDOT has been notified of the environment setup and has access to the environment	2
3a	Completion of Sprints 1 and 2	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 1 and 2, and a demo of completed software elements (if applicable) has been delivered	3
3b	Completion of Sprints 3 and 4	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 3 and 4, and a demo of completed software elements (if applicable) has been delivered	4
3c	Completion of Sprints 5 and 6	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 5 and 6, and a demo of completed software elements (if applicable) has been delivered	5
3d	Completion of Sprints 7 and 8	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 7 and 8, and a demo of completed software elements (if applicable) has been delivered	6

Task	Deliverable	Deliverable Description	Acceptance Criteria	Month
3e	Completion of Sprints 9 and 10	The sprint objectives have been completed and the project backlog has been updated in Jira	WV DOT has been updated on the results of Sprints 9 and 10, and a demo of completed software elements (if applicable) has been delivered	7
3f	Completion of Sprints 11 and 12	The sprint objectives have been completed and the project backlog has been updated in Jira	WV DOT has been updated on the results of Sprints 11 and 12, and a demo of completed software elements (if applicable) has been delivered	8
3g	Completion of Sprints 13 and 14	The sprint objectives have been completed and the project backlog has been updated in Jira	WV DOT has been updated on the results of Sprints 13 and 14, and a demo of completed software elements (if applicable) has been delivered	9
3h	Completion of Sprints 15 and 16	The sprint objectives have been completed and the project backlog has been updated in Jira	WV DOT has been updated on the results of Sprints 15 and 16, and a demo of completed software elements (if applicable) has been delivered	10
3i	Completion of Sprints 17 and 18	The sprint objectives have been completed and the project backlog has been updated in Jira	WV DOT has been updated on the results of Sprints 17 and 18, and a demo of completed software elements (if applicable) has been delivered	11
4	Application delivered for WV DOT user acceptance	AgileAssets has completed all the testing from the backlog	The release is packaged and deployed	12
5	Acceptance of the application	WV DOT has verified and is ready to accept the application in the production environment	WV DOT has verified that the package provided by AgileAssets is ready for production deployment	12
6	End user training	AgileAssets has completed all training objectives for using the software	The training session has been completed for end users of the system	13
7	Go-live	The system goes live in WV DOT's production environment	The production system has been deployed	13
8	Final project acceptance	The severity 1 and severity 2 defects discovered in the first week after go-live have been addressed	WV DOT signs off on the final project acceptance	14

4.3.13.5. System Support Services

The Vendor should address the following technical elements within this subsection:

Standard methodology for developing a business continuity plan, continuity capabilities and high-availability infrastructure, as well as a detailed explanation of the related approach, activities, procedures, tools, and templates and how the Vendor manages these activities and leverages the tools and templates

The AgileAssets SaaS/IT Operations team has developed a resilient SaaS product built and configured to leverage Amazon's own well-architected framework. Environment provisioning and maintenance is automated through secure, industry-leading configuration-as-code technologies such as Terraform and CloudFormation. For data, we host our own configured instances of PostgreSQL installed in the Amazon EC2 compute for proper isolation between environments on the same host. Database backups are run on a nightly job and are stored in Amazon's highly secure and encrypted S3 object container storage.

We also maintain a separate database in our disaster recovery (DR) environment which is kept in sync using native database replication tools for DR/failover purposes. For application services, we leverage Amazon's Elastic Compute cloud and build a cluster of servers that are both horizontally and vertically scalable. This architecture enables on-demand scalability, load-based elasticity, and planned proper sizing to handle on-demand or seasonal load.

AgileAssets follows cloud best practices for application deployment and administration, utilizing Amazon Web Services (AWS), which provides many benefits, including scalability, elasticity for higher performance, reliability, flexibility, and security in a cost-effective solution for WVDOT. In addition, with AgileAssets providing environment and application support, WVDOT has the ability to focus on the functionality and users of the system, making this SaaS approach a seamless solution for the agency.

Since our SaaS environments are hosted with AWS, we are able to deploy to their existing FedRAMP certified environments, but we do not currently have our operations procedures certified to that level. We expect to have compliance with NIST-800-53-Medium in 2021, and then progress toward FedRAMP certification at that point.

- *Disaster recovery guidance and execution (if necessary) for the duration of the project in accordance with the WVDOT's disaster recovery plan*

Database backups are run on a nightly job and are stored in Amazon's highly secure and encrypted S3 object container storage. We also maintain a separate database in our disaster recovery (DR) environment, which is kept in sync using native database tools for DR/failover purposes. For application services, we leverage Amazon's Elastic Compute cloud and build a cluster of servers that are both horizontally and vertically scalable. This architecture enables on-demand scalability, load-based elasticity, and planned proper sizing to handle on-demand or seasonal load. In the event that an AWS region becomes unavailable for a determined amount of time, we would use the database backups and the code to redeploy to an adjacent AWS region that is fully available. enter text.

- *Performance tuning of databases, application servers, web servers, and other software and devices deployed as part of the proposed solution. This includes batch and online software tuning, as well as data conversion software tuning*

As part of our deployment into AWS, we are able to use the tools built into the operating systems, such as profiling tools and tools built into the AWS infrastructure for CPU, memory, and disk space monitoring to ensure that the individual systems are performing as expected. In addition, we use log aggregation to help collect, correlate, and create a searchable index of logs across a number of systems. This process helps us identify and troubleshoot issues at the application, database, or operating systems level. In AWS, the specific tool is called CloudWatch, but there are others that we use in conjunction with AWS tools.

- *Software upgrade methodology, as well as a detailed explanation of the related approach, activities, procedures, tools, and templates, and how the Vendor manages these activities and leverages the tools and templates*

The AgileAssets product team releases new software versions with improved and new features every 8 weeks. These are small and incremental changes that are easy to adapt for the end-user experience. Every AgileAssets SaaS client is eligible for the software updates on the 8-week cadence.

Figure 6 illustrates activities for version updates for the stages involved in the software update cycle. When a new version is released, the non-production sandbox site gets updated. After that, key users familiarize themselves with the new version for up to 3 weeks. Any issues discovered during this period are reported to AgileAssets using the issue management process (as described in section 4.3.10.2.3. Product Maintenance). Unless an issue is reported that will completely prevent the use of the software, the production site is updated at the end of the familiarization period. Otherwise, a fix for the reported issue is expedited and the ongoing update cycle is skipped. The software version updates are applied during maintenance windows to minimize any impact on the business.

All enhancements, data conversions, and configurations that were made to the system with the initial implementation will carry forward into all future updates as part of the SaaS model. This also includes future enhancement work or additions to the system that may be contracted outside of the scope of the initial implementation as well as added functionality that is delivered through the ongoing product roadmap. AgileAssets uses software development best practices for maintaining the source code for the application. As a result, the enhancements are well maintained. Having a single location for code as well as history provided by source control allows all changes or deltas to be tracked and, if desired, reverted to the previous state.

The testing for software version updates carries forward in a similar manner as how it was conducted during the implementation. With each 8-week update cadence, a listing of the added functionality will be provided to WVDOT areas that have been impacted by the new version for both regression and new features in the form of release notes published on <https://docs.agileassets.com/>.

The AgileAssets product engineering team conducts automated product testing to ensure the standard functionality has been completely tested. Additionally, each of WVDOT's specific configurations and workflows will get automated through the project to be included as part of the testing suite with each version release. We also recommend that WVDOT adopt an ongoing plan for becoming familiar with each new version and validate WVDOT-specific functionalities.

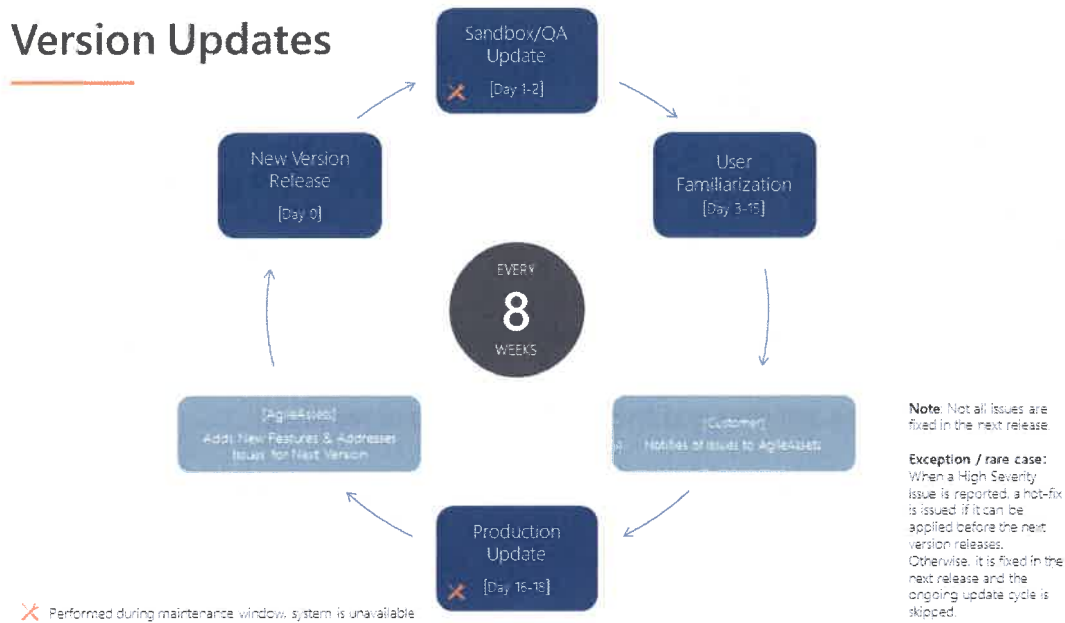


Figure 6 - Activities for version updates

AgileAssets product offerings are based on Java and Postgres technologies. In addition, we integrate with other third-party software such as Esri® ArcGIS, JasperReports Server, and many others. When new versions of these third-party products are released, we add those upgrades to our product roadmap. We then follow a rigorous product development process to certify our release with these new versions. Once certification is completed and when the latest AgileAssets release gets deployed to the WVDOT environment in AWS, the supporting third-party tools are also upgraded at the same time. All these activities are closely coordinated with WVDOT. We typically communicate such upcoming changes 6 to 12 months ahead of time so that all our customers can be well prepared for these upgrades.

4.3.13.6. Lessons Learned

The Vendor should provide a discussion of the significant lessons learned from experience at previous projects of similar size and scope, and how the Vendor plans to apply those lessons to the Fleet and Equipment Management System project.

AgileAssets has a distinguished history of successfully implementing Fleet & Equipment Manager for numerous DOTs in the past 20 years. We have a unique focus on state DOTs and understand their business functions better than any other provider.

A key success factor for implementations at state DOTs is conducting detailed business process review sessions with the DOT’s fleet business owners and practitioners. We make sure that fleet end users are also involved in these business review sessions. Follow-up business review sessions continue with different focused business areas such as fleet asset inventory, in-house work orders, materials/warehouse management, fueling, etc. Documenting users’ business and workflow needs is key for the success of the system implementation. Continuing follow-up on the business needs and configuring the system to meet agency needs is a hallmark of successful AgileAssets implementations.

AgileAssets fleet and equipment management subject matter experts will share with WVDOT best

TAB 8 - 4.3.14. Responses to State's Goals and Objectives

The Vendor shall complete the responses to each of the State's goals and the objectives identified in Section 4.2.1. Vendors shall describe how they will comply with each. The completed response should be inserted in the Technical Proposal in TAB 8.

4.2.1 Goals and Objectives

Architecture

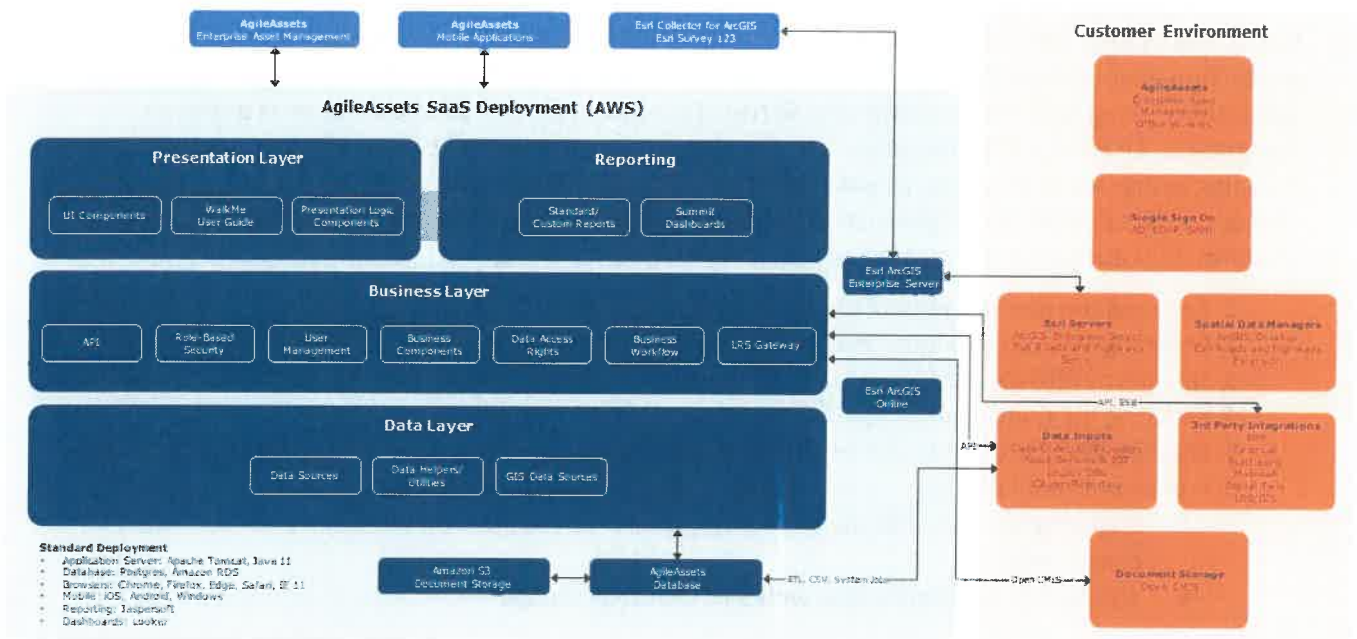


Figure 7 - Architecture

4.2.1.1. Vendor's proposal should provide an architectural design based on the capacity and storage requirements listing in this RFP. The proposal should include a description of the methodology that will be utilized to size, plan, and execute the implementation of a turnkey solution.

Logical Architecture

The technical architecture for the AgileAssets solution is based on a combined stack, including PostgreSQL database, TIBCO® JasperReports Server, Esri ArcGIS Enterprise, and Apache Tomcat 9 with Java 11 for application tier processing. Access to reports built through TIBCO JasperReports Server are embedded within the web application. Access to configuration and design of reports is done through the TIBCO

software, so its interface is different than the web and mobile applications; however, the individuals who usually access that different user interface (UI) are typically more advanced, technical users. The proposed reporting solution includes a reporting server as part of the implementation and avoids the need for additional agency technology. The email delivery of reports can be automated via scheduling within the application to be delivered on an as-needed or regularly-scheduled basis. Additionally, dashboards, located on the home screen, can be configured to show key performance indicators (KPIs) or alerts that can notify a user of predefined out-of-bounds conditions.

Esri ArcGIS Enterprise is part of the AgileAssets built-in GIS capability and does not require learning Esri navigation or user interfaces, as the UI is consistent with the other portions of the AgileAssets solution.

Navigation within the AgileAssets solution is consistent, and navigation between AgileAssets modules (if applicable) is all done within the same user interface, not requiring a user to log out of one module and into another. AgileAssets employs a team of designers who are responsible for understanding usage patterns and needs. User feedback and input is used to influence future product designs to improve usability, performance, and user experience.

The technical environment is for a SaaS deployment. Test and development environments would follow this simple model, with potential hardware scaling and distribution for deployment to a larger production environment. Tomcat Server is used to host the application server for the core AgileAssets application, along with the JasperReports Server (for reporting). The database server is based on PostgreSQL. An Esri ArcGIS Enterprise server is also used to provide the GIS capabilities needed for the mapping within the application, as well as to share GIS information with other ArcGIS Enterprise or Online services. For WVDOT, AgileAssets is proposing deployment to the latest version of our SaaS platform. This approach provides many valuable benefits, including:

1. Reducing the overall length of the implementation project
2. Providing access to the latest system features and functionality
3. Seamlessly migrating existing data and client-specific configurations
4. Reducing the training effort associated with deploying a new solution
5. Enabling WVDOT to retain full ownership of all data
6. Providing the following:
 - 2 TB of egress data transfer per month, after which usage is metered at a cost+10% over current rates
 - 400 GB high availability disk, with 1 TB allocated storage

4.2.1.2. *Vendor's proposal should outline all software and hardware components required to meet the mandatory requirements. The proposal should identify any features/functionality that exceed the mandatory requirements. The proposal must contain technical documentation on each component in the proposed solution. This documentation will allow for a comprehensive evaluation.*

AgileAssets deploys its software to a SaaS environment using Infrastructure as Code (IaC), which allows us to deploy to our public cloud vendor of choice. This process allows all components to programmatically be deployed into the environment in a consistent manner, using a low-touch process to minimize human error. As a key part of our SaaS process, IaC allows each component to be installed into the proper environment to provide isolation and fault tolerance. This gives us the ability to update our code in the

future with minimal impact on WVDOT.

4.2.1.3. *Vendor should describe the process for deploying the components outlined in the proposal and should address a recommended approach for the migration of existing data and services.*

AgileAssets deploys its software to a SaaS environment using Infrastructure as Code (IaC), which allows us to deploy to our public cloud vendor of choice. This process allows all components to programmatically be deployed into the environment in a consistent manner, using a low-touch process to minimize human error. As a key part of our SaaS process, IaC allows each component to be installed into the proper environment to provide isolation and fault tolerance. This gives us the ability to update our code in the future with minimal impact on WVDOT.

The combined project team will identify the data that must be imported into the system and the format of these data sets. This includes the Master, Summary, and Detail data sets needed to set up and configure the system, and to persist a history of any transactional operations data sets such as a work history. The proposed AgileAssets solution offers a robust and comprehensive built-in Extract Transform and Load (ETL) feature that is used to convert data. This tool handles a variety of input source formats (XLS, CSV, TXT, SHP, Geodatabase, database table, REST API, Esri map/feature services, etc.), and includes an input configuration mapping designer to handle the configuration of data imports. It also supports the scheduling of import configurations to provide rerunnable imports and system integrations or interfaces.

4.2.1.4. *Vendor should describe the VPS technical support and maintenance needs along with their staff capability to support them and include a detailed plan for hardware/software support and knowledge transfer, installation, ongoing support, and training.*

The goal of training is to facilitate knowledge transfer throughout the project and formally through classroom training, enabling WVDOT to use the system effectively and efficiently. AgileAssets sees training as fundamental to the success of this project. We provide different options for training. A formal training plan based on WVDOT's needs will be established with input from WVDOT and finalized during the project kickoff.

Since 1994, AgileAssets has successfully delivered training to users by adopting best practice approaches to training. The training for this project will be prepared by the AgileAssets Training team. The proposed trainer for this project has considerable experience in delivering training on the modules and functionality defined in the RFP and has delivered similar training to many AgileAssets clients. Our training best practices include:

- Tailoring our exact training approach to local circumstances and resources
- A training methodology that incorporates three standard approaches to providing training:
 - Technology transfer
 - End-user training
 - "Train-the-trainer" training
- Subject to agreement with WVDOT, end-user training sessions will be limited to no more than 20 users, to ensure that users gain maximum benefit (and interaction) in the training session

- WVDOT is encouraged to have one or more of their “super users” attend each of the end-user training sessions. A super user is a person who has experience with WVDOT business process and can represent WVDOT and explain to new end-users why certain decisions were made in the system implementation. The super users may also aid the trainer in preparing and presenting each session.
- AgileAssets end-user training will be performed using WVDOT’s data. A training database instance will be created as part of the implementation process for this purpose. Introductory training will also be provided before AgileAssets configuration decisions have been made. AgileAssets training data will also be used where appropriate. Each training session will be supported by a training environment that can be used by training participants as a sandbox to re-execute their training exercises or become familiar with the software prior to the go-live date.
- The end-user training teaches the various end-users how to use the system. It is role- and scenario/activity-based and divided into three major role-based categories: i) End-User, ii) Manager and District Engineer, and iii) Other Roles.
- End-user training transitions to WVDOT’s trainers as soon as WVDOT believes they are ready, while being supported by AgileAssets staff to ensure success. Transitioning prior to the completion of the project increases WVDOT’s ability to fully support their post-implementation training needs.
- For each training session, handouts and exercises will be provided to walk the user through the software functionality. Typically, these are intended to be used as worksheets and to provide the user with reference materials after completion of the training.
- Train-the-trainer sessions serve to solidify WVDOT’s selected trainers’ knowledge of the system as well as teach them how to conduct the training for end users. A substantial portion of this training includes customizing the standard AgileAssets commercial off-the-shelf (COTS) training materials to WVDOT’s nomenclature.
- The training plans, manuals, and materials addressed by our training approach exceed the requirements defined by WVDOT. They include outlining the objectives, needs, strategy, and curriculum to be addressed when training users on the new or enhanced system. They also include the activities needed to support the development of training materials, coordination of training schedules, reservation of personnel and facilities, planning for training needs, and other training-related tasks.

4.2.1.5. *The proposed solution should be compatible with the State of West Virginia software standards and security policies. The solution should be compatible with Google Workspace products (the State is currently transitioning from Microsoft Office to Google Workspace) and the State of West Virginia's acceptable use policy. These policies are located at: <https://technology.wv.gov/security/Pages/policies-issued-by-the-cto.aspx>.*

Our application is delivered in a standard browser and does not rely on either Microsoft Office or Google Workspace products to function. Any output to Microsoft Office document format would be compatible with Google Workspaces, as it automatically converts the documents into its own native format.

4.2.1.6. *Vendor's proposed solution should support WVDOT in achieving operational excellence in terms of the Fleet Equipment Scheduled Maintenance process as follows:*

- *Facilitate the configuration of Preventive Maintenance criteria, which will trigger preventive maintenance activities and notify owners about preventive maintenance due activities for equipment and vehicles.*
- *Facilitate in-house repair orders and work reporting in the system.*
- *Keep all preventive maintenance repair history updated.*
- *Record and track commercial preventive maintenance repairs performed by a third party through either entry of the work performed into the system or importing of information provided by the third party who performed the work.*

Facilitate the management of specific, hierarchal preventive maintenance scheduling.

Preventive Maintenance

AgileAssets Fleet and Equipment Manager supports the configuration of preventive maintenance (PM) criteria based on the equipment class code (category) or for the specific piece of equipment. Each PM may be triggered based on a delta odometer (e.g., 3,000 miles or hours), by elapsed time since last PM activity (e.g., 180 days), or by a combination of both, with the first condition met triggering the PM (by days or meter). When a repair order is created, all PMs that are currently due on the piece of equipment are displayed, and the associated repair tasks may be added to the repair order. These PMs are then flagged as completed once the repair work is completed.

In-House Repair Orders

Work performed by in-house mechanics is tracked using a repair order. The repair order is used to schedule all activities to be performed on a piece of equipment to address planned or unplanned work, including accidents, normal servicing, or part replacement. When a piece of equipment is added to a repair order, the PMs due are shown, allowing the user to decide if these are to be addressed as part of the repair. The repair order may also be used to associate the work with an accident number, to set the repair start and end dates, to set the odometer readings, and to assign the job to a mechanic. As the repair is performed, mechanics are able to charge the labor time spent on each repair task or activity, select any inventoried parts used for the repair, charge any direct costs incurred for the repair (such as non-inventoried parts purchased from a third-party vendor), and note any small equipment used in the repair. Once the repair is finished, the repair order may be completed. Completing the repair order records the repair costs to the vehicle and flags all addressed PM work as done, which automatically restarts the PM counters.

Work History

A complete history of all repair work performed, including PMs, is maintained for each piece of equipment, along with the repair costs, dates, and odometer readings. The work history is used by the system to calculate equipment rental rates. Work history may be reported on in detail, and is also factored into the equipment replacement analysis and the total lifecycle cost of the equipment. Work history and cost may be reviewed at a specific equipment level or at an equipment class code level.

Commercial Repair Orders

Repair orders performed by third-party vendors are tracked on commercial repair orders, which capture the vendor performing the work, the dates, total costs, specific tasks performed, and any PM items

addressed by the repairs. These can also be used to track work performed under the equipment or part warranties.

4.2.1.7. *Vendor's proposed solution should support WVDOT in achieving operational excellence in terms of the Equipment Repair business process as follows:*

- *Facilitate in-house repair orders and work reporting in the system.*
- *Support importing of commercial repair data for work performed by a third party.*
- *Keep all repair history up to date.*

Fleet & Equipment Manager provides a comprehensive in-house and commercial repair management process. DOT shops users may create in-house repair orders and assign work activities. Users may enter daily resource usage transactions or day cards. The day cards include mechanics' labor hours, parts/materials from the warehouse, direct-purchase parts, and other costs. Day cards data is approved, and the repair order is closed when the repair is completed.

There is also a process for users to enter commercial repair orders data, if applicable.

Some agencies have an outsourced commercial repair process in which repair orders and details are stored in a third-party commercial repair management system. AgileAssets has experience in importing data successfully from third-party systems and making it available in Fleet & Equipment Manager.

Fleet & Equipment Manager provides up-to-date repair history for each asset in the system. Repair history shows chronologically listed repair events with relevant details, including work activities, start/end dates, cost, etc. Repair history includes all repair orders, in-house and commercial, over the lifetime of the fleet asset.

4.2.1.8. *Vendor's proposed solution should support WVDOT in achieving operational excellence in terms of the Fueling process as follows:*

- *Accurately track the fuel usage and cost history of all State-owned equipment and vehicles by vehicle.*
- *Track all types of fueling transactions including automated bulk fueling transactions (currently tracked using the Fuel Master system), commercial fuel cards, and manual fueling transactions.*

Provide for the billing of fuel issues to other State Agencies.

Fueling History

Fleet & Equipment Manager provides fueling management functionality. Several types of fueling transactions are recorded in the fueling history sub-tab as part of the inventory in the application. The information in the sub-tab shows a full fueling history, including fuel quantity and fueling cost for each transaction.

WVDOT Automated Fueling Locations – Fuel Master

WVDOT's and other authorized agencies' fleet assets may get fuel at the DOT Fuel Master fueling locations. The Fuel Master system stores all fueling transactions from these fuel pumps.

AgileAssets will develop an interface to import fueling data from Fuel Master to the fueling history table in Fleet & Equipment Manager. AgileAssets has developed such fueling interfaces for several other state DOTs. The interface will run on an automated daily schedule and will import fueling data from Fuel Master into the AgileAssets solution.

Fuel billing is a key component of fueling business processes. The AgileAssets solution will calculate monthly billing for state agencies that use Fuel Master fuel, and send that information to WVDOT's financial system, which may use that information for inter-agency fuel billing.

Commercial Fueling - Fuel Credit Cards

Commercial fueling credit cards are used by state DOT employees to fuel their vehicles at commercial fuel pumps. The fuel card vendor provides daily, weekly, or monthly fueling transaction files to the DOT. This fueling data should be imported into the fueling history table in Fleet & Equipment Manager. AgileAssets has experience in importing fuel cards-based fueling data from several fuel card vendors used by state DOTs. AgileAssets will develop an import process to load commercial fueling data into Fleet & Equipment Manager.

Manual Fueling Locations

Manual (non-automated) fueling locations are sometimes also used to fuel vehicles. In this scenario, the driver dispenses fuel manually at the pump. Such manual fueling transactions will be recorded as fuel issue transactions in Fleet & Equipment Manager.

Mobile Fuel Tanks

Mobile fuel tanks are often used to fuel equipment at work sites. Mobile fuel tank fueling is a variation of manual fueling. Fuel tanks are filled from a bulk fueling location. Fuel issues occur on-site when transferring fuel from a mobile fuel tank to a vehicle or piece of equipment. These transactions are entered manually in the Fleet & Equipment Manager Fueling window.

4.2.1.9. *Vendor's proposed solution should support WVDOT in managing the full asset lifecycle and in prioritizing assets for replacement as follows:*

- *Support managing of fleet and equipment cost allocation and in conjunction with wvOASIS support billing for equipment usage.*
- *Plan for retirement /replacement of equipment and the acquisition of equipment.*
- *Manage asset ownership assignments and transfers during the lifecycle of the assets.*
- *Manage disposal/retirement of equipment in conjunction with the wvOASIS fixed assets module.*

Fleet and Equipment Cost Allocation

Fleet and Equipment Manager supports the tracking of equipment usage based on the mileage or delta odometer readings recorded by each department using the equipment. This may include the mileage in/out readings from motorpool reservations, monthly odometer updates by users, and equipment usage (mileage or hourly delta meters) recorded on maintenance work orders. The latter requires an interface to the maintenance management system to track usage at a work order level. The system supports the calculation of equipment rental rates based on the usage miles, repair costs, fueling costs,

and the depreciation schedule, per equipment class code. The monthly usage by the rental rate can then be used to allocate the equipment operating costs to each agency department based on total usage of the equipment assigned to them.

Replacement Analysis

Fleet & Equipment Manager tracks all replacement-related criteria and activities, including replacement age (years), replacement utilization (miles or hours), and other client-specific replacement criteria, such as repair cost and fueling consumption. A Replacement Analysis report is provided based on desired fleet asset replacement criteria to identify the equipment that is near eligibility for retirement or past due, and the number of each equipment class code to be replaced or budgeted for acquisition.

Asset Ownership / Transfers

Fleet & Equipment Manager supports the transfer of equipment from one administrative unit to another. This process includes a notification to the owning admin unit being triggered when a request has been made for an equipment transfer. Similarly, the requester will receive a notification once the transfer has been accomplished. Each equipment asset maintains multiple ownership fields, including the owning admin unit (usually the Fleet Division), the assigned garage (responsible for maintenance), and the assigned admin unit (daily user for motorpool or work order usage, or an external agency, if leased externally).

Asset Disposal/Retirement

Fleet & Equipment Manager supports the disposal or retirement of equipment assets at the end of the equipment's service life, or due to theft or loss (e.g., when written off due to an accident). The system manages the disposal of equipment, to move it into retirement status, at which point the work history, costs, and all other details are maintained for reporting purposes. Retired equipment is no longer available for repair orders or any form of usage.

TAB 9 - 4.3.15. Capabilities of Proposed VPS Solution

The Vendor shall in narrative format describe the capabilities of its proposed VPS to meet the requirements outlined in Section 4.2.2.3 for a Fleet and Equipment Management System. Vendors are encouraged to include screen shots and other visuals as appropriate to highlight system capabilities and enhance the readability of this section.

The Vendor shall also include within TAB 9 a description of the technical architecture of its proposed solution and the basis for the Vendor's recommendation of this technical architecture. Depending on the technical architecture being recommended, the Vendor shall include the additional information below:

- *On-Premise Model - Technical specifications for the development, testing, training, production and disaster recovery/reporting landscapes required to implement the VPS, with sufficient detail to allow WVDOT and WVOT to estimate the cost of implementation and operation of the environment.*

Vendor should be prepared to support initial software configuration, development and testing in a Vendor hosted environment to allow sufficient time for the required environment to be established by WVDOT and WVOT. All project activities beginning not later than user acceptance testing shall occur in the State managed on-premise environment.

The proposed solution will be delivered in a SaaS delivery or cloud model. Therefore, no response is being provided for the On-Premise Model component of this requirement.

- *SaaS or Cloud Model - Detailed discussion of the technical environment in which the VPS will operate including information on the data centers which will host the development/testing/training, production, and disaster recovery environments. The production and disaster recovery environments shall be hosted in data centers which are geographically distant from each other.*

In a SaaS delivery, all the hardware and software are provided with the subscription, which results in savings to the agency. This means that WVDOT does not have to worry about whether the software AgileAssets provides is compatible with the State-standard IT infrastructure. WVDOT is also guaranteed that the hardware provided is optimized not only for the proposed AgileAssets solution, but also for the scale of the State's operations. In addition, because AgileAssets controls almost all the environment variables, WVDOT's environments can be up and running in a matter of hours, not weeks. Should a problem ever arise, the time to resolution is greatly reduced because AgileAssets has direct access to all levels of the system. Perhaps most reassuringly: All SaaS products are provided under the strictest and newest security standards, ensuring that the State's data is always protected and available.

TAB 10 - 4.3.16. Draft Statement of Work

The Vendor should submit a Sample Statement of Work in TAB 10. This Sample Statement of Work will provide a starting point for drafting the final Statement of Work that will be included in the Contract with the Awarded Vendor as part of contract execution. The Sample Statement of Work should include a description of the roles and responsibilities for each of the services requested in this RFP in accordance with the Vendor's proposed project plan and methodology, and descriptions of all deliverables to be provided.



**West Virginia Department of
Transportation**



West Virginia Department of Transportation

Fleet and Equipment Management System
Draft Statement of Work (SOW)

Prepared For:

West Virginia Department of Transportation (WVDOT)

Provided on:

September 16, 2021

Submitted to:

West Virginia Division of Purchasing
Tara L. Lyle

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Statement of Work

Overview

Project Information

Client Information	
Client Name	West Virginia Department of Transportation
Project Name	Fleet and Equipment Management System
Project Sponsor	
Email Address	Tara.l.lyle@wv.gov
AgileAssets Information	
Contact Name	Daniel H. Collins
Email Address	Dcollins@agileassets.com
Phone Number	(512) 531-5010

Project Information		
Anticipated Duration	16 months	
Anticipated Start Date	Start date will be agreed with WVDOT upon signature of this SOW and resulting contract documents. AgileAssets mobilization can take up to 16 weeks from date contract is fully executed.	
Anticipated End Date	17 months from start date	
Total Fees	Project Management, Client-Specific Items Testing, Functional Testing, UAT Prep, Technical Services	Please see sealed Cost Proposal

Project Request

WVDOT is seeking a modern integrated fleet and equipment system that would replace existing obsolete software currently in use. The system as described in the Fleet and Management System Request for Proposal (Solicitation No. CRFP 0803 DOT2200000001) will be implemented by AgileAssets using their software module, Fleet and Equipment Manager™.

Reference to Applicable Future Documents

- Master Services Agreement between AgileAssets and WVDOT
- Related subscription or license agreements
- The RFP referenced above
- Resulting Services agreements, certifications and other procurement and contract documents
- Contract between WVDOT and AgileAssets

Project Scope of Work

- AgileAssets and WVDOT staff will meet to document, in detail, the results desired by WVDOT. These meetings by incorporation will include State Rail Authority (SRA) staff as needed. This meeting will give WVDOT the opportunity to define measurable outcomes and serve as a basis for the scope of services AgileAssets will perform based on the proposal and the requirements of the RFP. AgileAssets, in conjunction with identified WVDOT staff, will gather and confirm requirements and plan configuration to the software. Test procedures and schedules will be developed and approved jointly. Configuration of the module will be thoroughly tested by AgileAssets and by the client through multiple levels and environments through User Acceptance Testing (UAT). Review and agreement will allow for production implementation at the specified dates and times incorporated in the Project Management Plan. Changes arising from testing will be analyzed and scheduled for implementation and associated testing till resolved. Once accepted, a meeting to determine what other modifications are needed will be held and those next changes will be identified and scoped in alignment with this document and the jointly approved Project Plan.
- AgileAssets, in conjunction with identified WVDOT staff, will make the next adjustments to the software configuration and test those changes, determining if the results are acceptable or if additional changes are needed.
- In this manner, this iterative process will continue until WVDOT is confident in the results and capabilities that Fleet and Equipment Manager is producing.

Key Assumptions

- Defects and issues will be prioritized based on severity and a formal defect prioritization process will be agreed upon during the project kickoff phase of the project (if applicable).

- User Acceptance Training (UAT) is a collaborative effort between Contractor and the State to make sure UAT is successful. The State will be the responsible party for leading and conducting the UAT for the project. UAT execution and completion will be managed by the State with support of Contractor in accordance with the published project schedule. Deviations will be documented in the project plan, and if materially alter expected project completion, will be subject to change management to extend the Contractor team. Contractor involvement will be limited to providing testing advice and technical support during the State's user acceptance testing.
- The application will be deployed to eight environments in order of activity. The order and naming for these environments to be defined with the client and the AgileAssets team.
- Client will be responsible for data clean-up prior to data migrations (interface testing and table data, if any). AgileAssets is not responsible for the quality of Client data.
- State key resources, including but not limited to, subject matter experts and business users, are involved from the beginning and throughout the life of the project. The project team will consist of resources from both AgileAssets and the State.

Out-of-Scope or Project Exclusions

- Any additional customizations not specifically listed or mentioned in this SOW.
- Performance testing other than testing performed by AgileAssets as part of its QA/QC process.
- In-flight data changes from client that cause material change of scope or effort of the active project.
- Data cleansing and data quality are the responsibility of WVDOT. AgileAssets responsibilities are to ingest historical data provided by WVDOT in an agreed upon format. See the assumptions in the Key Assumptions section.

Project Cost

This SOW is being performed under the terms and conditions of the Agreement between AgileAssets and WVDOT. This is a fixed price contract; it is amendable through agreement by the parties. Detailed project costs will be included in this SOW before agreement on contract and other provisions following conclusion of the procurement.

Project Timeline

The proposed work packages will be completed within a 17-month project window unless amended or changed by agreement of the respective project managers for the department and AgileAssets. See the timeline on the following page for details

AgileAssets proposes a 17-month project, including approximately 16-months prior to go-live, followed by a 1-month standard warranty period, as shown in the diagram below. The work schedule below includes a more detailed breakdown of the five core phases of the Work Plan (Planning, Development, User Acceptance Testing, Training, and Go-Live and Project Close). We expect that 18 development sprints will be needed to complete the development objectives included in this proposal. After every pair of sprints, a software build will be prepared and made available to WVDOT.

At the conclusion of the development sprints, the application will be installed for a client user acceptance test (UAT) pass. If high-severity defects are discovered during UAT, additional sprints are included to manage the development of fixes. These are unique sprints, and unlike structured development sprints (where planning is the major factor of handling work), UAT sprints are reactive and can even be partial sprints, with developers having a prioritized focus on the software in testing.

Finally, once the project is accepted for go-live deployments, the project team will remain partially available to prioritize the resolution of any defects identified during the post-go-live warranty period. Once this period is complete and the project is accepted, the maintenance agreement will take effect, and defect resolution will transition to the AgileAssets Client Success team for management.

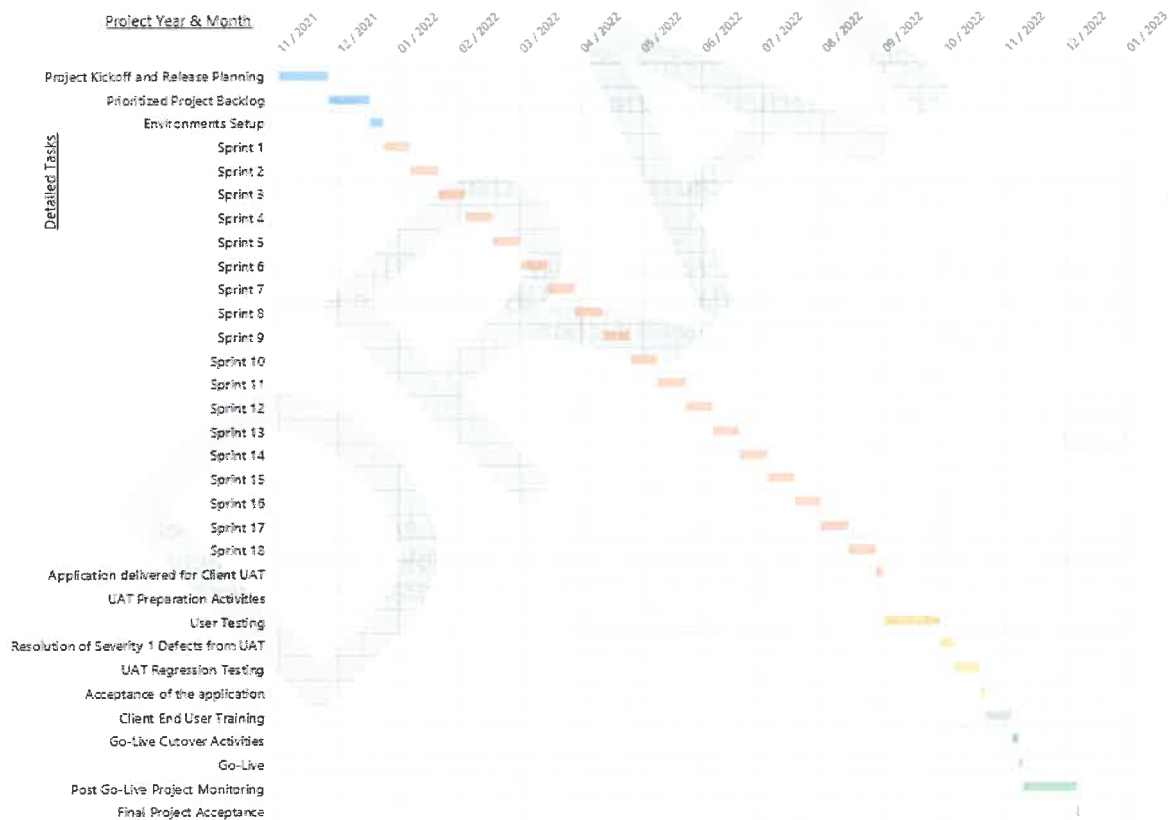


Figure 1 - Proposed Timeline

Detailed Description of Services/ Deliverables

Several standard documentation artifacts are provided with the project and are overarching, being maintained throughout the entire project implementation. The project plan is the master document guiding the implementation and is continually updated. An official risk and issues log is also captured and kept up to date. In addition, if there are any material changes that are tracked throughout the project, change management documentation will be created to identify and track changes to the core scope. A list of anticipated milestones is included below.

Task	Deliverable	Deliverable Description	Acceptance Criteria	Month
1	Project kickoff and Release Plan	Project kickoff activities include a discovery session with the following deliverable: <ul style="list-style-type: none"> • Requirements/Design document • Updated project plan that details the following key information: <ul style="list-style-type: none"> ○ Project schedule ○ Project milestones • Agreed upon discovery finding documentation 	Documents have been reviewed and approved by the designated WVDOT Project Manager	1
2	SaaS environment setup with AgileAssets application	The SaaS environment is set up with the AgileAssets application for WVDOT	WVDOT has been notified of the environment setup and has access to the environment	2
3a	Completion of Sprints 1 and 2	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 1 and 2, and a demo of completed software elements (if applicable) has been delivered	3
3b	Completion of Sprints 3 and 4	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 3 and 4, and a demo of completed software elements (if applicable) has been delivered	4
3c	Completion of Sprints 5 and 6	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 5 and 6, and a demo of completed software elements (if applicable) has been delivered	5
3d	Completion of Sprints 7 and 8	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 7 and 8, and a demo of completed software elements (if applicable) has been delivered	6

Task	Deliverable	Deliverable Description	Acceptance Criteria	Month
3e	Completion of Sprints 9 and 10	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 9 and 10, and a demo of completed software elements (if applicable) has been delivered	7
3f	Completion of Sprints 11 and 12	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 11 and 12, and a demo of completed software elements (if applicable) has been delivered	8
3g	Completion of Sprints 13 and 14	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 13 and 14, and a demo of completed software elements (if applicable) has been delivered	9
3h	Completion of Sprints 15 and 16	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 15 and 16, and a demo of completed software elements (if applicable) has been delivered	10
3i	Completion of Sprints 17 and 18	The sprint objectives have been completed and the project backlog has been updated in Jira	WVDOT has been updated on the results of Sprints 17 and 18, and a demo of completed software elements (if applicable) has been delivered	11
4	Application delivered for WVDOT user acceptance	AgileAssets has completed all the testing from the backlog	The release is packaged and deployed	12
5	Acceptance of the application	WVDOT has verified and is ready to accept the application in the production environment	WVDOT has verified that the package provided by AgileAssets is ready for production deployment	12
6	End user training	AgileAssets has completed all training objectives for using the software	The training session has been completed for end users of the system	13
7	Go-live	The system goes live in WVDOT's production environment	The production system has been deployed	13
8	Final project acceptance	The severity 1 and severity 2 defects discovered in the first week after go-live have been addressed	WVDOT signs off on the final project acceptance	14

Final Project Acceptance

At the end of the project, a Final Project Acceptance form will be submitted to WVDOT to acknowledge completion of all work by AgileAssets and fulfillment of all obligations under this statement of work, and as amended through approved change requests, if any.

Only in-scope project related items can hold up the final acceptance of the project. If all agreed upon scope and change requests have been approved and accepted the project is deemed to be complete.

Execution/Signature Block

In Witness Whereof, the Parties hereto, intending to be legally bound, have executed this Statement of Work as of the date written below.

Approved by:

**West Virginia Department of
Transportation**

Approved by:

AgileAssets Inc.

Signature

Signature

Print or Type Name

Print or Type Name

Title

Title

Date

Date


TAB 11 - 4.3.17. Requirements Matrix Responses (Attachment A)

The Vendor shall include within TAB 11 a printed copy of its completed Fleet and Equipment Management System Requirements Matrix which is included as Attachment A to the RFP. It shall also submit a soft copy of the completed Requirements Matrix in Microsoft Excel format as part of its online submission or on a flash (USB) drive with its original technical proposal if not submitting via wvOASIS.

TAB 12 - Attachments

Attachment 1 - Designated Contact Form

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.



(Name, Title)
Dan Collins

(Printed Name and Title)
3001 Bee Caves Road, Suite 200, Austin, Texas 78746

(Address)
(781) 361-0560 / (512) 328-7246


(Phone Number) / (Fax Number)
dcollins@agileassets.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

AgileAssets Inc.

(Company)
 Stuart Hudson, CEO

(Authorized Signature) (Representative Name, Title)

Stuart Hudson, CEO

(Printed Name and Title of Authorized Representative)

September 16, 2021

(Date)

(512) 658-3804 / (512) 328-7246

(Phone Number) (Fax Number)

Revised 07/01/2021

Attachment 2 - Addendum Acknowledgement Form

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: CRFP DOT2200000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

AgileAssets Inc.

Company

 Stuart Hudson, CEO
Authorized Signature

September 16, 2021

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.



Attachment 3 - AgileAssets Master Services Subscription Agreement



MASTER SERVICES SUBSCRIPTION AGREEMENT

Parties:	"AgileAssets"	"Customer"
<i>Full Legal Name:</i>	AGILEASSETS INC.	<CUSTOMER NAME>
<i>Business Entity Type:</i>	Corporation	
<i>Organized In:</i>	State of Texas	
 <i>Address:</i>	3001 Bee Caves Road Suite 200 Austin, Texas 78746	<Customer Address> <Customer City, State, Zip>
	Attn: _____	Attn: _____
	Phone: _____	Phone: _____
	Email address: _____	Email address: _____
Agreement Effective Date:		

This Master Services Subscription Agreement (the "Agreement") sets forth the terms and conditions governing AgileAssets' provision to Customer of a cloud-based asset management and decision support system.

This Agreement, including the Exhibits which are attached to it, as well as any Order Forms and Statements of Work entered into by the parties from time to time, together constitute the entire agreement of the parties and supersede any prior and contemporaneous oral or written understanding as to the parties' relationship and the subject matter hereof. In the event of any conflict or contradiction among the foregoing documents, the documents will control in the order listed. This Agreement may only be amended in a writing signed by both parties. Additional or different terms in any purchase order or other communication from Customer are void.

This Agreement may be executed in two or more counterparts, each of which will be deemed an original for all purposes, and together will constitute one and the same document. Once signed, both parties agree that any reproduction of this Agreement made by reliable means (for example, a photocopy, facsimile, or PDF file) is an original.

AGREED TO AND ACCEPTED:

"AgileAssets"
AGILEASSETS INC.

Authorized Signature

Print Name

Title

Date

AGREED TO AND ACCEPTED:

"Customer"
"CUSTOMER NAME"

Authorized Signature

Print Name

Title

Date

1. Definitions.

- a. **“Customer Data”** refers to the data Customer or any User uploads or otherwise supplies to, or stores in, the Services under Customer’s account.
- b. **“Documentation”** means the user guides, help information, and other technical and operations manuals and specifications for the Services made available by AgileAssets in electronic or other form, as updated from time to time.
- c. **“Order Form”** refers to the document which specifies, among other things, the Services to be provided to Customer by AgileAssets as well as the scope of use, order effective date and term, Subscription Fees and other prices, billing period, and other applicable details. The initial Order Form entered into by the parties is attached to this Agreement. To be effective, additional Order Forms must be signed by both parties. All Order Forms are subject to this Agreement.
- d. **“Services”** refers to the online integrated asset management and decision support system offerings, and any other product or service provided to Customer by AgileAssets as specified on the applicable Order Form.
- e. **“Subscription Fees”** mean the fees paid by Customer for the right to access and use the Services during the applicable Service Term.
- f. **“User”** refers to each employee, agent, contractor, and consultant who is authorized by Customer to use the Services, and has been supplied a user identification and password by Customer (or by AgileAssets at Customer’s request).

2. Provision of the Services.

- a. **Availability and Use of the Services.** AgileAssets will make the Services available to Customer in accordance with each Order Form entered into by the parties. Customer’s use of the Services is limited to its internal business purposes solely for the scope and use limitations specified in the applicable Order Form.
- b. **Changes to the Services.** AgileAssets reserves the right to make changes, modifications and enhancements to the Services from time to time. In the event the change or modification is to documented functionality, and is material to the function or operation of the Services (a “Material Change”), AgileAssets will use reasonable commercial efforts to provide Customer with prior written notice of the Material Change (for example, by communicating directly with Customer by email or otherwise through AgileAssets’ normal communication channels such as via AgileAssets’ release information portal). Any such Material Change will not result in any material diminishment or degradation of the Services as they existed on the applicable Order Form effective date.
- c. **Support for the Services.** AgileAssets will provide Customer with the support described in AgileAssets’ then current technical support policy, a current copy of which is attached as Exhibit A.
- d. **Business Continuity and Security Measures for the Services.**
 - i. **Data Backup.** The Services include standard off-site backup and recovery capabilities including daily incremental backups with synthetic full backups created weekly and monthly. Weekly and monthly full backups are stored off-site on disk or via a cloud data storage service. With respect to long term retention, AgileAssets follows industry standard best practices in having 24 monthly and seven yearly backups. Upon request, AgileAssets will offer additional long term monthly and yearly data retention options tailored to address unique customer requirements.
 - ii. **Data Restoration.** In the event of a loss of Customer Data due to a disaster, the Data is restored using the most recent backup so that the Services are available within twelve hours of the incident. In the event of a server (host) loss, an already “imaged” stand-by server will be provisioned in place of the failed server in the “state-less” application server farm. This standby server can be in production within four hours.
 - iii. **Business Continuity.** AgileAssets’ business continuity plans adhere to industry best practices. AgileAssets will invoke those plans in the event there is a clearly adverse impact to the Services. AgileAssets will review its business continuity plan for disaster recovery on an annual basis at Customer’s request including any changes that have been made to the plan since the prior review. AgileAssets will also ensure that any changes to its business continuity plans are communicated to Customer in the event of any material change to the plan.
 - iv. **Security Measures.** In providing the Services, AgileAssets complies with its information security procedures. A current copy of these procedures is attached as Exhibit B. AgileAssets will provide Customer on an annual basis with SSAE16 Reviews from the third party data center providers utilized in the provision of the Services to Customer. Customer acknowledges and agrees that all SSAE16 Reviews constitute Confidential Information of AgileAssets.

3. Order Process. Customer will order Services by signing an Order Form. In the event that Customer’s business practices require a purchase order number be issued prior to payment of any AgileAssets invoices issued pursuant to an Order Form, Customer will promptly provide that number to AgileAssets. Additionally, terms, provisions or conditions on any purchase order, acknowledgement, or other business form or writing that Customer may provide to AgileAssets or use in connection with the procurement of Services (or any software) from AgileAssets will have no effect on the rights, duties or obligations of the parties under this Agreement, regardless of any failure of AgileAssets to object to such terms, provisions or conditions.

4. Professional Services. If professional services (such as implementation, training, consulting, etc.) are included in any Order Form (“Professional Services”), then they will be set forth in a separately executed Statement of Work (“Statement of Work”) containing relevant project details including, if applicable, any works to be developed by AgileAssets and provided to Customer (“Deliverables”). In addition, the following provisions will apply to all Statements of Work: (a) AgileAssets will retain all ownership rights to any and all Deliverables

excluding, any pre-existing technology, materials or Customer Confidential Information supplied by Customer for incorporation into such Deliverable, and (b) AgileAssets grants Customer a royalty-free, non-exclusive, non-transferable, non-assignable worldwide license to use any Deliverable to the extent necessary to permit Customer to use the Deliverable in connection with the Services during the Service Term. All Professional Services are provided only as an adjunct to the Services, and are separate and apart from the Services.

5. Customer Responsibilities Relating to Use of the Services.

a. Access to the Services. Customer is responsible for (i) all activities conducted under its User accounts, (ii) complying with all applicable laws and regulations in connection with Customer's use of the Services, and (iii) obtaining and maintaining any hardware, software and network infrastructure ("Customer Equipment") and any ancillary services needed to connect to, access or otherwise use the Services, and ensuring that the Customer Equipment and ancillary services comply with the configuration requirements specified by AgileAssets and agreed upon with Customer. Customer agrees to notify AgileAssets immediately of any unauthorized use of any password or account or any other known or suspected breach of security with respect to the Services.

b. Use of the Services. Customer agrees to use the Services solely for its internal business purposes in accordance with applicable laws. Customer will not: (i) resell, sublicense, or lease the Services or make the Services available to third parties for or through any time-share arrangement, (ii) make the Services available to any third party except as required by Users, (iii) send or store infringing or unlawful material, (iv) attempt to gain unauthorized access to the Services or its related systems or networks, (v) interfere with or disrupt the integrity or performance of the Services or the data contained therein, (vi) modify, copy or create derivative works based on the Services, (vii) reverse engineer the Services, or (viii) access the Services for the purpose of building a competitive product or service or copying its features or user interface.

6. Fees and Payment Terms.

a. Fees. Customer agrees to pay all Subscription Fees and other charges as specified on each executed Order Form and Statement of Work. Unless otherwise expressly provided in this Agreement, Customer's payment obligations are non-cancelable and, upon payment, all payments made by Customer are non-refundable.

b. Additional Payment Obligations. All payments will be made in U.S. dollars. Fees are due within 30 days from receipt of AgileAssets' invoice (or as otherwise set forth in the invoice) unless subject to a reasonable and good faith dispute. Any payment not received from Customer by the due date may result in suspension of Customer's ability to access the Services until payment is made. Past due amounts will incur interest at a rate equal to the lower of 1.5% per month or the highest rate permitted by law. In addition, Customer will reimburse AgileAssets for all reasonable and actual costs incurred by AgileAssets in collection of delinquent amounts not subject to a reasonable and good faith dispute.

c. Taxes. Amounts charged by AgileAssets do not include applicable taxes or similar fees now in force or enacted in the future resulting from any transaction under this Agreement. Customer is responsible for all such amounts and will pay them in full (except for taxes based on AgileAssets' net income). If AgileAssets has the legal obligation to pay or collect taxes for which Customer is responsible, the appropriate amount will be invoiced to and paid by Customer, unless Customer provides a valid tax exemption certificate authorized by the appropriate taxing authority.

d. Changes to Fees. AgileAssets reserves the right to modify its Subscription Fees with respect to the Services and other charges as specified on the applicable Order Form as well as to introduce new fees (to become effective upon the upcoming renewal of the Service Term), by providing Customer with written notice at least 45 days prior to the end of the then current Service Term. In the event that Customer does not provide notice of termination to AgileAssets as described in Section 12 ("Term and Termination") below, such fee changes will become effective at the commencement of the next Extension Service Term.

e. Scope of Use of the Services. Customer is responsible for monitoring its use of the Services. If Customer's use of the Services is found to be greater than that for which Customer contracted, AgileAssets will invoice Customer for additional fees for the period commencing on the date of such additional use through the remainder of the then current subscription term (or as otherwise specified on the applicable Order Form), and Customer will pay fees owed in accordance with this Agreement.

7. Intellectual Property Ownership Rights. As between Customer and AgileAssets, Customer owns all right, title, and interest in the Customer Data, including all intellectual rights in the Customer Data. Customer grants AgileAssets the nonexclusive, paid-up right to use the Customer Data to provide the Services to Customer. AgileAssets (and its licensors, where applicable) owns all right, title, and interest, including all intellectual rights, in and to the Services, including to any and all enhancements, suggestions, feedback, modifications, extensions and derivative works thereof. This Agreement is not a sale and does not convey to Customer any rights of ownership in or related to the Services. Except for the limited rights and licenses expressly granted in this Agreement, no other license is granted and no other use is permitted.

8. Limited Warranty; Warranty Disclaimer.

a. Mutual Warranties. Each party represents and warrants that (i) it has the legal power to enter into and perform under this Agreement, and (ii) it will comply with all other applicable laws in performance of its obligations and use of the Services hereunder.

b. By AgileAssets.

i. General. AgileAssets warrants that:

A. the Services will provide the functionality described in the applicable Documentation under normal use and circumstances. In the event the Services are nonconforming, AgileAssets will fix, provide a work around, or otherwise repair or replace the nonconforming Services, or, if AgileAssets is unable to do so, terminate Customer's access to the Services and return Subscription Fees for the Services previously paid to AgileAssets for the period beginning with Customer's notice of nonconformity through the remainder of the Initial Service Term or Extension Service Term, as applicable, and

B. it routinely tests the Services using up-to-date anti-virus software in efforts to detect and, if so detected, to eliminate, any disabling devices, viruses, Trojan horses, trap doors, back doors, Easter eggs, time bombs, cancelbots, or other computer programming routines designed to damage, detrimentally interfere with, surreptitiously intercept or expropriate any other software or data ("Malicious Code"). If Malicious Code is introduced into Customer's computer systems by the Services, AgileAssets will, at its own expense, assist and work with Customer, at Customer's direction, to remediate the damage caused by the Malicious Code, provided that Customer: (I) has taken all prudent business measures to prevent introduction of any such Malicious Code into its computer systems, (II) takes all prudent business measures to minimize the effects of any such Malicious Code, and (III) delivers sufficient documentation to AgileAssets to validate Customer's belief that such Malicious Code was introduced into Customer's computer system by the Services.

ii. No Infringement. AgileAssets warrants that use of the Services as permitted under this Agreement does not infringe on the intellectual property rights of any third party. In the event of any breach of this warranty, AgileAssets will indemnify Customer as specified in Section 10 ("Indemnification").

iii. Service Level Warranty. AgileAssets warrants that the Services will meet the commitments set forth in the Service Level Agreement (the "SLA"), a copy of which is attached as Exhibit C. In the event of any failure to meet this warranty, AgileAssets will provide the refund remedies set forth in the SLA.

c. Disclaimer. THE PROVISIONS OF SECTION 8.b CONSTITUTE CUSTOMER'S SOLE AND EXCLUSIVE REMEDY, AND AGILEASSETS' SOLE AND EXCLUSIVE LIABILITY, FOR BREACH OF AGILEASSETS' WARRANTIES UNDER THIS AGREEMENT. EXCEPT AS SET FORTH IN SECTION 8.b OF THIS AGREEMENT, SERVICES ARE PROVIDED ON AN "AS IS" AND "AS AVAILABLE" BASIS. AGILEASSETS AND ITS LICENSORS EXPRESSLY DISCLAIM ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. AgileAssets does not make any warranty that the Services will be uninterrupted, timely, secure, or error free. AgileAssets does not and cannot control the flow of data to or from AgileAssets' network and other portions of the Internet. Such flow depends in large part on the performance of Internet services provided or controlled by third parties. At times, actions or inactions of such third parties can impair or disrupt Customer's connections to the Internet (or portions thereof). AgileAssets agrees to use commercially reasonable efforts to take all actions it deems appropriate to remedy and avoid such events. However, AgileAssets cannot guarantee that such events will not occur. Accordingly, AgileAssets disclaims any and all liability resulting from or related to such events.

9. Confidentiality.

a. Confidential Information Defined. "Confidential Information" means all confidential and proprietary information of a party (as the disclosing party) disclosed to the other party (as the receiving party), whether orally or in writing, that is designated as confidential or that reasonably should be understood to be confidential given the nature of the information and the circumstances of disclosure, including business and marketing plans, technology and technical information, product designs, and business processes. Confidential Information specifically includes (i) in the case of Customer, the Customer Data, and (ii) in the case of AgileAssets, the AgileAssets Technology, the Services, and the terms of this Agreement, including of each Order Form.

b. Exclusions from Confidentiality. Confidential Information does not include any information that, without breach of any obligation owed to the disclosing party: (i) is or becomes generally known to the public, (ii) was known to the receiving party prior to its disclosure by the disclosing party, (iii) was independently developed by the receiving party without breach of this Agreement, or (iv) is received from a third party. If the receiving party is compelled by law to disclose Confidential Information of the disclosing party, it will provide the disclosing party with prior notice of the compelled disclosure (to the extent legally permitted) and reasonable assistance, at the disclosing party's cost, if the disclosing party wishes to contest the disclosure.

c. Obligations regarding Confidential Information. The receiving party will not disclose or use any Confidential Information of the disclosing party for any purpose outside the scope of this Agreement, except with the disclosing party's prior written consent. The receiving party will protect the confidentiality of the disclosing party's Confidential Information in the same manner that it protects the confidentiality of its own confidential information of like kind (but in no event using less than reasonable care). The receiving party will promptly notify the disclosing party if it becomes aware of any actual or suspected breach of confidentiality of the disclosing party's Confidential Information. Upon any termination of this Agreement, the receiving party will, upon request, return to the disclosing party or destroy (at the disclosing party's election) all materials containing such Confidential Information. With respect to any Confidential Information of the disclosing party regarding which return or destruction is not feasible, the receiving party will continue to maintain its confidentiality in accordance with the terms of this Agreement.

d. **Injunctive Relief.** In the event of a breach (or threatened breach) by the receiving party of any of its obligations regarding the disclosing party's Confidential Information, the disclosing party will be entitled to injunctive relief, in addition to any other remedies available to it.

10. Indemnification.

a. **Indemnification Obligation.** AgileAssets will defend Customer from and against all claims, suits or actions arising out of or resulting from any action against Customer that is based on any third party claim that use of the Services as authorized in this Agreement infringes that party's United States patents, copyrights, or trade secrets, and will pay the amount of any final judgment awarded (including reasonable attorney's fees and costs) or final settlement made with respect to such claim. To qualify for indemnification under this Agreement, Customer agrees to (i) promptly notify AgileAssets in writing of the existence of any such action, (ii) grant AgileAssets sole authority and control for the defense or settlement of such action, and (iii) provide AgileAssets with all reasonable assistance for the defense or settlement of such action. Customer may elect to participate in any such action with an attorney of its own choice and at its own expense. In addition to AgileAssets' obligation of indemnification, if the Services become or, in AgileAssets' opinion, are likely to become the subject of a claim of infringement, AgileAssets may, at its option, either procure for Customer the right to continue using the Services or replace or modify the Services to make the Services non-infringing. If AgileAssets, in its sole discretion, concludes that neither of these alternatives is reasonably available, AgileAssets may terminate Customer's right to use the Services and release Customer from its obligation to make future payments for the Services or issue a pro rata refund for any fees paid in advance. The foregoing states the entire obligation and liability of AgileAssets with respect to any infringement claim.

b. **Exceptions.** AgileAssets' indemnification obligations will not apply to any claim resulting from the (i) use of the Services in combination with other products, services or devices if the claim would not have arisen but for such combination or in a manner not authorized by this Agreement (or provided for in the Documentation), or (ii) use of the Services other than in accordance with this Agreement.

c. **Obligation.** The provisions of this Section 10 set forth AgileAssets' sole and exclusive obligations, and Customer's sole and exclusive remedies, with respect to any third party claim

11. **Limitation of Liability.** Except with respect to a breach of each party's confidentiality obligations as set forth in Section 9 or of AgileAssets' indemnification obligations under Section 10, and Customer's obligation to pay amounts due under this Agreement, neither party will be liable for consequential, incidental, indirect, punitive or special damages, regardless of whether such liability is based on breach of contract, tort, strict liability, breach of warranties, failure of essential purpose or otherwise, and even if advised of the likelihood of such damages. In no event will either party's liability arising out of or related to this Agreement, regardless of the form of action that imposes liability, exceed, in the aggregate, an amount equal to the fees paid or properly due and payable to AgileAssets by Customer hereunder during the six months immediate preceding the date on which the event giving rise to such liability occurred.

12. Term and Termination.

a. **Term.** This Agreement commences on the Effective Date specified on the first page of this Agreement and remains in effect until all Order Forms entered into by the parties have expired or been terminated. The initial term applicable to an Order Form means the period which begins on the Effective Date of the applicable Order Form and continues for the initial term specified in the Order Form (each, an "Initial Service Term"). Upon expiration of the Initial Service Term of an Order Form, the Order Form will extend for successive twelve month periods (each of which is referred to as an "Extension Service Term" and, together with the Initial Service Term, is referred to as the "Service Term") as described in that Order Form (and, if not described, then upon expiration of the Initial Service Term (or any Extension Service Term) of an Order Form, the Order Form will automatically terminate unless it has been extended in a writing signed by both parties for an additional Extension Service Term). In the event that an Order Form contains Services added to an existing subscription, the added Services will be billed on a pro-rated basis and will be coterminous with the Initial Service Term or applicable Renewal Service Term of that Order Form, unless otherwise agreed to by the parties.

b. **Termination for Cause.** Either party may terminate this Agreement, including all Order Forms under it, on 30 days' prior written notice to the other party, if the other party breaches one or more of its material obligations under this Agreement and fails to cure that breach or breaches within 30 days after delivery of such written notice.

c. **Effect of Termination; Survival.** For a period of 30 days from the effective date of termination of this Agreement, AgileAssets will make the Customer Data available for download provided Customer is not in breach of this Agreement and has paid all fees due under this Agreement in full. After that period, AgileAssets will delete all backed-up Customer Data from its systems and Customer's access to the Services will cease. In addition, each party will return to the other the original and all copies of the Confidential Information in the other's possession, custody or control or, in lieu of returning such Confidential Information, destroy all copies of such Confidential Information, and certify to such destruction in a writing signed by its officer. Customer's obligation to pay AgileAssets amounts due hereunder will survive any expiration or termination of this Agreement. The terms of any other Sections that by their nature are intended to extend beyond termination will survive termination of this Agreement for any reason.

13. General.

a. **Governing Law.** This Agreement will be governed exclusively by the laws of the State of Texas, without regard to its conflicts of laws rules. The United Nations Convention on Contracts for the International Sale of Goods will not apply.

- b. Independent Contractors.** The parties are independent contractors, and no partnership, franchise, joint venture, agency, fiduciary or employment relationship between the parties is created hereby. There are no third party beneficiaries to this Agreement.
- c. U.S. Government Restricted Rights.** The Services are provided with RESTRICTED RIGHTS. Use, duplication or disclosure by the Government is subject to restrictions as set forth in the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013(c)(1)(ii) or the Commercial Computer Software-Restricted Rights clause at 48 CFR 52.227-19(c)(1) and (2), as applicable. Manufacturer is AgileAssets Inc., 3001 Bee Caves Road, Suite 200, Austin, Texas 78746.
- d. Notices.** All notices required to be given under this Agreement will be given in writing, and sent to the recipient party's address stated in this Agreement, unless otherwise changed in writing. All notices will be given by certified or registered mail, or overnight carrier. Such notices will be deemed given on the date of receipt of delivery of said notice.
- e. No Waiver.** No failure or delay in exercising any right hereunder will constitute a waiver of such right. Except as otherwise provided, remedies provided herein are in addition to, and not exclusive of, any other remedies of a party at law or in equity. If any provision of this Agreement is held by a court of competent jurisdiction to be contrary to law, such provision will be modified by the court and interpreted so as best to accomplish the objectives of the original provision to the fullest extent permitted by law, and the remaining provisions will remain in effect.
- f. Force Majeure.** Neither party will be liable to the other for any delay or failure to perform its obligations under this Agreement (excluding payment obligations) if the delay or failure arises from any cause or causes beyond that party's reasonable control.
- g. Assignment.** Neither party may assign any of its rights or obligations hereunder, whether by operation of law or otherwise, without the prior written consent of the other (not to be unreasonably withheld). Notwithstanding the foregoing, either party may assign this Agreement in its entirety (including all Order Forms hereunder), without consent of the other party, to (i) its affiliate (defined as any entity which directly or indirectly controls, is controlled by, or is under common control with such party (where "control" means ownership or control, directly or indirectly, of more than 50% of the voting interests of the subject entity)), or (ii) its successor in interest in connection with a merger, reorganization, or sale of all or substantially all of its assets or equity; provided, however, that neither (i) nor (ii) involves a direct competitor of the other party. Any attempted assignment in breach of this Section will be void. This Agreement will bind and inure to the benefit of the parties, their respective successors and permitted assigns.

MASTER SERVICES SUBSCRIPTION AGREEMENT

Exhibit A

Support for the Services

AgileAssets provides support for its hosted “software as a service” decision support system (the “Services”) as described below.

1. **Communication.** AgileAssets uses a web based “self-service” Client Portal for use by Key Contacts. The Client Portal includes the following information:
 - Case Management Database: Customers may create and view case history related to their past requests. Cases viewed in this manner will include all of a customer’s cases in the database.
 - Solutions: Customers have the ability to search AgileAssets’ public knowledge database for resolution of questions surrounding general end-user usage, system administration and configuration.To submit an issue through the Client Portal, the Key Contact will log into the Client Portal User Center and complete the request form with all relevant information about the issue. Upon submission, AgileAssets will generate a support request.

Other Means of Communication. AgileAssets strongly encourages that issues be submitted via the Client Portal. While AgileAssets will also generate support requests based on relevant information reported by the Key Contact over the phone or by email, note that support requests submitted by email are automatically classified as a Severity 4 Defect.

 - By Self Service Request via the Client Portal: To submit an issue through the Client Portal, the Key Contact logs into the Client Portal User Center and completes the request form with all relevant information about the issue. Upon submission, AgileAssets will generate a support request.
 - By Telephone: Once connected with an AgileAssets representative, the Key Contact identifies to AgileAssets the Customer name, location, issue, and other data as requested so that AgileAssets is able to generate a support request.
 - By Email: Upon receipt of an email request from the Key Contact, AgileAssets will generate a support request.
2. **Designation of Key Contacts.** AgileAssets will provide support to Customer only by communication with the technical contacts designated by Customer in the Client Portal (each, a “Key Contact”). Key Contacts may be changed at any time by updating the Customer account information in the Client Portal. Each Key Contact must have the relevant technical knowledge regarding the Services necessary to assist AgileAssets as needed.
3. **Help Desk Support.** AgileAssets’ customer support help desk provides assistance to the Designated Support Contacts on use and problem resolution issues with respect to the Services. The customer support help desk is available during the hours between 8:00 a.m. and 5:00 p.m. (Central time) on regular business days (excluding standard AgileAssets holidays, a list of which will be provided by AgileAssets to Customer upon request). AgileAssets may change the hours during which the help desk is available but will not shorten the hours of support per day.
4. **Reporting and Resolving Issues with the Services.** Resolution of submitted issues with the Services will depend upon a complete understanding of the variables unique to each situation with both parties working together to identify and resolve the issue.
 - a. Severity Levels and Issue Identification. Services issues are categorized by AgileAssets into one of four classifications:
 - i. “Severity 1” – Services is inoperable. Customer is unable to use the Services without significant disruption to Customer’s primary business operations and with respect to which no workarounds exist that would enable the Services to be so used until corrections can be made.
 - ii. “Severity 2” – issue that is of a severity that prevents the Services from being used without significant disruption to Customer’s primary business operations but with respect to which a workaround exists enabling business operations even if in a diminished capacity.
 - iii. “Severity 3” – issue which restricts the use of one or more features of the Services to perform necessary functions but with respect to which a workaround is available.
 - iv. “Severity 4” – are non-critical issue that prevent a function or component of the Services from operating properly but which is not a Severity 1, Severity 2 or Severity 3 issue.
 - b. Problem Reporting. Customer will promptly notify AgileAssets regarding issues with the Services through the Client Portal, by telephone or by email as described above. When submitting any request for support, the Key Contact will follow the problem reporting procedures posted by AgileAssets in the Client Portal. These procedures include identifying the Severity Level of the issue pursuant to the above classification scheme and providing a clear description of the issue.

At AgileAssets’ request, the Key Contact will provide additional data to facilitate AgileAssets in reproducing the issue. Examples of data that may be requested include a description of the expected behavior and the frequency with which the issue occurs.

AgileAssets will attempt to reproduce the issue and identify its cause. If AgileAssets is able to reproduce the issue, AgileAssets’ response will include a confirmation of the Severity Level of the issue for the purpose of developing a resolution and any proposed work-around.

In the event AgileAssets determines that the issue is, in fact, not an issue with the Services, but Customer disagrees with that determination, AgileAssets and Customer will work together to resolve the difference. This may include, but is not limited to, AgileAssets’ demonstrating to Customer why AgileAssets does not believe that the issue is with the Services.

AgileAssets and Customer may revise the Severity classification of the issue based on additional information provided by Customer or uncovered during the resolution process.

- c. **Issue Resolution.** AgileAssets’ response and resolution targets are set forth in the table on the following page. However, resolution times will vary depending on the exact issue and customer environment.

Severity Level of Issue ²	Target Time Frames ¹		
	Initial Response ³	Workaround or Temporary Fix	Final Resolution
1	30 minutes	Eight hours	Five days
2	30 minutes	Two days	Five days
3	30 minutes	Five days	Next general release
4	30 minutes	N/A ⁴	N/A ⁴

¹ Target time frames are measured from creation of a case number per the process described above. Since Defects may not be resolvable within a specific timeframe due to complexity of the solution and other factors, resolution targets are goals and not commitments. The use of the terms “hours” and “days” refer to “business hours” and “business days,” are based on AgileAssets’ regular business schedule, and exclude weekends and AgileAssets locally-observed holidays.

² Support requests submitted by email are automatically classified as a Severity 4 Defect.

³ When a customer submits a problem report through the Client Portal at clients.agileassets.com, the acknowledgement will generally be under five minutes. When possible, a solution or a workaround will also be provided.

⁴ No guarantee of resolution.

AgileAssets provides routine updates on resolution efforts.

Specifically with respect to Severity 1 issues, AgileAssets will use continuous and diligent efforts until Customer is back in production. Otherwise, all Target Time Frames which fall outside of AgileAssets’ normal business hours will be carried over to the next business day.

AgileAssets endeavors to investigate and correct issues at AgileAssets’ offices. If AgileAssets is unable to do so, and provided the suspected issue is not attributable, in whole or in part, to any of the excluded causes specified below, then upon Customer’s request, AgileAssets may travel to Customer’s location to investigate the issue with travel and other out-of-pocket expenses included as part of Maintenance Services. If, after AgileAssets travels to the Customer location, the suspected issue is determined to be unrelated to the Services, the problem resolution will be Customer’s responsibility and Customer will pay all AgileAssets investigative (and, if undertaken by AgileAssets, correction) costs on a time and materials basis. AgileAssets will have discretion as to the method and manner of maintenance and support efforts, including the use of non-AgileAssets personnel.

- d. **Escalation.**

i. **Escalation Initiation.** Escalation may be initiated for a Severity 1 or Severity 2 issue from either AgileAssets or Customer via the escalation path provided by AgileAssets.

ii. **Escalation Criteria.** AgileAssets’ escalation criteria for a Severity 1 or Severity 2 issue are as follows:

- Severity 1 issue – If the issue has not resolved within one business day and provided no material progress has been made, the issue is escalated within AgileAssets for additional action and resources as needed. Executive management monitors the issues closely until it is resolved.
- Severity 2 issue – escalated after three business days.

5. **Management of Updates to the Services.** AgileAssets provides and manages all updates to maintain the Services at the latest version. AgileAssets will notify Customer prior to implementing an update that may materially affect the function or performance of the

Services. Support for the Services does *not* include any services to implement or test the update, to setup or configure the update relative to Customer's instance or to migrate Customer Data. Services are available on a time-and-materials basis to assist Customer with these.

- 6. Conditions and Limitations of Support.** AgileAssets has no obligations to render support for the Services with respect to problems in the use or functioning of the Services caused by any hardware or software product other than the Services, by any error in the use of the Services inconsistent with its authorized use, or by any modifications of the Services by any person or entity other than one authorized by AgileAssets. If support is rendered for any problem caused by any of the foregoing or for troubleshooting with respect to any of the foregoing, or if AgileAssets' support services efforts are increased as a result, AgileAssets reserves the right to impose charges at its then standard commercial time and materials rates for all such services, including preapproved travel and per diem expenses to be reimbursed consistent with Customer's travel policies. AgileAssets' customer service engineer will notify a caller as soon as the billable status of the call is determined. The caller may terminate the call at that time without charge.

MASTER SERVICES SUBSCRIPTION AGREEMENT

Exhibit B

Information Security Procedures

AgileAssets' information security program for its hosted "software as a service" decision support system (the "Services") is described below.

1. **General Description of AgileAssets' Information Security Program.**

AgileAssets' information security program is designed to:

- address the security, integrity and confidentiality of Customer Data,
- protect against anticipated threats or hazards to the security or integrity of Customer Data,
- protect against unauthorized access to or use of the Customer Data that could result in substantial harm or inconvenience to the person that is the subject of the Customer Data, and
- provide procedures for the proper disposal of Customer Data.

2. **General Procedures.**

- a. Data Storage. AgileAssets stores Customer Data on secure computers located in a physically secure and controlled data center environment. AgileAssets employs technologies that are consistent with industry standards for firewalls and other security technologies to prevent AgileAssets computers from being accessed by unauthorized persons.
- b. Data Transfers. AgileAssets uses HTTPS standards to protect data integrity during transfers. In addition, AgileAssets will maintain the following security measures:
 - i. HTTP with SSL 128-bit encryption (HTTPS),
 - ii. the ability to transfer files via Secure File Transfer Protocol (SFTP),
 - iii. encryption of files with at least AES-128 or 3DES-128 for transmission in unencrypted email/FTP/HTTP channels, and
 - iv. encrypted passwords for the Services.
- c. Access and Use Monitoring. AgileAssets will monitor AgileAssets' user access to and use of the Services for security, performance evaluation, and system utilization purposes.

3. **Security Assessments and Audits.**

If requested by Customer, AgileAssets will cooperate with Customer in an initial security assessment, including the completion of a risk assessment questionnaire. In addition, AgileAssets will provide Customer with SSAE16 Reviews from the third party data center providers utilized in the provision of the Services as well as with the results of the penetration testing which AgileAssets has periodically performed by qualified third party security consultants.

4. **Network and Physical Security Requirements.**

- a. Basic Security Requirements. AgileAssets will:
 - i. install and maintain a working, tuned network firewall to protect Customer Data,
 - ii. regularly install security patches on the Services network,
 - iii. ensure that authentication to the Services' network web front-end is encrypted,
 - iv. where applicable, use and regularly update anti-malware prevention tools,
 - v. maintain a credential management process which includes assigning a unique ID to each person with computer access with a periodic password change requirement,
 - vi. track access to systems, generate and store audit trail and logs to help identify malicious activity,
 - vii. regularly test efficiency and health of security controls, systems and processes,
 - viii. maintain a policy that addresses information security for employees and representatives,
 - ix. restrict physical access to systems containing Customer Data,
 - x. restrict remote access to the network / devices and employ secure remote access controls to verify the identity of users connecting, and
 - xi. protect on-site and off-site backups from unauthorized access during transit and storage.
- b. Encryption. AgileAssets will use cryptographic algorithms that have been published and evaluated by the general cryptographic community with sufficient strength to equate to 128-bit or better.

5. **Security Breach.**

- a. Definition of Security Breach. "Security Breach" means the actual or suspected unauthorized acquisition, destruction, loss, misappropriation or access to, disclosure, use or modification of Customer Data.

- b. Notification of Security Breach. AgileAssets will notify Customer in accordance with applicable law of any actual or suspected security breach of any Customer Data immediately following discovery of a Security Breach, and provide Customer with a detailed description of the breach.
- c. Investigation of Security Breach. AgileAssets will:
 - i. promptly investigate each Security Breach,
 - ii. take all reasonable steps necessary to limit, stop or otherwise remedy the Security Breach,
 - iii. promptly implement appropriate internal technical and procedural controls to reduce the likelihood of a recurrence of a Security Breach, and
 - iv. provide Customer with documentation detailing the controls implemented.

6. Return or Destruction of Data upon Termination.

AgileAssets will maintain a documented process that provides for the security and return or destruction of all Customer Data, including copies stored on backup media, in the event the Services are terminated. Notwithstanding the foregoing, with respect to copies of any of the Customer Data retained by AgileAssets in any backup tapes (or similar media) that are not easily accessible, AgileAssets will continue to maintain the Data on such back-up tapes or other media subject to obligations of confidentiality under this Agreement. In addition, the Customer Data will be destroyed or overwritten by AgileAssets in the ordinary course of business for such records.

MASTER SERVICES SUBSCRIPTION AGREEMENT

Exhibit C

Service Level Agreement

AgileAssets' service level agreement ("SLA") for its hosted "software as a service" decision support system (the "Services") is described below.

1. Definitions.

- a. **"Emergency Maintenance"** means downtime of the Services outside of the Scheduled Maintenance Window hours that is required to complete the application of urgent patches or fixes, or to undertake other urgent maintenance activities. If Emergency Maintenance is required, AgileAssets will immediately contact Customer and provide the expected start time of the Emergency Maintenance, its planned duration, and whether AgileAssets expects the Services to be unavailable during the Emergency Maintenance.
- b. **"Monthly Subscription Fee"** means one-twelfth of the annual fee applicable to the Services.
- c. **"Scheduled Maintenance Window"** means the window during which scheduled maintenance of the Services may be performed. There is generally one Scheduled Maintenance Window monthly (currently, the first Friday in the month from 6 PM until 10 PM (Central time)). AgileAssets will provide Customer with a minimum of five business days advance notification of any Scheduled Maintenance Window. The notification will include the expected start time and duration of the Scheduled Maintenance Window activity. AgileAssets will use commercially reasonable efforts to schedule any Scheduled Maintenance Window activity during off-business hours.
- d. **"Service Credit"** means the percentage of the Monthly Services Fee that is awarded to Customer for a validated claim related to failure to meet the System Availability objective during that month.
- e. **"Service Level Agreement"** is specified in Section 3 ("System Availability Service Level Agreement") of this Exhibit B.
- f. **"System Availability"** means the percentage of total time during which the Services are available to Customer, excluding the Scheduled Maintenance Window and Emergency Maintenance.

2. General Terms Applicable to the Service Level Agreement for the Services.

- a. **Service Credits.** Service Credits earned by Customer hereunder will be applied against fees next due for the Services. If Service Credits cannot be applied to future fees due for the Services because the Agreement has expired or been terminated, AgileAssets will promptly pay Customer the amount of the credit, provided Customer will not receive a refund if AgileAssets has terminated the Agreement for Customer's material uncured breach.
- b. **Service Level Agreement Claims.**
 - i. Customer will have the remedies under this Service Level Agreement commencing 30 days after implementation and go-live of the Services.
 - ii. Customer must notify AgileAssets via email to support@agileassets.com within five business days from the date of the incident Customer first believes entitles it to receive a remedy under this Service Level Agreement set forth below.
 - iii. All claims for failure to meet the Service Level Agreement are subject to validation by AgileAssets. To validate a claim, AgileAssets will use log files, database records, audit logs, and any other available information as the basis for making a good faith judgment on the applicability of Service Credits to said incident. Upon Customer's request, AgileAssets will make information used to validate a claim available for auditing by Customer.
 - iv. The remedies set forth herein represent Customer's sole and exclusive remedy for AgileAssets' breach of the Service Level Agreement defined in this Exhibit.
- c. **Exclusions.**
 - i. Customer will not have any remedies under this Service Level Agreement in connection with any force majeure event.
 - ii. Customer will not have any remedies under this Service Level Agreement to the extent a Service Credit claim is due to: (A) use of the Services outside the scope described in the Agreement, (B) Customer's equipment and/or third party software, hardware or network infrastructure outside of AgileAssets' data center and not under the direct control of AgileAssets, (C) failure of Customer to meet the configuration requirements for Customer equipment specified by AgileAssets, (D) failure of the external internet beyond AgileAssets' network, (E) any inappropriate actions or inactions of Customer or any other third party not under the direct control of AgileAssets, or (F) attacks (i.e. hacks, denial of service attacks, malicious introduction of viruses and disabling devices) caused by third parties, provided AgileAssets has taken all reasonable steps to prevent such attacks.

3. **System Availability Service Level Agreement.**

- a. **System Availability.** AgileAssets warrants at least 99% System Availability during each calendar month.
- b. **Remedy.** If the System Availability is less than 99%, and if Customer has fulfilled all of its obligations under the Agreement including this Exhibit, AgileAssets will provide Customer with a Service Credit applied to the month in which the failure to meet this Service Level Agreement has occurred. The Service Credit will be calculated in accordance with the table below.

% of System Availability per Calendar Month	Service Credit
< 99%	2%
< 98%	4%
< 97%	6%

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	
FLT-001	1	Fleet Management	Acquisition Replacement and Surplus	Allow for identification of replacement criteria by class and type.	Off the
FLT-002	1	Fleet Management	Acquisition Replacement and Surplus	Allow for transfer of fleet/equipment unit into surplus inventory.	Off the
FLT-003	1	Fleet Management	Acquisition Replacement and Surplus	Integrate with wvOASIS asset management and purchasing function to support sale of surplus property.	Custom
FLT-004	1	Fleet Management	Acquisition Replacement and Surplus	Integrate with BRIM to remove fleet/equipment unit from the State inventory for insurance purposes if sold to an external entity.	Custom
FLT-005	1	Fleet Management	Acquisition Replacement and Surplus	Integrate with BRIM to transfer surplus property from one State agency to another State agency if fleet/equipment unit is sold to another State agency.	Custom
FLT-006	1	Fleet Management	Acquisition Replacement and Surplus	Provide ability for an authorized user to submit a fleet/equipment vehicle acquisition or replacement request.	Off the
FLT-007	1	Fleet Management	Acquisition Replacement and Surplus	When a piece or equipment is in "S" (sale), need prevention of charges against that piece of equipment, unless prompted to correct the status.	Off the
FLT-008	2	Fleet Management	Acquisition Replacement and Surplus	Provide the ability to automate equipment replacement scheduling based on time period, mileage and hours utilized and historical repair costs.	Off the
FLT-009	2	Fleet Management	Acquisition Replacement and Surplus	Identify and report on fleet/equipment units meeting replacement criteria.	Off the
FLT-010	2	Fleet Management	Acquisition Replacement and Surplus	Provide the ability to view current depreciated value to determine surplus timing as it relates to life-to-date maintenance expenditures.	Off the
FLT-011	2	Fleet Management	Acquisition Replacement and Surplus	Support multiple surplus property inventories for fleet/equipment units.	Off the
FLT-012	2	Fleet Management	Acquisition Replacement and Surplus	Record sale of surplus property.	Off the
FLT-013	2	Fleet Management	Acquisition Replacement and Surplus	Generate a transaction based on completion of sale and integrate with wvOASIS General Ledger to support posting of receipt for user agency share of revenue from surplus property sale.	Custom
FLT-014	1	Fleet Management	Acquisition Replacement and Surplus	Provide a workflow process for addition of assets to inventory, transferring of assets from one unit to another, and placement of assets into the field. When assets are relocated, they need to manage and track the organization unit assigned and the new location of the asset.	Off the
FLT-015	1	Fleet Management	Acquisition Replacement and Surplus	Provide a workflow process for retirement and disposal of assets.	Off the
FLT-016	2	Fleet Management	Acquisition Replacement and Surplus	Transfer repair history from one state agency to another if vehicle is transferred/sold to another State agency.	Off the
FLT-017	2	Fleet Management	Acquisition Replacement and Surplus	Allow former State agency owner or former State user agency access to history data on a vehicle after vehicle disposal (sell/salvage).	Off the
FLT-018	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: requestor.	Off the
FLT-019	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: date requested.	Off the
FLT-020	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: program area.	Off the
FLT-021	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: authorized approver.	Off the
FLT-022	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: date approved.	Off the
FLT-023	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: requested equipment type.	Off the
FLT-024	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: requested manufacturer/make/model (if one) with a justification.	Off the
FLT-025	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: location where fleet/equipment unit will be assigned.	Off the
FLT-026	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: anticipated cost allocation to active chart of accounts codes, grants or projects.	Off the
FLT-027	2	Fleet Management	Acquisition Replacement and Surplus	Capture the following information for an acquisition/replacement request: date fleet/equipment required by.	Off the
FLT-028	2	Fleet Management	Acquisition Replacement and Surplus	Calculate estimated replacement cost based on purchase price, estimated salvage value, estimated sale price and depreciation.	Off the
FLT-029	2	Fleet Management	Acquisition Replacement and Surplus	Route approval of an acquisition/replacement request based on class, type, unit, estimated cost and other user defined business rules.	Off the
FLT-030	2	Fleet Management	Acquisition Replacement and Surplus	Provide approval routing for both internal agency approvals and any required external agency approvals.	Off the
FLT-031	2	Fleet Management	Acquisition Replacement and Surplus	Integrate with wvOASIS purchasing function to automatically generate a requisition for an approved fleet/equipment unit pre-populating with available information from the fleet/equipment request form.	Custom
FLT-032	1	Fleet Management	Availability Usage and Downtime	Record downtime, showing user defined reason for downtime (down for maintenance, down for parts, absence of a certified operator, etc.).	Off the
FLT-033	1	Fleet Management	Availability Usage and Downtime	Provide for tracking of downtime from the time the vehicle is delivered for repair until the time the operator is notified of completion of the repair/maintenance.	Off the
FLT-034	1	Fleet Management	Availability Usage and Downtime	Provide means to stop and re-start downtime if a vehicle is worked on, then released, then brought back into the shop and worked on again on the same work order.	Off the
FLT-035	1	Fleet Management	Availability Usage and Downtime	Calculate downtime by class, type, manufacturer, make, model and individual fleet/equipment unit based on user-established parameters.	Off the
FLT-036	1	Fleet Management	Availability Usage and Downtime	Provide downtime analysis by user defined downtime reasons, including or excluding non-working hours, weekends, and holidays on work total and averages by class.	Off the
FLT-037	1	Fleet Management	Availability Usage and Downtime	Provide downtime analysis by user defined downtime reasons, including or excluding non-working hours, weekends, and holidays on work total and averages by type.	Off the
FLT-038	1	Fleet Management	Availability Usage and Downtime	Provide downtime analysis by user defined downtime reasons, including or excluding non-working hours, weekends, and holidays on work total and averages by manufacturer.	Off the
FLT-039	1	Fleet Management	Availability Usage and Downtime	Provide downtime analysis by user defined downtime reasons, including or excluding non-working hours, weekends, and holidays on work total and averages by model type.	Off the

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	
FLT-080	2	Fleet Management	Fueling	Integrate with wvOASIS accounts payable, purchasing and inventory functions to manage internal fuel distribution function.	Custo
FLT-081	2	Fleet Management	Fueling	Track fuel used from external purchases.	Off th
FLT-082	2	Fleet Management	Fueling	Track location (i.e. vendor, city, address, etc.) where fuel was purchased.	Off th
FLT-083	2	Fleet Management	Fueling	Update the odometer reading and date fuel purchased on fleet/equipment master record.	Off th
FLT-084	2	Fleet Management	Fueling	Maintain fueling history for each fleet/equipment unit with date, fuel tank and pump (if internal) or external provider and location and fuel usage.	Off th
FLT-085	2	Fleet Management	Fueling	Provide capability to integrate with a third party automated fueling system to obtain fuel usage.	Custo
FLT-086	2	Fleet Management	Fueling	Capture fuel ticket transactions for WVDOT gas pumps not part of an automated fuel management system.	Off th
FLT-087	2	Fleet Management	Fueling	Integrate with and upload transactions from a fleet card system.	Custo
FLT-088	2	Fleet Management	Fueling	Integrate with wvOASIS inventory function and/or third-party fuel management system.	Custo
FLT-089	2	Fleet Management	Fueling	Provide for multiple agency specific mark-ups on fuel costs by agency subunit, fleet/equipment type, internal or external customer and other parameters.	Off th
FLT-090	2	Fleet Management	Fueling	Integrate with wvOASIS accounts receivable and general ledger functions to generate intergovernmental billings for fuel purchases by one state agency from another state agency.	Custo
FLT-091	2	Fleet Management	Fueling	Integrate with wvOASIS accounts receivable and billing functions to bill external customers for fuel purchases. External customers include local political subdivisions such as county sheriffs, etc.	Custo
FLT-092	2	Fleet Management	Fueling	Alert the fleet/equipment unit operator and fleet class/fleet type owner by email of various transactions outside user-defined ranges (fuel type, fuel mileage, etc.).	Off th
FLT-093	2	Fleet Management	Fueling	Provide report of fuel usage outside established business rules by fleet/equipment type.	Off th
FLT-094	2	Fleet Management	Fueling	Calculate fuel economy (e.g. MPG) for current month, year-to-date, life-to-date and last year by agency, agency unit, maintenance shop, fleet class, fleet type, manufacturer, model and individual fleet/equipment unit.	Off th
FLT-095	3	Fleet Management	Fueling	Calculate required state fuel taxes.	Off th
FLT-096	3	Fleet Management	Fueling	Calculate federal fuel taxes.	Off th
FLT-097	3	Fleet Management	Fueling	Calculate updates to vehicle cost per mile based on fueling entries.	Off th
FLT-098	3	Fleet Management	Fueling	Provide ability for an authorized user with proper documentation and approvals based on business rules to adjust fuel purchases charged to one fleet unit which was really for other equipment (fuel for a chain saw bought with the fleet card assigned to the employees vehicle, etc.); provide exception report for all adjustments made.	Off th
FLT-099	1	Fleet Management	General	Integrate with the wvOASIS Financial System to provide information on vehicles, maintenance equipment and other fleet units utilized in performing maintenance work activities.	Custo
FLT-100	1	Fleet Management	General	Support vehicle and equipment usage rates.	Off th
FLT-101	1	Fleet Management	General	Support specific repair codes/activities.	Off th
FLT-102	1	Fleet Management	General	Support specific labor rates.	Off th
FLT-103	1	Fleet Management	General	Support preventable maintenance schedules by fleet/equipment type and fleet/equipment unit.	Off th
FLT-104	1	Fleet Management	General	Support owners of various types of fleet/equipment units.	Off th
FLT-105	1	Fleet Management	General	Support workflows for work order, surplus property and other approvals.	Off th
FLT-106	1	Fleet Management	General	Support management of one or multiple vehicle/equipment pools.	Off th
FLT-107	1	Fleet Management	General	Integrate fleet and equipment management functions with other relevant wvOASIS functions, including but not limited to asset management, accounts payable, accounts receivable, general ledger, grants, inventory, project accounting, purchasing and time and labor.	Custo
FLT-108	1	Fleet Management	General	Interface with wvOASIS cost accounting and allocation, inventory, personnel administration and time and labor to obtain the required actual cost data.	Custo
FLT-109	1	Fleet Management	General	Track transfers. The transfers need to be two-way.	Off th
FLT-110	1	Fleet Management	General	Restrict search capabilities by agency or agency unit based on the user's defined roles/responsibilities.	Off th
FLT-111	1	Fleet Management	General	Integrate with the wvOASIS time and labor function to capture vehicle usage reported by an employee on their time sheet and update the fleet inventory information with mileage to date as appropriate.	Custo
FLT-112	2	Fleet Management	General	Utilize available fleet/equipment information to compare needed versus actual equipment, costing of work orders and daily work accomplishments, and tracking condition and replacement needs.	Off th
FLT-113	2	Fleet Management	General	Allow an authorized user to reserve equipment which is eligible to be pooled and reflect the reserved equipment in their crew schedules.	Off th
FLT-114	2	Fleet Management	General	Calculate automatically equipment utilization and non-productive (commitment time) equipment hours by type of equipment, based on data input from crew leader's daily activity reports on equipment usage.	Off th
FLT-115	2	Fleet Management	General	Allow an authorized user to create minimum usage requirements for specified equipment that will be set as a threshold for comparing planned usage versus actual usage.	Off th
FLT-116	2	Fleet Management	General	Provide ability to restrict access to view units in fleet inventory by equipment class owner, equipment type owner and organization.	Off th
FLT-117	2	Fleet Management	General	Provide capability to search the fleet/equipment inventory by multiple parameters including but not limited to VIN or other unique identifier, fleet/equipment type, manufacturer, make, model, miles driven, hours used, etc.	Off th
FLT-118	2	Fleet Management	General	Restrict only to authorized user's information about fleet/equipment units defined as having special security.	Off th
FLT-119	2	Fleet Management	General	Allow for re-numbering of fleet/equipment units and retain repair, fuel, accident and preventive maintenance histories.	Off th
FLT-120	1	Fleet Management	Inventory	Store and track year manufactured.	Off th
FLT-121	1	Fleet Management	Inventory	Store and track number of doors.	Off th
FLT-122	1	Fleet Management	Inventory	Store and track optional attachments (minimum of 10).	Off th
FLT-123	1	Fleet Management	Inventory	Store and track license tag (minimum of 2).	Off th
FLT-124	1	Fleet Management	Inventory	Store and track fuel type (minimum of 3).	Off th
FLT-125	1	Fleet Management	Inventory	Store and track fuel capacity.	Off th
FLT-126	1	Fleet Management	Inventory	Store and track bucket/cubic yards.	Off th

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	
FLT-179	2	Fleet Management	Inventory	Integrate with BRIM to automatically provide notification of accident and available information on the accident including attachment and transfer to BRIM of electronic files (pictures, police reports, estimates, etc.).	Custor
FLT-180	2	Fleet Management	Inventory	Need ability to receive in rebuilt engines into inventory and have ability to credit a "misc" equipment identification number (ED#). Engine rebuilds have their own work orders and charges to those usually go to a "dummy" ED#.	Off th
FLT-181	3	Fleet Management	Inventory	Store and track seating.	Off th
FLT-182	3	Fleet Management	Inventory	Store and track color 1.	Off th
FLT-183	3	Fleet Management	Inventory	Store and track color 2.	Off th
FLT-184	3	Fleet Management	Inventory	Store and track width.	Off th
FLT-185	3	Fleet Management	Inventory	Store and track height.	Off th
FLT-186	3	Fleet Management	Inventory	Store and track length.	Off th
FLT-187	3	Fleet Management	Inventory	Store and track wheelbase.	Off th
FLT-188	3	Fleet Management	Inventory	Store and track number of axles.	Off th
FLT-189	3	Fleet Management	Inventory	Store and track front or rear wheel drive axles.	Off th
FLT-190	3	Fleet Management	Inventory	Store and track number of tires, front.	Off th
FLT-191	3	Fleet Management	Inventory	Store and track number of tires, rear.	Off th
FLT-192	3	Fleet Management	Inventory	Store and track engine cylinders.	Off th
FLT-193	3	Fleet Management	Inventory	Store and track color 3.	Off th
FLT-194	3	Fleet Management	Inventory	Integrate with the R.L. Polk and Company Vehicle Identification Number Analysis software to populate the fleet unit attributes to the extent possible.	Custor
FLT-195	1	Fleet Management	Labor	Track both direct and indirect labor for each fleet/equipment unit.	Off th
FLT-196	1	Fleet Management	Labor	Capture all labor transactions real-time as the mechanic logs on and off repairs.	Off th
FLT-197	2	Fleet Management	Labor	Prepare efficiency reports which measure how a mechanic's performance compares with one or more user-defined standards. Reports must be able to be generated for the entire agency, a set of maintenance shops, a maintenance shop or for one or more mechanics for a user defined set of repair types and date range.	Custor
FLT-198	3	Fleet Management	Labor	Provide the capability to view on-line work in progress, as well as all work completed that day by mechanic and location.	Off th
FLT-199	3	Fleet Management	Labor	Produce labor averages by repair type and individual mechanic for a maintenance shop, set of maintenance shops.	Off th
FLT-200	1	Fleet Management	Motorpool	Allow fleet units/equipment to be defined as a pool vehicle which can be reserved for use.	Off th
FLT-201	1	Fleet Management	Motorpool	Capture and track all costs associated with each rental.	Off th
FLT-202	1	Fleet Management	Motorpool	Allow additional costs to be added to each rental.	Off th
FLT-203	1	Fleet Management	Motorpool	Provide the ability to define how the rental costs will be calculated to meet individual agency or motor pool specific needs, i.e., rental rate and CPM for excessive miles or rental rate of CPM for total miles, whichever is greater.	Off th
FLT-204	2	Fleet Management	Motorpool	Provide capability to manage WVDOT motor pools.	Off th
FLT-205	2	Fleet Management	Motorpool	Allow definition and set-up of an unlimited number of motor pools.	Off th
FLT-206	2	Fleet Management	Motorpool	Define for each motor pool the employee units or groups of employee units which are eligible to reserve the fleet/equipment units in each motor pool.	Off th
FLT-207	2	Fleet Management	Motorpool	Assign each pooled fleet /equipment unit to a specific motor pool.	Off th
FLT-208	2	Fleet Management	Motorpool	Allow authorized users to view equipment availability by class, type, time in and time out and by rental location.	Off th
FLT-209	2	Fleet Management	Motorpool	Allow vehicles to be reserved for future periods based on user defined rules with proper security authorization.	Off th
FLT-210	2	Fleet Management	Motorpool	Capture reservation information including unit; an active/valid chart of account codes, grant or project to charge rental to; person requesting reservation; destination; employee operator name and driver license number; dispatched information; fleet unit number; rental charges; and pick-up site location.	Off th
FLT-211	2	Fleet Management	Motorpool	Allow override of vehicle reservations with proper security authorization.	Off th
FLT-212	2	Fleet Management	Motorpool	Generate reservation with a PIN# for key control purposes.	Off th
FLT-213	2	Fleet Management	Motorpool	Support scheduling of an assigned pool vehicle/equipment unit for preventive maintenance.	Off th
FLT-214	2	Fleet Management	Motorpool	Support billing for all rental charges, maintenance and operations costs on a single invoice.	Off th
FLT-215	3	Fleet Management	Motorpool	Support user defined rental rate structure by fleet class and fleet type for hourly, daily, weekly, monthly and annual rentals.	Off th
FLT-216	3	Fleet Management	Motorpool	Provide a rental rate structure which allows free miles or unlimited mites for each type of rental.	Off th
FLT-217	1	Fleet Management	Parts Inventory	Maintain year to date and life to date history.	Off th
FLT-218	1	Fleet Management	Parts Inventory	Provide on-line search capabilities of all parts by part type, agency part number, manufacturer's part number, alternate part number, and a user-defined alpha/numeric reference field. The search screen must also display minimum and maximum stocking levels and quantity on hand.	Off th
FLT-219	2	Fleet Management	Parts Inventory	Integrate with the wvOASIS inventory function to maintain an inventory of an unlimited number of consumable inventory (parts, materials, other inventory).	Custor
FLT-220	2	Fleet Management	Parts Inventory	Support set-up of multiple stock rooms or warehouse locations.	Off th
FLT-221	2	Fleet Management	Parts Inventory	Provide the capability to integrate with bar code scanners to receive, transfer, adjust and charge out parts inventory.	Off th
FLT-222	2	Fleet Management	Parts Inventory	Track information on the annual part usage, the type of usage, and the piece of equipment that the part is normally issued to.	Off th
FLT-223	2	Fleet Management	Parts Inventory	Track the issuance of all stocked and non-stocked parts to a specific fleet unit or piece of equipment.	Off th
FLT-224	2	Fleet Management	Parts Inventory	Allow for issuance of parts without having to charge it to a work order; instead parts must be charged to an active chart of account code, grant or project. Provide an audit trail and exception report of these situations.	Off th
FLT-225	2	Fleet Management	Parts Inventory	Maintain inventory history including transfers and adjustments.	Off th
FLT-226	2	Fleet Management	Parts Inventory	Track and record part transfers between shops or locations. Implement appropriate controls to ensure that transfers of parts are acknowledged by the sender and receiver and an exception report is provided for transfers not acknowledged and for any variance in quantities.	Off th

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	
FLT-272	1	Fleet Management	Reporting	Provide optional report selection criteria to restrict the data by agency, class, type, whether equipment unit is active or has been transferred/retired/sent to surplus, shop/location, repair code (or any combination of these factors).	Off th
FLT-273	1	Fleet Management	Reporting	Produce a listing/inventory of fleet/equipment unit assignments by agency or unit or program area.	Off th
FLT-274	1	Fleet Management	Reporting	Produce a listing/inventory of fleet/equipment unit assignments by fleet/equipment unit location by multiple agency specific organizational parameters (for example regions, districts, counties, maintenance shop, parks, forests, etc.).	Off th
FLT-275	1	Fleet Management	Reporting	Produce a listing/inventory of fleet/equipment unit assignments by fleet/equipment owner (individual or business unit for a pooled fleet/equipment unit).	Off th
FLT-276	1	Fleet Management	Reporting	Produce a listing/inventory of fleet/equipment unit assignments for fleet/equipment units which are on temporary loan including the owner of the fleet/equipment unit and the individual or business unit to whom the equipment is on loan to.	Off th
FLT-277	1	Fleet Management	Reporting	Produce a listing/inventory of fleet/equipment unit assignments by assigned maintenance facilities.	Off th
FLT-278	1	Fleet Management	Reporting	Prepare fleet/equipment unit report by various user defined parameters including- by class, by department, broken out by make, model, year, fuel type, GVW, engine type/size, transmission type, radio type or any other attribute of vehicle.	Off th
FLT-279	1	Fleet Management	Reporting	Report on fleet/equipment unit status by active, salvaged, retained, reserved, etc.	Off th
FLT-280	1	Fleet Management	Reporting	Provide a list of fleet/equipment units by location where assigned or loaned.	Off th
FLT-281	1	Fleet Management	Reporting	Provide a fleet/equipment usage report showing vehicles driven a certain number of miles as defined by the user with no preventive maintenance.	Config Report
FLT-282	1	Fleet Management	Reporting	Provide a fleet/equipment usage report showing equipment utilized more than a certain number of hours as defined by the user with no preventive maintenance.	Config Report
FLT-283	1	Fleet Management	Reporting	Provide a report of fleet/equipment units with no activity/usage within a given time period.	Config Report
FLT-284	1	Fleet Management	Reporting	Prepare preventive maintenance reports for any combination of type and interval (monthly, quarterly, etc.).	Config Report
FLT-285	1	Fleet Management	Reporting	Report number of preventive maintenance operations performed in a given time period by fleet or equipment type.	Config Report
FLT-286	1	Fleet Management	Reporting	Provide life-to-date operational cost report per vehicle including by category including repair cost, operational cost, fuel cost, maintenance cost (labor and parts) and administrative cost.	Config Report
FLT-287	1	Fleet Management	Reporting	Provide cumulative fleet/equipment costs (current, year-to-date, life-to-date, last year cost figures).	Config Report
FLT-288	2	Fleet Management	Reporting	Produce a listing/inventory of fleet/equipment unit assignments which are externally maintained.	Off the
FLT-289	2	Fleet Management	Reporting	Provide for a replacement unit report including fleet and equipment units by type over certain time (hours) and/or mileage limits, used for budget forecasting.	Off the
FLT-290	2	Fleet Management	Reporting	Provide an automated fueling system report, showing equipment information, refueling setting, fuel type, other cost and mileage.	Config Report
FLT-291	2	Fleet Management	Reporting	Provide a fuel card report, matching card and assigned vehicle.	Config Report
FLT-292	2	Fleet Management	Reporting	Prepare a component usage report showing components operated over a certain number of hours as defined by the user with no preventive maintenance.	Config Report
FLT-293	2	Fleet Management	Reporting	Prepare labor reports for any combination of the following: employee or work units for any given time period; repair/activity reason such as preventive maintenance, road call, breakdown, etc.; subassembly such as brakes, transmission, cooling system, etc; and repair type.	Config Report
FLT-294	2	Fleet Management	Reporting	Prepare a repair history report by component and by vendor supplying component.	Off the
FLT-295	2	Fleet Management	Reporting	Prepare a report showing the number of scheduled and unscheduled work orders for a user defined time period.	Config Report
FLT-296	2	Fleet Management	Reporting	Prepare a report showing the number of work orders by reason, subassembly and/or repair type for a user defined time period.	Config Report
FLT-297	2	Fleet Management	Reporting	Prepare a report of open work orders by status, type and/or shop (pending, waiting parts, etc.).	Off the
FLT-298	2	Fleet Management	Reporting	Prepare a report showing repeat work orders on the same unit for the last 30, 60 or 90 days.	Config Report
FLT-299	2	Fleet Management	Reporting	Provide equipment down type report by summary or detail for user defined time periods for location; class; type; preventive maintenance code; and down time reason.	Config Report
FLT-300	2	Fleet Management	Reporting	Provide a report of tire repair activity.	Off the
FLT-301	2	Fleet Management	Reporting	Prepare oil and fluid report by summary or detail for user defined time periods by location; assigned maintenance facilities; fleet class/type; manufacturer, model and make; and preventative maintenance code.	Config Report
FLT-302	2	Fleet Management	Reporting	Generate warranty usage report including savings associated with warranty work.	Config Report
FLT-303	2	Fleet Management	Reporting	Prepare an accountability report that details all direct and indirect work by a mechanic and location for any user defined period.	Config Report
FLT-304	1	Fleet Management	Tires	Allow classification of tires by type (i.e., recap, airless, solid, etc.).	Off the
FLT-305	1	Fleet Management	Tires	Track tire costs by type.	Off the
FLT-306	1	Fleet Management	Tires	Track tire location by type including unit, position, scrap and staging.	Off the
FLT-307	2	Fleet Management	Tires	Support comparison of tire makes and models.	Off the
FLT-308	3	Fleet Management	Tires	Track tread wear by type.	Off the
FLT-309	3	Fleet Management	Tires	Track tire performance by type.	Off the
FLT-310	2	Fleet Management	Warranty Management	Support warranty tracking including warranty types, cycle (hours, days, years, miles) and length of cycle in time and/or miles.	Off the
FLT-311	1	Fleet Management	Work Orders	Track equipment status changes (X,S,A,R,W,P). X=Down, S=Sale, A=Active, R=Repair, W=Warranty, and P=Pool.	Off the
FLT-312	1	Fleet Management	Work Orders	Need to be printable/reportable.	Off the
FLT-313	1	Fleet Management	Work Orders	Need to have closure process	Off the
FLT-314	1	Fleet Management	Work Orders	Track regular and overtime labor.	Off the
FLT-315	2	Fleet Management	Work Orders	Need non-formatted fields for additional notes.	Off the
FLT-316	2	Fleet Management	Work Orders	Need drop down options	Off the

	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
			Fleet & Equipment Manager	Not Applicable	
			Fleet & Equipment Manager	Not Applicable	
			Fleet & Equipment Manager	Not Applicable	
			Fleet & Equipment Manager	Not Applicable	
			Fleet & Equipment Manager	Not Applicable	
	Medium				
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			Fleet & Equipment Manager	Not Applicable	
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			Fleet & Equipment Manager	Not Applicable	
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	Medium				
			Fleet & Equipment Manager	Not Applicable	
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ation			Fleet & Equipment Manager	Not Applicable	
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			Materials Manager	Not Applicable	
			Fleet & Equipment Manager	Not Applicable	
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Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	
FLT-363	2	Fleet Management	Work Orders	Update parts inventory in wvOASIS inventory function based on any parts credited in a work order (returned to inventory).	Custo
FLT-364	2	Fleet Management	Work Orders	Track maintenance against the warranty associated with each piece of equipment and/or components.	Off th
FLT-365	2	Fleet Management	Work Orders	Capture cost avoidance information associated with maintenance against the warranty work performed on each vehicle and each piece of equipment and/or components.	Off th
FLT-366	2	Fleet Management	Work Orders	Print warranty tracking and labels at time of repair.	Off th
FLT-367	2	Fleet Management	Work Orders	Update equipment costs with recovered warranty dollars.	Off th
FLT-368	2	Fleet Management	Work Orders	Integrate with wvOASIS accounts payable function to support payment for completed work orders via procurement card or warrant for external repairs and intergovernmental billing for repairs performed by one State agency for another agency.	Custo
FLT-369	2	Fleet Management	Work Orders	Integrate with wvOASIS general ledger function to support intergovernmental billing for repairs performed by one State agency for another agency.	Custo

	Vendor Response	Customization Estimate, if Applicable	Core Module(s)	Comments/Notes
	Off the Shelf			
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Req. #	Priority	Category	Sub-Category	Data Field Requirement
FDF-052	2	Fleet Management	Inventory	Store and display repair history.
FDF-053	2	Fleet Management	Inventory	Store and display history of equipment utilization.
FDF-054	2	Fleet Management	Inventory	Store and display current equipment status (Active, Pooled, Reserve Maintenance, etc.) - X,S,A,R,W,P. X=Down, S=Sale, A=Active, R=Rep.
FDF-055	2	Fleet Management	Inventory	Store and display combined current equipment status of equipment reserved as a unit; for example, a loader and hauler.
FDF-056	2	Fleet Management	Inventory	Store a minimum 3 fuel types per fleet/equipment unit.
FDF-057	2	Fleet Management	Inventory	Store work orders (multiple) associated with any repairs.
FDF-058	2	Fleet Management	Inventory	Store and display warranty information and any recall history.
FDF-059	3	Fleet Management	Inventory	Store vendor identification number for bank or finance company.
FDF-060	3	Fleet Management	Inventory	Store loan date.
FDF-061	3	Fleet Management	Inventory	Store loan start and end date.
FDF-062	3	Fleet Management	Inventory	Store loan terms (rate, period, payment).
FDF-063	3	Fleet Management	Inventory	Store loan payment due date.
FDF-064	3	Fleet Management	Inventory	Store organization to whom loan payment is made (bank or other).
FDF-065	3	Fleet Management	Inventory	Store loan payment location.
FDF-066	3	Fleet Management	Inventory	Store loan payment address.
FDF-067	2	Fleet Management	Motorpool	Store for each motor pool: unique motor pool identifier.
FDF-068	2	Fleet Management	Motorpool	Store for each motor pool: unit.
FDF-069	2	Fleet Management	Motorpool	Store for each motor pool: motor pool manager.
FDF-070	2	Fleet Management	Motorpool	Store for each motor pool: pool location.
FDF-071	2	Fleet Management	Motorpool	Store for each motor pool: unique motor pool identifier.
FDF-072	2	Fleet Management	Motorpool	Store for each motor pool: unit.
FDF-073	2	Fleet Management	Motorpool	Store for each motor pool: motor pool manager.
FDF-074	2	Fleet Management	Motorpool	Store for each motor pool: pool location.
FDF-075	1	Fleet Management	Parts Inventory	Store part type code.
FDF-076	2	Fleet Management	Parts Inventory	Store part number.
FDF-077	2	Fleet Management	Parts Inventory	Store manufacturer.
FDF-078	2	Fleet Management	Parts Inventory	Store manufacturer part number.
FDF-079	2	Fleet Management	Parts Inventory	Store serial number.
FDF-080	2	Fleet Management	Parts Inventory	Store alternate part number.
FDF-081	2	Fleet Management	Parts Inventory	Store description.
FDF-082	2	Fleet Management	Parts Inventory	Store part usage codes (multiple).
FDF-083	2	Fleet Management	Parts Inventory	Store part reference fields (multiple).
FDF-084	2	Fleet Management	Parts Inventory	Store cross reference fields (multiple).
FDF-085	2	Fleet Management	Parts Inventory	Store part usage codes (multiple).

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	Vendor
RPT-034	4	Management Reporting	Standard Report Features	Provide authorized users with the capability to perform free-form text searching within a report output/results set. Search capability shall include the specification of words that are in a given range of words and shall include embedded, attached or linked documents.	Off the Shelf
RPT-035	2	Management Reporting	Standard Report Features	Present data in both tabular and graphical formats.	Off the Shelf
RPT-036	3	Management Reporting	Standard Report Features	Provide reporting and analytical capabilities with a similar user interface/user experience to the extent practical as other Fleet Management system functions (reporting toolset should not have a significantly different look and feel to the end-user from other parts of the Vendor system).	Off the Shelf
RPT-037	3	Management Reporting	Standard Report Features	Provide ability to allow the results from any online search or query performed within the Vendor solution to be printed.	Off the Shelf
RPT-038	2	Management Reporting	Standard Report Features	Provide standard print capabilities such as those typically available in Windows-based products such as print preview, print a range of pages, print a number of copies, etc.	Off the Shelf
RPT-039	2	Management Reporting	Standard Report Features	Provide ability to schedule a report to run automatically if certain conditions (business rules) are met.	Off the Shelf
RPT-040	2	Management Reporting	Standard Report Features	Support export of query and report results as an external database (for example in Microsoft Access or SQL Server readable formats).	Customization
RPT-041	2	Management Reporting	Standard Report Features	Support export of query and report results in a variety of different industry standard formats including but not limited to .xls or .xlsx, .doc or .docx, PDF, .txt, XML, ASCII, comma delimited, tab delimited, etc.	Off the Shelf
RPT-042	3	Management Reporting	Standard Report Features	Provide for report distribution based on events, process milestones, or predefined data thresholds or values, e.g., based on data values contained within the report (i.e., conditional operators >, <, =, etc.)	Off the Shelf
RPT-043	3	Management Reporting	Standard Report Features	Provide the capability to integrate third party report distribution software solutions.	Customization
RPT-044	3	Management Reporting	Standard Report Features	Provide functionality to distribute reports by a variety of methods such as sending links to reports via email, web, fax, or PDA.	Off the Shelf
RPT-045	3	Management Reporting	Standard Report Features	Support effective date selection and query including Boolean operations such as date ranges.	Off the Shelf
RPT-046	3	Management Reporting	Standard Report Features	Provide functionality for the user to incorporate formulas, functions, and mathematical calculations into reports as well as typical grouping, mathematical and statistical functions on data in reports (such as sum, count, average, etc.)	Off the Shelf
RPT-047	3	Management Reporting	Standard Report Features	Provide the ability to create and specify report templates.	Off the Shelf
RPT-048	3	Management Reporting	Standard Report Features	Provide wizards to guide the users through report building steps.	Off the Shelf
RPT-049	3	Management Reporting	Standard Report Features	Provide cursor selection and drag-and-drop features to assist users in formatting of files, elements, and operands (e.g., +, -, /, *) from data dictionary or other pre-established lists.	Off the Shelf
RPT-050	3	Management Reporting	Standard Report Features	Provide graphical report layout tools and drag-and-drop features to assist users in formatting reports and inquires.	Off the Shelf
RPT-051	3	Management Reporting	Standard Report Features	Provide support for graphical data visualization features including but not limited to stacked bar charts, min/mid/max line graphs, regression lines, dashboard gauges, etc.	Off the Shelf
RPT-052	3	Management Reporting	Standard Report Features	Provide ability to link from reporting tool to Microsoft Office graphic, spreadsheet and presentation applications.	Does Not Meet
RPT-053	3	Management Reporting	Ad-hoc Query	Allow users to build ad-hoc queries to report on any fields in the Vendor solution for which they are authorized using one or more of a combination of different criteria; provide online access to a data dictionary showing data element and table to assist query building.	Off the Shelf
RPT-054	3	Management Reporting	Ad-hoc Query	Allow a user to save an ad-hoc query for later execution without impacting any base query that was used as a start point.	Off the Shelf
RPT-055	3	Management Reporting	Ad-hoc Query	Display a user's saved ad-hoc queries by descriptive name on the user's report portal.	Off the Shelf
RPT-056	3	Management Reporting	Ad-hoc Query	Allow a user to authorize one or more additional users to have access to a saved ad-hoc query through the report portal.	Off the Shelf
RPT-057	3	Management Reporting	Ad-hoc Query	Display any ad-hoc queries that are authorized (shared) by one user for use by a second user on the second user's report portal.	Off the Shelf
RPT-058	2	Management Reporting	Ad-hoc Query	Provide ability to track data by user-defined performance indicators.	Off the Shelf
RPT-059	2	Management Reporting	Report Administration	Provide a solution architected so as to centrally manage the reporting tool set to ensure that any updates are distributed to users and that all users are accessing the same version of the reporting software.	Off the Shelf
RPT-060	1	Management Reporting	Report Administration	Ensure solution is architected so system performance is not impacted when a large report or inquiry is being run.	Off the Shelf
RPT-061	3	Management Reporting	Report Administration	Provide the ability to schedule, view and modify the start time for batch printing including any dependencies on certain business conditions or events; provide option to restrict batch printing of large volume outputs by job or to certain authorized users to minimize on paper usage.	Off the Shelf
RPT-062	1	Management Reporting	Report Administration	Enable users to run ad hoc reports and queries without degradation of system performance.	Off the Shelf
RPT-063	2	Management Reporting	Report Administration	Allow the system administrator or other authorized user to define limits on the execution time for a report or query and/or the numbers being retrieved.	Off the Shelf
RPT-064	2	Management Reporting	Report Administration	Cancel automatically a query or report job if it fails to meet system administrator defined criteria (e.g., time limits, infinite loops, excessive pages, etc.).	Off the Shelf
RPT-065	2	Management Reporting	Report Administration	Provide the ability for authorized users or system administrator to terminate any query or report that significantly reduces system performance.	Off the Shelf
RPT-066	3	Management Reporting	Report Administration	Allow system administrator or other authorized user to override parameters for an individual query or report.	Off the Shelf
RPT-067	3	Management Reporting	Report Administration	Provide functionality to audit exports of report data and modifications to report definitions.	Customization
RPT-068	2	Management Reporting	Report Administration	Provide the ability to configure reports such that information can be suppressed based on a user's role.	Off the Shelf

Customization Estimate, if Applicable	Capability Planned for Future Release	Core EAM Module(s)	Third Party Solution(s)	Comments/Notes
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	
APP-001	1	Application Architecture	General	Provide a suite of fully-integrated application modules in which data captured in one module is readily available for use and updated as appropriate in other modules of the system.	Off th
APP-002	1	Application Architecture	General	Provide ability to share all related business information across functional areas and organizations, subject to application security and user-defined business rules and security considerations.	Off th
APP-003	1	Application Architecture	General	Provide an integrated data management structure that is utilized across the proposed software solution minimizing system processing or administration required on the data integration points.	Off th
APP-004	1	Application Architecture	General	Provide user-controlled definition and maintenance of system values and business rules in tables, system configuration files, coding, and business rules in data structures and interfaces without requiring programmer intervention to modify and providing the capability for an application administrator or other authorized users to manage and maintain system configurations, settings, and data tables.	Off th
APP-005	2	Application Architecture	General	Update all related modules and tables immediately with a single entry; that is, any change to a project attribute or project status information is made only once but takes effect throughout the system.	Off th
APP-006	2	Application Architecture	General	Provide means of altering tables and/or data structures to support user-defined fields and capability for system administrator or other authorized users to create new data items on-line and automatically update a global data dictionary with these new elements.	Off th
APP-007	2	Application Architecture	General	Provide application administrator or other authorized user with screen layout configuration capabilities including movement of fields on the screen and/or across tables, removal of fields, addition of user-defined fields, reorder or consolidation of tables, buttons to enable prints and selection of related reports, links to other business objects (such as CAD drawings, user manuals, project records, contract records, etc.)	Off th
APP-008	2	Application Architecture	General	Support consistency in terms of field labels such that a screen label defined in one place would be referred to in the same way everywhere and separated by line of business, role, etc.	Off th
APP-009	2	Application Architecture	General	Within the system, utilize a design which provides the end user with a perspective of real-time update of data (even if some processes may be happening in the background to complete database updates); that is, users should not be required to toggle back and forth from a screen being used to perform a business process using a job queue to check the status of a batch/background task being able to proceed to the next screen in a series of screens required to perform a specific business function/task.	Off th
APP-010	2	Application Architecture	General	Perform transactions in real-time in the sense that online access will display the most current element value (e.g., if a user changes the value of a data element on one screen, the newly changed data value will be shown when the user moves to another screen with that same data element).	Off th
APP-011	1	Application Architecture	General	Edit all system input according to user-defined business rules so that the rules are appropriately and consistently applied and data is validated at the time the data is entered into the system (on-line or via a batch transaction).	Off th
APP-012	2	Application Architecture	General	Utilize effective-dated transactions and table updates (either dated for future action or dated to be retroactive) with the ability to specify data edits by type of transaction.	Off th
APP-013	2	Application Architecture	General	Support multiple concurrent application sessions for each user; each concurrent session must be able to support the same security profile or a different profile if the user has multiple profiles.	Off th
APP-014	2	Application Architecture	General	Provide capability for a user to have multiple screens or tabs open within a single user session.	Off th
APP-015	2	Application Architecture	General	Maintain security logs and audit trails distinctly for each concurrent user session.	Off th
APP-016	2	Application Architecture	General	Support encryption, masking, or hiding of any fields with restricted access to only authorized users by department/business unit and role and responsibility.	Off th
APP-017	2	Application Architecture	General	Provide capability to indicate at the field level user classes or individual users who are authorized to view masked or encrypted fields.	Off th
APP-018	2	Application Architecture	General	Allow display of masked, hidden, or encrypted fields by an authorized user.	Off th
APP-019	1	Application Architecture	General	Comply with the Rehabilitation Act of 1973 and Americans with Disabilities Act (ADA) Section 508 standards for accessibility of all system functions.	Off th
APP-020	1	Application Architecture	User Interface	Utilize a consistent user interface across the software (excluding proposed third party solutions) including user definable hot keys; screen naming functions; navigation patterns; consistent use of controls; and online help and menus (as defined by the user's security profile).	Off th
APP-021	2	Application Architecture	User Interface	Ensure messages appear in a consistent format across all system functions for both batch and on-line processing.	Off th
APP-022	2	Application Architecture	User Interface	Allow manual entry and also context specific drop-down lists of all valid values for each validated field where appropriate.	Off th
APP-023	2	Application Architecture	User Interface	Provide immediate transfer/paste of value[s] from a "pop up" list of values tables to the appropriate field when selected.	Off th
APP-024	2	Application Architecture	User Interface	Architect so as to have interfaces proceed directly and automatically to the next appropriate field when data is entered, for example "Tabbing" through fields in a defined sequence.	Off th
APP-025	2	Application Architecture	User Interface	Allow user to directly access other input screens and modules without need for backing out of menus or menu paths.	Off th
APP-026	2	Application Architecture	User Interface	Allow navigation between multiple, related input screens without losing any information input on the original (or header) screen.	Off th
APP-027	2	Application Architecture	User Interface	Allow user to move backward within a menu structure and screens without losing previously entered data.	Off th
APP-028	2	Application Architecture	User Interface	Allow a user to cancel transaction and/or exit any document or screen without saving changes.	Off th
APP-029	1	Application Architecture	User Interface	Support cut and paste for copying data between screens.	Off th
APP-030	2	Application Architecture	User Interface	Provide a display that indicates (e.g., highlighting) all required fields for entry on any screen.	Off th
APP-031	2	Application Architecture	User Interface	Provide a search and filter capability on user screens containing columns of data.	Off th
APP-032	2	Application Architecture	Functions and Features	Support use of keyboard data entry only (i.e., allow screen functions to be performed without use of a mouse).	Off th
APP-033	1	Application Architecture	Functions and Features	Support the generation of email messages by the system based on various system/business events utilizing SMTP for outbound messages.	Off th

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	
APP-073	2	Application Architecture	Workflows	Allow user-defined standard approval timeframes.	Off the
APP-074	2	Application Architecture	Workflows	Allow user-defined alternative approval paths.	Off the
APP-075	1	Application Architecture	Workflows	Support multiple levels of approvals for transactions based on profile security and other user-defined criteria.	Off the
APP-076	1	Application Architecture	Workflows	Allow a user to enter descriptive information in a note field or to upload and attach a file (Microsoft Office, Microsoft Office 365, PDF, JPEG, etc.) to content items within the workflow and store these notes with user id and date/time stamp.	Off the
APP-077	2	Application Architecture	Workflows	Allow workflows to be designated as either 'informational' or 'action (such as approval) required.	Off the
APP-078	2	Application Architecture	Workflows	Ensure a transaction is not finalized until all required approval workflows are complete.	Off the
APP-079	2	Application Architecture	Workflows	Allow a workflow to be designed to support either simultaneous actions or require consecutive actions, as defined by an authorized user.	Off the
APP-080	1	Application Architecture	Workflows	Provide a dashboard which displays the status of workflows including workflows pending for a user-defined period of time.	Off the
APP-081	1	Application Architecture	Workflows	Provide capability for personnel, or their supervisors to delegate their approval authority to another individual or work group, along with allowing the delegate to access their "inbox" should that be desired by the user. This function is primarily to allow for coverage when an employee is out on leave.	Off the
APP-082	2	Application Architecture	Workflows	Provide email notification of workflow items.	Off the
APP-083	2	Application Architecture	Workflows	Provide capability to allow an application system administrator to authorize a user to be able to opt in/opt out of email notifications.	Off the
APP-084	2	Application Architecture	Workflows	Allow user with appropriate authorization to disable email notification (opt in/opt out capability).	Off the
APP-085	2	Application Architecture	Workflows	Provide integrated workflow error handling.	Off the
APP-086	2	Application Architecture	Workflows	Track workflow approvals and rejections.	Off the
APP-087	1	Application Architecture	Workflows	Support various user-defined transaction statuses, including approved, rejected, pending, under consideration, etc.	Off the
APP-088	1	Application Architecture	Workflows	Provide for the display of the status of items submitted to a workflow at any time.	Off the
APP-089	1	Application Architecture	Workflows	Maintain document status based on routing and approvals and allow authorized users to determine where the document is in the routing process.	Off the
APP-090	2	Application Architecture	Workflows	Notify users automatically via email when items in their "inbox" have gone unprocessed for a user-defined period of time.	Off the
APP-091	2	Application Architecture	Workflows	Route transactions automatically to a workgroup after a specific time of inaction (based on user-defined criteria).	Off the
APP-092	2	Application Architecture	Workflows	Allow steps in the workflow to be bypassed by allowing approvers higher in the approval chain to approve transactions. Should this transaction be in the "inbox" of an approver lower in the approval chain automatically remove transaction from lower approver's inbox.	Off the
APP-093	2	Application Architecture	Workflows	Support the use of a "master approver" for each workflow who may approve a transaction at any time whether included in the normal workflow or not.	Off the
APP-094	1	Application Architecture	Mobile Technology	System should be "mobile-friendly" for mobile platforms/environments including iOS and Android.	Off the
APP-095	1	Application Architecture	Mobile Technology	Utilize responsive design to ensure that web pages display accurately on a range of screen sizes and aspect ratios including smart phones, desktops, tablets, etc.	Off the
APP-096	1	Application Architecture	Security	Comply with WVDOT and any applicable State of West Virginia security policies.	Off the
APP-097	1	Application Architecture	Security	Comply with encryption requirements in Internal Revenue Service Publication 1075.	Third P
APP-098	1	Application Architecture	Security	Comply with Federal Information Processing Standard (FIPS) 140 or most current.	Custom
APP-099	1	Application Architecture	Security	Comply with ISO/IEC 15408: Common Criteria for Information Technology Security Evaluation.	Does N
APP-100	1	Application Architecture	Security	Support digital certificates.	Off the
APP-101	1	Application Architecture	Security	Support public key infrastructure (PKI).	Off the
APP-102	1	Application Architecture	Security	Support Transport Layer Security (TLS) > 1.2.	Off the
APP-103	1	Application Architecture	Security	Provide an efficient, flexible way to control and administer access to all components of the solution using role-based security.	Off the
APP-104	1	Application Architecture	Security	Provide role-based security and privileges and access rights by position and department/business unit.	Off the
APP-105	1	Application Architecture	Security	Provide granular management and administrator control over transactions, forms access, field updates, row locking, interfacing events, data queries and other types of authorizations using role-based security.	Off the
APP-106	1	Application Architecture	Security	Provide capability to establish "security profiles" or templates by user-defined job category or role, and to apply the templates to individuals and to user groups to grant privileges.	Off the
APP-107	1	Application Architecture	Security	Restrict display of system functions upon sign-in to the software to only the options, functions, menu selections, screens, and data fields to which the user or business unit has rights to.	Off the
APP-108	1	Application Architecture	Security	Provide ability to ensure that if two or more distinct security roles are needed to perform a business function and all needed roles are held by the same user, the user must log on separately under each security role in order to perform the full business transaction. Further, if a user has approval privileges over a business process that they also enter data for, the user shall NOT be able to approve their own work or requests. User-generated work or requests must be approved by a different/independent approver (such as a supervisor).	Off the
APP-109	1	Application Architecture	Security	Provide ability for the system within the security function of the application to allow an authorized user to configure available controls, actions, and access for interfaces based upon user role / privileges.	Off the
APP-110	1	Application Architecture	Security	Integrate with Active Directory to define users to the system, including following user information: unique user identification; user first name; user last name; department/business unit; user email address; and effective date of user access to the system.	Off the

Item	Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
			Fleet & Equipment Manager	Not Applicable	
ation			Fleet & Equipment Manager	Not Applicable	
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			Fleet & Equipment Manager	Not Applicable	
	Small		Fleet & Equipment Manager	Not Applicable	
	Medium		Fleet & Equipment Manager	Not Applicable	
	Medium		Fleet & Equipment Manager	Not Applicable	
			Fleet & Equipment Manager	Not Applicable	
ation			Fleet & Equipment Manager	Not Applicable	
			Fleet & Equipment Manager	Not Applicable	
ation			Fleet & Equipment Manager	Not Applicable	

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	
APP-142	1	Application Architecture	Help	Allow authorized users to modify and maintain error message text.	Off th
APP-143	2	Application Architecture	Help	Ensure an error message points the user to the field in error (e.g., by identifying the field name, field number or providing a link to tab to the field).	Off th
APP-144	2	Application Architecture	Help	Provide capability to identify processing or navigation path for a screen.	Off th
APP-145	2	Application Architecture	Help	Allow customization of help files provided with the system by the application system administrator or other authorized users to incorporate WVDOT-wide or business unit/department specific information.	Off th
APP-146	2	Application Architecture	Help	Allow customization of help files by the system administrator or other authorized user by department/business unit or by roles and responsibilities within the proposed system: users must be able to modify the part of the help text that they are authorized to maintain without impacting other help text.	Off th
APP-147	2	Application Architecture	Help	Ensure all customized help text and files carry forward automatically during system updates and upgrades.	Off th
APP-148	1	Application Architecture	User Documentation	Provide user documentation that is comprehensive, clear and easy to use (e.g., user documentation must provide quick answers to questions regarding the navigation of application screens, execution of pre-defined reports, and use of the ad-hoc query capability); it must also contain clear and thorough descriptions of all screen and batch processing functions, screen data, programs, system reports, and any processing parameters.	Off th
APP-149	1	Application Architecture	User Documentation	Provide all system documentation and manuals electronically.	Off th
APP-150	1	Application Architecture	User Documentation	Provide search functions for on-line documentation, across all documentation and within component pieces of the on-line documentation.	Off th
APP-151	2	Application Architecture	User Documentation	Allow system administrator to authorize components of the system documentation to be available for download by authorized users.	Off th
APP-152	2	Application Architecture	User Documentation	Provide capability to allow authorized users to download user documentation approved by the system administrator for distribution as one or multiple PDF files.	Off th
APP-153	2	Application Architecture	User Documentation	Enable users to incorporate user-defined documentation into system documentation (e.g., user procedures, business rules, etc.), which is accessible in the same manner as documentation from the software provider.	Off th
APP-154	2	Application Architecture	User Documentation	Support version control for user-defined documentation.	Off th
APP-155	1	Application Architecture	Upgradeability	Provide capability for all upgrade and patched processes for the system to automatically re-apply configurations and customizations made by WVDOT (Should these customizations/configurations have to manually be re-applied, the system shall identify these exceptions for manual re-application before applying any upgrade/patch software).	Off th

Customization Estimate, if Applicable	Capability Planned for Future Release	Core Module(s)	Third Party Solution(s)	Comments/Notes
		Not Applicable		
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	AgileAssets supports REST or JSON for third party integration using API
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	Solution is deployed on AWS and supports virtualizations
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	There is no additional required software to run on a desktop station
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	All servers are deployed as 64-bit Oses
		Fleet & Equipment Manager	Not Applicable	Connectivity is over HTTPS which is TCP/IP
		Fleet & Equipment Manager	Not Applicable	Once the required communication channels are established, then network traffic will not be impeded
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	Customizable functionality to support this requirement can be built into any interface that requires workflow transfer or receipts
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	There is a column type (P) that enables a field of data to be encrypted
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	
		Fleet & Equipment Manager	Not Applicable	

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	Vendor
TEC-032	2	Technical Architecture	Data Integration	Allow correction of suspended records within the software solution.	Off the Shelf
TEC-033	2	Technical Architecture	Data Integration	Provide capability to validate data during both the initial load step and during processing steps.	Off the Shelf
TEC-034	2	Technical Architecture	Data Integration	Allow the system administrator or other authorized users to browse the suspense file in the system.	Off the Shelf
TEC-035	2	Technical Architecture	Data Integration	Provide facilities for verification and batch controls tools to ensure the complete file was received and that the file was not a duplicate.	Off the Shelf with
TEC-036	2	Technical Architecture	ETL Tools	Provide data integration and data management tools with a range of extract, transform, and load (ETL) capabilities.	Off the Shelf
TEC-037	2	Technical Architecture	ETL Tools	Support ability to integrate third-party ETL tools to perform ETL functions.	Off the Shelf with
TEC-038	2	Technical Architecture	ETL Tools	Utilize scripting or other object-oriented structured languages to define advanced transformation routines/procedures.	Off the Shelf with
TEC-039	2	Technical Architecture	ETL Tools	Provide 'data exchange management' to schedule and monitor inbound and outbound files, notify appropriate contacts in the event of problems, automatically detect duplicate files, and perform other data interchange management functions.	Off the Shelf with
TEC-040	2	Technical Architecture	ETL Tools	Validate and handle exceptions during transformation.	Off the Shelf
TEC-041	2	Technical Architecture	ETL Tools	Verify and maintain referential integrity as part of any transformation process.	Off the Shelf
TEC-042	2	Technical Architecture	ETL Tools	Provide the capability to override the default source mapping and use specific SQL statements.	Off the Shelf
TEC-043	2	Technical Architecture	ETL Tools	Provide ability to map data from multiple source systems and into multiple target source systems.	Off the Shelf
TEC-044	2	Technical Architecture	ETL Tools	Provide ability to schedule and monitor the extraction, cleansing, transformation, and loading processes.	Off the Shelf
TEC-045	2	Technical Architecture	ETL Tools	Provide ability to rebuild/reload transactions from a specific date/time forward.	Off the Shelf with
TEC-046	1	Technical Architecture	System Tools	Provide report design and generation tools within the system solution.	Off the Shelf
TEC-047	1	Technical Architecture	System Tools	Provide end-user interface design tools within the system solution.	Off the Shelf
TEC-048	2	Technical Architecture	System Tools	Provide tools for system monitoring within the system solution.	Off the Shelf
TEC-049	2	Technical Architecture	System Tools	Provide configuration management tools within the system solution.	Off the Shelf
TEC-050	2	Technical Architecture	System Tools	Provide source management tools within the system solution.	Off the Shelf
TEC-051	2	Technical Architecture	System Tools	Provide ability to work with third-party configuration management and source management tools .	Does Not Meet
TEC-052	2	Technical Architecture	System Tools	Provide tools for Application Program Interface (API) maintenance within the system solution.	Off the Shelf with
TEC-053	1	Technical Architecture	Database	Maintain referential integrity of data through either database referential integrity declarations or application code.	Off the Shelf
TEC-054	1	Technical Architecture	Database	Support data replication, load balancing and synchronization across multiple physical or virtual servers as appropriate.	Off the Shelf
TEC-055	1	Technical Architecture	Database	Leverage DBMS database features and database and application design to reduce contention between updates by online users and those of concurrently running batch processes.	Off the Shelf
TEC-056	1	Technical Architecture	Database	Ensure that on-line search queries will not be delayed by waiting for locks to be released.	Off the Shelf
TEC-057	1	Technical Architecture	Database	Ensure in a two user scenario when both users retrieve data and attempt to update data one after another, to avoid loss of updates and/or to avoid overwriting of each other's data the system must notify the second user as the data is being updated by the first user (provide selection of "first in wins", last, etc.).	Does Not Meet
TEC-058	1	Technical Architecture	Database	Ensure that in a two transaction read/update cycle, the user will always update ONLY what was being read, avoiding the so-called 'update collision' or 'deadly embrace'.	Off the Shelf
TEC-059	1	Technical Architecture	Database	Support automatic "clean up" of partial database updates after suspended network sessions or after other failures.	Off the Shelf
TEC-060	2	Technical Architecture	Database	Allow database structure changes to be made with a minimal impact to system availability.	Off the Shelf
TEC-061	1	Technical Architecture	Database	Provide utilities which support automatic replication of table updates to multiple databases; provide replication of tables across application instances (test, training, dev, QA, prod, etc.).	Off the Shelf
TEC-062	1	Technical Architecture	Database	Support record-locking at the row level.	Does Not Meet
TEC-063	1	Technical Architecture	Database	Support configuration of data attributes by the system administrator.	Off the Shelf
TEC-064	1	Technical Architecture	Database	Provide structured query language (SQL) capabilities for database queries.	Off the Shelf
TEC-065	2	Technical Architecture	Database	Include new data items automatically in migration paths during software upgrades.	Off the Shelf
TEC-066	1	Technical Architecture	Reliability	Provide a solution which is architected to enable support for 99.99% availability of the production environment for online inquiry and updates seven days a week (other than for a defined maintenance window and other scheduled outages approved by WVDOT).	Off the Shelf
TEC-067	1	Technical Architecture	Performance	Provide a solution which is architected to support up to 300 concurrent users across all system functions; respondent must be able to provide WVDOT with documented evidence of the ability of its proposed system solution to support these user volumes at the required performance levels as part of the evaluation and selection process.	Off the Shelf
TEC-068	1	Technical Architecture	Performance	Provide a solution which is architected to fully process a transaction within the application and database environments within one second of receipt of the transaction 75% of the time and all transactions within five seconds for 300 concurrent users.	Off the Shelf

Req. #	Priority	Category	Sub-Category	Business (Functional) Requirement	Vendor P
TEC-105	2	Technical Architecture	Job Scheduling and Processing	Provide an audit trail of job execution at a minimum noting the job's name, start time, end time, and status.	Off the Shelf
TEC-106	2	Technical Architecture	Job Scheduling and Processing	Allow authorized user to modify job status (e.g., changing status of a job to "Complete", etc.).	Off the Shelf
TEC-107	2	Technical Architecture	Job Scheduling and Processing	Provide capability to establish job groups.	Off the Shelf
TEC-108	2	Technical Architecture	Job Scheduling and Processing	Provide capability to re-start a multi-step job from a user-defined point/step.	Does Not Meet
TEC-109	2	Technical Architecture	Job Scheduling and Processing	Allow authorized users to control job by transaction type.	Off the Shelf
TEC-110	2	Technical Architecture	Job Scheduling and Processing	Produce a log of job results and append to this log if the job re-runs.	Off the Shelf
TEC-111	2	Technical Architecture	Job Scheduling and Processing	Provide the capability to establish and maintain user-defined calendars of scheduled jobs.	Off the Shelf
TEC-112	2	Technical Architecture	Job Scheduling and Processing	Provide a suspense file for rejected batch transactions.	Off the Shelf
TEC-113	2	Technical Architecture	Job Scheduling and Processing	Allow an authorized user to delete rejected records from the suspense file.	Off the Shelf
TEC-114	2	Technical Architecture	Job Scheduling and Processing	Produce daily report of error transactions by system function.	Off the Shelf with
TEC-115	2	Technical Architecture	Job Scheduling and Processing	Provide ability for an authorized user to edit a transaction in error and resubmit.	Off the Shelf with
TEC-116	1	Technical Architecture	Technical Documentation	Provide comprehensive technical system documentation and technical manuals for the solution system including any third-party add-on modules included in the proposed system solution. Documentation shall include comprehensive technical system documentation and technical manuals for the proposed system including any third-party add-on modules included in the proposed system solution .	Off the Shelf
TEC-117	1	Technical Architecture	Technical Documentation	Include program descriptions in technical system documentation.	Off the Shelf
TEC-118	1	Technical Architecture	Technical Documentation	Include screen definitions and descriptions in technical system documentation.	Off the Shelf
TEC-119	1	Technical Architecture	Technical Documentation	Include database definitions, logical data model, and record layouts in technical system documentation.	Off the Shelf
TEC-120	1	Technical Architecture	Technical Documentation	Include audit trail management documentation in technical system documentation.	Off the Shelf
TEC-121	1	Technical Architecture	Technical Documentation	Include security administration documentation in technical system documentation.	Off the Shelf
TEC-122	1	Technical Architecture	Technical Documentation	Include installation documentation in technical system documentation.	Off the Shelf
TEC-123	1	Technical Architecture	Technical Documentation	Include performance tuning documentation in technical system documentation.	Off the Shelf
TEC-124	1	Technical Architecture	Technical Documentation	Include workflow process and administration documentation in technical system documentation.	Off the Shelf
TEC-125	1	Technical Architecture	Technical Documentation	Include disaster recovery procedures in technical system documentation.	Off the Shelf