

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
 P.O. BOX 30026 LANSING, MICHIGAN 48909



CONTRACT CHANGE NOTICE

Change Notice Number **3**

to

Contract Number **190000001496**

CONTRACTOR	KUNZ LEIGH & ASSOCIATES INC		
	28081 Southfield Rd.		
	Lathrup Village, MI 48076-2816		
	Justin Shaulis		
	517-803-3217		
	j.shaulis@kunzleigh.com		
	CV0036059		
STATE	Program Manager	Various	EGLE
	Contract Administrator	Jarrod Barron	DTMB
		(517) 249-0406	
		barronj1@michigan.gov	

CONTRACT SUMMARY

EGLE DWEHD LICENSING, ENFORCEMENT AND INSPECTION SYSTEM

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 20, 2019	November 20, 2024	5 - 1 Year	November 20, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	

ALTERNATE PAYMENT OPTIONS

<input type="checkbox"/> P-Card	<input type="checkbox"/> PRC	<input type="checkbox"/> Other	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
---------------------------------	------------------------------	--------------------------------	------------------------------	--

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		November 20, 2024
CURRENT VALUE	VALUE OF CHANGE NOTICE			ESTIMATED AGGREGATE CONTRACT VALUE
\$8,000,000.00	\$4,297,476.00			\$12,297,476.00

DESCRIPTION

Effective 5/14/2021, the parties agree to implement project Phase 2, revise requirements and payment schedule per the attached documentation and add \$4,297,476.00 to the contract to cover the costs of this change. All other terms, conditions, specifications, and pricing remain the same. Per DTMB Contractor, agency and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
EGLE	Ronda Page	517-242-4114	PAGER1@michigan.gov
DTMB	Manny Rosales	517-241-4652	RosalesM@michigan.gov

REQUIREMENTS & PAYMENT SCHEDULE CHANGES

Requirements Changes

Description							
The parties revise Business Specifications 6.0 (modify), 6.1 (remove), 6.1.1 (remove), 17.1 through 17.10 (add), and 36.1 (remove) of the original contract's Service Level Agreement (Schedule A – Exhibit 1), as detailed in the attachment.							

Editing Tools							
6.0	The solution will leverage spelling and grammar checking capabilities as inherited by use of modern web browsers that natively provide these features for data entry text fields, including notes, email content, notification/alert content, etc.			Y			
6.2	The solution must support real time identification of unrecognized spelling and grammar.		Y				
Notes							

Administration							
User Roles							
17.0	The solution must allow an authorized user administrator to create and manage user roles and system access (create, modify, delete, deactivate, etc.).	Y					The solution will provide role- and group-based security.
17.1	The solution must allow an external user who is registering for a system account to electronically submit a reason for access (justification) to the system.						
17.1.1	The solution must allow an external user to select from a list of administratively maintained program areas (e.g., multi-select) they are requesting access to.						
17.1.2	The solution must allow an external user to specify additional information to support their access request in a freeform text field.						
17.1.3	The solution must allow an external user to track their system access request to better understand where the request is in the access request process.						
17.1.4	The solution must allow an external user to see if their request for access was denied with a reason.						
17.2	The solution must assign the same level of access for all external users.						
17.3	The solution must restrict an external user from registering for multiple accounts using the same email address or any information required to create a unique system account (i.e., MiLogin Id).						
17.4	The solution must allow a State of Michigan user who is registering for a system account to electronically submit a reason for access (justification) to the system.						
17.4.1	The solution must allow a State of Michigan user to select from a list of administratively maintained program areas (e.g., multi-select) they are requesting access to with the option to select "Other" from the list.						
17.4.2	The solution must allow a State of Michigan user to specify additional information to support their access request in a freeform text field.						

17.4.3	The solution must allow a State of Michigan user to track their system access request to better understand where the request is in the access request process.					
17.4.4	The solution must allow a State of Michigan user to see if their request for access was denied with a reason.					
17.5	The solution must allow an administrator who can manage account access requests to be alerted to new account registrations.					
17.6	The solution must allow an administrator who can manage account access requests to manage account access requests in a single location within the system.					
17.7	The solution must allow an administrator who can manage account access requests to assign an account access request to themselves to complete.					
17.8	The solution must allow an administrator who can manage account access requests to assign an account access request to another administrator with the appropriate system privileges to manage accounts.					
17.9	The solution must allow an administrator who can manage account access requests to approve or deny an account access request and provide a reason for final judgement in a free-form text field.					
17.9.1	The solution must allow an administrator who can manage account access requests to verify the submitted access request and review the system permissions granted.					
17.10	The solution must allow an administrator who can manage account access requests to notify the requestor with the final judgement of the account access request.					

<i>Historical Information</i>						
36.0	The solution must maintain historical contact information associated with changes/updates to contacts name (i.e., maintain "also known as" historical information).	Y				<p>The system will maintain all historical information regarding contacts, including changes to the contact, a.k.a information, and name/role/contact type associations.</p>
37.0	The solution must maintain historical associations between names, roles, and contact types.	Y				

Payment Schedule Changes

Description
The parties revise and fully restate the Payment Schedule of the original contract's Service Level Agreement (Schedule B), as detailed in the attachment.

Detailed Payment Schedule

Contractor will only invoice once a month.

Payment point requirements:

- By Sprint:
 - Accepted sprint
 - Delivery of code for that sprint
 - Delivery of groomed backlog through that sprint
- By Release:
 - Accepted release
 - Delivery of code through that release
 - Delivery of groomed backlog through that release
 - Accepted Training Materials
 - Accepted Delivery of Training
 - Accepted SEM Documents (601, 603, 606, 607, 702, 703 - to be confirmed by SUITE tailoring)

Milestone	Task Name	Price	Estimated Invoice Month
Sprint Zero	Detailed Project Plan	\$179,095.00	February 2020
	Validation Sessions	\$127,925.00	March 2020
	Final Requirements Validation and Gap Analysis	\$51,170.00	January 2020
	Transition Plan	\$51,170.00	January 2020
	Product Backlog	\$127,925.00	January 2020
Release 1	R1S01 Acceptance	\$124,964.00	February 2020
	R1S02 Acceptance	\$124,964.00	March 2020
	R1S03 Acceptance	\$124,964.00	March 2020
	R1S04 Acceptance	\$124,964.00	March 2020
	R1S05 Acceptance	\$124,963.00	April 2020
	R1S06 Acceptance	\$124,963.00	April 2020
	R1S07 Acceptance	\$124,963.00	May 2020
	R1S08 Acceptance	\$124,963.00	May 2020
	R1S09 Acceptance	\$124,963.00	June 2020
	R1S10 Acceptance	\$124,963.00	July 2020

Milestone	Task Name	Price	Estimated Invoice Month
	R1S11 Acceptance	\$124,963.00	July 2020
	Release 1 Acceptance	\$150,000.00	September 2020
Release 2	R2S01 Acceptance	\$124,964.00	July 2020
	R2S02 Acceptance	\$124,964.00	August 2020
	R2S03 Acceptance	\$124,964.00	September 2020
	R2S04 Acceptance	\$124,964.00	September 2020
	R2S05 Acceptance	\$124,963.00	October 2020
	R2S06 Acceptance	\$124,963.00	October 2020
	R2S07 Acceptance	\$124,963.00	November 2020
	R2S08 Acceptance	\$124,963.00	November 2020
	R2S09 Acceptance	\$124,963.00	November 2020
	R2S10 Acceptance	\$124,963.00	December 2020
	Release 2 Acceptance	\$150,000.00	February 2021
Release 3	R3S01 Acceptance	\$124,964.00	December 2020
	R3S02 Acceptance	\$124,964.00	January 2021
	R3S03 Acceptance	\$124,964.00	January 2021
	R3S04 Acceptance	\$124,964.00	February 2021
	R3S05 Acceptance	\$124,963.00	February 2021
	R3S06 Acceptance	\$124,963.00	March 2021
	R3S07 Acceptance	\$124,963.00	March 2021
	R3S08 Acceptance	\$124,963.00	April 2021
	R3S09 Acceptance	\$124,963.00	April 2021
	R3S10 Acceptance	\$124,963.00	May 2021
	Release 3 Acceptance	\$150,000.00	July 2021
Release 4	R4S01	\$84,264.00	May 2021
	R4S02	\$84,264.00	June 2021
	R4S03	\$84,264.00	July 2021
	R4S04	\$84,264.00	July 2021
	R4S05	\$84,264.00	August 2021
	R4S06	\$84,264.00	August 2021
	R4S07	\$84,264.00	August 2021
	R4S08	\$84,264.00	September 2021

Milestone	Task Name	Price	Estimated Invoice Month
Release 5	R4S09	\$84,264.00	October 2021
	R4S10	\$84,264.00	October 2021
	R4S11	\$84,264.00	November 2021
	R4S12	\$84,264.00	November 2021
	R4S13	\$84,264.00	December 2021
	R4S14	\$84,264.00	December 2021
	R4S15	\$84,264.00	December 2021
	R4S16	\$84,264.00	January 2022
	R4S17	\$84,268.00	January 2022
	R4 Acceptance	\$150,000.00	March 2022
Release 6	R5S01	\$84,264.00	February 2022
	R5S02	\$84,264.00	February 2022
	R5S03	\$84,264.00	March 2022
	R5S04	\$84,264.00	March 2022
	R5S05	\$84,264.00	April 2022
	R5S06	\$84,264.00	May 2022
	R5S07	\$84,264.00	May 2022
	R5S08	\$84,264.00	June 2022
	R5S09	\$84,264.00	June 2022
	R5S10	\$84,264.00	July 2022
	R5S11	\$84,264.00	July 2022
	R5S12	\$84,264.00	August 2022
	R5S13	\$84,264.00	August 2022
	R5S14	\$84,264.00	August 2022
	R5S15	\$84,264.00	September 2022
	R5S16	\$84,264.00	September 2022
	R5S17	\$84,268.00	October 2022
	R5 Acceptance	\$150,000.00	November 2021
Release 6	R6S01	\$84,264.00	November 2022
	R6S02	\$84,264.00	November 2022
	R6S03	\$84,264.00	December 2022
	R6S04	\$84,264.00	December 2022

Milestone	Task Name	Price	Estimated Invoice Month
R6 Milestone	R6S05	\$84,264.00	January 2023
	R6S06	\$84,264.00	January 2023
	R6S07	\$84,264.00	February 2023
	R6S08	\$84,264.00	February 2023
	R6S09	\$84,264.00	March 2023
	R6S10	\$84,264.00	March 2023
	R6S11	\$84,264.00	April 2023
	R6S12	\$84,264.00	April 2023
	R6S13	\$84,264.00	May 2023
	R6S14	\$84,264.00	May 2023
	R6S15	\$84,264.00	June 2023
	R6S16	\$84,264.00	June 2023
	R6S17	\$84,268.00	July 2023
	R6 Acceptance	\$150,000.00	September 2023
Post Production Warranty	Maintenance and Support (free of charge) of Break/Fix and/or Documented Bugs (Days 0-90)	\$0.00	September 2023
	Final Test Results report	\$63,962.50	September 2023
	Final Training Documentation	\$63,962.50	September 2023
	Final Acceptance	\$63,962.50	September 2023
	End to End Training (if applicable)	\$63,962.50	September 2023
Maintenance and Support	Year 2 Support (Days 271 - 365)	\$0.00	August 2021
	Year 3 Support	\$0.00	November 2021
	Year 4 Support	\$225,000.00	November 2022
	Year 5 Support	\$300,000.00	November 2023
HOSTING - Year 1	Year 1 - Month 1	\$30,000.00	December 2019
	Year 1 - Month 2	\$30,000.00	January 2020
	Year 1 - Month 3	\$30,000.00	February 2020
	Year 1 - Month 4	\$30,000.00	March 2020
	Year 1 - Month 5	\$30,000.00	April 2020
	Year 1 - Month 6	\$30,000.00	May 2020
	Year 1 - Month 7	\$30,000.00	June 2020
	Year 1 - Month 8	\$30,000.00	July 2020

Milestone	Task Name	Price	Estimated Invoice Month
HOSTING - Year 2	Year 1 - Month 9	\$30,000.00	August 2020
	Year 1 - Month 10	\$30,000.00	September 2020
	Year 1 - Month 11	\$30,000.00	October 2020
	Year 1 - Month 12	\$30,000.00	November 2020
	Year 2 - Month 1	\$30,900.00	December 2020
	Year 2 - Month 2	\$30,900.00	January 2021
	Year 2 - Month 3	\$30,900.00	February 2021
	Year 2 - Month 4	\$30,900.00	March 2021
	Year 2 - Month 5	\$30,900.00	April 2021
	Year 2 - Month 6	\$30,900.00	May 2021
	Year 2 - Month 7	\$30,900.00	June 2021
	Year 2 - Month 8	\$30,900.00	July 2021
HOSTING - Year 3	Year 2 - Month 9	\$30,900.00	August 2021
	Year 2 - Month 10	\$30,900.00	September 2021
	Year 2 - Month 11	\$30,900.00	October 2021
	Year 2 - Month 12	\$30,900.00	November 2021
	Year 3 - Month 1	\$31,800.00	December 2021
	Year 3 - Month 2	\$31,800.00	January 2022
	Year 3 - Month 3	\$31,800.00	February 2022
	Year 3 - Month 4	\$31,800.00	March 2022
	Year 3 - Month 5	\$31,800.00	April 2022
	Year 3 - Month 6	\$31,800.00	May 2022
	Year 3 - Month 7	\$31,800.00	June 2022
	Year 3 - Month 8	\$31,800.00	July 2022
HOSTING - Year 4	Year 3 - Month 9	\$31,800.00	August 2022
	Year 3 - Month 10	\$31,800.00	September 2022
	Year 3 - Month 11	\$31,800.00	October 2022
	Year 3 - Month 12	\$31,800.00	November 2022
	Year 4 - Month 1	\$32,700.00	December 2022
	Year 4 - Month 2	\$32,700.00	January 2023
	Year 4 - Month 3	\$32,700.00	February 2023
	Year 4 - Month 4	\$32,700.00	March 2023

Milestone	Task Name	Price	Estimated Invoice Month
HOSTING - Year 5	Year 4 - Month 5	\$32,700.00	April 2023
	Year 4 - Month 6	\$32,700.00	May 2023
	Year 4 - Month 7	\$32,700.00	June 2023
	Year 4 - Month 8	\$32,700.00	July 2023
	Year 4 - Month 9	\$32,700.00	August 2023
	Year 4 - Month 10	\$32,700.00	September 2023
	Year 4 - Month 11	\$32,700.00	October 2023
	Year 4 - Month 12	\$32,700.00	November 2023
	Year 5 - Month 1	\$33,600.00	December 2023
	Year 5 - Month 2	\$33,600.00	January 2024
	Year 5 - Month 3	\$33,600.00	February 2024
	Year 5 - Month 4	\$33,600.00	March 2024
	Year 5 - Month 5	\$33,600.00	April 2024
	Year 5 - Month 6	\$33,600.00	May 2024
	Year 5 - Month 7	\$33,600.00	June 2024
	Year 5 - Month 8	\$33,600.00	July 2024
	Year 5 - Month 9	\$33,600.00	August 2024
	Year 5 - Month 10	\$33,600.00	September 2024
	Year 5 - Month 11	\$33,600.00	October 2024
	Year 5 - Month 12	\$33,600.00	November 2024
TOTAL		\$12,297,476.00	



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **2**

to

Contract Number **190000001496**

CONTRACTOR	KUNZ LEIGH & ASSOCIATES INC	<table border="1"><tr><td rowspan="13">STATE</td><td rowspan="3">Program Manager</td><td>Various</td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td rowspan="4">STATE</td><td rowspan="10">Contract Administrator</td><td>Jarrod Barron</td></tr><tr><td>(517) 249-0406</td></tr><tr><td></td></tr><tr><td>barronj1@michigan.gov</td></tr></table>	STATE	Program Manager	Various						STATE	Contract Administrator	Jarrod Barron	(517) 249-0406		barronj1@michigan.gov
STATE	Program Manager	Various														
	STATE	Contract Administrator		Jarrod Barron												
				(517) 249-0406												
				barronj1@michigan.gov												
	28081 Southfield Rd.															
	Lathrup Village, MI 48076-2816															
	Justin Shaulis															
	517-803-3217															
	j.shaulis@kunzleigh.com															
	CV0036059															

CONTRACT SUMMARY

EGLE DWEHD LICENSING, ENFORCEMENT AND INSPECTION SYSTEM

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 20, 2019	November 20, 2024	5 - 1 Year	November 20, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	
ALTERNATE PAYMENT OPTIONS		EXTENDED PURCHASING	
<input type="checkbox"/> P-Card		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
MINIMUM DELIVERY REQUIREMENTS			

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		November 20, 2024
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$8,000,000.00	\$0.00	\$8,000,000.00		

DESCRIPTION

Effective 9/1/2020, the parties revise and fully restate the End User Operating Environment section of the original contract's Statement of Work as set forth in the attached documentation. All other terms, conditions, specifications, and pricing remain the same. Per DTMB Contractor, agency and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
EGLE	Ronda Page	517-242-4114	PAGER1@michigan.gov
DTMB	Manny Rosales	517-241-4652	RosalesM@michigan.gov

END USER OPERATING ENVIRONMENT

The SOM environment is X86 VMware, IBM Power VM, MS Azure/Hyper-V and Oracle VM, with supporting enterprise storage monitoring and management.

Contractor must accommodate the latest browser versions (including mobile browsers) as well as some pre-existing browsers. To ensure that users with older browsers are still able to access online services, applications must, at a minimum, display and function correctly in standards-compliant browsers and the state standard browser without the use of special plugins or extensions. The rules used to base the minimum browser requirements include:

- Over 2% of site traffic, measured using Sessions or Visitors (or)
- The current browser identified and approved as the State of Michigan standard

This information can be found at <https://www.michigan.gov/browserstats>. Please use the most recent calendar quarter to determine browser statistics. For those browsers with over 2% of site traffic, except Internet Explorer, the current browser version as well as the previous two major versions must be supported. The parties agree that internet Explorer will not be supported.

Contractor must support the current and future State standard environment at no additional cost to the State.

Contractor must:

- Comply with State system access requirements that are necessary for the Contractor to perform its obligations on a timely basis, including but not limited to, physical or remote access to State networks, servers, or individual workstations.
- Comply with the current environment.
- Support the original environment throughout the term of the contract.
- Communicate changes to its roadmaps.
- Identify any plug-ins necessary for the proposed Solution to meet the system requirements of this request.
- Comply with how customers collaborate with your organization in the decision-making process for upgrades, maintenance, and change control.

If there are future changes to the State of Michigan's operating environment, the Contractor will regression test those changes against the Solution to ensure uninterrupted application functionality. The Solution does not have an independent feature roadmap outside of the EGLE. This means EGLE will be able to prioritize the product backlog and have control over when specific features will be implemented. No browser plug-in will be required for this Solution.



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 1

to

Contract Number 190000001496

CONTRACTOR	KUNZ LEIGH & ASSOCIATES INC	STATE Program Manager Contract Administrator	Various	
	28081 Southfield Rd.			
	Lathrup Village, MI 48076-2816			
	Justin Shaulis		Jarrod Barron	DTMB
	517-803-3217		(517) 249-0406	
	j.shaulis@kunzleigh.com		barronj1@michigan.gov	
	CV0036059			

CONTRACT SUMMARY

EGLE DWEHD LICENSING, ENFORCEMENT AND INSPECTION SYSTEM

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
November 20, 2019	November 20, 2024	5 - 1 Year	November 20, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	

ALTERNATE PAYMENT OPTIONS

P-Card PRC Other Yes No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		November 20, 2024
CURRENT VALUE	VALUE OF CHANGE NOTICE		ESTIMATED AGGREGATE CONTRACT VALUE	
\$8,000,000.00	\$0.00		\$8,000,000.00	

DESCRIPTION

Effective 4/27/2020, the parties revise and fully restate Section 7 of the original contract's Service Level Agreement (Schedule C), as detailed in the attachment. All other terms, conditions, specifications, and pricing remain the same. Per DTMB Contractor, agency and DTMB Procurement Services approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
EGLE	Ronda Page	517-242-4114	PAGER1@michigan.gov
DTMB	Manny Rosales	517-241-4652	RosalesM@michigan.gov

REVISED AND FULLY RESTATED SECTION 7 OF SCHEDULE C – SERVICE LEVEL AGREEMENT

WHEREAS the parties found a clerical error in the original contract's Service Level Agreement, namely, that Section 7 stated the incorrect Recovery Point Objective and Recovery Time Objective values, the parties hereby revise and fully restate Section 7 with the changes shown below:

7. Disaster Recovery and Backup.

7.1. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will:

- (a) maintain and operate a backup and disaster recovery plan to achieve a Recovery Point Objective (RPO) of 24 (twenty-four) hours, and a Recovery Time Objective (RTO) of 4 (four) hours (the “**DR Plan**”), and implement such DR Plan in the event of any unplanned interruption of the Hosted Services. Contractor’s current DR Plan, revision history, and any reports or summaries relating to past testing of or pursuant to the DR Plan are attached as **Schedule F**. Contractor will actively test, review and update the DR Plan on at least an annual basis using industry best practices as guidance. Contractor will provide the State with copies of all such updates to the Plan within fifteen (15) days of its adoption by Contractor. All updates to the DR Plan are subject to the requirements of this **Section 7**; and
- (b) provide the State with copies of all reports resulting from any testing of or pursuant to the DR Plan promptly after Contractor’s receipt or preparation. If Contractor fails to reinstate all material Hosted Services within the periods of time set forth in the DR Plan, the State may, in addition to any other remedies available under this Contract, in its sole discretion, immediately terminate this Contract as a non-curable default.
- (c) maintain any additional backup requirements set forth in the Statement of Work; and
- (d) retain data pursuant to any data retention requirements set forth in the Statement of Work.

7.2. All backed up State Data shall be located in the continental United States. Contractor must, within five (5) Business Days of the State’s request, provide the State, without charge and without any conditions or contingencies whatsoever (including but not limited to the payment of any fees due to Contractor), an extract of State Data in the format specified by the State.

7.3. Discovery. Contractor shall immediately notify the State upon receipt of any requests which in any way might reasonably require access to State Data or the State’s use of the Hosted Services. Contractor shall notify the State Project Manager by the fastest means available and also in writing. In no event shall Contractor provide such notification more than twenty-four (24) hours after Contractor receives the request. Contractor shall not respond to subpoenas, service of process, FOIA requests, and other legal requests related to the State without first notifying the State and obtaining the State’s prior approval of Contractor’s proposed responses. Contractor agrees to provide its completed responses to the State with adequate time for State review, revision and approval.



STATE OF MICHIGAN PROCUREMENT

Department of Technology, Management & Budget

525 W. Allegan St., Lansing, MI 48909

NOTICE OF CONTRACT

NOTICE OF CONTRACT NO. **171-190000001496**

between

THE STATE OF MICHIGAN

and

CONTRACTOR	Kunz, Leigh & Associates
	28081 Southfield Road
	Lathrup Village, MI 48076-2816
	Justin Shaulis
	517-803-3217
	j.shaulis@kunzleigh.com
	CV0036059

STATE	Program Manager	Manny Rosales	DTMB
		517-241-4652	
		RosalesM@michigan.gov	
	Contract Administrator	Jarrod Barron	DTMB
		517-249-0406	
		BarronJ1@michigan.gov	

CONTRACT SUMMARY

DESCRIPTION: EGLE DWEHD Licensing, Enforcement and Inspection System			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
11/20/2019	11/20/2024	5 – 1-year	11/20/2024
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-card <input type="checkbox"/> Payment Request (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
MISCELLANEOUS INFORMATION			
This contract is established from Request for Proposal 171-19000000111			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION		\$8,000,000.00	

CONTRACT NO. 171-190000001496

FOR THE CONTRACTOR:

Company Name

Authorized Agent Signature

Authorized Agent (Print or Type)

Date

FOR THE STATE:

Signature

Jennifer Bronz – IT Category Manager
Name & Title

DTMB Central Procurement Services
Agency

Date



STATE OF MICHIGAN

CONTRACT TERMS CUSTOM SOFTWARE DEVELOPMENT

This CUSTOM SOFTWARE DEVELOPMENT CONTRACT (this “**Contract**”) is agreed to between the State of Michigan (the “**State**”) and Kunz, Leigh and Associates (“**Contractor**”), a Michigan Corporation. This Contract is effective on November 20, 2019 (“**Effective Date**”), and unless earlier terminated, will expire on November 20, 2024 (the “**Term**”).

This Contract may be renewed for up to five (5) additional one (1) year period(s). Renewal must be by written agreement of the parties and will automatically extend the Term of this Contract.

The parties agree as follows:

1. Definitions. For purposes of this Contract, the following terms have the following meanings:

“**Acceptance**” has the meaning set forth in **Section 10.5**.

“**Acceptance Tests**” means such tests as may be conducted in accordance with **Section 10** and the Statement of Work to determine whether any Software Deliverable meets the requirements of this Contract and the Specifications and Documentation.

“**Affiliate**” means any entity which directly or indirectly controls, is controlled by or is under common control of Contractor. The term “control” means the possession of the power to direct or cause the direction of the management and the policies of an entity, whether through the ownership of a majority of the outstanding voting rights or by contract or otherwise.

“**Aggregate Software**” means the Software, as a whole, to be developed or otherwise provided under the Statement of Work. For avoidance of doubt, if the Statement of Work provides for a single Software Deliverable, such Software Deliverable also constitutes Aggregate Software.

“**Allegedly Infringing Materials**” has the meaning set forth in **Section 19.3(b)(ii)**.

“**API**” means all Application Programming Interfaces and associated API Documentation provided by Contractor, and as updated from time to time, to allow the Software to integrate with various State and Third Party Software.

“**Approved Open-Source Components**” means Open-Source Components that the State has approved to be included in or used in connection with any Software developed or provided under this Contract, and are specifically identified in the Statement of Work.

“Approved Third-Party Materials” means Third-Party Materials that the State has approved to be included in or for use in connection with any Software developed or provided under this Contract, and are specifically identified in the Statement of Work.

“Authorized Users” means all Persons authorized by the State to access and use the Software under this Contract, subject to the maximum number of users specified in the applicable Statement of Work.

“Background Technology” means all Software, data, know-how, ideas, methodologies, specifications, and other technology in which Contractor owns such Intellectual Property Rights as are necessary for Contractor to grant the rights and licenses set forth in **Section 15.1**, and for the State (including its licensees, successors and assigns) to exercise such rights and licenses, without violating any right of any Third Party or any Law or incurring any payment obligation to any Third Party. Background Technology must: (a) be identified as Background Technology in the Statement of Work; and (b) have been developed or otherwise acquired by Contractor prior to the date of the RFP.

“Business Day” means a day other than a Saturday, Sunday or other day on which the State is authorized or required by Law to be closed for business.

“Business Owner” is the individual appointed by the end-user agency procuring the software to (a) act as such agency's representative in all matters relating to the Contract, and (b) co-sign off on the State's notice of Acceptance for all Software Deliverables and Aggregate Software. The Business Owner will be identified in the Statement of Work.

“Business Requirements Specification” means the specification setting forth the State's business requirements regarding the features and functionality of the Software, as set forth in the Statement of Work.

“**Change**” has the meaning set forth in **Section 2.2**.

“**Change Notice**” has the meaning set forth in **Section 2.2(b)**.

“**Change Proposal**” has the meaning set forth in **Section 2.2(a)**.

“**Change Request**” has the meaning set forth in **Section 2.2**.

“**Confidential Information**” has the meaning set forth in **Section 23.1**.

“**Contract**” has the meaning set forth in the preamble.

“Contract Administrator” is the individual appointed by each party to (a) administer the terms of this Contract, and (b) approve and execute any Change Notices under this Contract. Each party's Contract Administrator will be identified in the Statement of Work.

“**Contractor**” has the meaning set forth in the preamble.

“Contractor’s Bid Response” means the Contractor’s proposal submitted in response to the RFP.

“Contractor Personnel” means all employees of Contractor or any Permitted Subcontractors involved in the performance of Services or providing Work Product under this Contract.

“Deliverables” means all Software Deliverables and all other documents, Work Product, and other materials that Contractor is required to or otherwise does provide to the State under this Contract and otherwise in connection with any Services, including all items specifically identified or defined as Deliverables in the Statement of Work.

“Derivative Work” means any modification, addition, upgrade, update, or improvement of the Software and any other work constituting a derivative work under the United States Copyright Act, 17 U.S.C. Section 101, *et seq.*

“Dispute Resolution Procedure” means the procedure for resolving disputes under this Contract as set forth in **Section 27**.

“Documentation” means all user manuals, operating manuals, technical manuals and any other instructions, specifications, documents and materials, in any form or media, that describe the functionality, installation, testing, operation, use, maintenance, support and technical and other components, features and requirements of any Software.

“DTMB” means the Michigan Department of Technology, Management and Budget.

“Effective Date” has the meaning set forth in the preamble.

“Fees” has the meaning set forth in **Section 12.1**

“Financial Audit Period” has the meaning set forth in **Section 25.1**.

“Force Majeure” has the meaning set forth in **Section 28.7**.

“Harmful Code” means any: (a) virus, trojan horse, worm, backdoor or other software or hardware devices the effect of which is to permit unauthorized access to, or to disable, erase, or otherwise harm, any computer, systems or software; or (b) time bomb, drop dead device, or other software or hardware device designed to disable a computer program automatically with the passage of time or under the positive control of any Person, or otherwise prevent, restrict or impede the State’s or any Authorized User’s use of such software.

“Implementation Plan” means the schedule included in the Statement of Work setting forth the sequence of events for the performance of Services under the Statement of Work, including the Milestones and Milestone Dates.

“Intellectual Property Rights” means all or any of the following: (a) patents, patent disclosures, and inventions (whether patentable or not); (b) trademarks, service marks, trade dress, trade names, logos,

corporate names, and domain names, together with all of the associated goodwill; (c) copyrights and copyrightable works (including computer programs), mask works and rights in data and databases; (d) trade secrets, know-how and other confidential information; and (e) all other intellectual property rights, in each case whether registered or unregistered and including all applications for, and renewals or extensions of, such rights, and all similar or equivalent rights or forms of protection provided by applicable Law in any jurisdiction throughout the world.

“Intended Users” means the users that are intended to use Software or particular features or functions of the Software, as described in the Specifications for such Software.

“Key Personnel” means any Contractor Personnel identified as key personnel in the Statement of Work.

“Law” means any statute, law, ordinance, regulation, rule, code, order, constitution, treaty, common law, judgment, decree, other requirement or rule of law of any federal, state, local or foreign government or political subdivision thereof, or any arbitrator, court, or tribunal of competent jurisdiction.

“Loss or Losses” means all losses, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs or expenses of whatever kind, including reasonable attorneys' fees and the costs of enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers.

“Milestone” means an event or task described in the Implementation Plan under the Statement of Work that must be completed by the corresponding Milestone Date.

“Milestone Date” means the date by which a particular Milestone must be completed as set forth in the Implementation Plan under the Statement of Work.

“Non-Conformity” or **“Non-Conformities”** means any failure of any: (a) Software or Documentation to conform to the requirements of this Contract (including the Statement of Work) or (b) Software to conform to the requirements of this Contract or the Specifications or Documentation.

“Object Code” means computer programs assembled or compiled in magnetic or electronic binary form on software media, which are readable and useable by machines, but not generally readable by humans without reverse assembly, reverse compiling, or reverse engineering.

“Open-Source Components” means any software component that is subject to any open-source copyright license contract, including any GNU General Public License or GNU Library or Lesser Public License, or other license contract that substantially conforms to the Open Source Initiative's definition of “open source” or otherwise may require disclosure or licensing to any third party of any source code with which such software component is used or compiled.

“Open-Source License” has the meaning set forth in **Section 3.3**.

“Operating Environment” means, collectively, the State platform and environment on, in, or under which Software is intended to be installed and operate, as set forth in the Statement of Work, including such structural, functional and other features, conditions and components as hardware, operating software and system architecture and configuration.

“Permitted Subcontractor” has the meaning set forth in **Section 5.4**.

“Person” means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association, or other entity.

“Pricing” means any and all fees, rates and prices payable under this Contract, including pursuant to any Schedule or Exhibit hereto.

“Pricing Schedule” means the schedule attached as **Schedule C**, setting forth the fees, rates and prices payable under this Contract.

“Project Manager” is the individual appointed by each party to (a) monitor and coordinate the day-to-day activities of this Contract, and (b) in the case of the State, co-sign off on its notice of Acceptance for all Software Deliverables and Aggregate Software. Each party’s Project Manager will be identified in the Statement of Work.

“Representatives” means a party’s employees, officers, directors, partners, shareholders, agents, attorneys, successors and permitted assigns.

“RFP” means the State’s request for proposal designed to solicit responses for Services under this Contract.

“Service Level Agreement” means, if applicable, the service level agreement attached as **Schedule E** to this Contract, setting forth Contractor’s obligations with respect to the hosting, management and operation of the Software.

“Services” means any of the services Contractor is required to or otherwise does provide under this Contract, the Statement of Work, the Maintenance and Support Schedule (if applicable), or the Service Level Agreement (if applicable).

“Site” means the physical location designated by the State in, or in accordance with, this Contract or the Statement of Work for delivery and installation of any Software.

“Software” means the computer program(s), including programming tools, scripts and routines, the Contractor is required to or otherwise does develop or otherwise provide under this Contract, as described more fully in the Statement of Work, including all updates, upgrades, new versions, new releases, enhancements, improvements, and other modifications made or provided under the Support Services. As context dictates, Software may refer to one or more Software Deliverables or Aggregate Software.

“Software Deliverable” means any Software, together with its Documentation, required to be delivered as set forth in the Statement of Work.

“Source Code” means the human readable source code of the Software to which it relates, in the programming language in which such Software was written, together with all related flow charts and technical documentation, including a description of the procedure for generating object code, all of a level sufficient to enable a programmer reasonably fluent in such programming language to understand, operate, support, maintain and develop modifications, upgrades, updates, enhancements, improvements and new versions of, and to develop computer programs compatible with, such Software.

“Specifications” means, for any Software, the specifications collectively set forth in the Business Requirements Specification and Technical Specification, together with any other specifications set forth in the Statement of Work or any attachment thereto.

“State” means the State of Michigan.

“State Data” has the meaning set forth in **Section 22.1**.

“State Materials” means all materials and information, including documents, data, know-how, ideas, methodologies, specifications, software, content and technology, in any form or media, directly or indirectly provided or made available to Contractor by or on behalf of the State in connection with this Contract, whether or not the same: (a) are owned by the State, a Third Party or in the public domain; or (b) qualify for or are protected by any Intellectual Property Rights.

“State Resources” has the meaning set forth in **Section 7.1**.

“Statement of Work” means the statement of work attached as **Schedule A** to the Contract.

“Stop Work Order” has the meaning set forth in **Section 17**.

“Support Fees” means the fees, if any, payable by the State for the Support Services as required under the Maintenance and Support Schedule (as applicable) or the Service Level Agreement (as applicable).

“Support Commencement Date” means, with respect to any Software, the date on which the Warranty Period for such Software expires or such other date as may be set forth in the Maintenance and Support Schedule, the Service Level Agreement, or the Statement of Work.

“Support Services” means the software maintenance and support services Contractor is required to or otherwise does provide to the State under the Maintenance and Support Schedule (if applicable) or the Service Level Agreement (if applicable).

“Technical Specification” means, with respect to any Software, the document setting forth the technical specifications for such Software and included in the Statement of Work.

“**Term**” has the meaning set forth in the preamble.

“**Testing Period**” has the meaning set forth in **Section 10.1**.

“**Third Party**” means any Person other than the State or Contractor.

“**Third-Party Materials**” means any materials and information, including documents, data, know-how, ideas, methodologies, specifications, software, content, and technology, in any form or media, in which any Person other than the State or Contractor owns any Intellectual Property Right, but excluding Open-Source Components.

“**Transition Period**” has the meaning set forth in **Section 16.3**.

“**Transition Responsibilities**” has the meaning set forth in **Section 16.3**.

“**Unauthorized Removal**” has the meaning set forth in **Section 5.3(b)**.

“**Unauthorized Removal Credit**” has the meaning set forth in **Section 5.3(c)**.

“**User Data**” means all data, information and other content of any type and in any format, medium or form, whether audio, visual, digital, screen, GUI or other, that is input, uploaded to, placed into or collected, stored, processed, generated or output by any device, system or network by or on behalf of the State, including any and all works, inventions, data, analyses and other information and materials resulting from any use of the Software by or on behalf of the State under this Contract, except that User Data does not include the Software or data, information or content, including any GUI, audio, visual or digital or other display or output, that is generated automatically upon executing the Software without additional user input.

“**Warranty Period**” means, for any Software, unless otherwise specified in the Statement of Work, the ninety (90) calendar-day period commencing (a) in the case of Aggregate Software, upon the State’s Acceptance; and (b) in the case of any updates, upgrades, new versions, new releases, enhancements and other modifications to previously-Accepted Aggregate Software, upon the State’s receipt of such modification.

“**Work Product**” means all Software, API, Documentation, Specifications, and other documents, work product and related materials, that Contractor is required to, or otherwise does, provide to the State under this Contract, together with all ideas, concepts, processes, and methodologies developed in connection with this Contract whether or not embodied in this Contract.

2. Statement of Work. Contractor shall provide Services and Deliverables pursuant to the Statement of Work. The terms and conditions of this Contract will apply at all times to the Statement of Work. The State shall have the right to terminate the Statement of Work as set forth in **Section 16**. Contractor acknowledges that time is of the essence with respect to Contractor’s obligations under the Statement of Work and agrees that prompt and timely performance of all such obligations in accordance with this

Contract and the Statement of Work (including the Implementation Plan and all Milestone Dates) is strictly required.

2.1 Statement of Work Requirements. The Statement of Work will include the following:

- (a) names and contact information for Contractor's Contract Administrator, Project Manager and Key Personnel;
- (b) names and contact information for the State's Contract Administrator, Project Manager and Business Owner;
- (c) a detailed description of the Services to be provided under this Contract, including any training obligations of Contractor;
- (d) a detailed description of the Software and other Work Product to be developed or otherwise provided under this Contract, including the:
 - (i) Business Requirements Specification;
 - (ii) Technical Specification; and
 - (iii) a description of the Documentation to be provided;
- (e) an Implementation Plan, including all Milestones, the corresponding Milestone Dates and the parties' respective responsibilities under the Implementation Plan;
- (f) the due dates for payment of Fees and any invoicing requirements, including any Milestones on which any such Fees are conditioned, and such other information as the parties deem necessary;
- (g) disclosure of all Background Technology, Approved Third-Party Materials, Approved Open-Source Components (each identified on a separate exhibit to the Statement of Work), in each case accompanied by such related documents as may be required by this Contract;
- (h) description of all liquidated damages associated with this Contract; and
- (i) a detailed description of all State Resources required to complete the Implementation Plan.

2.2 Change Control Process. The State may at any time request in writing (each, a "**Change Request**") changes to the Statement of Work, including changes to the Services, Work Product, Implementation Plan, or any Specifications (each, a "**Change**"). Upon the State's submission of a Change Request, the parties will evaluate and implement all Changes in accordance with this **Section 2.2.**

(a) As soon as reasonably practicable, and in any case within twenty (20) Business Days following receipt of a Change Request, Contractor will provide the State with a written proposal for implementing the requested Change (“**Change Proposal**”), setting forth:

- (i) a written description of the proposed Changes to any Services, Work Product, or Deliverables;
- (ii) an amended Implementation Plan reflecting: (A) the schedule for commencing and completing any additional or modified Services, Work Product, or Deliverables; and (B) the effect of such Changes, if any, on completing any other Services or Work Product under the Statement of Work;
- (iii) any additional Third-Party Materials, Open-Source Components, and State Resources Contractor deems necessary to carry out such Changes; and
- (iv) any increase or decrease in Fees resulting from the proposed Changes, which increase or decrease will reflect only the increase or decrease in time and expenses Contractor requires to carry out the Change.

(b) Within thirty (30) Business Days following the State’s receipt of a Change Proposal, the State will by written notice to Contractor, approve, reject, or propose modifications to such Change Proposal. If the State proposes modifications, Contractor must modify and re-deliver the Change Proposal reflecting such modifications, or notify the State of any disagreement, in which event the parties will negotiate in good faith to resolve their disagreement. Upon the State’s approval of the Change Proposal or the parties’ agreement on all proposed modifications, as the case may be, the parties will execute a written agreement to the Change Proposal (“**Change Notice**”), which Change Notice will be signed by the State’s Contract Administrator and will constitute an amendment to the Statement of Work to which it relates; and

(c) If the parties fail to enter into a Change Notice within fifteen (15) Business Days following the State’s response to a Change Proposal, the State may, in its discretion:

- (i) require Contractor to perform the Services under the Statement of Work without the Change;
- (ii) require Contractor to continue to negotiate a Change Notice;
- (iii) initiate a Dispute Resolution Procedure; or
- (iv) notwithstanding any provision to the contrary in the Statement of Work, terminate this Contract under **Section 16.2**.

(d) No Change will be effective until the parties have executed a Change Notice. Except as the State may request in its Change Request or otherwise in writing, Contractor must continue to perform

its obligations in accordance with the Statement of Work pending negotiation and execution of a Change Notice. Contractor will use its best efforts to limit any delays or Fee increases from any Change to those necessary to perform the Change in accordance with the applicable Change Notice. Each party is responsible for its own costs and expenses of preparing, evaluating, negotiating, and otherwise processing any Change Request, Change Proposal, and Change Notice.

(e) The performance of any functions, activities, tasks, obligations, roles and responsibilities comprising the Services as described in this Contract are considered part of the Services and, thus, will not be considered a Change. This includes the delivery of all Deliverables in accordance with their respective Specifications, and the diagnosis and correction of Non-Conformities discovered in Deliverables prior to their Acceptance by the State or, subsequent to their Acceptance by the State, as necessary for Contractor to fulfill its associated warranty requirements and its Support Services under this Contract.

(f) Contractor may, on its own initiative and at its own expense, prepare and submit its own Change Request to the State. However, the State will be under no obligation to approve or otherwise respond to a Change Request initiated by Contractor.

3. Software. Contractor will design, develop, create, test, deliver, install, configure, integrate, customize and otherwise provide and make fully operational Software as described in the Statement of Work on a timely and professional basis in accordance with all terms, conditions, and Specifications set forth in this Contract and the Statement of Work.

3.1 Software Specifications. Contractor will ensure all Software complies with the Specifications. Contractor will provide all Software to the State in both Object Code and Source Code form.

3.2 Third-Party Materials.

(a) Contractor will not include in any Software, and operation of all Software in accordance with its Specifications and Documentation will not require, any Third-Party Materials, other than Approved Third-Party Materials, which must be specifically approved by the State and identified and described in the Statement of Work, and will be licensed to the State in accordance with **Section 15.3**.

(b) Contractor must secure, at its sole cost and expense, all necessary rights, licenses, consents, approvals, and authorizations necessary for the State to use, perpetually and throughout the universe, all Approved Third-Party Materials as incorporated in or otherwise used in conjunction with Software as specified in the Statement of Work or elsewhere in this Contract.

3.3 Open-Source Components. Contractor will not include in any Software, and operation of all Software in accordance with its Specifications and Documentation will not require the use of, any Open-Source Components, other than Approved Open-Source Components, which must be specifically approved by the State and identified and described in the Statement of Work, and for which the relevant open-source license(s) (each, an “**Open-Source License**”) are attached as exhibits to the Statement of

Work. Contractor will provide the State with the Source Code for Approved Open-Source Components in accordance with the terms of the Open-Source License(s) at no cost to the State.

4. Documentation. Prior to or concurrently with the delivery of any Software, or by such earlier date as may be specified in the Implementation Plan for such Software, Contractor will provide the State with complete and accurate Documentation for such Software. Where the Statement of Work requires or permits delivery of Software in two or more phases, Contractor will also provide the State with integrated Documentation for the Aggregate Software upon its delivery.

4.1 Adequacy of Documentation. All Documentation must include all such information as may be reasonably necessary for the effective installation, testing, use, support, and maintenance of the applicable Software by the Intended User, including the effective configuration, integration, and systems administration of the Software and performance of all other functions set forth in the Specifications.

4.2 Documentation Specifications. Contractor will provide all Documentation in both hard copy and electronic form, in such formats and media as are set forth in the Statement of Work, or as the State may otherwise reasonably request in writing.

4.3 Third-Party Documentation. Other than Documentation for Approved Third-Party Materials and Approved Open-Source Components, no Documentation will consist of or include Third-Party Materials. To the extent Documentation consists of or includes Third-Party Materials, Contractor must secure, at its sole cost and expense, all rights, licenses, consents, approvals and authorizations specified in **Section 15.3** with respect to Approved Third-Party Materials.

5. Performance of Services. Contractor will provide all Services and Work Product in a timely, professional and workmanlike manner and in accordance with the terms, conditions, and Specifications set forth in this Contract and the Statement of Work.

5.1 Contractor Personnel.

(a) Contractor is solely responsible for all Contractor Personnel and for the payment of their compensation, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits.

(b) Prior to any Contractor Personnel performing any Services, Contractor will:

- (i) ensure that such Contractor Personnel have the legal right to work in the United States;
- (ii) require such Contractor Personnel to execute written agreements, in form and substance acceptable to the State, that bind such Contractor Personnel to confidentiality provisions that are at least as protective of the State's information (including all Confidential Information) as those contained in this Contract and

Intellectual Property Rights provisions that grant the State rights in the Work Product consistent with the provisions of **Section 14.1** and, upon the State's request, provide the State with a copy of each such executed Contract; and

- (iii) upon request, perform background checks on all Contractor Personnel prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks on Contractor Personnel.

(c) Contractor and all Contractor Personnel will comply with all rules, regulations, and policies of the State that are communicated to Contractor in writing, including security procedures concerning systems and data and remote access, building security procedures, including the restriction of access by the State to certain areas of its premises or systems, and general health and safety practices and procedures.

(d) The State reserves the right to require the removal of any Contractor Personnel found, in the judgment of the State, to be unacceptable. The State's request must be written with reasonable detail outlining the reasons for the removal request. Replacement personnel for the removed person must be fully qualified for the position. If the State exercises this right, and Contractor cannot immediately replace the removed personnel, the State agrees to negotiate an equitable adjustment in schedule or other terms that may be affected by the State's required removal.

5.2 Contractor's Project Manager. Throughout the Term of this Contract, Contractor must maintain a Contractor employee acceptable to the State to serve as Contractor's Project Manager, who will be considered Key Personnel of Contractor. Contractor's Project Manager will be identified in the Statement of Work.

(a) Contractor's Project Manager must:

- (i) have the requisite authority, and necessary skill, experience, and qualifications, to perform in such capacity;
- (ii) be responsible for overall management and supervision of Contractor's performance under this Contract; and
- (iii) be the State's primary point of contact for communications with respect to this Contract, including with respect to giving and receiving all day-to-day approvals and consents.

(b) Contractor's Project Manager must attend all regularly scheduled meetings as set forth in the Implementation Plan, and will otherwise be available as set forth in the Statement of Work.

(c) Contractor will maintain the same Project Manager throughout the Term of this Contract, unless:

- (i) the State requests in writing the removal of Contractor's Project Manager;
- (ii) the State consents in writing to any removal requested by Contractor in writing;
- (iii) Contractor's Project Manager ceases to be employed by Contractor, whether by resignation, involuntary termination or otherwise.

(d) Contractor will promptly replace its Project Manager on the occurrence of any event set forth in **Section 5.2(c)**. Such replacement will be subject to the State's prior written approval.

5.3 Contractor's Key Personnel.

(a) The State has the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, introduce the individual to the State's Project Manager, and provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection.

(b) Contractor will not remove any Key Personnel from their assigned roles on this Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("Unauthorized Removal"). An Unauthorized Removal does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation, or for cause termination of the Key Personnel's employment. Any Unauthorized Removal may be considered by the State to be a material breach of this Contract, in respect of which the State may elect to terminate this Contract for cause under **Section 16.1**.

(c) It is further acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of this Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under **Section 16.1**, Contractor will issue to the State the corresponding credits set forth below (each, an "Unauthorized Removal Credit"):

- (i) For the Unauthorized Removal of any Key Personnel designated in the applicable Statement of Work, the credit amount will be \$30,000 per individual if Contractor identifies a replacement approved by the State and assigns the replacement to

shadow the Key Personnel who is leaving for a period of at least 30 calendar days before the Key Personnel's removal.

- (ii) If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least 30 calendar days, in addition to the \$30,000 credit specified above, Contractor will credit the State \$1,000 per calendar day for each day of the 30 calendar-day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to \$30,000 maximum per individual. The total Unauthorized Removal Credits that may be assessed per Unauthorized Removal and failure to provide 30 calendar days of shadowing will not exceed \$60,000 per individual.

(d) Contractor acknowledges and agrees that each of the Unauthorized Removal Credits assessed under **Subsection (c)** above: (i) is a reasonable estimate of and compensation for the anticipated or actual harm to the State that may arise from the Unauthorized Removal, which would be impossible or very difficult to accurately estimate; and (ii) may, at the State's option, be credited or set off against any Fees or other charges payable to Contractor under this Contract.

5.4 **Subcontractors.** Contractor will not, without the prior written approval of the State, which consent may be given or withheld in the State's sole discretion, engage any Third Party to perform Services (including to create any Work Product). The State's approval of any such Third Party (each approved Third Party, a "**Permitted Subcontractor**") does not relieve Contractor of its representations, warranties or obligations under this Contract. Without limiting the foregoing, Contractor will:

- (a) be responsible and liable for the acts and omissions of each such Permitted Subcontractor (including such Permitted Subcontractor's employees who, to the extent providing Services or creating Work Product, shall be deemed Contractor Personnel) to the same extent as if such acts or omissions were by Contractor or its employees;
- (b) name the State a third party beneficiary under Contractor's Contract with each Permitted Subcontractor with respect to the Services and Work Product;
- (c) be responsible for all fees and expenses payable to, by or on behalf of each Permitted Subcontractor in connection with this Contract, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits; and
- (d) prior to the provision of Services or creation of Work Product by any Permitted Subcontractor:
 - (i) obtain from such Permitted Subcontractor confidentiality, work-for-hire and intellectual property rights assignment agreements, in form and substance acceptable by the State, giving the State rights consistent with those set forth in **Section 14.1**

and **Section 22** and, upon request, provide the State with a fully-executed copy of each such contract; and

(ii) with respect to all Permitted Subcontractor employees providing Services or Work Product, comply with its obligations under **Section 5.1(b)**; and

(e) notify the State of the location of the Permitted Subcontractor and indicate if it is located within the continental United States.

6. Data Privacy and Information Security.

6.1 Undertaking by Contractor. Without limiting Contractor's obligation of confidentiality as further described, Contractor is responsible for establishing and maintaining a data privacy and information security program, including physical, technical, administrative, and organizational safeguards, that is designed to: (a) ensure the security and confidentiality of the State Data; (b) protect against any anticipated threats or hazards to the security or integrity of the State Data; (c) protect against unauthorized disclosure, access to, or use of the State Data; (d) ensure the proper disposal of State Data; and (e) ensure that all Contractor Representatives comply with all of the foregoing. In no case will the safeguards of Contractor's data privacy and information security program be less stringent than the safeguards used by the State, and Contractor must at all times comply with all applicable State IT policies, standards, and procedures ("PSP"), of which the publicly available PSPs are located at: https://www.michigan.gov/dtmb/0,5552,7-358-82547_56579_56755---,00.html.

6.2 Acceptable Use Policy. To the extent that Contractor has access to the State's computer system, Contractor must comply with the State's Acceptable Use Policy, see https://www.michigan.gov/documents/dtmb/1340.00.01_Acceptable_Use_of_Information_Technology_Standard_458958_7.pdf. All Contractor Personnel will be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State's system. The State reserves the right to terminate Contractor's access to the State's system if a violation occurs.

6.3 Security Accreditation Process. If requested by the State, Contractor must assist the State with its security accreditation process through the development, completion and ongoing updating of a system security plan using the State's automated governance, risk and compliance (GRC) platform

6.4 Right of Audit by the State. Without limiting any other audit rights of the State, the State has the right to review Contractor's data privacy and information security program prior to the commencement of Services and from time to time during the term of this Contract. During the providing of Services, on an ongoing basis from time to time and without notice, the State, at its own expense, is entitled to perform, or to have performed, an on-site audit of Contractor's data privacy and information security program. In lieu of an on-site audit, upon request by the State, Contractor agrees to complete, within forty-five (45) calendar days of receipt, an audit questionnaire provided by the State regarding Contractor's data privacy and information security program.

6.5 Audit Findings. With respect to State Data, Contractor must implement any required safeguards as identified by the State or by any audit of Contractor's data privacy and information security program.

6.6 State's Right to Termination for Deficiencies. The State reserves the right, at its sole election, to immediately terminate this Contract or the Statement of Work without limitation and without liability if the State determines that Contractor fails or has failed to meet its obligations under this **Section 6**.

6.7 Security Requirements for Externally Hosted Software. Contractor shall comply with the security requirements set forth in **Schedule D** to this Contract.

7. State Obligations.

7.1 State Resources and Access. The State is responsible for:

(a) providing the State Materials and such other resources as may be specified in the Statement of Work (collectively, "**State Resources**"); and

7.2 State Project Manager. Throughout the Term of this Contract, the State will maintain a State employee to serve as the State's Project Manager under this Contract. The State's Project Manager will be identified in the Statement of Work.

8. Pre-Delivery Testing.

8.1 Testing By Contractor. Before delivering and installing any Software Deliverable, Contractor must:

(a) test the Software component of such Software Deliverable to confirm that it is fully operable, meets all applicable Specifications and will function in accordance with the Specifications and Documentation when properly installed in the Operating Environment;

(b) scan such Software Deliverable using industry standard scanning software and definitions to confirm it is free of Harmful Code;

(c) remedy any Non-Conformity or Harmful Code identified and retest and rescan the Software Deliverable; and

(d) prepare, test and, as necessary, revise the Documentation component of the Software Deliverable to confirm it is complete and accurate and conforms to all requirements of this Contract.

8.2 State Participation. The State has the right to be present for all pre-installation testing. Contractor must give the State at least fifteen (15) calendar days' prior notice of all such testing.

9. Delivery and Installation.

9.1 Delivery. Contractor will deliver each Deliverable, and install all Software, on or prior to the applicable Milestone Date in accordance with the delivery criteria set forth in the Statement of Work. Contractor will deliver each Software Deliverable, including complete Documentation in compliance with **Section 4**, and the applicable Source Code. No Software Deliverable will be deemed to have been delivered or installed unless it complies with the preceding sentence.

9.2 Site Preparation. Contractor is responsible for ensuring the relevant Operating Environment is set up and in working order to allow Contractor to deliver and install the Software on or prior to the applicable Milestone Date. Contractor will provide the State with such notice as is specified in the Statement of Work, prior to delivery of the Software to give the State sufficient time to prepare for Contractor's delivery and installation of the Software. If the State is responsible for Site preparation, Contractor will provide such assistance as the State requests to complete such preparation on a timely basis.

10. Acceptance Testing; Acceptance.

10.1 Acceptance Testing.

(a) Unless otherwise specified in the Statement of Work, upon installation of each Software Deliverable, Acceptance Tests will be conducted as set forth in this **Section 10.1** to ensure the Software Deliverable, including all Software and Documentation, conforms to the requirements of this Contract, including the applicable Specifications and, in the case of the Software, the Documentation.

(b) All Acceptance Tests will take place at the designated Site(s) in the Operating Environment described in the Statement of Work for the Software Deliverable, commence on the Business Day following installation of such Software Deliverable and be conducted diligently for up to thirty (30) Business Days, or such other period as may be set forth in the Statement of Work (the "**Testing Period**"). Acceptance Tests will be conducted by the party responsible as set forth in the Statement of Work or, if the Statement of Work does not specify, the State, provided that:

- (i) for Acceptance Tests conducted by the State, if requested by the State, Contractor will make suitable Contractor Personnel available to observe or participate in such Acceptance Tests; and
- (ii) for Acceptance Tests conducted by Contractor, the State has the right to observe or participate in all or any part of such Acceptance Tests.

Contractor is solely responsible for all costs and expenses related to Contractor's performance of, participation in, and observation of Acceptance Testing.

(c) Upon delivery and installation of the Aggregate Software, including any API, under the Statement of Work, additional Acceptance Tests will be performed on the Aggregate Software as a whole to ensure full operability, integration, and compatibility among all elements of the Aggregate Software

(“**Integration Testing**”). Integration Testing is subject to all procedural and other terms and conditions set forth in **Section 10.1**, **Section 10.3**, and **Section 10.4**.

(d) The State may suspend Acceptance Tests and the corresponding Testing Period by written notice to Contractor if the State discovers a material Non-Conformity in the tested Software Deliverable or part or feature of such Software Deliverable. In such event, Contractor will immediately, and in any case within ten (10) Business Days, correct such Non-Conformity, whereupon the Acceptance Tests and Testing Period will resume for the balance of the Testing Period.

10.2 Notices of Completion, Non-Conformities, and Acceptance. Within fifteen (15) Business Days following the completion of any Acceptance Tests, including any Integration Testing, the party responsible for conducting the tests will prepare and provide to the other party written notice of the completion of the tests. Such notice must include a report describing in reasonable detail the tests conducted and the results of such tests, including any uncorrected Non-Conformity in the tested Software Deliverables.

(a) If such notice is provided by either party and identifies any Non-Conformities, the parties' rights, remedies, and obligations will be as set forth in **Section 10.3** and **Section 10.4**.

(b) If such notice is provided by the State, is signed by the State's Business Owner and Project Manager, and identifies no Non-Conformities, such notice constitutes the State's Acceptance of such Software Deliverable or Aggregate Software.

(c) If such notice is provided by Contractor and identifies no Non-Conformities, the State will have thirty (30) Business Days to use such Software Deliverable in the Operating Environment and determine, in the exercise of its sole discretion, whether it is satisfied that such Software Deliverable or Aggregate Software contains no Non-Conformities, on the completion of which the State will, as appropriate:

- (i) notify Contractor in writing of Non-Conformities the State has observed in the Software Deliverable or, in the case of Integration Testing, Aggregate Software, and of the State's non-acceptance thereof, whereupon the parties' rights, remedies and obligations will be as set forth in **Section 10.3** and **Section 10.4**; or
- (ii) provide Contractor with a written notice of its Acceptance of such Software Deliverable or Aggregate Software, which must be signed by the State's Business Owner and Project Manager.

10.3 Failure of Acceptance Tests. If Acceptance Tests identify any Non-Conformities, Contractor, at Contractor's sole cost and expense, will remedy all such Non-Conformities and re-deliver the Software Deliverables, in accordance with the requirements set forth in the Statement of Work. Redelivery will occur as promptly as commercially possible and, in any case, within thirty (30) Business Days following, as applicable, Contractor's:

(a) completion of such Acceptance Tests, in the case of Acceptance Tests conducted by Contractor; or

(b) receipt of the State's notice under **Section 10.2(a)** or **Section 10.2(c)(i)**, identifying any Non-Conformities.

10.4 Repeated Failure of Acceptance Tests. If Acceptance Tests identify any Non-Conformity in any Software Deliverable after a second or subsequent delivery of such Software Deliverable, or Contractor fails to re-deliver the Software Deliverable on a timely basis, the State may, in its sole discretion, by written notice to Contractor:

(a) continue the process set forth in this **Section 10**;

(b) accept the Software Deliverable as a nonconforming deliverable, in which case the Fees Such Software Deliverable will be reduced equitably to reflect the value of the Software Deliverable as received relative to the value of the Software Deliverable had it conformed; or

(c) deem the failure to be a non-curable material breach of this Contract and the Statement of Work and terminate this Contract for cause in accordance with **Section 16.1**.

10.5 Acceptance. Acceptance ("Acceptance") of each Software Deliverable (subject, where applicable, to the State's right to Integration Testing) and Aggregate Software will occur on the date that is the earliest of the State's delivery of a notice accepting such Software Deliverable under **Section 10.2(b)**, or **Section 10.2(c)(ii)**.

11. Training; Maintenance and Support; Hosting.

11.1 Training. With respect to all Software, Contractor will provide the State with initial training as set forth in the Statement of Work at the rates set forth in the Pricing Schedule. The State may request, and if so requested, Contractor must provide on a timely basis, additional training at the rates specified in the Pricing Schedule.

11.2 Support Services for Externally Hosted Software Contractor shall provide the State with the Support Services described in the Service Level Agreement attached as **Schedule C** to this Contract. Such Support Services shall be provided:

(a) Free of charge during the Warranty Period, it being acknowledged and agreed that the Fees includes full consideration for such Services during such period.

(b) Thereafter, for so long as the State elects to receive Support Services for the Software, in consideration of the State's payment of Support Fees as determined in accordance with the rates set forth in the Pricing Schedule

11.3 Hosting. Contractor will maintain the Availability Requirement and the Support Service Level Requirement set forth in the Service Level Agreement attached as **Schedule C** to this Contract.

12. Fees.

12.1 Fees. Subject to all terms and conditions set forth in this **Section 12** and Contractor's performance of Services to the State's satisfaction and the State's Acceptance of the applicable Deliverables, the State will pay the fees set forth in the Statement of Work and Pricing Schedule ("Fees").

12.2 Firm Pricing. The Pricing set forth in the Pricing Schedule is firm and may not be modified during the Term.

13. Invoices and Payment.

13.1 Invoices. Contractor will invoice the State for Fees in accordance with the requirements set forth in the Statement of Work, including any requirements that condition the rendering of invoices and the payment of Fees upon the successful completion of Milestones. Contractor must submit each invoice via such delivery means and to such address as are specified by the State in the Statement of Work. Each separate invoice must:

- (a) clearly identify the Contract to which it relates, in such manner as is required by the State;
- (b) list each Fee item separately;
- (c) include sufficient detail for each line item to enable the State to satisfy its accounting and charge-back requirements;
- (d) for Fees determined on a time and materials basis, report details regarding the number of hours performed during the billing period, the skill or labor category for such Contractor Personnel and the applicable hourly billing rates; and
- (e) include such other information as may be required by the State as set forth in the Statement of Work; and
- (f) itemized invoices must be submitted to DTMB-Accounts-Payable@michigan.gov.

13.2 Payment. Invoices are due and payable by the State, in accordance with the State's standard payment procedures as specified in 1984 Public Act no. 279, MCL 17.51, *et seq.*, within forty-five (45) calendar days after receipt, provided the State determines that the invoice was properly rendered. The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/SIGMAVSS> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment.

13.3 Taxes. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services or Deliverables purchased under this Contract are for the State's exclusive use.

13.4 Payment Disputes. The State may withhold from payment any and all payments and amounts the State disputes in good faith, pending resolution of such dispute, provided that the State:

- (a) timely renders all payments and amounts that are not in dispute;
- (b) notifies Contractor of the dispute prior to the due date for payment, specifying in such notice:
 - (i) the amount in dispute; and
 - (ii) the reason for the dispute set out in sufficient detail to facilitate investigation by Contractor and resolution by the parties;
- (c) works with Contractor in good faith to resolve the dispute promptly; and
- (d) promptly pays any amount determined to be payable by resolution of the dispute.

Contractor shall not withhold any Services or fail to perform any obligation hereunder by reason of the State's good faith withholding of any payment or amount in accordance with this **Section 13.4** or any dispute arising therefrom.

13.5 Right of Set Off. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

13.6 Payment Does Not Imply Acceptance. The making of any payment by the State, or Contractor's receipt of payment, will in no way affect the responsibility of Contractor to perform the Services in accordance with this Contract, and will not imply the State's acceptance of any Services or Deliverables or the waiver of any warranties or requirements of this Contract.

13.7 Support Not to be Withheld or Delayed. Contractor will not withhold, delay, or fail to perform any Services or obligations under this Contract by reason of the State's good faith withholding of any payment or amount in accordance with this **Section 13**.

14. Intellectual Property Rights.

14.1 State Ownership of Work Product. Except as set forth in **Section 14.3**, the State is and will be the sole and exclusive owner of all right, title, and interest in and to all Work Product, including all Intellectual Property Rights. In furtherance of the foregoing, subject to **Section 14.3**:

- (a) Contractor will create all Work Product as work made for hire as defined in Section 101 of the Copyright Act of 1976; and
- (b) to the extent any Work Product or Intellectual Property Rights do not qualify as, or otherwise fails to be, work made for hire, Contractor hereby:
 - (i) assigns, transfers, and otherwise conveys to the State, irrevocably and in perpetuity, throughout the universe, all right, title, and interest in and to such Work Product, including all Intellectual Property Rights; and
 - (ii) irrevocably waives any and all claims Contractor may now or hereafter have in any jurisdiction to so-called "moral rights" or rights of *droit moral* with respect to the Work Product.

14.2 Further Actions. Contractor will, and will cause the Contractor Personnel to, take all appropriate action and execute and deliver all documents, necessary or reasonably requested by the State to effectuate any of the provisions or purposes of **Section 14.1**, or otherwise as may be necessary or useful for the State to prosecute, register, perfect, record, or enforce its rights in or to any Work Product or any Intellectual Property Right therein. Contractor hereby appoints the State as Contractor's attorney-in-fact with full irrevocable power and authority to take any such actions and execute any such documents if Contractor refuses, or within a period deemed reasonable by the State otherwise fails, to do so.

14.3 Background Technology, Approved Third-Party Materials, and Open-Source Components.

- (a) Contractor is and will remain the sole and exclusive owner of all right, title, and interest in and to the Background Technology, including all Intellectual Property Rights therein, subject to the license granted in **Section 15.1**.
- (b) Ownership of all Approved Third-Party Materials, and all Intellectual Property Rights therein, is and will remain with its respective owners, subject to any express licenses or sublicenses granted to the State under this Contract.
- (c) Ownership of all Open-Source Components, and all Intellectual Property Rights therein, is and will remain with its respective owners, subject to the State's rights under the applicable Open-Source Licenses.

14.4 State Materials. The State will remain the sole and exclusive owners of all right, title, and interest in and to State Materials, including all Intellectual Property Rights therein. Contractor will have no right or license to, and will not, use any State Materials except solely during the Term of this Contract for which they are provided to the extent necessary to perform the Services and provide the Work Product to the State. All other rights in and to the State Materials are expressly reserved by the State.

15. Licenses.

15.1 Background Technology License. Contractor hereby grants to the State such rights and licenses with respect to the Background Technology that will allow the State to use and otherwise exploit perpetually throughout the universe for all or any purposes whatsoever the Work Product, to the same extent as if the State owned the Background Technology, without incurring any fees or costs to Contractor (other than the Fees set forth under this Contract) or any other Person in respect of the Background Technology. In furtherance of the foregoing, such rights and licenses will:

- (a) be irrevocable, perpetual, fully paid-up and royalty-free;
- (b) include the rights to use, reproduce, perform (publicly or otherwise), display (publicly or otherwise), modify, improve, create Derivative Works of, distribute, import, make, have made, sell and offer to sell the Background Technology, including all such modifications, improvements and Derivative Works thereof, solely as part of, or as necessary to use and exploit, the Work Product; and
- (c) be freely assignable and sublicensable, in each case solely in connection with the assignment or licensing of the Work Product or any portion, modification, or Derivative Work thereof, and only to the extent necessary to allow the assignee or sublicensee, as the case may be, to use and exploit the Work Product or portion, modification, improvement, or Derivative Work thereof.

15.2 State Materials. The State hereby grants to Contractor the limited, royalty-free, non-exclusive right and license to State Materials solely as necessary to incorporate such State Materials into, or otherwise use such State Materials in connection with creating, the Work Product. The term of such license will commence upon the State's delivery of the State Materials to Contractor, and will terminate upon the State's acceptance or rejection of the Work Product to which the State Materials relate. Subject to the foregoing license, the State reserves all rights in the State Materials. All State Materials are considered Confidential Information of the State.

15.3 Approved Third-Party Materials.

(a) Prior to the delivery date for any Deliverables under the Statement of Work, Contractor will secure for the State, at Contractor's sole cost and expense, such rights, licenses, consents and approvals for any Approved Third-Party Materials, that will allow the State to use and otherwise exploit perpetually throughout the universe for all or any purposes whatsoever the Work Product, to the same extent as if the State owned the Approved Third-Party Materials, without incurring any fees or costs to any Third-Party (other than the Fees set forth under this Contract) in respect of the Approved Third-Party Materials.

(b) All royalties, license fees, or other consideration payable in respect of such licenses are included in the Fees specified in the Statement of Work. Any additional amounts will be the sole responsibility of Contractor.

(c) Contractor acknowledges that the State cannot indemnify any third parties, including but not limited to any third-party software providers that provide Third-Party Materials, and that notwithstanding anything to the contrary contained in any third-party software license agreement or end

user license agreement, the State will not indemnify any third-party software provider for any reason whatsoever.

15.4 Open-Source Components. Any use of the Open-Source Components by the State will be governed by, and subject to, the terms and conditions of the applicable Open-Source Licenses.

16. Termination, Expiration, Transition. The State may terminate this Contract, in whole or in part, including the Support Services for all or any Software, or any Statement of Work, in accordance with the following:

16.1 Termination for Cause.

(a) The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (i) endangers the value, integrity, or security of any State system, data, facility or personnel; (ii) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (iii) engages in any conduct that may expose the State to liability; (iv) breaches any of its material duties or obligations under this Contract; or (v) underperforms as specified in the Statement of Work. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

(b) If the State terminates this Contract under this **Section 16.1**, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of this Contract, the termination will be deemed to have been a termination for convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in **Section 16.2.**

(c) The State will only pay for amounts due to Contractor for Services and Deliverables accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination, including any prepaid Support Fees. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Services from other sources.

16.2 Termination for Convenience. The State may immediately terminate this Contract in whole or in part, without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance immediately, or (b) continue to perform in accordance with **Section 16.3.** If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities to the extent funds are available.

16.3 Transition Responsibilities. Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 180 calendar days, unless

otherwise agreed to by the parties)(the “**Transition Period**”), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract to continue without interruption or adverse effect, and to facilitate the orderly transfer of the Services to the State or its designees. Such transition assistance may include but is not limited to: (a) continuing to perform the Services at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Services and Deliverables to the State or the State’s designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all State Materials and State Data; (d) transferring title in and delivering to the State, at the State’s discretion, all completed or partially completed Deliverables prepared under this Contract as of the Contract termination or expiration date; and (e) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, the “**Transition Responsibilities**”). This Contract is automatically extended through the end of the Transition Period.

16.4 Effect of Expiration or Termination.

- (a) Upon termination or expiration of this Contract for any reason:
 - (i) Contractor will be obligated to perform all Transition Responsibilities specified in **Section 16.3**.
 - (ii) All licenses granted to Contractor in the State Materials and State Data will immediately and automatically also terminate. Contractor must promptly return to the State all State Materials and State Data not required by Contractor for its Transition Responsibilities, if any.
 - (iii) Contractor will (A) return to the State all documents and tangible materials (and any copies) containing, reflecting, incorporating, or based on the State’s Confidential Information, (B) permanently erase the State’s Confidential Information from its computer systems and (C) certify in writing to the State that it has complied with the requirements of this **Section 16.4(a)(iii)**, in each case to the extent such materials are not required by Contractor for Transition Responsibilities, if any.
- (b) No expiration or termination of this Contract will affect the State’s rights in any of the Deliverables that have already been paid for by the State.

16.5 Survival. This **Section 16** survives termination or expiration of this Contract.

17. Stop Work Order. The State may, at any time, order the Services of Contractor fully or partially stopped for its own convenience for up to ninety (90) calendar days at no additional cost to the State. The State will provide Contractor a written notice detailing such suspension (a “**Stop Work Order**”). Contractor must comply with the Stop Work Order upon receipt. Within 90 days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or

(b) terminate this Contract. The State will not pay for any Services, Contractor's lost profits, or any additional compensation during a stop work period.

18. Contractor Representations and Warranties.

18.1 Authority. Contractor represents and warrants to the State that:

(a) It is duly organized, validly existing, and in good standing as a corporation or other entity as represented under this Contract under the laws and regulations of its jurisdiction of incorporation, organization, or chartering;

(b) It has the full right, power, and authority to enter into this Contract, to grant the rights and licenses granted under this Contract, and to perform its contractual obligations;

(c) The execution of this Contract by its Representative has been duly authorized by all necessary organizational action;

(d) When executed and delivered by Contractor, this Contract will constitute the legal, valid, and binding obligation of Contractor, enforceable against Contractor in accordance with its terms; and

(e) Contractor is neither currently engaged in nor will engage in the boycott of a person based in or doing business with a strategic partner as described in 22 USC 8601 to 8606.

18.2 Bid Response. Contractor represents and warrants to the State that:

(a) The prices proposed by Contractor were arrived at independently, without consultation, communication, or agreement with any other bidder for the purpose of restricting competition; the prices quoted were not knowingly disclosed by Contractor to any other bidder to the RFP; and no attempt was made by Contractor to induce any other Person to submit or not submit a proposal for the purpose of restricting competition;

(b) All written information furnished to the State by or for Contractor in connection with this Contract, including Contractor's Bid Response, is true, accurate, and complete, and contains no untrue statement of material fact or omits any material fact necessary to make the information not misleading;

(c) Contractor is not in material default or breach of any other contract or agreement that it may have with the State or any of its departments, commissions, boards, or agencies. Contractor further represents and warrants that it has not been a party to any contract with the State or any of its departments that was terminated by the State within the previous five (5) years for the reason that Contractor failed to perform or otherwise breached an obligation of the contract; and

(d) If any of the certifications, representations, or disclosures made in Contractor's Bid Response change after contract award, the Contractor is required to report those changes immediately to the Contract Administrator.

18.3 Software and Service. Contractor represents and warrants to the State that:

- (a) It will perform all Services in a professional and workmanlike manner in accordance with best industry standards and practices for similar services, using personnel with the requisite skill, experience and qualifications, and will devote adequate resources to meet its obligations under this Contract;
- (b) It is in compliance with, and will perform all Services in compliance with, all applicable Law;
- (c) The State will receive good and valid title to the Software, free and clear of all encumbrances and liens of any kind;
- (d) When delivered and installed by Contractor, the Software will not contain any Harmful Code;
- (e) The Software will not contain, or operate in such a way that it is compiled with or linked to, any Open-Source Components other than Approved Open-Source Components;
- (f) The Software will not contain, or operate in such a way that it is compiled with or linked to, any Third-Party Materials other than Approved Third-Party Materials;
- (g) The Software, including all updates, upgrades, new versions, new releases, enhancements, improvements and other modifications thereof, but excluding components comprising State Materials, Approved Third-Party Materials, and Open-Source Components, is or will be the original creation of Contractor;
- (h) As delivered, installed, specified, or approved by Contractor and used by the State or any Third Party authorized by the State, the Software: (i) will not infringe, misappropriate, or otherwise violate any Intellectual Property Right or other right of any third party; and (ii) will comply with all applicable Laws;
 - (i) No expiration or loss of any patent or application for patent rights in the Software is pending, or, to Contractor's knowledge after reasonable inquiry, threatened or reasonably foreseeable, and Contractor has no reason to believe that any claims of any such patent or patent application are or will be invalid, unenforceable, fail to issue, or be materially limited or restricted beyond the current claims, except for patent rights expiring at the end of their statutory term; and
 - (j) All Software will be, and as installed in the Operating Environment (or any successor thereto), will function in all respects, in conformity with this Contract and the Specifications and Documentation.

19. **Indemnification.**

19.1 General Indemnification. Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without

limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any Intellectual Property Right or other right of any Third Party; and (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

19.2 Indemnification Procedure. The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations. The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense, at its own cost and expense, if the State deems necessary. Contractor will not, without the State's prior written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. Any litigation activity on behalf of the State or any of its subdivisions, under this **Section 19**, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

19.3 Infringement Remedies.

(a) The remedies set forth in this **Section 19.3** are in addition to, and not in lieu of, all other remedies that may be available to the State under this Contract or otherwise, including the State's right to be indemnified for such actions.

(b) If any Software or any component thereof, other than State Materials, is found to be infringing or if any use of any Software or any component thereof is enjoined, threatened to be enjoined or otherwise the subject of an infringement claim, Contractor must, at Contractor's sole cost and expense:

- (i) procure for the State the right to continue to use such Software or component thereof to the full extent contemplated by this Contract; or
- (ii) modify or replace the materials that infringe or are alleged to infringe ("Allegedly Infringing Materials") to make the Software and all of its components non-infringing while providing fully equivalent features and functionality.

(c) If neither of the foregoing is possible notwithstanding Contractor's best efforts, then Contractor may direct the State to cease any use of any materials that have been enjoined or finally adjudicated as infringing, provided that Contractor will:

- (i) refund to the State all amounts paid by the State in respect of such Allegedly Infringing Materials and any other aspects of the Aggregate Software provided under the Statement of Work for the Allegedly Infringing Materials that the State cannot reasonably use as intended under this Contract; and
- (ii) in any case, at its sole cost and expense, secure the right for the State to continue using the Allegedly Infringing Materials for a transition period of up to six (6) months to allow the State to replace the affected features of the Software without disruption.

(d) If Contractor directs the State to cease using any Software under **Section 19.3(c)**, the State may terminate this Contract for cause under **Section 16.1**.

(e) Contractor will have no liability for any claim of infringement arising solely from:

- (i) Contractor's compliance with any designs, specifications, or instructions of the State; or
- (ii) Modification of the Software by the State without the prior knowledge and approval of Contractor;

unless the claim arose against the Software independently of any of the above specified actions.

20. Liquidated Damages.

20.1 The parties agree that any delay or failure by Contractor to timely perform its obligations in accordance with the Implementation Plan and Milestone Dates agreed to by the parties will interfere with the proper and timely implementation of the Software, to the loss and damage of the State. Further, the State will incur major costs to perform the obligations that would have otherwise been performed by Contractor. The parties understand and agree that any liquidated damages Contractor must pay to the State as a result of such nonperformance are described in the Statement of Work, and that these amounts are reasonable estimates of the State's damages in accordance with applicable Law.

20.2 The parties acknowledge and agree that Contractor could incur liquidated damages for more than one event if Contractor fails to timely perform its obligations by each Milestone Date.

20.3 The assessment of liquidated damages will not constitute a waiver or release of any other remedy the State may have under this Contract for Contractor's breach of this Contract, including without limitation, the State's right to terminate this Contract for cause under **Section 16.1**, and the State will be entitled in its discretion to recover actual damages caused by Contractor's failure to perform its obligations under this Contract. However, the State will reduce such actual damages by the amounts of liquidated damages received for the same events causing the actual damages.

20.4 Amounts due the State as liquidated damages may be set off against any Fees payable to Contractor under this Contract, or the State may bill Contractor as a separate item and Contractor will promptly make payments on such bills.

21. Damages Disclaimers and Limitations.

21.1 The State's Disclaimer of Damages. THE STATE WILL NOT BE LIABLE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS AND LOST BUSINESS OPPORTUNITIES.

21.2 The State's Limitation of Liability. IN NO EVENT WILL THE STATE'S AGGREGATE LIABILITY TO CONTRACTOR UNDER THIS CONTRACT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT, EXCEED THE MAXIMUM AMOUNT OF FEES PAYABLE UNDER THIS CONTRACT.

22. State Data.

22.1 Ownership. The State's data ("State Data"), which will be treated by Contractor as Confidential Information, includes: (a) User Data; and (b) any other data collected, used, processed, stored, or generated by the State in connection with the Services, including but not limited to personally identifiable information ("PII") collected, used, processed, stored, or generated as the result of the Services, including, without limitation, any information that identifies an individual. State Data is and will remain the sole and exclusive property of the State and all right, title, and interest in the same is reserved by the State. This **Section 22.1** survives termination or expiration of this Contract.

22.2 Contractor Use of State Data. Contractor is provided a limited license to State Data for the sole and exclusive purpose of providing the Services, including a license to collect, process, store, generate, and display State Data only to the extent necessary in the provision of the Services. Contractor must: (a) keep and maintain State Data in strict confidence, using such degree of care as is appropriate and consistent with its obligations as further described in this Contract and applicable law to avoid unauthorized access, use, disclosure, or loss; (b) use and disclose State Data solely and exclusively for the purpose of providing the Services, such use and disclosure being in accordance with this Contract, any applicable Statement of Work, and applicable law; and (c) not use, sell, rent, transfer, distribute, or otherwise disclose or make available State Data for Contractor's own purposes or for the benefit of anyone other than the State without the State's prior written consent. This **Section 22.2** survives termination or expiration of this Contract.

22.3 Loss of Data. In the event of any act, error or omission, negligence, misconduct, or breach by Contractor that compromises or is suspected to compromise the security, confidentiality, or integrity of State Data or the physical, technical, administrative, or organizational safeguards put in place by

Contractor that relate to the protection of the security, confidentiality, or integrity of State Data, Contractor must, as applicable: (a) notify the State as soon as practicable but no later than twenty-four (24) hours of becoming aware of such occurrence; (b) cooperate with the State in investigating the occurrence, including making available all relevant records, logs, files, data reporting, and other materials required to comply with applicable law or as otherwise required by the State; (c) in the case of PII, at the State's sole election, (i) notify the affected individuals who comprise the PII as soon as practicable but no later than is required to comply with applicable law, or, in the absence of any legally required notification period, within five (5) calendar days of the occurrence; or (ii) reimburse the State for any costs in notifying the affected individuals; (d) in the case of PII, provide third-party credit and identity monitoring services to each of the affected individuals who comprise the PII for the period required to comply with applicable law, or, in the absence of any legally required monitoring services, for no less than twenty-four (24) months following the date of notification to such individuals; (e) perform or take any other actions required to comply with applicable law as a result of the occurrence; (f) pay for any costs associated with the occurrence, including but not limited to any costs incurred by the State in investigating and resolving the occurrence, including reasonable attorney's fees associated with such investigation and resolution (g) without limiting Contractor's obligations of indemnification as further described in this Contract, indemnify, defend, and hold harmless the State for any and all claims, including reasonable attorneys' fees, costs, and incidental expenses, which may be suffered by, accrued against, charged to, or recoverable from the State in connection with the occurrence; (h) be responsible for recreating lost State Data in the manner and on the schedule set by the State without charge to the State; and (i) provide to the State a detailed plan within ten (10) calendar days of the occurrence describing the measures Contractor will undertake to prevent a future occurrence. Notification to affected individuals, as described above, must comply with applicable law, be written in plain language, and contain, at a minimum: name and contact information of Contractor's representative; a description of the nature of the loss; a list of the types of data involved; the known or approximate date of the loss; how such loss may affect the affected individual; what steps Contractor has taken to protect the affected individual; what steps the affected individual can take to protect himself or herself; contact information for major credit card reporting agencies; and, information regarding the credit and identity monitoring services to be provided by Contractor. The State will have the option to review and approve any notification sent to affected individuals prior to its delivery. Notification to any other party, including but not limited to public media outlets, must be reviewed and approved by the State in writing prior to its dissemination. The parties agree that any damages relating to a breach of this **Section 22.3** are to be considered direct damages and not consequential damages. This **Section 22.3** survives termination or expiration of this Contract.

23. Confidential Information. Each party acknowledges that it may be exposed to or acquire communication or data of the other party that is confidential in nature and is not intended to be disclosed to third parties. This **Section 23** survives termination or expiration of this Contract.

23.1 Meaning of Confidential Information. The term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked

“confidential” or with words of similar meaning; or, (c) should reasonably be recognized as confidential information of the disclosing party. The term “Confidential Information” does not include any information or documentation that was or is: (a) in the possession of the State and subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party’s proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). Notwithstanding the above, in all cases and for all matters, State Data is deemed to be Confidential Information.

23.2 Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to the Contractor’s subcontractor is permissible where: (a) the subcontractor is a Permitted Subcontractor; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the Permitted Subcontractor’s responsibilities; and (c) Contractor obligates the Permitted Subcontractor in a written contract to maintain the State’s Confidential Information in confidence. At the State’s request, any of the Contractor’s Representatives may be required to execute a separate agreement to be bound by the provisions of this **Section 23.2**.

23.3 Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract. Each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.

23.4 Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.

23.5 Surrender of Confidential Information upon Termination. Upon termination or expiration of this Contract or a Statement of Work, in whole or in part, each party must, within five (5) Business Days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party’s

possession, custody, or control. If Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and certify the same in writing within five (5) Business Days from the date of termination to the other party.

24. ADA Compliance. The State is required to comply with the Americans with Disabilities Act of 1990 (ADA), and has adopted a formal policy regarding accessibility requirements for websites and software applications. Contractor's Software must comply, where relevant, with level AA of the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0.

25. Records Maintenance, Inspection, Examination, and Audit.

25.1 Right of Audit. The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain, and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to this Contract through the Term of this Contract and for three (3) years after the latter of termination, expiration, or final payment under this Contract or any extension ("Financial Audit Period"). If an audit, litigation, or other action involving the records is initiated before the end of the Financial Audit Period, Contractor must retain the records until all issues are resolved.

25.2 Right of Inspection. Within ten (10) calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Services are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of this Contract must be paid or refunded within forty-five (45) calendar days.

25.3 Application. This **Section 25** applies to Contractor, any Affiliate, and any Permitted Subcontractor that performs Services in connection with this Contract.

26. Insurance Requirements.

26.1 Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a Permitted Subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by an company with an A.M. Best rating of "A" or better and a financial size of VII or better.

Insurance Type	Additional Requirements
Commercial General Liability Insurance	

Insurance Type	Additional Requirements
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations <u>Deductible Maximum:</u> \$50,000 Each Occurrence	Contractor must have its policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 04.
Umbrella or Excess Liability Insurance	
<u>Minimal Limits:</u> \$5,000,000 General Aggregate	Contractor must have its policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds.
Automobile Liability Insurance	
<u>Minimal Limits:</u> \$1,000,000 Per Occurrence	
Workers' Compensation Insurance	
<u>Minimal Limits:</u> Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
<u>Minimal Limits:</u> \$100,000 Each Accident	

Insurance Type	Additional Requirements
<p>\$100,000 Each Employee by Disease</p> <p>\$500,000 Aggregate Disease.</p>	
Privacy & Security Liability (Cyber Liability) Insurance	
<p><u>Minimal Limits:</u></p> <p>\$1,000,000 Each Occurrence</p> <p>\$1,000,000 Annual Aggregate</p>	<p>Contractor must have its policy: (1) endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds; and (2) cover information security and privacy liability, privacy notification costs, regulatory defense and penalties, and website media content liability.</p>
Professional Liability (Errors and Omissions) Insurance	
<p><u>Minimal Limits:</u></p> <p>\$3,000,000 Each Occurrence</p> <p>\$3,000,000 Annual Aggregate</p> <p><u>Deductible Maximum:</u></p> <p>\$50,000 Per Loss</p>	

26.2 If Contractor's policy contains limits higher than the minimum limits, the State is entitled to coverage to the extent of the higher limits. The minimum limits are not intended, and may not be construed, to limit any liability or indemnity of Contractor to any indemnified party or other persons.

26.3 If any of the required policies provide claims-made coverage, the Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of contract work; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the contract of work; and (c) if coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, the Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

26.4 Contractor must: (a) provide insurance certificates to the State's Contract Administrator, containing the Contract number, at Contract formation and within twenty (20) calendar days of the

expiration date of the applicable policies; (b) require that Permitted Subcontractors maintain the required insurances contained in this Section; (c) notify the State's Contract Administrator within five (5) Business Days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

26.5 This **Section 26** is not intended to and is not be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State)

27. Dispute Resolution.

27.1 Unless otherwise specified in the Statement of Work, the parties will endeavor to resolve any Contract dispute in accordance with **Section 27**. The initiating party will reduce its description of the dispute to writing (including all supporting documentation) and deliver it to the responding party's Project Manager. The responding party's Project Manager must respond in writing within five (5) Business Days. The initiating party has five (5) Business Days to review the response. If after such review resolution cannot be reached, both parties will have an additional five (5) Business Days to negotiate in good faith to resolve the dispute. If the dispute cannot be resolved within a total of fifteen (15) Business Days, the parties must submit the dispute to the parties' Contract Administrators. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.

27.2 Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' Contract Administrators, and either Contract Administrator concludes that resolution is unlikely, or fails to respond within fifteen (15) Business Days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This **Section 27** does not limit the State's right to terminate this Contract.

28. General Provisions.

28.1 Effect of Contractor Bankruptcy. All rights and licenses granted by Contractor under this Contract are and will be deemed to be rights and licenses to "intellectual property," and all Work Product is and will be deemed to be "embodiments" of "intellectual property," for purposes of, and as such terms are used in and interpreted under, Section 365(n) of the United States Bankruptcy Code (the "**Code**"). If Contractor or its estate becomes subject to any bankruptcy or similar proceeding, the State retains and has the right to fully exercise all rights, licenses, elections, and protections under this Contract, the Code and all other applicable bankruptcy, insolvency, and similar Laws with respect to all Software and other Work Product. Without limiting the generality of the foregoing, Contractor acknowledges and agrees that, if Contractor or its estate shall become subject to any bankruptcy or similar proceeding:

(a) all rights and licenses granted to the State under this Contract will continue subject to the terms and conditions of this Contract, and will not be affected, even by Contractor's rejection of this Contract; and

(b) the State will be entitled to a complete duplicate of (or complete access to, as appropriate) all such intellectual property and embodiments of intellectual property comprising or relating to any Software or other Work Product, and the same, if not already in the State's possession, will be promptly delivered to the State, unless Contractor elects to and does in fact continue to perform all of its obligations under this Contract.

28.2 Conflicts and Ethics. Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This **Section 28.2** applies to Contractor, any Affiliate, and any Permitted Subcontractor that Performs Services in connection with this Contract.

28.3 Compliance with Laws. Contractor and its Representatives must comply with all Laws in connection with this Contract.

28.4 Nondiscrimination. Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, et seq., and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, et seq., Contractor and its Permitted Subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or mental or physical disability. Breach of this covenant is a material breach of this Contract.

28.5 Unfair Labor Practice. Under MCL 423.324, the State may void any Contract with a Contractor or Permitted Subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.

28.6 Governing Law. This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in the Michigan Court of Claims. Complaints against the State must be initiated in Ingham County, Michigan. Contractor waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.

28.7 Non-Exclusivity. Nothing contained in this Contract is intended nor is to be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Services from other sources.

28.8 Force Majeure.

(a) Force Majeure Events. Subject to below (b), neither party will be liable or responsible to the other party, or be deemed to have defaulted under or breached this Contract, for any failure or delay in fulfilling or performing any term hereof, when and to the extent such failure or delay is caused by: acts of God, flood, fire or explosion, war, terrorism, invasion, riot or other civil unrest, embargoes or blockades in effect on or after the date of this Contract, national or regional emergency, or any passage of law or governmental order, rule, regulation or direction, or any action taken by a governmental or public authority, including imposing an embargo, export or import restriction, quota or other restriction or prohibition (each of the foregoing, a "**Force Majeure**"), in each case provided that: (a) such event is outside the reasonable control of the affected party; (b) the affected party gives prompt written notice to the other party, stating the period of time the occurrence is expected to continue; (c) the affected party uses diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

(b) State Performance; Termination. In the event of a Force Majeure Event affecting Contractor's performance under this Contract, the State may suspend its performance hereunder until such time as Contractor resumes performance. The State may terminate this Contract by written notice to Contractor if a Force Majeure Event affecting Contractor's performance hereunder continues substantially uninterrupted for a period of five (5) Business Days or more. Unless the State terminates this Contract pursuant to the preceding sentence, any date specifically designated for Contractor's performance under this Contract will automatically be extended for a period up to the duration of the Force Majeure Event.

28.9 Relationship of the Parties. The relationship between the parties is that of independent contractors. Nothing contained in this Contract is to be construed as creating any agency, partnership, joint venture or other form of joint enterprise, employment or fiduciary relationship between the parties, and neither party shall have authority to contract for or bind the other party in any manner whatsoever.

28.10 Media Releases. News releases (including promotional literature and commercial advertisements) pertaining to this Contract or project to which it relates must not be made without the prior written approval of the State, and then only in accordance with the explicit written instructions of the State.

28.11 Notices. All notices, requests, consents, claims, demands, waivers and other communications under this Contract must be in writing and addressed to the parties as follows (or as otherwise specified by a party in a notice given in accordance with this **Section 28.11**):

If to Contractor: 28081 Southfield Road, Lathrup Village, MI 48076

Email: j.shaulis@kunzleigh.com

Attention: Justin Shaulis, Partner

If to State: Jarrod Barron
525 W. Allegan Street, Lansing, MI 48909
Email: BarronJ1@michigan.gov
Attention: Jarrod Barron – Category Specialist, IT

Notices sent in accordance with this **Section 28.11** will be deemed effectively given: (a) when received, if delivered by hand (with written confirmation of receipt); (b) when received, if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by email (with confirmation of transmission), if sent during normal business hours of the recipient, and on the next Business Day, if sent after normal business hours of the recipient; or (d) on the fifth (5th) calendar day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid.

28.12 Headings. The headings in this Contract are for reference only and will not affect the interpretation of this Contract.

28.13 Schedules All Schedules that are referenced herein and attached hereto are hereby incorporated by reference. The following Schedules are attached hereto and incorporated herein:

Schedule A	Statement of Work
Schedule B	Pricing Schedule
Schedule C	Service Level Agreement
Schedule D	Data Security Requirements
Schedule E	Disaster Recovery Plan
Schedule F	Project Schedule and Deliverables
Schedule G	Business Requirement Scoping by Phase

28.14 Assignment. Contractor may not assign or otherwise transfer any of its rights, or delegate or otherwise transfer any of its obligations or performance, under this Contract, in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the State's prior written consent. The State has the right to terminate this Contract in its entirety or any Services or Statements of Work hereunder, pursuant to **Section 16.1**, if Contractor delegates or otherwise transfers any of its obligations or performance hereunder, whether voluntarily, involuntarily, by operation of law or otherwise, and no such delegation or other transfer will relieve Contractor of any of such obligations or performance. For purposes of the preceding sentence, and without limiting its generality, any merger, consolidation or reorganization involving Contractor (regardless of whether Contractor is a surviving or disappearing

entity) will be deemed to be a transfer of rights, obligations, or performance under this Contract for which the State's prior written consent is required. Any purported assignment, delegation, or transfer in violation of this **Section 28.14** is void.

28.15 No Third-Party Beneficiaries. This Contract is for the sole benefit of the parties and their respective successors and permitted assigns. Nothing in this Contract, express or implied, is intended to or will confer on any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Contract.

28.16 Amendment and Modification; Waiver. No amendment to or modification of this Contract is effective unless it is in writing, identified as an amendment to this Contract and signed by both parties Contract Administrator. Further, certain amendments to this Contract may require State Administrative Board Approval. No waiver by any party of any of the provisions of this Contract will be effective unless explicitly set forth in writing and signed by the party so waiving. Except as otherwise set forth in this Contract, no failure to exercise, or delay in exercising, any right, remedy, power, or privilege arising from this Contract will operate or be construed as a waiver. Nor will any single or partial exercise of any right, remedy, power or privilege under this Contract preclude the exercise of any other right, remedy, power or privilege.

28.17 Severability. If any term or provision of this Contract is invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other term or provision of this Contract or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon such determination that any term or other provision is invalid, illegal, or unenforceable, the parties must negotiate in good faith to modify this Contract so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions be consummated as originally contemplated to the greatest extent possible.

28.18 Equitable Relief. Each party to this Contract acknowledges and agrees that (a) a breach or threatened breach by such party of any of its obligations under this Contract may give rise to irreparable harm to the other party for which monetary damages would not be an adequate remedy and (b) in the event of a breach or a threatened breach by such party of any such obligations, the other party hereto is, in addition to any and all other rights and remedies that may be available to such party at law, at equity or otherwise in respect of such breach, entitled to equitable relief, including a temporary restraining order, an injunction, specific performance and any other relief that may be available from a court of competent jurisdiction, without any requirement to post a bond or other security, and without any requirement to prove actual damages or that monetary damages will not afford an adequate remedy. Each party to this Contract agrees that such party will not oppose or otherwise challenge the appropriateness of equitable relief or the entry by a court of competent jurisdiction of an order granting equitable relief, in either case, consistent with the terms of this **Section 28.19**.

28.19 Counterparts. This Contract may be executed in counterparts, each of which will be deemed an original, but all of which together will be deemed to be one and the same Contract. A signed copy of this Contract delivered by email or other means of electronic transmission (to which a signed PDF

copy is attached) will be deemed to have the same legal effect as delivery of an original signed copy of this Contract.

28.20 Further Assurances. Each party will, upon the reasonable request of the other party, execute such documents and perform such acts as may be necessary to give full effect to the terms of this Contract.

28.21 Entire Agreement. This Contract, together with all Schedules, Exhibits, and the Statement of Work constitutes the sole and entire agreement of the parties to this Contract with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, representations and warranties, both written and oral, with respect to such subject matter. In the event of any inconsistency between the statements made in the body of this Contract, the Schedules, Exhibits, and the Statement of Work, the following order of precedence governs: (a) first, this Contract, excluding its Exhibits and Schedules, and the Statement of Work; and (b) second, the Statement of Work as of the Effective Date; and (c) third, the Exhibits and Schedules to this Contract as of the Effective Date. NO TERMS ON CONTRACTORS INVOICES, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE SERVICES, OR DOCUMENTATION HEREUNDER WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE OR ANY AUTHORIZED USER FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE AND THE AUTHORIZED USER, EVEN IF ACCESS TO OR USE OF SUCH SERVICE OR DOCUMENTATION REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

SCHEDULE A **Statement of Work**

This Schedule identifies the requirements of the Contract

1. DEFINITIONS

The following terms have the meanings set forth below. All initial capitalized terms that are not defined below shall have the respective meanings given to them in Section 1 of the Contract Terms and Conditions. "Solution" means the Custom Developed Software solution that the State is seeking under this Contract. This project will be an Agile development.

Term	Definition
ABE	Advisory Board of Examiners
ACH	Automated Clearing House
ACO	Administrative Consent Order
Applicant	Individual or business applying for or having been granted authorization to complete regulated activities.
ASC	Accounting Service Center
CEC	Continuing Education Credits
CEPAS	Centralized Electronic Payment Authorization System
CM9	Content Manager 9
CMDP	Compliance Monitoring Data Portal
CROMERR	Cross-media Electronic Reporting Rule
CSC	Continuing Septage Credits
CWS	Community Water Supply
DNR	Department of Natural Resources
Document Notification	Notification that contains a document (i.e., email with an attachment, printed document, etc.).
DTMB	Department of Technology, Management and Budget
EPA	Environmental Protection Agency
Form	Formatted output generally populated by a single record.
GCTS	Groundwater Contamination Tracking System
LDR	Local Data Repository (SDWIS Prime)
Letter	Formatted output generally populated by a single record. Can differ from a form in that it is generally conveying a specific message to an identified recipient.
Message Notification	Notification that consists of text (i.e., email content, notification delivered via SMS, etc.)
MiCaRS	Michigan Cashiering and Receivable System
NCWS	Noncommunity Water Supply

Term	Definition
NSF	National Sanitation Foundation (NSF International)
ODAC	Oracle Data Access Components
ODT	Oracle Development tools
OTCIS	Operator Training and Certification Internet System
OTCTS	Operator Training and Certification Tracking System
PE	Profession Engineer
Plan	Engineering plan or blueprint.
PS	Professional Surveyor
Report	Formatted output generally populated by more than one record.
Report Complexity: High	Complex managerial reports with many queries, joins, etc.
Report Complexity: Low	Notices and letters, basic 'mail merge' output where simple data is inserted into template.
Report Complexity: Medium	Several queries, joins, etc. within a single report - operational performance reports.
SDWIS	Safe Drinking Water Information System
SDWIS Prime	Safe Drinking Water Information System Prime
SIGMA	Statewide Integrated Governmental Management Application
SMS	Short Message Service
SOM	State of Michigan
SWAP	Source Water Assessment Program
VES	Virtual Exchange Services (SDWIS Prime)
Workflow Complexity: High	Data or business processes that cross functional boundaries or spans multiple systems. Business processes involved multiple departments or are very complex. Presentation of relevant information requires substantial translation.
Workflow Complexity: Low	Data or business process based on a single table and limited data elements or a single event. Presentation of relevant information does not require translation.
Workflow Complexity: Medium	Data or business processes based on multiple tables or multi-step events within a single business process. The business process is somewhat complex and may be iterative. Presentation of relevant information requires some translation.
WSSN	Water Supply Serial Number

2. BACKGROUND

The mission of the Michigan Environmental, Great Lakes and Energy (EGLE), Drinking Water and Environmental Health Division (DWEHD) is to safeguard Michigan's drinking water and environmental. DWEHD supports a vision that Michigan values and invests in safe and reliable water.

DWEHD supports this mission and vision by partnering with stakeholders (e.g., other state agencies, local health departments, local units of government) for the purpose of permitting, monitoring, training and assisting the regulated community to ensure compliance with state and federal laws for environmental health and drinking water programs.

Approximately 75 percent of Michigan residents receive their water from public water supplies. The other 25 percent get their water from small water supplies such as private wells, and DWEHD staff are involved in some aspects of regulating these sources. Specifically, DWEHD, in support of local health departments, investigates drinking water well contamination and oversees remedial activities where groundwater contamination has affected private drinking water wells. In short, a small staff of 130 spend most of their time working to ensure the 10 million citizens of Michigan have access to safe drinking water and are protected against activities that may threaten public health.

In addition, many of these same staff oversee environmental health programs that have an impact on public health. These program activities include:

- licensing over 5,000 public swimming pools and 1,400 campgrounds;
- assisting and training local health departments that oversee permitting of onsite wastewater treatment systems discharging up to 10,000 gallons of wastewater per day; and
- licensing and monitoring septic haulers that land-apply or deliver waste to approved receiving and storage facilities across 83 counties in Michigan.

In many programs, these same staff provide ongoing training and workshops with stakeholders to assist with regulatory compliance and to create a better Michigan for citizens.

The above activities are subject to four different Acts, Laws, or Health Codes, at the state and federal level, as well as various administrative rules, local ordinances, and other regulations. DWEHD must annually produce a variety of reports, summaries, and respond to legislative inquiries, for quality assurance purposes. DWEHD must participate in scheduled and random audits conducted by three different entities to demonstrate that the law is being upheld and best practices, policies, and procedures, are being followed.

In recent years, it has become clear that DWEHD's legacy IT systems are outdated and must be replaced. In response, DWEHD is initiating this IT modernization project to deliver a solution that will support Public Water Supply and Environmental Health Programs in the DWEHD and achieve the following objectives and desired outcomes:

- Improved drinking water and environmental health quality
- Improved customer service
- Improved transparency and communication with the regulated community and public
- Improved access to drinking water and environmental health information

- Reduced burden on regulated entities, partners, and stakeholders through streamlined digital processes (e.g. improved data and program management tools for DWEHD's LHD partners and contractors)
- Improved data quality control
- Increased efficiency and capability of DWEHD programs with automated or electronic replacements to manual and paper-based processes
- Enhanced decision-making capabilities through analytics, trends and insights, monitoring, automated alerts, and data-driven actions
- Improved user experience, maintainability, capability, and security through replacement and modernization of legacy systems

3. PURPOSE

The State is contracting for externally hosted Custom Developed Software solution (“Solution”), including implementation, hosting, maintenance, and support services, to replace legacy drinking water and environmental health systems, applications, and databases. This contract may be leveraged by any State Agency.

The table below provides a high-level overview of the scope for reference purposes. Detailed information on these scope areas are provided in the next sections and attachments and references associated with this Contract:

Scope Area	Description
Supported Programs and Regulated Activities <i>(See Program Details attachment)</i>	<p>The solution must be implemented to support the following programs and regulated activities according to requirements throughout this Contract:</p> <ul style="list-style-type: none"> ○ Campground Permitting and Licensing Program <ul style="list-style-type: none"> ○ Permanent Campground Construction Permit (75/year) ○ Permanent Campground Operators License (1200 active) ○ Temporary Campground Operators License (300/year) ○ Community Water Supply <ul style="list-style-type: none"> ○ Issuance of a permit for a Water Supply (1047) ○ Regulatory Oversight for community public water supplies in Michigan (1400 active) ○ Noncommunity Water Supply <ul style="list-style-type: none"> ○ Noncommunity Water Supply Permit (200/year) ○ Noncommunity Water Supply Monitoring and Inspection (2,000/year) ○ Inspection of new wells and/or treatment systems (425/year) ○ LHD Program Evaluations (44/year) ○ Onsite Wastewater <ul style="list-style-type: none"> ○ Land Development Review (20-30/year) ○ Operator Training and Certification <ul style="list-style-type: none"> ○ Course approval (150 courses/year)

- Certification Exam (2000/year)
- Continuing Education Credit (CEC) tracking (6000/year)
- Operator renewals (2500/year)
- Public Swimming Pool Permitting and Licensing Program
 - Swimming Pool Construction Permit (125/year)
 - Swimming Pool Operators License (5200-5400 active)
 - Swimming Pool Equipment Change Requests (100/year)
- Septage
 - Inspecting and Licensing Septage Vehicles (1000 active)
 - Licensing Septage Haulers (500 active)
 - Inspecting and Licensing Land Application Sites (125 active)
 - Inspecting Septage Waste Storage and Receiving Facilities (80 active)
 - Confirming Continuing Septage Education (CSE) Credits (500 active)
 - Approval of CSE courses (25)
- Source Water Protection Grant Program
 - Review Source Water Protection Grant Applications (43/year)
 - Review deliverables for payment approval (100-300/year)
 - Review quarterly reports (4 per active grantee/year)
 - Review Financial Status Reports (variable)
- Water Hauler
 - Certificates of Registration for Equipment and Containers (75 active)

Key Capabilities

(See Program Details attachment)

The State requires a Custom Development Software solution that will support the in-scope programs and regulated activities, providing functionality according to requirements detailed throughout this Contract including, but not limited to:

- Entity & Relationship Management (e.g. contacts, organizations, addresses, locations, wells, water supplies, permits, certifications, etc.)
- Application Submission & Processing (e.g. online submission, workflow-based approval, upload of attachments, fee collection, renewals)
- Submission of Lab Results/Reports (e.g. water sample results and operating reports submitted electronically, replacing hand-keying of data)
- Workflow / Business Rules
- Communications / Correspondence Management

- Licensing, Permitting, and Certification
- Financial Management / Payments
- Mobile/Field Inspection and Compliance Support (e.g. sanitary surveys, on-site inspection data collection, and tracking of compliance status)
- Web Portal and Internal & External-Facing Personalized Dashboards (e.g. to increase transparency and communication with the regulated community and general public, and provide self-service capabilities)
- Accreditation (Continuing Education Tracking, Course Management)
- Electronic Plan Review
- Reporting & Analytics
- System & Data Integration, Data Export (e.g. integration with federally-hosted SDWIS Prime, drinking water laboratory, mapping/GIS systems, accounting software, automated receipt and validation of data)
- Document Management, Approval, and Review

Integration with External Systems and Data Sources

(See *Integration List for details*)

The solution must integrate with the following systems and data sources as detailed throughout this Contract:

- Centralized Electronic Payment Authorization System (CEPAS)
- Content Manager 9 (CM9)
- Dymo Label
- Local Health Department (LHD) Business Systems
- Michigan Cashiering and Receivable System (MiCaRS)
- MILogin
- MS Office 365
- ParScore (by Scantron)
- Promium Element
- ScanTools (by Scantron)
- SDWIS Prime
- SDWIS State
- Statewide Integrated Governmental Management Applications (SIGMA)
- Wellogic
- WaterChem
- WaterTrack
- To Be Determined eSignature Solution

Data Migration / Conversion

(See *Migration List for details*)

Data from the following data sources must be transferred to the new solution during implementation as detailed throughout this Contract, replacing outdated technology no longer on Department of Technology Management & Budget's (DTMB) technology roadmap:

- ANNUAL REPORTS TRACKING DB

	<ul style="list-style-type: none"> ○ CWS SWAP ○ NCWS Non-transient SWAP ○ Wellhead Protection Grant DB ○ Water Hauler DB ○ Septage Tracking DB ○ Septage DB ○ Drinking Water Permit ○ OTCTS ○ OTCIS ○ Campground DB ○ Swimming Pool DB ○ WaterTrack ○ Temporary Campgrounds License ○ Various spreadsheets and miscellaneous files
Environmental Health Regulations with which the Solution Must Comply	<p>The solution must comply with the following regulations:</p> <ul style="list-style-type: none"> ○ Safe Drinking Water Act, PA 399, 1976, as amended ○ The Public Health Code, PA 368, 1978, as amended ○ The Natural Resources and Environmental Protection Act, PA 451, 1994, as amended ○ PA 308, 2004

4. CONTRACT TERM

The contract term is set forth in the preamble of the Contract.

5. SPECIFIC STANDARDS

IT Policies, Standards and Procedures (PSP)

Contractors are advised that the State has methods, policies, standards and procedures that have been developed over the years. Contractors are expected to provide proposals that conform to State IT policies and standards. All services and products provided as a result of this Contract must comply with all applicable State IT policies and standards. Contractor is required to review all applicable links provided below and state compliance in their response. Contractor must also demonstrate they will maintain and keep up to date on all SOM standards.

Public IT Policies, Standards and Procedures (PSP):

https://www.michigan.gov/dtmb/0,5552,7-358-82547_56579_56755---,00.html

Secure Web Application Standard

Contractor's solution must meet the State's Secure Application Development Standards as mandated by the State.

Secure Application Development Life Cycle (SADLC)

Contractor is required to meet the States Secure Application Development Life Cycle requirements that include:

Security Accreditation

Contractor is required to complete the State Security Accreditation process for the solution.

Application Scanning

Externally hosted solutions

Contractor is required to grant the right to the State to scan either the application code or a deployed version of the solution; or in lieu of the State performing a scan, Contractor will provide the State a vulnerabilities assessment after Contractor has used a State approved application scanning tool. These scans must be completed and provided to the State on a regular basis or at least for each major release.

Types of scanning and remediation may include the following types of scans and activities

- Dynamic Scanning for vulnerabilities, analysis, remediation and validation
- Static Scanning for vulnerabilities, analysis, remediation and validation
- Third Party and/or Open Source Scanning for vulnerabilities, analysis, remediation and validation

Infrastructure Scanning

Externally hosted solutions

A Contractor providing Hosted Services must scan the infrastructure at least once every 30 days and provide the scan's assessment to the State in a format that can be uploaded by the State and used to track the remediation.

Acceptable Use Policy

To the extent that Contractor has access to the State's computer system, Contractor must comply with the State's Acceptable Use Policy, see http://michigan.gov/dtmb/0.4568,7-150-56355_56579_56755---00.html. All Contractor Personnel will be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State's system. The State reserves the right to terminate Contractor's access to the State's system if a violation occurs.

Look and Feel Standard

All software items provided by the Contractor must adhere to the State of Michigan Application/Site standards which can be found at www.michigan.gov/standards.

Specific Usability

Within the guidance of the SOM ADA and Look and Feel Standards, the State is requesting details on how the proposed solution addresses the following usability items:

- Data Table Display and User Interaction (column width, order, sorting, filtering, etc.)
- Persistence of View
- Data Updates (what approach is used when the displayed data becomes stale, etc.)
- Dashboard interaction (user interaction and system response/behavior)

Approach to Data Table Display and User Interaction

Contractor must utilize HTML with appropriate Aria labels and ADA functionality to display tabular data. Column widths are configured at development time and tested on different screen size breakpoints to ensure readability and usability. Column order is fixed at development time. Column Sorting and filtering will be supported. Multi-column sorts can only be achieved during page load.

Approach to Persistence

Contractor will utilize framework to persist data into the database.

Approach to Data Updates

Data is loaded when the page loaded. To prevent accidental data overwrites, only fields that have changed are written to the database.

Approach to User Interaction with the Dashboard

The Dashboard will often be the starting point for most users, as it provides a way to navigate to tasks, inspections, metrics, and a calendar of events.

Mobile Responsiveness

The Contractor's Solution must utilize responsive design practices to ensure the application is accessible via a mobile device.

Contractors view layer of the Solution must be HTML5-compliant, providing user-friendly, responsiveness on any screen size, desktop, laptop, tablet, or mobile phone. Contractors User Experience (UX) designer will create design mockups and work with EGLE DWEHD and Contractor development teams to implement the front end in accordance with eMichigan's standards.

All system functionality will be mobile responsive.

Supported devices and browsers must include:

- Android
- iOS
- Windows
- Google Chrome
- Microsoft Edge
- Apple Safari

ADA Compliance

The State is required to comply with the Americans with Disabilities Act of 1990 (ADA), and has adopted a formal policy regarding accessibility requirements for websites and software applications. The State is requiring that Contractor Solution, where relevant, to level AA of the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0. Contractor may consider, where relevant, the W3C's Guidance on Applying WCAG 2.0 to Non-Web Information and Communications Technologies (WCAG2ICT) for non-web software and content. The State may require that Contractor complete a Voluntary Product Accessibility Template for WCAG 2.0 (WCAG 2.0 VPAT) or other comparable document for the proposed Solution.

http://www.michigan.gov/documents/dmb/1650.00_209567_7.pdf?20151026134621

Contractors development and testing team will use JAWS screen readers to verify tab order and alternate text descriptions. Other aspects of 508, such as contrast requirements, will be achieved through cascading style sheets (CSS) and development standards.

6. USER TYPE AND CAPACITY

Type of User	Access Type	Number of Users	Number of Concurrent Users
State Employees	Read Only	25	10

State Employees	Admin Access	50	20
State Employees	Write Access	200	100
Public Citizens	Read Only	75,000	4,000
Public Citizens	Write Access	20,000	4,000
Trusted Third Parties	Read Only	50	5
Trusted Third Parties	Write Access	150	75

Contractor must be able to meet the expected number of concurrent Users. Contractor must support the expected number of Concurrent Users.

Latency Response Time

Contractor must conduct testing throughout development to verify that response times are within desired timeliness constraints. Contractor must use server logs and browser tools to verify load times and track request latency. Using client-side application design offers the user interaction speed of a single-page application (SPA). Application response time will be a focus throughout development. Contractor's internal development environment will run on scaled-down versions of SOM machines which means that meeting timeliness standards in Contractor's environment will ensure a faster experience in the environment supporting the State's production application.

Required Network Connectivity and Equipment

The solution will be hosted on Microsoft Azure equipment and servers.

Two servers per environment will be used:

- SQL Server (Main Solution): Two high availability geo-replicated servers.
- IIS (Main and Public Portal): Two high-availability geo-replicated servers

Contractor must provide four instances of each environment.

- Development: Used to validate development deploys
- Testing: Used for Quality Assurance of development deploys
- Training: Used to test production deploy and train users.
- Production: Production instance of the solution

User Role Management

Contractor will utilize Role and Group Authentication mechanisms. Both the portal and internal application will make use of the State's standard MILogin Single Sign-on (SSO) system to provide the initial sign-in, identity proofing, and multi-factor authentication capabilities.

The solution must allow for the assignment and creation of users, roles, and groups. Users will be added to one or more groups, and each group will be assigned to one or more roles. This allows an administrator to not only restrict access to entire pages within the system but also allows an administrator to enable and disable certain functionality inside individual pages. For example, EGLE could have a role that provides users full access to update and create a particular kind of record; another role that allows

users to view, but not modify or create that type of record, and other roles that prevent users from even seeing the records page.

7. ACCESS CONTROL AND AUDIT

Solution must support State standard federated single sign on for end user access. The Solution must support multi-factor authentication for all access.

Solution must support Identity Federation/Single Sign-on (SSO) capabilities using SAML or comparable mechanisms to authenticate against State of Michigan identities. The Contractor must already have this SAML based capability.

Contractor must comply with any Web-based management capability to manage users and data.

Contractor must comply with what and how Audit Log Data are captured as well as how and by whom it can be accessed within specific User Groups. The Audit logs must be in a human readable format.

Web-Based Management Capabilities

The Solution must provide group- and role-based security that will allow administrators to secure access to screens, controls, and reports, including specifying the level of access, such as read-only, edit, and delete.

The system maintenance screens will also allow for the approval of users from MiLogin. Once approved, the administrator can add them to the appropriate groups and roles.

“Lookup data,” values that appear in some drop-down lists, will be customizable via lookup maintenance screens. Users with the appropriate permissions will be able to:

- Add new values;
- Delete values that have not been applied to records; and

Deactivate used values that are no longer valid for use, but need to be maintained for historical reporting purposes.

8. DATA RETENTION

Contractor must meet its capabilities for data retention (storage limitations, duration, etc.), per **Exhibit 2 – Data Retention Requirements**.

The solution will have a centralized purging process, with configurable values for each program/entity. During the design phase, Contractor must work with business owners to ensure that each table that requires a retention policy is configured and can be easily modified in the future. This includes ECM integrated data, as well as data stored in the database.

With the volume of data given in the Contract, Contractor believes no performance issues will require purging.

9. SECURITY

Externally Hosted

The Solution will be storing Confidential data.

Contractor must comply to the Data Security Requirements set forth in **Schedule F – Data Security Requirements** to the CUSTOM Software Development Terms and Conditions.

Contractor must comply with the following:

- Must remain compliant with the Credit Card Holder information (PCI) Policies.
- Must provide a GovCloud Solution that is hosted in a FedRAMP certified facility.

- Must be encrypted in transit and at rest using AES 256 bit or higher encryption modules.
- Must support NIST compliant multi-factor authentication for remote login as well as privileged/administrative access. Some other method such as SMMS text with passcode, phone call with temporary passcode or other approved multi-factor authentication method must be used.
- Must remain compliant with FISMA and the NIST Special Publication 800.53 (most recent version) MOD controls using minimum control values as established in the applicable PSP.

10. END USER OPERATING ENVIRONMENT

The software must run under commonly used web browsers. All software items provided by the Contractor must adhere to the State of Michigan Application/Site standards which can be found at www.michigan.gov/standards.

A State of Michigan browser statistics dashboard can be viewed at <https://www.michigan.gov/browserstats>. This includes information regarding mobile browser support for iOS and Android devices.

Contractor must support the current and future State standard environment at no additional cost to the State.

Contractor must:

- Comply with State system access requirements that are necessary for the Contractor to perform its obligations on a timely basis, including but not limited to, physical or remote access to State networks, servers, or individual workstations.
- Comply with the current environment.
- Support the original environment throughout the term of the contract.
- Communicate changes to its roadmaps.
- Identify any plug-ins necessary for the proposed Solution to meet the system requirements of this request.
- Comply with how customers collaborate with your organization in the decision-making process for upgrades, maintenance, and change control.

The Solution will adhere to the minimally supported browsers below:

- Chrome
- Safari
- IE10+
- Edge
- Firefox

If there are future changes to the State of Michigan's operating environment, the Contractor will regression test those changes against the Solution to ensure uninterrupted application functionality.

The Solution does not have an independent feature roadmap outside of the EGLE. This means EGLE will be able to prioritize the product backlog and have control over when specific features will be implemented.

No browser plug-in will be required for this Solution.

11. SOFTWARE

Contractor must comply with the Solution described in this Contract, including, but not limited to:

- Its functionality
- Optional add-on modules

- Current approximate user base
- Future development roadmap
- Contractor's services
- The Solution must have the ability to be rapidly configured or scaled as the State's business or technical demands change.

If the Contractor is using any open source or third-party products in connection with the Solution the Contractor must identify these in this Contract (including identifying any associated cost in **Schedule B - Pricing**).

12. SOLUTION REQUIREMENTS

Comply must comply with each section in this **Schedule A – Statement of Work** and must comply with the attached **Exhibit 1 - Table 1 Business Specification Worksheet**.

Contractor must meet the proposed approach to validate each requirement to ensure that the Solution meets the specifications set forth in this Contract.

Contractor must comply with any configuration changes or customization modifications that will need to be made to the Solution to meet the specifications set forth in **Exhibit 1 - Table 1 Business Specification Worksheet** and where applicable in each section of this Contract.

Configuration is referred to as a change to the Solution that must be completed by the awarded Contractor prior to Go-Live but allows an IT or non-IT end user to maintain or modify thereafter (i.e. no source code or structural data model modifications occurring).

Customization is referred to a modification to the Solution's underlying source code, which can be completed as part of the initial implementation.

All configurations or customizations made during the term of the contract must be forward-compatible with future releases and be fully supported by the Contractor without additional costs.

The project will begin with a planning phase called Sprint 0 in which the Contractor team will work with EGLE to plan a release schedule that identifies, at a high-level, when specific functionality will be released. Release planning will consider EGLE's business priorities, as well as structural dependencies necessary to develop code in the most efficient manner.

The release schedule will drive the order of the requirements validation and elaboration process. Once the release schedule is decided, the Contractor business and quality analysts will begin the requirements validation and elaboration process on the highest-priority requirements. The Contractor will continue this process throughout the project. That is, the Contractor team will work on a group of selected requirements, generating the detail needed for development activities to commence. The Contractor team will continue the process, working on block after block of requirements until all the requirements have been validated and elaborated.

Discovery JADs

The first JADs are discovery sessions in which the Contractor team will work with EGLE business users and other stakeholders to review workflows and map requirements to those workflows to identify gaps and opportunities for automation. The Contractor team begins loading all the business, functional and technical requirements into Jira, the Contractor's product backlog, sprint planning and management, and defect tracking tool. Jira provides functionality for:

- Reviewing and approving requirements, epics, and user stories;
- Tracking development and testing activities;
- Tracking defects; and
- Linking all these elements together to provide detailed traceability information.

Functional JADs

Once the Contractor team has validated business, functional, and technical requirements for a block of functionality, the Contractor will move into functional JADs where the Contractor team works collaboratively with business users to break the requirements down into epics and user stories.

The Contractor team will also create screen mockups to facilitate the functional JADs that allow users to see the functional design and provide feedback. The Contractor will update mockups to reflect feedback and associate with the applicable user stories to provide the developers with a clear vision of the required functionality.

Technical JADs

The Contractor team moves on to technical JADs in which the Contractor team captures field specifications and acceptance criteria. The acceptance criteria follow the pattern of given, when, then, where:

- Given communicates conditions necessary for testing the functionality;
- When communicates specific actions the user will take;
- Then communicates the expected result of each action.

Acceptance criteria clearly communicate to the development team all the details necessary to build the functionality and they serve as the basis for all testing activities. **User Story Review and Approval Process**

Contractor will provide identified EGLE stakeholders with access to Jira. Jira will be used to manage user story review and approval, among other project activities.

As the Contractor team is working through the JADs, they will begin adding user stories that will appear in the **Draft** column of the project's Story Review Board in Jira. Each story contains a link to the applicable business or functional requirement(s) in Jira.

Once a user story is completed, the authoring Contractor BA will move it to the **Internal Review** column in Jira. Another Contractor BA will peer review the story to verify that it complies with established best practices, ensuring that it is clear and complete. If there are any issues with the story, the reviewer will work with the authoring Contractor BA to get the issues remedied.

When the user story passes all internal quality checks, the peer reviewer will move it to the **Ready for SOM Review** column in Jira. During an identified review period, an identified EGLE stakeholder will move the story to the **In Review** column in Jira while they are reviewing it. This serves to communicate to all stakeholders the progress of review for each and every story. When the EGLE stakeholder is done reviewing, they will take one of three actions:

- If the EGLE reviewer approves the story and all related artifacts (e.g., mockups, field specifications, business rules, etc.), they will move it to the **Approved** column in Jira.
- If EGLE wants minor modifications, they will move it to the **Approved with Comments** column in Jira. The authoring BA will work with the person who made the comments to get the story updated. The revised story will be collaboratively reviewed in a sprint planning session and moved to the **Approved** column in Jira by the EGLE product owner.
- If the EGLE reviewer feels the story misses the mark completely, they will add comments and move the story back to the **Draft** column in Jira.

Once the stories are approved, they are officially in the product backlog, ready and waiting to be added to the sprint.

13. INTEGRATION

Contractor must integrate the Solution with the systems listed in the Integration list provided by the State below:

Interface Name	Frequency
Centralized Electronic Payment Authorization System (CEPAS)	Real-time, daily
Content Manager 9 (CM9)	Real-time, daily
Dymo Label	On demand, weekly
Local Health Department (LHD) Business System	On demand, daily
Michigan Cashiering and Receivable System (MiCaRS)	Real-time, daily
MILogin	With each authentication, daily
MS Office 365	On demand, Real-time, daily
ParScore (by Scantron)	2 times a year
Promium Element	On demand, daily
Quality of Life (QoL) Data Warehouse	Daily
ScanTools (by Scantron)	2 times per year
SDWIS State	Real-time, on-demand, daily
SDWIS Prime	Real-time, on demand, daily
Statewide Integrated Government Management Applications (SIGMA)	Real-time- on demand, daily
WaterChem	On demand, daily
Wellogic	On demand, daily
WaterTrack	On demand, daily
To Be Determined eSignature Solution	Daily

14. MIGRATION

Contractor must Migrate data into the Solution, data listed in the Migration list provided by the State below:

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology
Annual Reports Tracking DB	Annual Report Tracking	71 in 5 tables	51,683 in 5 tables	22MB	MS ACCESS
Table	Fields	Records			
tblConsumerConfidenceReports	13	122			
tblCrossConnectionReports	9	22,016			

tblMiscTracking	29	1,441
tblPumpageReports	13	28,087
tblReportRequirements	7	17
Totals	71	51,683

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology
CWS SWAP	SWAP-Rebuild – 02 20 2015	34	989	1.72MB	MS ACCESS
Table	Fields	Records			
SWA	34	989			

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology
NCWS Non-transient SWAP	Non-transient Noncommunity SWA Report Database.accdb	100 in 4 tables	600 in 3 tables	7.75MB	MS ACCESS
Table	Fields	Records			
SWA	38	471			
tblCounties	19	83			
tblLHDNames	5	46			
tblRecordsToUpdatePayment (used for macro – no data until populated by macro)	38	0			
Totals	100	600			

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology
Wellhead Protection Grant DB	Status01.accdb	1,312 in 14 tables	620 in 14 tables	8.5MB	MS ACCESS
Table	Fields	Records			
Consulting Firms	1	50			
Grant App Review (2006)	100	50			
Grant App Review (2007)	99	41			
Grant App Review (2008)	102	43			
Grant App Review (2010)	101	44			
Grant App Review 2011	101	34			
Grant App Review 2012	101	54			
Grant App Review 2013	101	32			
Grant App Review 2014	101	45			
Grant App Review 2015	101	48			
Grant App Review 2016	101	47			
Grant App Review 2017	101	43			
Grant App Review 2018	101	45			
Grant App Review 2019	101	44			

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology

Water Hauler DB	Database.accdb	57 in 6 tables	542 in 6 tables	7.24MB	MS ACCESS
Table		Fields	Records		
tblChlorine		4	17		
tblCounties		3	84		
tblCustomersNotPrivateResidences		5	134		
tblLHDs		1	44		
tblTrailersTrucksContain		12	192		
tblWaterHaulers		32	71		
Totals		57	542		

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology
Septage Tracking DB	Tracking 2.mdb	642 in 20 tables	7191 in 20 tables	5.75MB	MS ACCESS
Table		Fields	Records		
Applications Processed					
FY2000		14	109		
FY 01		21	64		
FY 02		19	227		
FY 03		16	275		
FY 04		16	252		
FY 05		27	556		
FY 06		34	622		
FY 07		37	557		
FY 08		34	519		
FY 09		35	503		
FY 10		41	821		
FY 11		41	474		
FY 12		41	492		
FY 13		41	464		
FY 14		41	452		
FY 15		40	453		
FY 16		40	137		
FY 17		40	102		
FY 18		40	109		
FY 19		40	3		
Totals		642	7191		

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology
Septage DB	Septage_xp.mdb/S WQDB	See below	See below	410.81MB	MS ACCESS with SQL
Table Name		Fields	Row Count		
tbl_Septage_Courses		8	290		
tbl_lookup_county		4	84		
tbl_septage_Educators		14	175		
tbl_septage_Inspections		7	0		
tbl_septage_VolumeTotals		13	8		
tbl_septage_county		9	90		
tbl_septage_entity		42	377		

tbl_septage_fees	4	4
tbl_septage_lookup_lat_long	11	60293
tbl_septage_township	4	1264
tbl_septage_AppEducCourses	5	317
tbl_septage_Classes	11	265
tbl_septage_RF_approval	8	583
tbl_septage_SeptageHaulers	43	1150
tbl_septage_county_township	5	1260
tbl_septage_entity_contact	10	408
tbl_septage_RespAgent	6	670
tbl_septage_SeptageFacilities	14	104
tbl_septage_Sites	35	2630
tbl_septage_StudentEnroll	5	1460
tbl_septage_Trucks	21	1577
tbl_septage_complaint	9	8
tbl_septage_hauler_entity	9	1086
tbl_septage_transactions	18	24747
tbl_septage_LA_approval	10	11084
tbl_septage_Truck_approval	8	6733

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology	
Drinking Water Permit	Permit Database.accdb/D W_PERMIT	See below	See below	45MB	MS ACCESS with SQL backend	
Table Name	Fields	Row Count				
epxpm_permit_submission	11	18				
tblDWPermit_Audit	8	118531				
tblExtensionBans	7	68				
tblFacilityMains	4	36850				
tblFacilityOther	4	1786				
tblFacilityTanks	4	560				
tblFacilityWells	6	743				
tblPermitCorrespondence	5	6234				
tblPermitPayment	10	8				
tblPermitTracking	31	30231				

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology	
OTCTS	OTCTS	See below	See below	117.56MB	SQL DB	
Table Name	Fields	Row Count				
pbcatcol	20	0				
pbcateadt	7	21				
pbcatfmt	4	20				
pbcattbl	25	0				
pbcatvld	5	0				
tblAccess_Levels	4	4				
tblIBMPs	6	1				
tblCert_Category	5	3				
tblCert_Level	5	5				

tblCert_Restricted_WSSN	7	331
tblCert_Special_Type	5	3
tblCertification_History	7	10541
tblCodes_Exam_Dates	4	68
tblConfirmationLetterLocations	16	29
tblCounty	31	84
tblCourse_Company	26	357
tblCourse_Meals	2	9
tblCourse_Regis	30	192
tblDistrict	4	30
tblExamLocations	4	22
tblExam_History	18	27127
tblExam_Regis	24	951
tblExam_Scoring	6	15
tblExpirationDates	5	4
tblInvoice_Ledger	8	256
tblInvoice_Ledger_Items	9	145
tblOperator	34	15022
tblReceiptsAndInvoices	17	613
tblReceiptsAndInvoices_Items	6	765
tblRegional_Mtg_Location	7	18
tblRemarks	5	36
tblRemarks_Categories	2	3
tblReportParams	7	0
tblReports	31	95
tblStaffPositions	8	9
tblStaff_Codes	5	31
tblStatusCodes	4	5
tblTemp	17	0
tblUser_Access	6	95
tblWSSN	7	3769
tblCertification	11	6917
tblCourse	27	2170
tblSignatureBlock	9	8
tblStaff_Information	13	346
tblClass	25	221270
tblCert_Renew_Req	7	15

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology	
OTCIS	OTCIS on DEQSQLWEB	See below	See below	556.31MB	SQL DB	
Table Name	Fields	Row Count				
tblCert_Category	5	3				
tblCert_Level	5	5				
tblCert_Restricted_WSSN	7	331				
tblCert_Special_Type	5	3				
tblCertification	11	6917				
tblClass	25	221269				
tblCounty	4	84				
tblCourse	27	2170				
tblCourse_Company	26	357				

tblCourse_Regis	30	178
tblDistrict	4	30
tblOperator	34	15022
tblStaffPositions	8	9
tblWSSN	7	3769

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology
Campground DB	CG Database.accdb/Camp grounds	See below	See below	62.75MB	MS Access with SQL Backend

Table Name	Fields	Row Count
CGStatus	2	4
COUNTY2	3	83
DE_Fees	7	43
DE_IssueCodes	3	17
DE_Reject	4	16
DE_TranStatus	3	23
DetroitCPI	4	13
District2	3	9
DistrictPlans	3	7
DPermitType	3	9
IRecomm	2	8
IssueCodes	2	12
JURIS2	7	49
LType	2	9
CGLIC	30	6220
LicSeq	34	17117
CGINSP	9	4113
DE_AppRcvd	3	6
CGInfo Master	44	1471
CGCPs	10	978
CGNOW	70	1471

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology
Swimming Pool DB	PoolDatabase.accdb/S wimmingPools	See below	See below	62.75MB	MS Access with SQL Backend
Table Name	Fields	Row Count			
A_InspAll	13	22322			
A_RejNew	13	2955			
CP_Main	12	7563			
A_SwimPool	20	6302			
A_County	2	83			
DE_SpecCond	2	60			
DetroitCPI	4	13			
A_PTranAll	31	69384			
VGBAll Pools	14	4260			
A_LHD	5	50			
DE_ProgStaff	6	15			
VGBDrains	4	48			

DE_Reject	3	25
DE_PTranDesc	8	42
DE_PoolType	2	21
DE_PoolStatus	2	11
DE_PoolLoc	2	3
DE_OaklandCVT	3	61
DE_InspType	2	8
DE_InspRecc	2	10
DE_EstabType	2	61
DD_SuppDisinf	2	9
A_Estab	48	4464
DD_Main	55	2809
DD_InletLoc	2	2
DE_TransStat	2	35
DD_FilterType	2	6
DD_Disinfect	2	6
OPSeq	36	72585
CP_Types	2	9
CP_Actions	2	8

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology	
WaterTrack	WaterTrack DB	See below	See below	83.34MB	SQL	
Table Name	Fields	Row Count				
SupplierSurvey	11	59434				
wt_SurveyContaminantList	10	108651				
wt_SurveyContTreatment	14	59072				
wt_SurveyDistributionList	9	256911				
wt_SurveyStorageDist	13	53927				
wt_SurveyStorageList	10	59593				
wt_SurveyTreatmentList	9	27766				
wt_SurveyViolation	9	45306				
wt_SurveyWellPumpInfo	26	57854				

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology	
Temporary campgrounds license	TempCG Database	See below	See below	2.96MB	ACCESS	
Table Name	Fields	Row Count				
CGTempLic	15	2390				
CGTempMain	14	689				
County	2	83				
DEQMark	2	4				
Juris	6	49				

Application Name	Database Name	Number of Data Fields	Number of Records	Current Database Size	Current Technology

Various spreadsheets and miscellaneous files	N/A	N/A	N/A	N/A	Various
File Format	Description				Program
Excel	Tracking spreadsheets for LHD evaluations				PWS Construction- Source water unit
Excel	Tracking spreadsheets for number of well records returned to LHDs				PWS Construction- Source water unit
Excel	Tracking spreadsheet for quarterly data submitted by LHDs				PWS Construction- Source water unit
Excel	Tracking spreadsheets for tracking training attendees				PWS Construction - Source water unit
Excel	Tracking spreadsheets for questions from the well contractor's exams.				PWS Construction- Source water unit
Excel	Tracking spreadsheet for tracking monetary penalty reductions for contractors				PWS Construction- Source water unit
Excel	Tracking spreadsheet to track future sampling and site locations based on Program SOP's for time between contaminant hits				PWS Construction- Source water unit
Excel	Tracking spreadsheet for tracking current and past projects and their statuses plus brief info				PWS Construction- Source water unit
Excel	Tracking spreadsheet for tracking bottled water monthly expenses				PWS Construction- Source water unit
Excel	Tracking spreadsheet for tracking current and past projects and their statuses plus brief info				PWS Construction- Source water unit
Excel	Campground Flat File Plan Log				Campground
PDF	Plans and supporting files for Campground permit work				Campground
Excel	LHD Reimbursements for Permanent Campground Annual Inspections				Campground
Excel	LHD Invoicing for Temporary Campground Licenses to collect State License Fees				Campground
MS Word	FY17 Compliance letter				Non-Community drinking water
MS Word	FY17 Evaluation Summary				Non-Community drinking water
MS Word	FY17 Evaluation Worksheet				Non-Community drinking water
MS Word	FY17 Noncompliance Letter				Non-Community drinking water
MS Word	FY17 Self-Assessment Compliance Letter				Non-Community drinking water
MS Word	DEQ Quarterly Review Checklist				Non-Community drinking water
MS Word	Permit to install a water supply system				Non-Community drinking water

Contractor's data architects will review data and potentially hold technical JADs with applicable EGLE stakeholders to gain access to the sources described in this Contract and to gather details necessary to complete the Data Migration/Conversion Plan. The plan will describe the field mappings, conversion rules, and data definitions for each necessary transformation.

The Contractor development team will build the conversion programs. To ensure quality, the Contractor team will load and transform staging data and examine the result. If necessary, the conversion programs will be refined and the whole process repeated until the results are transformed and accepted.

EGLE subject matter experts will review transformed data to provide user acceptance and approval. Then the data will be loaded into production by the Contractor.

15. TESTING SERVICES AND ACCEPTANCE

Contractor must comply **Section 11. Pre-Delivery Testing and Section 12. Acceptance Testing, of the Custom Development Software Contract Terms.**

Automated Testing

Contractor will utilize Jasmine/Karma for Angular front-end unit tests, and XUnit for C# backend tests.

When the system has sufficient code coverage of unit tests, the Contractor DevOps pipeline for the Solution can then automatically run the complete test suite to ensure stability and regression of the system's logical units and algorithms.

Unit test suites can be executed by the Contractor at various stages of a DevOps chain, including immediately upon commits of new changes, during the integration phase of all current functionality, at regularly scheduled intervals, and as part of final Production builds. Executing at multiple stages ensures code quality is maintained.

Manual Testing

During requirement validation and elaboration, the Contractor team will work with EGLE stakeholders to develop clear and complete acceptance criteria for each and every user story, which will be reviewed and approved by EGLE stakeholders. The acceptance criteria will drive all testing activities.

Contractor business and quality analysts will perform functional and system testing for each sprint to ensure each user story functions properly and meets the defined acceptance criteria.

Once the Contractor team has completed testing, they will facilitate user acceptance testing (UAT) of the functions developed during the sprint. UAT cycles generally begin with a UAT kickoff meeting in which the QA Test Lead will go over the Test Plan with EGLE-identified testers for the sprint cycle, ensuring everyone knows what they are testing, how to record defects, and when the testing cycle is to begin and end. If a UAT tester finds an issue, they will open a defect ticket in Jira and link it to the applicable user story. The ticket will go into the backlog for triage and prioritization.

The Contractor QA Test Lead will work with the appropriate EGLE stakeholders several times a week to triage reported UAT defects. This includes:

- Working with person who reported the issue to gather any additional information necessary to diagnose the problem;
- Comparing the defect to the acceptance criteria to determine if it is in-scope or requires escalation to the change control process;
- Working with the EGLE product owner to set the priority of the ticket, which will drive the resolution timeframe.

In addition to the sprint UAT cycles, the Contractor team will facilitate release UAT cycles in which users will test at the epic-level to validate blocks of functionality. This test cycle allows users greater context to determine if the business requirement is satisfied by the group of user stories.

Toward the end of each two-week sprint, Contractor will demonstrate the new or updated functionality to identified EGLE stakeholders. Feedback will be mutually evaluated to determine when it should be acted upon. Feedback that expands user story scope may require change control or the addition of a new user story.

At the end of each two-week sprint, after the product demonstration, the sprint code that is developed in the Development environment will be promoted to the Sprint UAT environment. While EGLE users are testing a given sprint, the development team will be working on the next sprint. Any issues found during sprint UAT will be documented in Jira tickets and regularly triaged and prioritized for inclusion in a future

sprint planning session; for example, sprint 1 issues will typically be fixed in sprint 3. However, high-impact defects, such as those that block other testing activities will be resolved within the current sprint.

After the last sprint of the release is pushed to UAT, the development team will take 5 days to fix any outstanding defects from the unreleased sprints, and build the official UAT release. Defects found in last sprint of the UAT release will be fixed during the 15-day, formal UAT cycle, in which all functionality is tested for final acceptance. Since all functions developed over the preceding sprints are tested again, this formal user acceptance testing also acts as a regression test, ensuring proper functioning of all code developed over the previous sprints. During this 15-day Release UAT cycle, defects are repaired and re-tested immediately. To ensure there is plenty of time to fully validate all functionality after any necessary repairs are made, the schedule will include 5 days for EGLE to approve the UAT. Once UAT is approved, Contractor will promote the code to the Production environment. Please note that Contractor will work with EGLE to set the specific schedule of events.

The Contractor must work with eMichigan throughout the release cycle to ensure system designs are compliant with eMichigan look and feel standards and ADA standards. We will facilitate eMichigan audit and approval during the 15-day Release UAT cycle.

At the end of UAT, the Contractor QA Test Lead will make the necessary updates to the Requirement Traceability Matrix and the Test Closure Report (SEM-0607) for approval and sign-off on test activities.

16. TRAINING SERVICES

The Contractor must provide a training plan to support go-live of each major release, and transition to self-support. Training should follow a Train-the-Trainer model, but must also include hands-on support for the initial user training sessions for each major release (e.g. implementation of new regulated activities and business processes). User training support shall consist of training the State trainers, participating in one or more State-led user training sessions, and answering user questions related to the solution's functionality or specific configurations, business rules, workflows, reports, and other solution components. Contractor must provide details on, and examples of, clearly written instructions and documentation to enable State administrators and end-users to successfully operate the Solution without needing to bring in additional Contractor support.

The Contractor must comply with approach and ability to provide:

- Initial Product Training
- Train the Trainer sessions
- Configuration Training sessions to support self-support
- Application and System Administration Training sessions
- Documentation or digital media that will be provided to assist in training and knowledge transfer activities

Phase 1 of the Solution will be implemented in three (3) major releases with the option to implement Phase 2 in two (2) major releases, each consisting of training five (5) State trainers and supporting two (2) half-day end user training sessions with up to twenty five (25) participants each. Contractors should also assume training of up to ten (10) State technology staff to transition to self-support in the administration and configuration of the solution.

17. HOSTING

Externally Hosted

Contractor must comply to the State's standard **Service Level Agreement (SLA)** attached as **Schedule C** to the **Custom Software Development Terms and Conditions**.

Contractor must maintain and operate a backup and disaster recovery plan to achieve a Recovery Point Objective (RPO) of 24 hours, and a Recovery Time Objective (RTO) of 4 hours. Contractor must include a

copy of its Disaster Recovery Plan as **Schedule E**, which will be treated by the State as confidential information.

18. SUPPORT AND OPERATIONS

Externally Hosted

Contractor must comply with the State's standard Service Level Agreement (SLA) attached as **Schedule C** to the **Custom Software Development Terms and Conditions**.

Support-Hours

The State requires the Contractor to provide Support Hours as 8 a.m. to 5 p.m. Eastern, Monday thru Friday.

Maintenance and Support include:

- Answering questions regarding system functionality or processes;
- Repairing defects identified during production operations; and
- Resolving production problem resulting from user error that results in data errors

Basic Elements Contractor support process is as follows:

- Defects are triaged based on their impact on the customer's operations. Customarily, Contractor will triage defects as follows:
 - Tier 1 defects are corrected and tested within 24 hours
 - Tier 2 defects are corrected and tested as quickly as possible, after all Tier 1 defects are corrected.
 - Tier 3 defects are sent to the Maintenance and Support manager who assigns them to a scheduled release based on impact to the end users and effort to complete the resolution.
- Toll-free telephone support is available 8 AM through 5 PM EST, Monday through Friday.
- Online support, through Jira, is available 24 hours per day, seven (7) days per week.
- Contractor must assign experienced and knowledgeable staff to the support operations, including primary, secondary, and tertiary staff assignments.
- Contractor must provide the necessary Jira licensing for this project to the State at no additional cost.

Roles and Responsibilities

Issues reported to the Help Desk will be entered into Jira, the Contractor defect tracking and sprint planning system. Jira has a web interface that supports access from any location.

Organization Unit	Responsibilities	Tasks
Client User	<ul style="list-style-type: none">• Initiate defect• Close defect	<ul style="list-style-type: none">• Logs defect• Assist in priority determination• Test and acceptance of defect solution
Contractor Help Desk Coordinator	<ul style="list-style-type: none">• Initial contact with the client for defect management• Overall defect management	<ul style="list-style-type: none">• Works with client to log and triage defect• Monitors service levels for overall maintenance activity
Contractor Support Staff	<ul style="list-style-type: none">• Defect analysis, correction, and resolution	<ul style="list-style-type: none">• Analyze the root cause of the defect• Apply change• Perform testing• Move to production

Organization Unit	Responsibilities	Tasks
Contractor Project Manager	<ul style="list-style-type: none"> Overall defect planning and management for supported application 	<ul style="list-style-type: none"> Assign defect to release schedule Monitor and manage progress Inform client of progress

Help Desk Process Phases

The Help Desk is organized into three (3) phases:

- Phase 1: Planning
- Phase 2: Defect Triage, Logging and Assignment
- Phase 3: Defect Repair & Close-out

Phase 1: Planning

At the start of each fiscal year, the Contractor will establish a release schedule and assign support staff, which is captured in a Maintenance Plan.

The release schedule will be phased based on the number of defects anticipated (based on history, the life cycle of the project, and any accompanying development efforts).

Our planning activities will also involve State of Michigan staff so that State plans for technology upgrades that impact the EGLE DWEHD IT Modernization Project can be incorporated and planned into a future release that correlates with the State's upgrade schedule.

The Solution maintenance will be assigned to specific Contractor staff. Staff will be assigned based on the following criteria:

- Lead—has detailed knowledge of the application, the client, and the supporting technology
- Secondary—has knowledge of the application
- Tertiary—has knowledge of the application or the supporting technology

The Solution maintenance may have multiple candidates for each support level. Support staff may be rotated based on schedule and needs.

Contractor must provide a copy of the Maintenance Plan at the beginning of each fiscal year.

Phase Deliverables:

- Annual Maintenance Plan with resources identified

Phase 2: Defect Triage, Logging and Assignment

State employees can call the help desk or enter a defect directly into Jira. If they call the help desk, Contractor's help desk coordinator will log the defect. Jira is configured to alert the appropriate personnel when a new ticket is created or when an existing ticket is updated.

Within one (1) hour for critical and high service errors and three (3) hour for medium and low service errors, a qualified maintenance and support Contractor resource will review and triage the ticket. The triage process is a disciplined analysis of the problem's impact to determine whether the problem can be part of a scheduled maintenance release or if it requires more immediate attention. Triage may or may not require contacting the end user for additional detail.

Jira will serve as the communication tool between the end user, the Contractor support analyst, the Contractor maintenance and support manager, and the Contractor project manager. Every update to a ticket will generate an email to all appropriate parties. In addition to communication, Jira tracks all information pertaining to the analysis and repair of the defect, including the status of the repair, the time spent on the repair, customer acceptance of the repair, and several other service level metrics. Contractor must supply these reports.

Phase Deliverables:

- Defect assigned to Contractor support staff or assigned to a release

Phase 3: Defect Close-Out

The final phase of the process involves identifying and developing the solution to the defect, testing the solution, and migrating the defect repair to production. The Contractor maintenance team will test the repair internally, then the Contractor will facilitate user acceptance testing (UAT), in which the user who reported the defect will test the repair to confirm it resolved the issue, accepting the release. Also, all supporting documentation will be updated to reflect the change. Once the defect has been migrated to production, the Jira ticket will be closed by Contractor once confirmed by the State that the defect has been resolved.

Phase Deliverables:

- Tested solution moved to production
- All applicable SEM and end-user documentation updated
- Closed Jira ticket

19. DOCUMENTATION

Contractor must provide all user manuals, operating manuals, technical manuals and any other instructions, specifications, documents or materials, in any form or media, that describe the functionality, installation, testing, operation, use, maintenance, support, technical or other components, features or requirements of the Software.

Contractor must develop and submit for State approval complete, accurate, and timely Solution documentation to support all users, and will update any discrepancies, or errors through the life of the contract.

The Contractor's user documentation must provide detailed information about all software features and functionality, enabling the State to resolve common questions and issues prior to initiating formal support requests.

Contractor must provide all the documentation necessary for end-users and system administrators, as well as the technical staff who will assume maintenance responsibilities at the end of the contract. Contractor training lead will author comprehensive, task-oriented manuals that explain how to use every feature and screen in the application, including system administration and configuration information. The documentation will support training activities and provide users with user-friendly, self-help resources.

Contractor training lead will work with project stakeholders to develop a documentation approach that best supports EGLE's users.

Contractor will update end-user documents with each sprint to ensure they are always current. The Contractor will also include user review of documentation in each user-acceptance test cycle to ensure each and every feature is documented in a truly useful fashion with accurate and complete information.

With regard to project management and system engineering documentation, The Contractor must follow the SUITE Agile Process Guide, producing and maintaining the necessary SUITE documents throughout the course of the project.

20. TRANSITION SERVICES

Upon termination or expiration of the agreement, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the agreement to continue without interruption or adverse effect, and to facilitate the orderly transfer of the services to the State or its designees. Such transition assistance may include but is not limited to: (a) continuing to perform the services at the established rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable services to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return (in a format specified by the State) to the State all data stored in the solution; and (d) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts.

Contractor must comply with the detailed transition-in and transition-out plan, including any roles or responsibilities expected of the State. The plan must adequately demonstrate the steps to migrate between Contractor's Solution and third-party Solutions.

Transition-In Plan

Contractor will field feedback from all stakeholders to assess and adjust the approach and its deliverables as needed to ensure full agreement, approval, and support by the State of Michigan. Transition-In will transpire over the first 45 days of the project.

Discovery Sessions

The first day of the EGLE DWEHD IT Modernization Project marks the beginning of the Transition-In Phase, also referred to as Sprint 0. The Contractor will begin holding discovery sessions to walk through the preliminary artifacts included in this proposal, such as the work breakdown structure/schedule, Project Management Plan, Training Plan, etc., as well as to gather all the necessary information to create a Project Charter.

Contractor will work with SOM stakeholders to:

- Refine the Preliminary Human Resource plan, solidifying who will be involved in the project, and what their roles and responsibilities will be;
- Clarify the reporting structure and escalation protocols;
- Discuss any known issues, risks, and mitigation strategies and gain agreement on the format of risk and issue logs;
- Clarify the parameters of status reporting, including the report format, meeting frequency and location, scheduling requirements, and invitees;
- Gain agreement on document deliverable review procedures and define approvers;
- Discuss Organizational Change Management requirements and concerns; and
- Solidify change control procedures.

Kickoff Meeting

As early as possible in Sprint 0, the Contractor will conduct a Project Kickoff meeting in which all identified stakeholders will receive key information about the project. Timelines are generally still tentative at the kickoff meeting and will be solidified throughout the rest of Sprint 0.

Establishing Environments

During this time, Contractor's technical resources will work with:

- Microsoft to establish Development, Quality Assurance, Release/Staging, and Production hosting environments;

- DTMB to gain approval for any new security planning documents, such as the Enterprise Architecture Security Assessment (EASA) and the System Security Plan (SSP)

Requirement Validation

Requirements validation and elaboration will begin during Sprint 0 as well. Business, functional, and technical requirements will be validated for accuracy, currency, and completeness, and a high-level release schedule will be developed. The release schedule will identify which functionality will be included in each release. The Contractor business & quality analysts will begin elaborating on the highest-priority requirements, decomposing them into epics and user stories.

Stakeholder Orientation

Contractor uses Jira to:

- Collaboratively build, approve, and manage the product backlog;
- Plan and track sprint work;
- Plan and track test cycles and test results;
- Associate test cases to user stories through epics and all the way back to business and functional requirements for complete traceability;
- Track defects and repairs; and
- Track enhancement requests.

Stakeholders will have 24x7 access to the Jira system at no additional cost. Jira will provide reports, including sprint burn-down charts that give a real-time, visual of sprint status.

Contractor will provide identified State resources with a Jira orientation so that they know how to review and approve user stories, view project and sprint status, execute user acceptance test cases and record defects.

Deliverables

Toward the end of Sprint 0, the Contractor team will solidify all the planning deliverables and submit them for review and approval, including:

- Project Charter;
- Agreed tailoring of SUITE;
- Project Management Plan;
- Project Schedule/Work Breakdown Structure;
- Test Plan documents;
- Training Plan;
- Security documents; and
- Product backlog

These deliverables will be reviewed and approved by the State, according to the agreed-upon review process.

Transition-Out Plan

Early Transition Out

Contractor will transition remaining project activities to the new entity responsible for contract completion. Throughout transition-out, Contractor must:

- Continue to perform existing services at established rates;

- Take necessary but reasonable measures to transition the performance of work, including all applicable services to the State or the State's designee;
- Take necessary and appropriate steps or such other action as the State may direct to preserve, maintain, protect, or remove all data stored in the solution;
- If requested by the State, return all data stored in the solution in a common format such as text, CSV, or XLS; and
- Prepare an accurate accounting from which the State and KL&A may reconcile outstanding accounts.

An early transition-out period will not exceed 90 calendar days unless otherwise requested by the State.

Standard Transition-Out

EGLE DWEHD IT Modernization Project will transition from the development and implementation phase to a warranty phase, then to a maintenance and support phase. At the end of the contract, maintenance activities will be transitioned to EGLE and DTMB. This section discusses these transitions.

Transition to Warranty

After the final production release of the DWEHD Solution is approved by the State, Contractor must complete project closure activities and transition the project to warranty mode.

Project closure entails submitting final versions of all project deliverables that are iteratively maintained throughout the project, along with a Project Closure Report (PMM-0104). EGLE will review the Project Closure Report, per the agreed upon Milestone Review Process that is documented in the Project Management Plan. If EGLE requests updates, Contractor must incorporate the provided feedback and resubmit, which is also covered in the Milestone Review Process. Once EGLE feedback is incorporated, EGLE will provide project closure approval in writing.

The project will then transition into the warranty phase. At the State's request, Contractor must provide, free of charge, warranty from the first release until 90 calendar days after the acceptance of the final production release. Warranty covers accepted resolution to application defects identified during the warranty period.

The State has also asked for extended warranty pricing. If the State elects to purchase an extended warranty, the warranty period will continue for the duration specified in the contract.

Transition to Maintenance & Support

Maintenance and support will cover:

- Answering questions regarding system functionality or processes;
- Repairing defects identified during production operations; and
- Resolving production problems resulting from user error that create data errors.

End of Contract Transition-Out

Contractor maintains applicable SUITE documentation to support transition out, including:

- Maintenance Plan SEM-0301;
- System Design SEM-0603;
- Software Configuration Management Plan SEM-0302; and
- Defect Tracking Log SEM-0186 (in the form of a product backlog).

As the end of the contract approaches, the Contractor Maintenance Team Manager must submit final versions of these SUITE documents and work with EGLE and DTMB to ensure that the State has all the necessary information to take over maintenance of the system.

21. PRODUCTS AND SERVICES

Contractor must describe additional Solution functionality, products or services that the State specifications do not address but are necessary to implement and support this solution.

The DWEHD Solution will require two third-party applications:

- SmartyStreets for address validation
- ePlanReview for plan review component
- Jira for development and warranty efforts

Fees are included in the maintenance and support cost after implementation. During implementation Contractor is responsible for the cost.

22. CONTRACTOR PERSONNEL

Contractor must identify all Contractor resources and responsibilities required for the successful implementation and ongoing support of the Solution.

Contractor Contract Administrator. Contractor must identify the individual appointed by it to (a) administer the terms of this Contract, and (b) approve and execute any Change Notices under this Contract.

Contractor Key Personnel	
Name	Justin Shaulis
Address	2164 University Park Drive Okemos, MI 48664
Phone	517-803-3217
Email	j.shaulis@kunzleigh.com

Contractor Project Manager. Contractor must identify the Contractor Project Manager who will serve as the primary contact with regard to services who will have the authority to act on behalf of the Contractor in matters pertaining to the implementation services.

Contractor Key Personnel	
Name	Kevin Adler
Address	2164 University Park Drive Okemos, MI 48664
Phone	248-599-7910
Email	k.adler@kunzleigh.com

Contractor Business Analyst. Contractor must provide the name of individual who will be responsible for leading requirements elicitation, documenting requirements (product backlog) and completing analysis for considered changes.

Contractor Key Personnel	
Name	Donna McEvilly
Address	2164 University Park Drive Okemos, MI 48664
Phone	248-599-7910

Email	d.mcevilly@kunzleigh.com
--------------	--------------------------

Contractor QA Test Lead. Contractor must provide the name of individual responsible for the direction and oversight of QA and Test activities for the duration of the contract. This person must have thorough understanding of and related experience to the QA and Test activities for all aspects of the project.

Contractor Key Personnel	
Name	Heath Cleland
Address	2164 University Park Drive Okemos, MI 48664
Phone	248-599-7910
Email	h.cleland@kunzleigh.com

Contractor Technical Lead. Contractor must provide the name of individual responsible for the technical oversight and direction for all aspects/ of the solution and project. This person must have experience with data migration, system integration, and leading similar project of similar size and scope. Familiarity with SDWIS preferred.

Contractor Key Personnel	
Name	Justin Majeske
Address	2164 University Park Drive Okemos, MI 48664
Phone	248-599-7910
Email	j.majeske@kunzleigh.com

Contractor Workflow Architect. Contractor must provide the name of individual responsible for the direction and oversight related to the definition, design, and implementation of the workflows supporting this project. This person must have experience establishing best practices for the creation of workflows as well as ongoing maintenance and updates.

Contractor Key Personnel	
Name	Tim Hollosy
Address	2164 University Park Drive Okemos, MI 48664
Phone	248-599-7910
Email	t.hollosy@kunzleigh.com

Contractor Team's Roles and Responsibilities

Role	Responsibility	Participation Commitment
Contractor Contract Administrator	<p>The Contractor Contract Administrator will be the primary point of contact for contract-related communications. The individual will be responsible for:</p> <ul style="list-style-type: none"> • Facilitating, documenting and monitoring Contractor responsibilities and activities in the fulfillment of Contract requirements. • Providing executive oversight to the Contractor Team. 	<ul style="list-style-type: none"> • Must attend all meetings related to contract negotiation

Role	Responsibility	Participation Commitment
Contractor Project Manager	<p>The Contractor Project Manager shall interact with designated personnel from the State to ensure a smooth transition to the new system. The project manager will coordinate all activities of the Contractor personnel assigned to the project and create all reports required by State. The Contractor Project Manager's responsibilities include at a minimum:</p> <ul style="list-style-type: none"> • Manage all defined Contractor responsibilities in the Scope of Services • Develop the Project Management Plan and schedule, updating as needed • Serve as the point person for all project issues • Coordinate and oversee the day-to-day project activities • Escalate project issues, project risks, and other concerns • Review all project deliverables and provide feedback • Proactively propose/suggest options and alternatives for consideration • Use change control procedures • Prepare project documents and materials • Manage the planning process • Manage overall project schedule and drive multiple releases for the contract • Facilitates Release Planning & Retrospective • Own and assign action items • Report project status to DTMB PM and EGLE PO • Risk assessment and mitigation • Find and remove roadblocks • Facilitate communication between roles for every aspect of the project • Keep release/project information consolidated, organized and up to date • Drive the cross-functional team at all levels • Drive the execution of sprint items 	<ul style="list-style-type: none"> • Must attend daily standups • Must attend sprint planning and sprint demo/retro meetings and be available in a timely manner to answer questions and make decisions • Must attend Steering Committee, Change Control Board, and Project Leadership meetings • Attend JAD and testing sessions as needed

Role	Responsibility	Participation Commitment
Contractor Senior Business Analyst	<p>The Contractor Senior Business Analyst will be responsible for:</p> <ul style="list-style-type: none"> • Leading and organizing business analysis activities • Facilitating meetings • Elaborating and validating functional and technical requirements • Performing gap analyses • Facilitating meetings • Documenting use case scenarios • Perform business and workflow analysis. • Drafting, managing, and executing test scripts which satisfy documented scenarios as mapped against the requirements traceability matrix. 	<ul style="list-style-type: none"> • Must attend daily standups • Must attend sprint planning and sprint demo/retro meetings and be available in a timely manner to answer questions • Attend technical discussions and design sessions • Attend JAD and testing sessions as necessary
Contractor QA Test Lead	<p>The Contractor QA Test Lead will be responsible for:</p> <ul style="list-style-type: none"> • Developing test plans, test cases, test scripts • Organizing, leading, and overseeing all testing activities • Working with EGLE to regularly triage UAT defects • Facilitating UAT activities • Conducting UAT kickoff meetings • Delivery testing metrics data to the Contractor Project Manager for inclusion in weekly status reports 	<ul style="list-style-type: none"> • Must attend daily standups • Must attend sprint planning and sprint demo/retro meetings and be available in a timely manner to answer questions • Attend technical discussions and design sessions • Attend JAD and testing sessions as necessary • Must attend testing kickoff meetings

Role	Responsibility	Participation Commitment
Contractor Workflow Architect	<p>The Contractor Workflow Architect will be responsible for:</p> <ul style="list-style-type: none"> • Analyzing EGLE business processes to design and configure workflows in the DWEHD Solution • Supporting the technical team with system architecture and technical design • Supporting the Contractor Data Architect in database design as it relates to system configurability • Supporting the business analyst teams with understanding workflow information and developing acceptance criteria • Supporting the quality assurance team with test design that is capable of testing system functionality and workflow configuration • Supporting the Contractor Service Manager and Contractor QA Test Lead in triaging complex defects to aid with identifying if a reported defect is due to an improper configuration or a code defect • Support the trainer in understanding workflow configuration 	<ul style="list-style-type: none"> • Must attend daily standups • Must attend sprint planning and sprint demo/retro meetings and be available in a timely manner to answer questions • Attend technical discussions and design sessions • Attend JAD and testing sessions as necessary
Contractor Technical Lead (Senior Software Engineer & Architect)	<p>The Senior Software Engineer & Architect is the development lead and has expert knowledge in matters of design and build of the solution. The Contractor Technical Lead will:</p> <ul style="list-style-type: none"> • Lead cross-functional teams of subject matter experts, developers, and business analyst and will facilitate workgroup meetings. • Lead and/or consult on the development of the System Architecture and work closely with the DTMB Architect to ensure the Solution satisfies requirements and will function as designed in the State Enterprise network. 	<ul style="list-style-type: none"> • Must attend daily standups • Must attend sprint planning and sprint demo/retro meetings and be available in a timely manner to answer questions • Must attend Change Control Board and Project Leadership meetings • Attend technical discussions and design sessions • Attend JAD and testing sessions as necessary

23. CONTRACTOR PERSONNEL REQUIREMENTS

Contractor must present certifications evidencing satisfactory Michigan State Police Background checks (ICHA) and drug tests for all staff identified for assignment to this project.

In addition, proposed Contractor personnel will be required to complete and submit an RI-8 Fingerprint Card for the National Crime Information Center (NCIC) Finger Prints, if required by project.

Contractor will pay for all costs associated with ensuring their staff meets all requirements.

24. STATE RESOURCES/RESPONSIBILITIES

The State will provide the following resources as part of the implementation and ongoing support of the Solution.

State Contract Administrator. The State Contract Administrator is the individual appointed by the State to (a) administer the terms of this Contract, and (b) approve and execute any Change Notices under this Contract.

State Project Manager. The State Project Manager will serve as the primary contact with regard to implementation Services who will have the authority to act on behalf of the State in approving Deliverables, and day to day activities.

Agency Business Owner. The Agency Business Owner will serve as the primary contact for the business area with regard to business advisement who will have the authority to act on behalf of the State in matters pertaining to the business Specifications.

State Technical Lead. The State Technical Lead will serve as the primary contact with regard to implementation technical advisement.

Contractor must identify all State resources and responsibilities required for the successful implementation and ongoing support of the Solution.

Role	Name	Title
State Contract Administrator	Jarrod Barron	IT Category Specialist
State Project/Service Manager	Jim Avery	Senior Project Manager
Agency Business Owner	Ronda Page	Environmental Quality Specialist
State Technical Lead	Jeanette Clark	Business Analyst

25. MEETINGS

Contractor must attend the following meetings at no additional cost to the State.

At start of the engagement, the Contractor Project Manager must facilitate a project kick off meeting with the support from the State's Project Manager and the identified State resources to review the approach to accomplishing the project, schedule tasks and identify related timing, and identify any risks or issues related to the planned approach. From project kick-off until final acceptance and go-live, Contractor Project Manager must facilitate weekly meetings (or more if determined necessary by the parties) to provide updates on implementation progress. Following go-live, Contractor must facilitate monthly meetings (or more or less if determined necessary by the parties) to ensure ongoing support success.

If Contractor has an alternative planned approach for project meetings provide details, including purpose, roles and responsibilities, and proposed frequency.

Meetings Contractor must Regularly Conduct Throughout this Contract

Meeting Types	Purpose	Frequency	Attendees
Kickoff meeting	To bring together project stakeholders to review and agree upon approach, work breakdown structure, schedule, milestone, deliverables, known risks and issues, mitigation strategies, escalation protocols, change control processes, and formats and frequency for various reports and communications.	Once at the beginning of the project	Stakeholder to be identified at project kickoff
Joint application design sessions (JADS)	To bring together applicable stakeholders for validating and elaborating requirements and collaboratively designing the user interface. JADS are scheduled as needed.	As needed, throughout the project	Stakeholder to be identified during kickoff meeting
Sprint planning sessions	To collaboratively plan the work that will be completed in the next sprint. Work is pulled off the top of the prioritized backlog.	Once per sprint	Contractor development team and EGLE product owner
Sprint review/demo sessions	To demonstrate new functionality developed in the sprint, gaining client feedback before the functionality is migrated to the QA or staging environments.	Once per sprint	Contractor development team and identified EGLE stakeholders
Daily Scrums	For each team member to report what they did yesterday, what they are doing today, and what impediments, if any, they are experiencing. This serves forward momentum and fast resolution of impediments.	Daily	Contractor development team
Sprint retrospectives	To discuss what went well and what did not go well. The team collaboratively decides on action plans to correct or avoid identified problems and sets norms based on previous action plans that were effective. This continuous reflection improves team cohesiveness and velocity.	End of each sprint	Contractor development team
UAT kickoff sessions	To clarify what is being tested and by whom and to answer any questions UAT testers may have.	Prior to each UAT cycle	Contractor testing lead & identified EGLE UAT testers
Defect triage sessions	To review defects reported during UAT or production use for the purpose of verifying impact, categorizing defect classification, and prioritizing their position in the product backlog per the EGLE product owner's wishes.	Several times per week during UAT cycles	Contractor testing lead and EGLE product owner

Meeting Types	Purpose	Frequency	Attendees
Weekly status meetings	To review project status, work completed, upcoming work, risks and issues, and any other topic requiring EGLE and DTMB's attention	Weekly	Contractor project manager and identified EGLE and DTMB stakeholders
Monthly status meetings	To review: <ul style="list-style-type: none"> Maintenance release planning and the defects to be included in the next scheduled maintenance releases; Completed defects since the last meeting; Progress of any new development contracted during the maintenance period; and Service levels for compliance with SLA. 	Monthly after go-live	Contractor project manager and identified EGLE and DTMB stakeholders
Ad hoc meetings	To discuss any issue requiring collaboration between one or more parties.	As needed	Contractor project manager and applicable parties from EGLE or DTMB

26. PROJECT REPORTS

Once the Project Kick-Off meeting has occurred, the Contractor Project Manager will monitor project implementation progress and report on a weekly basis to the State's Project Manager the following:

- Progress to complete milestones, comparing forecasted completion dates to planned and actual completion dates
- Accomplishments during the reporting period
- Tasks planned for the next reporting period
- Identify any existing issues which are impacting the project and the steps being taken to address those issues
- Identify any new risks and describe progress in mitigating high impact/high probability risks previously identified

Contractor must describe specific reports the Contractor will provide after contract execution and during the lifecycle of the contract, including all required scheduled reporting and details around the how and when metrics are captured/validated.

After project kickoff, Contractor Project Manager must report the following:

- Progress to complete milestones, comparing forecasted completion dates to planned and actual completion dates
- Accomplishments during the reporting period
- Tasks planned for the next reporting period
- Identify any existing issues which are impacting the project and the steps being taken to address those issues
- Identify any new risks and describe progress in mitigating high impact/high probability risks previously identified

The weekly status report will be developed based on metric data tracked in the following applications:

- Microsoft Project—Contractor uses Microsoft Project to track actual milestone delivery against planned timelines.
- Jira—Contractor will use Jira to track the product backlog, sprint progress, team velocity, test cycle progress, application defects and resolutions, and enhancement requests. Jira provides all the metrics necessary for verifying that Contractor is meeting the required service levels. For example, it can show how many defects were opened in a given period of time, how long between the time a defect was opened and when the first response notes were entered, and when the defect was repaired, tested, migrated, and closed. Please note that in addition to status reports, project stakeholders can log into Jira any time of the day or night to see any of this information.
- Risk and issue tracking logs—Contractor uses an internal Project Portfolio Management (PPM) tool for tracking risks/mitigation strategies and project issues/resolutions and we will work with the DTMB project manager to ensure that risks and issues are also entered into the State's PPM tool. This system provides all the necessary metrics for reporting project performance and adherence to quality assurance practices.

The monthly status report that will begin after the first UAT will be maintenance oriented, reporting the progress and contents of warranty/maintenance releases, planning for upcoming releases, and service-level metrics such as the timeliness of defect resolution and defect counts by classification. All this information will come from Jira.

The format of each report type will be reviewed at the kickoff meeting to gain approval and will be used throughout the duration of the project. Reporting requirements will be captured in the Project Management Plan deliverable.

27. MILESTONES AND DELIVERABLES

Contractor Milestones and Deliverables are referenced in **Schedule F - Project Schedule and Deliverables**

The Contractor Project Manager will be responsible for maintaining an MS Project schedule (or approved alternative) identifying tasks, durations, forecasted dates and resources – both Contractor and State - required to meet the timeframes as agreed to by both parties.

Changes to scope, schedule or cost must be addressed through a formal change request process with the State and the Contractor to ensure understanding, agreement and approval of authorized parties to the change and clearly identify the impact to the overall project.

SUITE Documentation

In managing its obligation to meet the above milestones and deliverables, the Contractor is required to utilize the applicable [State Unified Information Technology Environment \(SUITE\)](#) methodologies.

SUITE's primary goal is the delivery of on-time, on-budget, quality systems that meet customer expectations. SUITE is based on industry best practices, including those identified in the Project Management Institute's PMBoK and the Capability Maturity Model Integration for Development. It was designed and implemented to standardize methodologies, processes, procedures, training, and tools for project management and systems development lifecycle management. It offers guidance for efficient, effective improvement across multiple process disciplines in the organization, improvements to best practices incorporated from earlier models, and a common, integrated vision of improvement for all project and system related elements.

While applying the SUITE framework through its methodologies is required, SUITE was not designed to add layers of complexity to project execution. There should be no additional costs from the Contractor,

since it is expected that they are already following industry best practices which are at least similar to those that form SUITE's foundation.

SUITE's companion templates are used to document project progress or deliverables. In some cases, Contractors may have in place their own set of templates for similar use. Because SUITE can be tailored to fit specific projects, project teams and State project managers may decide to use the Contractor's provided templates, as long as they demonstrate fulfillment of the SUITE methodologies.

The Contractor is required to review <http://www.michigan.gov/suite> and demonstrate how each PMM/SEM requirement will be met. Contractor wishing to use their own documents must submit an example of the document that will be substituted. The State reserves the right to give final approval of substituted documents and items marked as non-applicable.

28. PRICING

Contractor must comply with **Schedule B – Pricing**, a detailed description of all costs associated with implementing, maintaining and supporting the Solution, including all requested services set forth in this Contract.

If Contractor reduces its prices for any of the software or services during the term of this Contract, the State shall have the immediate benefit of such lower prices for new purchases. Contractor shall send notice to the State's Contract Administrator with the reduced prices within fifteen (15) Business Days of the reduction taking effect.

Travel and Expenses

The State does not pay for overtime or travel expenses.

29. ADDITIONAL INFORMATION

The State reserves the right to purchase any additional services or products from the Contractor during the duration of the Contract.

30. ENTERPRISE CONTENT MANAGER

The State intends on using the HP Enterprise Content Manager 9 tool for all content management related to this project, to include maintenance of metadata to identify and prepare documents in response to FOIA (Freedom of Information Act) requests, support document retention policies, and be the record of truth for managed content.

31. ELECTRONIC SIGNATURES

Contractor must support electronic signatures. Many of the supported business process will require the integration with an electronic signature solution that will support signatures and engineering seals, all in compliance with the applicable PSPs.

Contractor must ensure the DWEHD Solution will be CROMERR-compliant and will provide for integrity authenticity of electronic signatures. The solution will use MiLogin identity-proofing. System users will sign an electronic signature agreement as part of the registration process. Use of electronic signatures will be seamless within the solution. A public portal will be available where users can attest to electronic signatures.

Contractor will use e-Plan Software to provide customizable digital review stamps and seals with capacity for batch application to all plan sheets.

The solution will comply with all EGLE requirements and any items on a CROMERR Compliance Checklist, including Registration, Signature Process, Submission Process, Signature Validation, and Copy of Record.

32. COMPLIANCE ACTIVITIES

Much of the functionality of the requested solution covers the depth of work performed by staff supporting safe drinking water and environmental health programs, and those tasks are primarily focused on the compliance of regulated activities. The State is requiring the Contractor to comply with role of compliance and related activities being supported by this solution.

Contractor must work with EGLE before design work begins on any program to identify the unique compliance challenges, these challenges must be addressed and communicated to all development team members. The Contractor analyst will work with the program to identify the risks to the public, operators, and staff that could occur if the system fails.

These risks will then be formally addressed in the following areas:

- Data Entry: How can we mitigate these risks as we collect data?
- Validation: How can the system programmatically validate the data?
- Design: How should screens be designs to address the identified risks?
- Workflow: What area of each workflow are most important? Tasks? Reminders?
- Oversight: How can staff be sure that entities are complying through reporting and aggregate data?

This compliance analysis will then be validated and communicated to the development team by the Contractor as the data model, screens, workflow, and other artifacts are developed. During the quality assurance phase, test cases will be developed to validate:

- The risks are addressed;
- That each workflow is correctly configured and timings are correct; and
- That oversight reports correctly identify outlines.

Training plans must also address the unique compliance challenges of each program and workflow. For example, they must ensure that the staff who are responsible for compliance understand the tools available to them. Training must also educate personnel who will configure workflows so that they understand how modifying a workflow at a certain area could have compliance repercussions.

33. ORGANIZATIONAL CHANGE MANAGEMENT (OCM)

The State recognizes that a system implementation of this size will require organizational change management to support the project success. The State is requiring the Contractor to define the OCM services the Contractor includes in their delivery and implementation methodology that is already accounted for in their base cost to support the success of the Project. In addition, the State is requesting the Contractor to define any optional OCM services available to the State.

EXHIBIT 1
Business Specification Worksheet

REQUIREMENT ROLES

Role	Description
Applicant (for License, Permit, Certification or Grant)	Authorized user with the ability to initiate, save work in progress, and submit an application (to include provision of supplemental documents) for a permit, license, certification or grant. This person is typically not a State Employee.
Auditor	Authorized user with the ability view audit logs. This person will be a State Employee.
Course Provider	Authorized user with the ability to submit course information for approval and enter/provide course roster and outcome information for completed education courses (for continuing education credits). This person is typically not a State Employee.
Dashboard Administrator	Authorized user with the ability to maintain the dashboard content, to include use of in-system tools to define panes, pane content and pane behavior. This person will be a State Employee.
Data Analyst	Authorized user with the ability to manage and maintain the business rules and priorities associated with analytics. This person will be a State Employee.
Document Manager	Authorized user with the responsibility of review and managing system content to adhere to document retention policy. This person will typically be a State Employee
Event Manager	Authorized user with the ability to define and manage events and registration. This person will be a State Employee.
Form Owner	Authorized user with the ability to maintain content on a specific form (i.e., update content, etc.). This person will be a State Employee.
Forms Administrator	Authorized user with the ability to administer forms and templates maintenance functionalities (create new templates and forms, update existing, review usage, designate a form owner, etc.). This person will be a State Employee.
Grant Administrator	Authorized user with the ability to respond to submitted applications for a grant. Responsible for grant status. Also, able to review workflow metrics and workflow work queues related to grants. This person will be a State Employee.
Inspector	Authorized user with the ability to review inspection schedules, inspection results, conduct inspections and record inspection findings in support of program and policy/law requirements.

Role	Description
	This person is typically a State or Local Health Department, but not required to be, a State Employee.
Local Health Department (LHD) User	Authorized user with the ability to review content related to projects under construction or operations located in their jurisdiction county. This person will be an employee of the Local Health Department.
Program Administrator	Authorized user with the ability to respond to submitted applications for a permit, license or certification in that program. Responsible for reporting at a program level. Also, able to review workflow metrics and workflow work queues related to program workflows. For some programs, this role is considered an engineer. This person will be a State Employee.
Public Citizen	User of the solution that will be consuming solution content that does not require authentication to access, such as accessing forms or information generated by the system that is published to a public web site for public access.
Query Administrator	Authorized user with the ability to manage and maintain the ad hoc query settings and library. This person will be a State Employee.
Recipient of Permit/License/Certification/Grant Recipient	Authorized user with the ability to view existing permits/licenses/certifications/grant and submit modifications and/or required ongoing documentation per policy/law. This person is typically not a State Employee.
Report Administrator	Authorized user with the ability to manage and maintain the canned reports. This person will be a State Employee.
Reviewer	Authorized user with the responsibility of reviewing one or more items associated with an application. This person is typically a State or Local Health Department Employee. This person is typically, but not required to be, a State Employee.
System Administrator	Authorized user with the ability to administer system maintenance functionalities (system notifications, system settings, etc.). This person will be a State Employee.
System Configuration Administrator	Authorized user with the responsibility of maintaining the configurable values in the system per determined policy. This person will be a State Employee.
Template Administrator	Authorized user with the ability to administer forms and templates maintenance functionalities (create new templates and forms, update existing, review usage, designate a form owner, etc.). This person will be a State Employee.
User Administrator	Authorized user with the responsibility of maintaining user access. This person will be a State Employee.

Role	Description
Web Administrator	Authorized user with the responsibility of maintaining content on a public facing web site. Content is expected to include both manually maintained content, as well as content potentially populated by data available in the system. This role will be a State Employee
Workflow Administrator	Authorized user with the responsibility of maintaining the workflows in the system per determined policy. Also, able to review workflow metrics and workflow work queues related to all workflows. This person will be a State Employee.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Global/General</i>							
<i>Data Sorting and Filtering</i>							
4.0	The solution must support data sorting and filtering of data result sets.	Y					All tabular data will have the following common features: <ul style="list-style-type: none"> Sorting and filtering by visible header fields (ascending and descending)
<i>Data Export</i>							
5.0	The solution must support export of data result sets.	Y					All tabular data will have the following common features: <ul style="list-style-type: none"> Excel export of equivalent data including headers, formatting, calculations, and totals.
5.1	The solution must support exporting of tabular and text-based data	Y					

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
5.1.1	The solution must provide context sensitive format options when the data being exported includes summary rows (i.e., sub totals and or totals).	Y					<ul style="list-style-type: none"> Rich formatting (currencies, dates, etc.) Standard operating system dialog will allow for the saving of exported data. GIS Data will be exported in the appropriate ESRI format
5.2	The solution must support exporting GIS data that is compatible with ESRI software formats.	Y					
5.3	The solution must allow a user to define the location and file name of the exported data file (i.e., a dialogue box).	Y					
5.4	The solution must maintain the same header values and data values in the export file as are displayed (i.e., if the display is a concatenation or calculation, that same displayed value is to be represented in the data export).	Y					
<i>Editing Tools</i>							
6.0	The solution must systematically use editing tools, such as spell check and grammar check, for data entry text fields, to include notes, email content, notification/alert content, etc..			Y			Spelling and grammar check will be implemented using a best-in-class, symmetrical spell-checking library with an

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
6.1	The solution must use an administratively managed system-wide dictionary (i.e., one dictionary maintained for all users/use).			Y			editable dictionary so that domain terms can be modified by authorized users. The addition of spell-check and grammar check to our solution is a low-risk minimal change.
6.1.1	The solution must allow a user to maintain a supplemental dictionary for their own use.			Y			
6.2	The solution must support real time identification of unrecognized spelling and grammar.			Y			
Notes							
7.0	The solution must allow notes entries for various activities and/or users in the system.	Y					Notes are implemented in multiple sections throughout the solution with no effective size limit. The database stores note fields with a limit of 2GB of text data per note.
7.1	The solution must maintain each entered note as a separate entry (versus one large data field).	Y					All user-enterable data is stored with audit data indicating the user, what data has changed and when the data has been changed, including Notes.
7.2	The solution must systematically record the user and time/date the note was created and/or modified.	Y					
7.3	The solution must support a minimum notes field size of 1000 characters.	Y					

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
7.4	If a size limit is applicable, the solution must display in real time the used/remaining and total character count.	Y					
7.5	The data entry field must allow equal to or less than character entry, than the associated data record.	Y					
<i>Note Categories</i>							
8.0	The solution must require a note category to be selected for each note (or provide a default value based on where the note is being added).	Y					All drop-down values, including note categories, are configurable, with most values configurable per program.
8.1	The solution must allow the category values to be administratively maintained.	Y					
<i>Notes Entry via Cut and Paste</i>							
9.0	The solution must allow a user to complete data entry into the notes field via 'Cut and Paste'.	Y					Standard copy and paste functionality will be allowed for data entry into all fields.
9.1	The solution must truncate the pasted content to accommodate character limits of the notes field.	Y					
9.1.1	The solution must display a user message when the pasted content is truncated.	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Help</i>							
10.0	The solution must provide content sensitive help (i.e., available help functionality must result in initial information related to the current screen/data field).	Y					System help information will be indexed by screen. Administrators will be able to modify help content including adding links to rich content (videos) as well as modifying the text and images.
10.1	The solution must allow the help content to be administratively maintained.	Y					
11.0	The solution must allow a user to search the help content.	Y					
12.0	System help content must support: <ul style="list-style-type: none"> (a) Narrative text (b) Images (c) Tutorial videos 	Y					
<i>Electronic Signatures</i>							
13.0	The solution must facilitate electronic signing of documents. (e.g., official correspondence, contracts, applications, etc.)	Y					Electronic signature functionality is implemented with browser-based draw a signature or type a signature. Electronically

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
14.0	The solution must provide for creation and validation of electronic licensed engineering seals.	Y					licensed engineering seal validation is addressed by our integration with our Commercial Plan Review software integration.
<i>Address Validation</i>							
15.0	The solution must have the capability to verify mailing addresses.			Y			Address validation will be implemented using SmartyStreets API. SmartyStreets is a best-in-class, commercial address validation API currently in use in multiple agencies at the State of Michigan.
<i>Document Repository</i>							
16.0	The solution must store documents in the CM9 solution via integration.			Y			All documents will be stored in CM9, which requires a low-risk change to the system. KL&A has experience working with other document management systems at the State of Michigan and will use the excellent CM9 interface to place documents in the appropriate location in CM9 with data attributes that meet EGLE's needs.
16.1	The solution must create and maintain appropriate meta data attributes for content submitted to CM9 via the solution.			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Administration</i>							
<i>User Roles</i>							
17.0	The solution must allow an authorized user administrator to create and manage user roles and system access (create, modify, delete, deactivate, etc.).	Y					The solution will provide role- and group-based security.
<i>User Activity Logs</i>							
18.0	The solution must allow an authorized user administrator to review activity logs for users (e.g., last logged in, last update, etc.).	Y					The solution will provide a distinct interface for authorized users to review audit logs that show all system activity.
<i>User Management</i>							
19.0	The solution must allow an authorized user administrator to associate users with geographic locations for use in workflow queue assignment and/or system notifications.	Y					<p>The solution will use:</p> <ul style="list-style-type: none"> • Workgroups and locations for assignments • Notification templates that specify recipients <p>Both of which are used in workflow configuration.</p>

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Web Content Management</i>							
20.0	The solution must allow an authorized web administrator to maintain web content available to non-credentialed public users (public portal content).			Y			The solution will provide a user interface for web administrators to maintain content available to public users.
<i>Audit Logs</i>							
21.0	The solution must maintain audit logs.	Y					The solution platform meets all the Audit Log requirements.
21.1	Audit logs must include: <ul style="list-style-type: none"> (a) Password changes (b) Data changes 	Y					
21.2	The solution must allow an auditor to view and search the audit logs (via system functionality).	Y					
21.3	The solution must maintain the following change details: <ul style="list-style-type: none"> (a) User that made the change (b) Date/time of change (c) Previous data value (d) Updated data value 	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Technical Requirements</i>							
<i>Geospatial Address Data</i>							
22.0	The solution must use geospatial-based data associated with addresses and locations.	Y					The address validation service (Smarty Streets) allows for reverse geocoding capability to store a Lat/Long for all addresses.
<i>Responsive Design</i>							
23.0	The solution must be a responsive design.	Y					The system will meet the eMichigan look and feel standards, which includes mobile responsiveness standards.
<i>Credit Card Processing</i>							
24.0	The solution must integrate with CEPAS/Pay Place for a seamless in-application online credit card payment processing (i.e., a user does not need to print and provide separate proof of completion of online payment).	Y					The solution will integrate with CEPAS for credit card transactions, as well as MiCaRS for revenue tracking.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>File Upload Format</i>							
25.0	<p>The solution must support the following digital content formats for uploaded files:</p> <ul style="list-style-type: none"> (a) *.pdf (b) *.doc, *.docx (c) *.jpeg, *.jpg (d) *.gif (e) *.png (f) GIS formats (Contractor to specify supported formats) (g) *.zip (h) CAD file formats (Contractor to specify supported formats) (i) *.xls, *.xlsx (j) *.csv (k) *.txt 	Y					<p>The solution will support upload all file types, with the following exceptions.</p> <ul style="list-style-type: none"> • The system will prevent upload of executable files. • The system will have a 50MB per file-size limit. <p>The 50MB limit is not a hard limit. File upload size is bounded by available server memory at the time of upload. Since the proposal was written, we have currently tuned our file size limit to 268MB; however, a realistic physical limit would be 1GB. KL&A would work with EGLE to determine an appropriate limit to file sizes based on server resource costs and website load.</p>
26.0	Contractor to specify the file size their solution will support for uploaded files.	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Digital Content Metadata</i>							
27.0	The solution must maintain metadata associated with uploaded digital content e.g., the GPS coordinates, time/date stamp information associated with photos, etc.).	Y					The system will preserve all EXIF metadata.
<i>Session Recovery</i>							
28.0	The solution must save transactional/temporary data values for session recovery purposes.	Y					KL&A will leverage browser capabilities to achieve data restoration in the event of an interruption of service. We will also implement frequent opportunity for users to explicitly save data throughout various forms.
<i>Configurable Data Entry Fields</i>							
29.0	The solution must allow an administrative user to configure custom text and numeric fields associated with entities (e.g. application, permits, etc.).			Y			The solution will support created custom text and numeric fields in regulated entities.
30.0	The solution must provide the capability to configure business rules to perform calculations, test thresholds, and apply logic.			Y			The workflow configuration will support the ability to configure business rules, calculations, thresholds, and logic.

A	B	C					D
		Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	
Business Specification Number	Business Specification						<p>Contractor must comply with how they will deliver the business Specification.</p> <p>Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.</p>
30.1	The solution must provide the capability to trigger business rule calculations upon creation or modification of an entity, or explicitly via a workflow action.			Y			While most calculation will be automated through the use of configured workflow actions, manually editing an entity will adhere to configured business rules, such as calculations that are tied to state changes.
30.2	The solution must provide the capability to trigger actions such as workflows and notifications based on the result of business rule process. (For example, manual entry of numeric lab test result in a custom field for an application under review may trigger a workflow based on configured thresholds.)			Y			The workflow configuration will support the ability to configure business rules, calculations, thresholds, and logic, including triggers for workflow steps, state changes and notifications.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Data Exchange							
<i>Unique Identifier</i>							
31.0	The solution must maintain a unique identifier for regulated entities (e.g., public water supply, campground, public swimming pool, certified water operator, etc.)	Y					All functional entities will have a unique primary key assigned to them.
<i>Public Portal</i>							
32.0	The solution must systematically publish data on a public portal available to non-authenticated users.		Y				For security purposes, the Public Portal will have a separate database that is refreshed with applicable data. The frequency of refresh will be configurable in the system configuration. The system will automatically publish a catalog of entity status information so that the public can be informed about various entities, such as whether or not the entity is licensed, etc. Web administrators will also be able to maintain static content, such as static text and file uploads.
32.1	Public reporting must include: <ol style="list-style-type: none"> Updates to lists (e.g., updating list of licensed campgrounds when a license is issued). Updates to graphical publications (e.g., when counts or values change that are represented in published graphs) 		Y				
32.2	The solution must allow an administrator to configure the frequency and trigger of automatic publishing of data and reports.		Y				

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Contact Management							
<i>Contact Information</i>							
33.0	The solution must allow an authorized program administrator to maintain contact information for program participants.	Y					The solution will meet all contact management requirements.
33.1	Available contact information fields must include: <ul style="list-style-type: none"> (a) Name (b) Contact Type (c) Company (if applicable) (d) Role (if contact type is a person) (e) Title (if contact type is a person) (f) Address (g) Phone (i.e., mobile, home, business) (h) Fax (i) Email 	Y					
33.1.1	The solution must allow a system administrator to identify required values based on contact type (i.e., if the contact type is a facility, the contact role value may not be required).			Y			

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
33.1.2	The solution must allow a system administrator to maintain the contact roles and contact types.	Y					
<i>Contact Information Relationships/Hierarchy</i>							
34.0	The solution must allow the contact to have separate title, address, phone, fax, and email information for each contact role/type they are associated with (i.e., John Smith uses one address for his engineer role and a second address for his inspector role).			Y			The solution will meet all contact information relationship/hierarchy requirements.
34.1	The solution must maintain contact information associated with a company (i.e., if John Smith is associated with Smith Brothers Company as an engineer, Smith Brothers Company should be its own company type contact).	Y					
<i>County Association</i>							
35.0	The solution must be able to systematically identify the county based on the provided address information.			Y			A contact's address information will be validated by Smarty Streets, including determining county and Latitude/Longitude.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Historical Information</i>							
36.0	The solution must maintain historical contact information associated with changes/updates to contacts name (i.e., maintain “also known as” historical information).	Y					The system will maintain all historical information regarding contacts, including changes to the contact, a.k.a information, and name/role/contact type associations.
36.1	The solution must return “also known as” matches in related searches/queries.			Y			
37.0	The solution must maintain historical associations between names, roles, and contact types.	Y					
<i>Status</i>							
38.0	The solution must allow a program administrator to initiate workflow to change the status of a contact to inactive (i.e., validate the status change will not impact other programs).			Y			The system will prevent inactivating a contact if that contact is being used by other programs.
<i>Duplicate Contacts</i>							
39.0	The solution must have functionality to prevent duplicate contacts (i.e., look up of existing contacts before completing the creation of a new contact).			Y			Duplicate contacts will be minimized by suggesting re-use of contacts based on address and/or name before the addition of a new contact.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Maintenance</i>							
40.0	The solution must allow a user to maintain their contact information.	Y					An administrator will be able to define which contact fields are required based on contact type. Also, because not all fields of a contact should be self-maintained for every program, the ability for an authorized user to select which fields are read-only per program will be added to the system.
40.1	The solution must allow a configuration manager to identify which contact information can be maintained by the user.			Y			
40.2	The solution must allow a configuration manager to identify when and who is notified when a user changes their contact information.			Y			Contacts will have lifecycle events that can be consumed by workflows to generate notifications and tasks.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Communications/Messages/Alerts							
<i>Format</i>							
41.0	The solution must support use of formatted content for messages and notifications/alerts.	Y					The system will make use of notification templates that will allow administrators to configure formatted content for messages, alerts, and notifications.
<i>Program Participant Notifications and Alerts</i>							
42.0	The solution must allow an authorized program/system administrator to create and manage program participant notifications and alerts.	Y					The system will use a combination of notification templates and configured workflows to manage notifications. The workflows rules will automatically generate

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
42.1	<p>Notification and alert administration must include:</p> <ul style="list-style-type: none"> (a) Recipient(s) (b) Method(s) of delivery (c) Frequency/Duration (single delivery at one date/time, or posted between a start and end date/time) (d) Acknowledgement details (for in system alerts/notification, does it require the user to acknowledge the alert?) (e) Content 		Y				notifications for the appropriate people based on the workflow configuration.
<i>Document Repository</i>							
43.0	The solution must maintain system generated communications (i.e., integration with CM9).	Y					System-generated correspondence will be stored in CM9, but accessible from with DWEHD Solution.
<i>Message Notification</i>							
44.0	The solution must allow a user to identify one or more methods to receive message notifications (i.e., notification of a message consisting of text).		Y				This system will provide a setting in the user preferences to specify the way in which the user wishes to be notified. However, if the notification template used in a workflow

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
44.1	<p>Supported methods must include:</p> <ul style="list-style-type: none"> (a) Mobile phone number for text messages (SMS) (b) Valid email address for email content (c) Dashboard 	Y					specifies a notification method that is not selected in a user's preferences, the user will be notified by both the methods they selected as well as the method specified in the notification template.
<i>Document Notification</i>							
45.0	The solution must allow a user to identify one or more methods to receive document notifications (i.e., notification that contains a document).			Y			<p>User preference will contain a setting for specifying how documents are delivered to the user. They will be able to select from:</p> <ul style="list-style-type: none"> • Email attachment, • Printed and mailed, • Submission portal or • Dashboard link.
45.1	<p>Supported methods must include:</p> <ul style="list-style-type: none"> (a) Digital file delivered via email (b) Printed material delivered via Mail Carrier (c) Message notification to include URL to access the digital file in the system (i.e., via a user portal, etc.) (d) Dashboard link 			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Dashboards							
<i>Dashboard</i>							
46.0	The solution must present a summary of notifications, actions, and activity that is specific to authenticated users (i.e., dashboard type presentation).	Y					The Dashboard will provide a central location for a user to manage their work, including the ability to see application notifications, actions, and activity.
<i>Content Administration</i>							
47.0	The solution must allow a dashboard administrator to configure the dashboard content by user role.			Y			An administrator will be able to configure dashboards for each program, as well as configuring specific functionality within the dashboard by role.
47.1	Content must include, at a minimum: <ul style="list-style-type: none"> (a) Workflow metrics (b) Work assignments/Tasks (c) Metrics (d) Notifications/Alerts (e) Calendar 			Y			Dashboards will include panels for tasks, inspections, metrics, and calendar, with a fly-out panel for Notifications and Alerts.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>User Settings</i>							
48.0	The solution must allow a user to customize their dashboard according to their role (e.g., add optional items, move items not required to be in a static location, etc.).			Y			Users will be able to customize their dashboards within the limitations set by their role and permissions and they will be able to reset the dashboard back to the default configuration as defined by the program administrator.
48.1	The solution must include a “reset” option to return a user-customized dashboard to the default settings.			Y			
<i>Navigation</i>							
49.0	The solution must allow the user to navigate to more details about a dashboard item (navigationally interactive).	Y					The Dashboard information, where possible, will provide a link to the appropriate application or inspection where the user will be able to access detailed information.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Financial							
<i>Fee Schedules</i>							
50.0	The solution must support a configurable fee schedule for each application type/activity (e.g. Applications, Renewals, Late fees, Inspection fees, Document replacement fees, Annual operation fees, Fines, etc.)	Y					The DWEHD Solution will provide a facility that allows administrators to configure and maintain fee schedules for each application type and activity type.
50.1	The solution must allow maintenance of the fee schedule by an administrator.	Y					
<i>Payment Processing</i>							
51.0	When collecting payment, the solution must only allow payment amounts per the approved fee schedule associated with each application type/activity (i.e., the user cannot modify the payment amount associated with the transaction).	Y					The submission portal will calculate fees based on configured fee schedules and will not allow the user to modify the fee or payment amount.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Financial Tracking</i>							
52.0	The solution must maintain basic financial tracking for expenditures related to grants/contracts (e.g., fiscal year budget, approved payments, balance sheet, payables).			Y			The solution will track expenditures related to grants and contracts and communicate expenditure information to MiCaRS and SIMGA.
<i>Invoicing</i>							
53.0	The solution must support accounting and invoice generation to partners for contracted services (e.g., invoice to local health department on an annual basis for issuing permits/licenses and conducting inspections).			Y			The solution will support ad-hoc invoicing and generating invoices via workflow actions related to functional entities (like LHD's). MiCaRS integration allows for real-time receivable generation.
53.1	The solution must support generation: <ul style="list-style-type: none"> (a) On demand (b) Quarterly (c) Annually (to include Fiscal & Calendar) 			Y			
54.0	The solution must be able to monitor received payments associated with invoices (i.e. via the MiCaRS integration).	Y					The solution will be able to monitor received payments associated with invoices.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Payment Tracking</i>							
55.0	The solution must support accounting payment to partners for contracted services (e.g., payment to local health departments for completion of inspections).			Y			The solution will support accounting payments to partners for contracted serviced.
55.1	The solution must support generation: <ul style="list-style-type: none"> (a) On demand (b) Quarterly (c) Annually (to include Fiscal & Calendar) 			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Workflow							
<i>Business Process Automation</i>							
56.0	<p>The solution must automate business processes supporting the following safe drinking water and environmental health programs and activities:</p> <ul style="list-style-type: none"> (a) Escalated Enforcement (b) Sanitary Surveys (c) Monitoring and Reporting (d) Campground Permitting and Licensing (e) Community Water Supply (f) Noncommunity Water Supply (g) Onsite Wastewater (h) Operator Training Certification (i) Public Swimming Pool Permitting and Licensing (j) Septage (k) Source Water Protection Grant Program (l) Water Hauler 	Y					<p>The solution will provide completely configurable workflows that will support all the named programs and activities. The configurable nature of the Workflow State Manager will allow EGLE to create new workflows or modify existing workflows without additional development.</p>

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Go-Live</i>							
57.0	<p>The solution must support up to 100 workflows with the initial implementation with the following complexities:</p> <ul style="list-style-type: none"> (a) 15 high-complexity (b) 45 medium-complexity (c) 40 low-complexity 	Y					The solution will support an unlimited number of workflows.
<i>Configuration</i>							
58.0	<p>The solution must allow an authorized workflow configuration administrator to define workflows for various program areas and business processes.</p>	Y					The solution provides an extensible workflow state manager that will support creating and maintaining workflows for any business process. It will support:

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
58.1	<p>Workflow configuration items must include:</p> <ul style="list-style-type: none"> (a) Trigger(s) (b) Initiation of one or more sub workflows (c) Task assignment (individual and work group) (d) Task assignment logic (e) Assignment transfer (manual according to roles and systematic) (f) Escalation (g) Notifications (h) Reminders/Alerts (i) Task completion criteria (j) Workflow completion criteria (k) Workflow exit criteria (l) Recommendation (m) Approval (single, tiered with rework, tiered without rework) (n) Electronic signatures (o) Timers 		Y				<ul style="list-style-type: none"> (a) Trigger(s) (b) Initiation of one or more sub workflows (c) Task assignment (individual and work group) (d) Task assignment logic (e) Assignment transfer (manual according to roles and systematic) (f) Escalation (g) Notifications (h) Reminders/Alerts (i) Task completion criteria (j) Workflow completion criteria (k) Workflow exit criteria (l) Recommendation (m) Approval (single, tiered with rework, tiered without rework) (n) Electronic signatures (o) Timers

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Task Assignment</i>							
59.0	<p>Task assignment must include:</p> <ul style="list-style-type: none"> (a) Location of project (i.e., plan reviews and inspections are often assigned based on the county the project is located in) (b) Data values associated with the applicant/facility (review of permits is often assigned based on the engineer associated with the district the facility is located in, or the specific ID of the facility) 	Y					Assignment will be derived based on contact locations and workgroups.
<i>Administration</i>							
60.0	The solution must allow for a separate workflow configuration administrator for each workflow (i.e., a single person may have that role for a single workflow, or for multiple workflows).	Y					Anyone with appropriate permissions will be able to create and maintain workflows, allowing multiple workflow administrators.
<i>Metrics</i>							
61.0	The solution must allow a program administrator to view workflow metrics.			Y			Workflow metrics will be available on Dashboards and users with the appropriate

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
61.1	<p>Workflow metrics must include:</p> <ul style="list-style-type: none"> (a) Workflow durations (b) Activity metrics (e.g. duration of time to complete an activity, number of resources assigned, measurement against timers, reassignment, escalations, etc.) (c) Work queues (e.g., work assignments by resource and their status, assignment/aged information) 			Y			permissions will be able to view metrics for the programs to which they have permissions.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Reports and Templates (system outputs)</i>							
<i>Canned Report Administration</i>							
62.0	The solution must allow a report administrator to maintain canned reports.	Y					The solution will support the ability for administrators to create and maintain reports, including associating reports with roles to restrict access. All reports will have applicable filters and sorting options presented to the user at report generation time.
62.1	Canned report functionality must include: (a) Filters (b) Sort order	Y					
63.0	The solution must allow a report administrator to define the user roles that will have access to canned reports.	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Go-Live</i>							
64.0	<p>The solution must support up to 300 canned reports and templates with the initial implementation with the following complexities:</p> <ul style="list-style-type: none"> (a) 15 high-complexity (b) 120 medium-complexity (c) 165 low-complexity 	Y					<p>The solution will support configuring any number of reports. KL&A will work with EGLE to configure the required reports.</p> <p>Canned reports will be built by KL&A but will require input from the business to define. In addition, our ad-hoc query capability is very powerful and allows for users to easily create their own queries. During the requirements and design refinement period for each program reports will naturally be defined as business needs become clear.</p>
<i>Template Administration</i>							
65.0	The solution must allow a template administrator to define the user roles that will have access to use and maintain templates.	Y					An administrator will be able to associate roles with reports to restrict access to reports.
<i>Metrics</i>							
66.0	The solution must allow a report/template administrator to view metrics related to reports/templates.			Y			Users with the appropriate permissions will be able to see report usage metrics on the Report History screen, as well as generate a Report Usage Metrics report that will include metrics for all reports or a specified range of reports.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
66.1	Metrics must include: <ul style="list-style-type: none"> (a) Last used date (b) Count of usage over a defined time period (c) Count of usage by users over a defined time period 			Y			Report usage metrics will include all the specified metrics.
<i>Status</i>							
67.0	The solution must allow a report/template administrator to maintain the status of a report/template.	Y					Report administrators will be able to set report status to active, inactive, or under review in the report template. Inactive report templates will not be available for report generation and templates that are in review will only be available for those who have permission to view report templates in that status.
67.1	Statuses must include: <ul style="list-style-type: none"> (a) Active (b) Inactive (c) Under review 		Y				
67.1.1	The solution must limit use of the report or template based on the status.	Y					
<i>Versioning</i>							
68.0	The solution must maintain versioning for reports and templates.			Y			The Report Detail screen will include version, status, change history information, along with

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
68.1	<p>Versioning must include:</p> <ul style="list-style-type: none"> (a) Time/date of change (b) User completing the change (c) Optional comments describing the change (d) Draft and Final states 			Y			an option to restore a report to the previous version.
<i>Modification</i>							
69.0	The solution must allow a form administrator to identify content on templates that can be modified (i.e., some content will be locked down, while other content, based on roles, can be modified).	Y					Administrators will be able to identify template contents that cannot be changed to lock-down specific aspects of the template.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Online Forms (for data entry)</i>							
<i>Functionality</i>							
70.0	The solution must allow a program administrator to define and maintain the online forms applicable to their program area.	Y					The solution will provide administrators with the option to create and maintain dynamic online forms that guide users through the data-entry process. Administrators will be able to create any form needed by EGLE. The forms will validate addresses against the USPS format standards and ensure EGLE Guidelines are followed.
70.1	Online forms must include: <ul style="list-style-type: none"> (a) Inspection/Sanitary Survey forms (b) Level 1 Assessment (c) Seasonal Start-up (d) Application forms (original and renewal) (e) Class Rosters (f) Continuing Credits (g) Compliance Reports (Monthly Operating Report, Lead Copper Forms, Pumpage Reports, Cross Connection Reports, etc.) 			Y			

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
70.2	The solution must support form design features that allow for an interview type user experience when filling out the form (i.e., based on user responses, additional fields, drop down values, and data entry logic will vary).	Y					
71.0	Online form data entry logic must support: (a) USPS address format standards (b) EGLE Correspondence Guidelines	Y					
<i>Access/Use</i>							
72.0	The solution must allow a program administrator to enter and maintain entity data outside of a workflow process (i.e., enter information for a water supply directly without being part of a construction permit workflow).	Y					Program administrators will be able to enter entity data outside of a workflow. The KL&A team will work with EGLE to identify which data can and cannot be changed outside of workflows so that certain data can be protected.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Field Use</i>							
73.0	<p>The solution must support design features for ease of use while in the field to include:</p> <ul style="list-style-type: none"> (a) Shortcut keys customizable by user (b) “Favorites” for values and data sets (c) Autofill for data entry fields 	Y					<p>The inspection app will provide customizable shortcut keys, “favorites” for frequently used for values and datasets, and autofill capabilities.</p>

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Application Submission (Permit, License, Certification, Grants)</i>							

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Eligibility</i>							
74.0	The solution must allow an eligible applicant to submit a completed application online.	Y					The solution will include a submission portal through which authorized users can submit applications. Refer to
74.1	The solution must allow an authorized configuration manager to define the criteria of an eligible applicant by application type (e.g., enforcement activities may result in an applicant being ineligible to apply, current permit/license/certification/grant status, etc.).						Administrators will be able to define various criteria for evaluating application state, including: <ul style="list-style-type: none"> Scoring criteria Application completion criteria Applicant eligibility criteria Withdrawal criteria Refund criteria
<i>Upload Supporting Documents</i>							
75.0	The solution must allow an applicant to upload supporting documents for an open application.			Y			The solution will support uploading supporting documentation, as well as the configuration of the types of documents that are allowed for each application type.
75.1	The solution must support multiple supporting documents for a single application.			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Mail Supporting Documents</i>							
76.0	The solution must allow an applicant to print a cover sheet for their online application to include when mailing supplemental documents to the EGLE for their application (i.e., filling out the application online, but sending a set of plans in the mail).			Y			The submission portal will allow multiple static PDF documents to be associated with an application type. These PDF documents will be available for download by program participants when applying. Uses could include a paper application, fax cover sheet, payment vouchers and other documents that an applicant might need to download.
76.1	The solution must allow this functionality to be administratively configured for each application type (i.e., not all application types will support mailing in documents if the application is being submitted online).			Y			PDF document associations will be configured at the application level.
<i>Work in Progress</i>							
77.0	The solution must maintain the work in progress application (i.e., able to save and come back to complete and submit in a later session).	Y					Once the user has supplied a first and last name and email address, the submission portal will allow the users to save progress on an

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
77.1	Minimum inputs to maintain a work in progress application must include: (a) Applicant first name (b) Applicant last name (c) Applicant email address			Y			application so that they may return later to finish the application. In-progress applications will be deleted after a configured number of days. Applicants of in-progress applications will be notified of impending deletion after a configured number of days. These configuration settings will be at the application-type level.
77.2	The solution must delete a work in progress application that has not been submitted for an administratively configurable number of days.			Y			
77.2.1	The solution must notify the applicant an administratively configurable number of days prior to deleting the work in progress application (i.e., remind the applicant to submit their application before it is deleted).			Y			
77.2.2	The solution must allow an authorized system configuration administrator to set the number of calendar days an unsubmitted online work in progress application is maintained before the solution deletes the application.			Y			
77.2.2.1	The solution must support a separate configurable duration for each application type.			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
77.2.3	The solution must allow an authorized system configuration administrator to set the number of calendar days before the deletion date provide the applicant a reminder notification.			Y			
77.2.3.1	The solution must support a separate configurable duration for each application type.			Y			
<i>Fee Calculation</i>							
78.0	The solution must calculate the appropriate fee(s) for the completed online application.	Y					The solution will calculate the appropriate fees based on the fee schedules configured at the program level.
78.1	Appropriate fee calculation must include: <ul style="list-style-type: none"> (a) Initial application fees (b) Renewal application fees (c) Late fees (d) Consideration for re-submission (e) Consideration for application type/scope 			Y			The solution will calculate the appropriate fees based on the fee schedules configured at the program level.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Payment Voucher</i>							
79.0	The solution must allow an applicant to print a payment voucher for their online application to support mailing a check to EGLE for their application fee(s).			Y			The submission portal will include a configurable option for printing a payment voucher to include with a mailed payment. The option will be configured at the application type level.
79.1	The solution must allow this functionality to be administratively configured for each application type (i.e., not all application types will support a payment by check if the application is being submitted on line).			Y			
<i>Pre-Populating Renewal Data</i>							
80.0	The solution must allow for carry forward of application information between the previous application and the associated renewal application (i.e. pre-populate data based on the initial application, or previous renewal application).	Y					The solution will carry forward administrator-identified information from an initial application to a renewal application.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
80.1	The solution must allow an authorized system configuration administrator to identify content that cannot be modified during the renewal process for each application type (i.e., some content can only be changed via a change process and associated fees).			Y			Administrators will be able to identify information that cannot be modified during renewal.
<i>Printing Pre-Populated Renewal Application</i>							
81.0	The solution must allow a pre-populated renewal application to be printed.	Y					The solution will allow printing of pre-populated renewal applications. Administrators will be able to associate printing of renewal applications with specific roles and application types.
81.1	The solution must allow a user administrator to associate this functionality with specific roles and application types.			Y			The solution will generate a PDF file that can be printed via the browser or optionally transmitted to the DTMB Print or Mail center for printing and mailing.
<i>Continuing Education Credits</i>							
82.0	The solution must validate the provision/completion of associated continuing education credits for the specific application.			Y			Administrators will be able to: <ul style="list-style-type: none"> Identify programs that require education tracking. Specify applicant criteria,

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
82.1	The solution must allow the continuing credit criteria used for validation to be administratively configured.			Y			including completion of continuing education at the application-type level.
<i>ID</i>							
83.0	The solution must maintain a unique number for each submitted application.	Y					The solution will maintain a unique number for each submitted application and the format of the number will be configurable, allowing administrators to implement numbering conventions that aid EGLE staff.
<i>Multiple Applications</i>							
84.0	The solution must allow an applicant to have more than one active application in process at the same time.	Y					The submission portal will support an unlimited number of applications in process at the same time.
<i>Printing Blank Applications</i>							
85.0	The solution must allow an applicant to print a blank copy of the application to be filled out by hand.	Y					The solution will support printing applications.
<i>Form Accessibility</i>							
86.0	The solution must enable systematically publishing of the printable form to a public facing web site for access by a public citizen.	Y					The system will publish printable forms to the submission portal, which does require MiLogin authentication. If EGLE would like the forms

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
86.1	The solution must maintain synchronization of content between the online form and the printable form.			Y			published to the public portal as well, we can provide that functionality with a publication destination setting in the form configuration facility. The solution will maintain synchronization between online and printable forms.
<i>Online Payment of Fees</i>							
87.0	The solution must allow an applicant to pay their application fee(s) online.	Y					The solution will integrate with CEPAS to provide online payment capability to application types that are configured for online payment. Reference numbers will associate payments with applications.
87.1	The solution must identify and provide confirmation of online payment associated with paper submitted application.	Y					

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
87.2	The solution must allow this functionality to be administratively configured for each application type (i.e., not all application types will support an online payment if the application is being submitted on paper).	Y					<p>Payment cannot be collected until a fee is calculated and a fee cannot be calculated until the application is created in the system. If an applicant submits a paper application, a EGLE user will have to enter the data, creating the application in the system. A workflow can be configured that will trigger fee calculation and notification of the fee to the applicant. The application will then be able to make the payment associated with the application.</p> <p>Allowed payment types can be configured in the application type's general parameters.</p>
<i>Pre-Submission Validation</i>							
88.0	The solution must complete data validations to confirm required fields are completed prior to allowing submission of the application.	Y					<p>The solution will support defining criteria for programmatically evaluating application completion and approval, including required field validation and payment validation.</p>
89.0	If applicable, the solution must confirm successful payment of associated fees prior to allowing submission of the application.	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
89.1	The solution must account for use of payment voucher when evaluating successful payment of associated fees (i.e., using a payment voucher to send payment in when completing the application online).			Y			
<i>Workflow Initiation</i>							
90.0	The solution must initiate a workflow when an online application is submitted.			Y			The solution will initiate the appropriate workflow when an application is submitted based on the workflow associated with the application type.
<i>Payment Tracking</i>							
91.0	The solution must track when a check payment is processed by ASC for an application (notification to the solution to be supported by MiCaRS integration).	Y					The solution will be integrated with MiCaRS to track check payments processed by ASC and it will be integrated with CEPAS to track credit card payments.
92.0	The solution must track when a credit card payment is processed for an application (notification to the solution to be supported by PayPoint integration).	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Application Corrections</i>							
93.0	The solution must allow an applicant to update a re-opened online application after it has been submitted (for updates to resolve open or incomplete items).	Y					Workflow rules can be configured to “reopen” an application for resolving deficiencies and notifying the application that they need to correct the deficiencies. They will then be able to log in to see and correct the deficiencies and resubmit the application.
<i>Application Withdrawals</i>							
94.0	The solution must allow an applicant to request to withdraw their online application.			Y			A user can withdraw an application providing it is in the correct state, which is configurable by an administrator. The system will prevent withdrawal when the application reaches the administratively-configured state in the workflow where it is no longer allowed.
94.1	The solution must prevent an applicant from withdrawing their online application based on the status of the application (i.e., after a certain point in the workflow, the application cannot be withdrawn).			Y			
94.2	The solution must notify the program administrator when an application has been withdrawn for their program.		Y				
94.3	The solution must allow the ability to withdrawal an application to be administratively configured by program.			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Applicant Catalog/Listing</i>							
95.0	The solution must allow a program manager to identify if a program maintains an optional public published catalog of applicants (i.e., it is optional for the applicant to be included in the published catalog).			Y			The solution will allow program managers to: <ul style="list-style-type: none"> Identify if the program maintains a publicly-published catalog of applicants Whether an applicant has the ability to opt-out of being included in the catalog.
95.1	The solution must allow an applicant to indicate if they will be included in the optional published catalog.			Y			

A	B	C			D		
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Plan Review							
<i>Functionality</i>							
96.0	The solution must allow an authorized user to complete a plan review.			Y			The solution will integrate with a third-party plan review application to provide all the

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	
96.1	<p>Plan review functionality must include:</p> <ul style="list-style-type: none"> (a) Adding annotations (b) Tracking time/date and author of annotations (c) Showing/hiding annotations (d) Ability to zoom and rotate the plan (e) Ability to take a snapshot and maintain as a related review document to the plan (f) Ability to work with each page of a plan as a separate document (g) Real-time collaboration (h) Version and revision tracking and control (i) Version comparison (j) Notification (i.e., notification of changes or review comments to the assigned reviewers) (k) Plan approvals (l) Electronic seals 		Y				<p>Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.</p> <p>functionality required by EGLE. KL&A recommends ePlanSoft which is the plan review software used by other State of Michigan agencies, such as LARA. KL&A will pay the licensing fees for the application until the final release of the solution, at which point EGLE will assume responsibility for those license fees.</p> <p>The DWEHD Solution will provide the necessary touch points to support any third-party solution, should the EGLE desire a different package.</p>

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Plan File Formats</i>							
97.0	The solution must be able to read and complete review of plans in various digital formats.			Y			ePlanSoft supports all the required formats.
97.1	Formats must include: <ul style="list-style-type: none"> (a) *.pdf (b) *.gif (c) CAD files (Contractor to confirm supported formats) (d) GIS formats (Contractor to specify supported formats) 			Y			
<i>Workflow Initiation</i>							
98.0	The solution must support plan review related to defined workflows (e.g., integrated with related workflow and activities).			Y			The solution will integrate with ePlanSoft to support plan review for defined workflows.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Application Processing (Permit, License, Certification, Grant)</i>							
<i>Paper Application Tracking</i>							
99.0	The solution must allow a program administrator to record when a paper application is received.	Y					When a paper application is received, the user will create a new application in the system.
<i>Configure Administratively Complete</i>							
100.0	The solution must allow an authorized system administrator to configure administratively complete criteria for an application type.			Y			The solution will provide a variety of criteria for evaluating application completeness.
100.1	Administratively complete criteria must include: <ul style="list-style-type: none"> (a) Required information provided (b) Accurate information provided (c) Fees paid in full, where applicable 			Y			
<i>Approval Criteria</i>							
101.0	The solution must allow an authorized system administrator to configure approval criteria for an application type (i.e., criteria that would allow the solution to systematically approve the application without staff review).			Y			The solution will provide a variety of criteria for evaluating application approval.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
101.1	<p>Approval criteria must include:</p> <ul style="list-style-type: none"> (a) Related violations (b) Inspection history (i.e., passed inspection on file for previous calendar year, etc.) (c) CEC/CSC records 			Y			
101.2	The solution must allow an authorized system administrator to configure by application type the ability for the solution to systematically determine an application outcome based on the approval criteria.			Y			
<i>Audit System Approvals</i>							
102.0	The solution must allow a program administrator to perform a quality check/audit on the applications where outcomes were systematically determined.			Y			This functionality can be accomplished through search functionality on applications.
<i>Application Review</i>							
103.0	The solution must allow a program administrator to review related system information as part of their application processing.	Y					Administrators will be able to see everything related to an application, including related applications, compliance activities,

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
103.1	<p>Related system information must include:</p> <ul style="list-style-type: none"> (a) Related applications (b) Related compliance activities (c) Related enforcement activities (d) Geospatial analysis of related events/activities (e) Monitoring and reporting data (where applicable) 	Y					enforcement activities, geospatial analyses, and monitoring and report data.
<i>Record Deficiencies</i>							
104.0	The solution must allow a program administrator to record when additional information is received from an applicant for their application (i.e., additional materials or updates received outside of the system related to being administratively incomplete, etc.).	Y					<p>The solution provides deficiency detection through configurable criteria and notifications to applicants and program personnel that is configurable in workflows. Additionally, EGLE users may manually change the application state and/or send ad-hoc notifications.</p> <p>Applicants will either log in to correct the deficiencies or EGLE users can correct them directly.</p>

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Administratively Complete</i>							
105.0	The solution must allow a program administrator to record if a received application, or updates to a previously received application are administratively complete.	Y					Workflows should handle detecting administratively complete applications; however, the solution will support an administrator manually changing an application's state to indicate administratively complete. Administrators will be able to complete any or all application fields. The solution will be able to evaluate and display payment status (received, cleared).
105.1	The solution must evaluate received and cleared payment in full for review by a program administrator to determine if the application is administratively complete.	Y					
105.2	The solution must allow a program administrator to record the non-administratively complete content and/or items.	Y					
<i>Notification Method</i>							
106	The solution must allow a program administrator to select the method(s) of notification to the applicant.			Y			Methods of notification will be defined in notification templates.
106.1	Methods of notification must include: (a) Document (b) Message			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Administratively Incomplete Notifications</i>							
107.0	The solution must notify the applicant a complete list of non-administratively complete content and/or items (one message or document listing all items).	Y					A workflow can be created that will produce a notification listing all non-administratively complete items that the application must furnish, correct, or complete.
<i>Re-Open Incomplete Applications</i>							
108.0	The solution must re-open an on-line application for applicant updates when the application was determined to be administratively incomplete.	Y					Administrators will configure criteria for determining administratively incomplete applications. When the workflow detects a deficient application, it will perform configured action, which can include re-opening the application and notifying the applicant.
<i>Administratively Complete Notifications</i>							
109.0	The solution must provide notifications to identified recipients based on the application type and project location when an administratively complete application is received.			Y			Administrators will configure criteria for determining administratively complete applications. When the workflow detects a complete application, it will send the configured notifications to the specified users.

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
109.1	The solution must allow a workflow administrator to select the notification recipients for each application type according to their system user role (i.e., the inspector is notified for that program).			Y			Notified users or user groups, called workgroups, can be configured in the workflow, via notification templates. The system can use workgroups to resolve location-based on contact-based assignments.
109.1.1	The solution must determine the specific user with that role based on the project location in the application.			Y			The solution will support a many-to-one association between locations and applications and administrators will be able to configure the number of locations allowed for each application type.
109.1.2	The solution must allow for multiple project locations to be associated with a single application.	Y					
<i>Administratively Complete Notification for Non-System Recipients</i>							
110.0	The solution must allow a user to enter the contact information for a recipient that is not a system user.	Y					The solution will support entering and maintaining contact information.
110.1	The solution must maintain the non-system user recipient as a contact.	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Manual Application Entry</i>							
111.0	The solution must allow a program administrator to enter an application on behalf of the applicant (e.g., when an administratively complete paper application is received).	Y					The solution will support manual entry of an application, as well as the manual update of application information.
<i>Workflow Initiation</i>							
112.0	The solution must initiate a workflow when a paper application has been entered.	Y					Applications submitted manually will initiate the associated workflow in the same manner as a portal submission would.
<i>Manual Entry Notification</i>							
113.0	The solution must provide notification to the recipient when their application has been entered by someone else on their behalf.	Y					The administrator who configures the workflow associated with manually entering an application can establish the appropriate notification template to notify the applicant.
113.1	The solution must allow a workflow administrator to configure the user notification (i.e., only when the applicant has provided an email, etc.).			Y			
<i>Application Scoring</i>							
114.0	The solution must be able to score applicant application based upon the EGLE criteria.			Y			

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
114.1	The solution must allow the application scoring criteria to be administratively configured.			Y			Administrators will be able to define application evaluation criteria, including scoring criteria.
<i>Withdrawing an Application</i>							
115.0	The solution must allow a program administrator to withdraw an application on behalf of the applicant.	Y					Administrators will be able to withdraw an application on behalf of an applicant, providing it is in a state that allows withdrawal, which will also be configurable at the application-type level. Administrator withdrawal will trigger a workflow that will notify the applicable parties based on workflow configuration.
115.1	The solution must prevent withdrawing an application based on the status of the application (i.e., after a certain point in the workflow, the application cannot be withdrawn).	Y					The application type general parameters will include an administratively configurable number of days until supporting documentation for a withdrawn application is deleted. Setting the parameter to zero will keep the documents indefinitely.
115.2	The solution must allow functionality to delete supporting documentation for a withdrawn application after an administratively configurable number of days.			Y			The system will track all withdrawn applications and corresponding action, such as
115.2.1	The solution must allow the deletion of supporting documentation to be configured by application type (not all applications will require the supporting documentation to be deleted for a withdrawn application).			Y			

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
115.3	The solution must maintain a record of the withdrawn application and action to withdraw.	Y					document deletions, for reporting and audit purposes.
<i>Refunds for Withdrawn Applications</i>							
116.0	The solution must determine if a withdrawn application is eligible for a refund.	Y					<p>The workflow that is initiated by the withdrawal request can include:</p> <ul style="list-style-type: none"> • Refund evaluation criteria to determine if the applicant is eligible for a refund • Criteria for systematically approving the refund • Actions to process the refund
116.1	The solution must require an administratively configurable approval to process the refund.	Y					
116.2	Refund eligibility must include: <ol style="list-style-type: none"> Consideration for progress in the associated workflow (i.e., ineligible for a refund once assigned to inspector) Eligibility by application type (i.e., some programs may not issue refunds) 	Y					
116.3	The solution must systematically issue the refund according to financial policy (i.e., issued via credit card for credit card payments, via EFT or check for check payments).	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Notifications for Withdrawn Applications</i>							
117.0	The solution must provide notification to the recipient when their application has been withdrawn.	Y					When a withdrawal occurs, the system will send the configured recipients notifications based on the notification template and workgroup identified in the applicable workflow step.
117.1	The solution must allow a workflow administrator to configure the user notification (i.e., only when the applicant has provided an email, etc.).			Y			
<i>Application Review</i>							
118.0	The solution must allow a program administrator to review the administratively complete application.	Y					The solution will provide screens for reviewing an administratively complete application. Though the workflow should assign to and notify the appropriate users to review, the administrator will also have the option to manually assign work to workgroups, which may contain one or more users. Any assignments will automatically notify the respective users.
118.1	The solution must allow a program administrator to add other system users to the review work queue for a specific application.	Y					
118.1.1	The solution must notify additional reviewers when added to a review work queue.	Y					Reviewers will be able to record comments and recommendations.
118.2	The solution must allow a reviewer to record their comments and recommendations.	Y					

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
118.3	The solution must allow a reviewer to compose messages to be systematically sent to one or more of the application contacts (i.e., messages to the applicant, designer, etc.).	Y					Reviewers will be able to generate correspondence to selected application contacts.
<i>Application Outcome</i>							
119.0	The solution must allow a program administrator to record the application outcome by program type.	Y					The solution will allow a program administrator to record the application outcome, which can trigger a workflow to generate the necessary notifications and documents.
119.1	Application outcomes must include: <ul style="list-style-type: none"> (a) Approved without conditions (b) Approved with conditions (c) Denied (d) Letter of Approval (e) Notice of Grant Award 		Y				Outcomes will be configurable via lookup tables. The solution will provide a screen for recording approval with conditions.
119.1.1	The solution must allow the outcome options to be configured by application type (i.e., not all applications will have the same outcomes available).	Y					

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
119.2	The solution must allow a program administrator to record the conditions for a conditional approval.	Y					
<i>Compliance</i>							
120.0	The solution must carry forward the approval conditions in the related workflow(s) for compliance and/or inspections.	Y					The solution will carry forward approval condition in related workflows for compliance and/or inspection.
<i>Issue Permit/License/Certification/Grant</i>							
121.0	The solution must generate the permit/license/certification/grant for an approved application.	Y					Configured workflow actions will generate the necessary documents based on the evaluation of configured criteria.
121.1	The generated permit/license/certification/grant information must include: <ul style="list-style-type: none"> (a) Issued permit/license/certification/grant (b) Renewal information (if applicable for the permit/license/certification/grant) (c) Compliance information (if applicable for the permit/license/certification/grant) 	Y					The documents will be generated using configured templates that pull applicable information from the application.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Permit/License/Certificate/Grant Maintenance</i>							
122.0	The solution must allow a program administrator to maintain the format and content of the permit/license/certification/grant information for each application type in their program. (i.e., templates and letters maintenance).	Y					Administrators will be able to maintain the format and content of the permit, license, certification, or grant information for each application type in their program.
<i>Issued Permit/License/Certificate Access</i>							
123.0	The solution must allow a program administrator to identify when and why a permit/license/certification/grant is not available through the authenticated user portal.	Y					A program administrator can configure a submission type and include paper documents for download, but no online application to indicate that it is not available. The system will provide configurable help facilities that can be used to provide users with help text to explain why it's not available and when, if applicable, it will be available.
<i>Update Public Listing/Information</i>							
124.0	The solution must update public facing reports regarding the issued permit/license/certification/grant.			Y			The solution will automatically update the public portal at regularly scheduled intervals regarding issued permits, licenses, certifications, and grants.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>ID</i>							
125.0	The solution must issue a unique number to each permit/license/certification/grant.	Y					The solution will assign a unique number to each permit, license, certification, and grant and the format of these numbers will be configurable.
125.1	The solution must support sequence numbers by program type for permits/licenses/certifications/grants issued for approved modifications during an active permit/license/certification/grant window (i.e., construction plans are modified and approving during an active construction permit).	Y					
125.2	The solution must allow the configuration administrator to configure the number format for each program.	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Certification Exams							
<i>Import Exam Results</i>							
126.0	The solution must allow for capturing and maintaining exam results associated with certifications.			Y			The solution will provide a bulk import feature to import ScanTron exam results files. The system will automatically associate test results with the applicable applicants based on name or some other identifier available in the DAT file. The system will also provide a mechanism for reconciling unassociated test results.
126.1	The solution must allow for importing *.DAT exam result files from Scantron scanners associated with “bubble” test sheets.			Y			
126.1.1	The solution must associate the test sheet of the test taker with the associated application.			Y			
126.1.1.2	The solution must have reconciliation functionality when a test sheet cannot be associated with an application (i.e., the name on the sheet does not match an active application for the exam/certification).			Y			
126.1.2	The solution must accommodate bubble sheet data for: (a) Water Operator Exam (Scantron form # F-1712-PAR-L)			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Scoring</i>							
126.2	The solution must allow an authorized system configuration administrator to maintain the criteria for passing each of the certification exams maintained in the solution.			Y			Administrators will be able to configure scoring criteria by application type.
<i>Workflow Initiation</i>							
127.0	The solution must allow a workflow administrator to configure the initiation of workflows with the availability of test results.	Y					As with all workflows in the system, administrators will be able to trigger a workflow or a workflow step based on the event of test results availability.
127.1	Workflow functionality must include: <ul style="list-style-type: none"> (a) Notification to applicant (b) Issuance of certification(s) 	Y					
<i>Duplicate Certificates</i>							
128.0	The solution must allow for charging the applicant for issuing a duplicate certificate.				Y		The workflow can be configured to charge a duplicate certificate fee based on configured fee schedules.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Course Approval							
<i>Course Provider Information</i>							
129.0	The solution must allow the reviewer to create and maintain course provider information.			Y			The system will provide a facility for creating and maintaining course provider information.
129.1	The solution must create a unique ID for each course provider.	Y					The solution will create a unique ID for each course provider.
<i>Course Submission</i>							
130.0	The solution must allow a course provider to submit courses for approval.			Y			Course providers will submit courses for approval through the submission portal.
130.1	Course information must include: <ul style="list-style-type: none"> (a) Course method of delivery (online, class, etc.) (b) Course location (c) Course schedule (d) Course title (e) Course description 			Y			The course approval workflow can be configured with criteria for determining whether the required information is present and can take appropriate action if it is not.
<i>CEC Determination</i>							
131.0	The solution must allow the course reviewer to determine the number of CECs.			Y			The solution will provide a field for course reviewers to specify the number of CECs.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>ABE Approval</i>							
132.0	The solution must allow the reviewer to update the database with the ABE's course approval decision.			Y			The solution will provide input fields for recording the ABE's approval decision.
<i>Workflow Initiation</i>							
133.0	The solution must initiate an approval workflow for course approval submitted by the course provider.			Y			The solution's workflow system will support configuring a course approval workflow that is triggered by course submission. The workflows can contain steps to govern the ABE approval process and the actions that are to occur for each potential outcome (approve, approve with conditions, reject).
134.0	The solution must initiate related workflow for notification and course list publication related to the ABE's decision.			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Continuing Education Credits							
<i>Applicant Education Credit Submission</i>							
135.0	The solution must allow an applicant to maintain a record of earned continuing education credits.			Y			The solution will allow applicants to maintain a record of earned CECs, by selecting completed courses from a list of approved courses and uploading a course completion certificate.
135.1	The solution must allow an applicant to select the completed course from a list of approved courses.			Y			
135.2	The solution must allow for an applicant to upload a course completion certificate.			Y			
<i>Workflow Initiation</i>							
136.0	The solution must initiate an approval workflow for continuing education credits submitted by the applicant.	Y					Administrators can configure a CEC approval workflow that is triggered when an applicant selects a completed course. The workflow can prompt the user to upload a course completion certification, handle notifications, assign review and approval tasks, and create official documents.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Approved Course</i>							
137.0	The solution must allow a program administrator to manage an approved list of continuation credit courses.			Y			Managing the approved course list can be automated through a configured workflow that includes tasks for approving courses, deleting courses after an expiration timeframe, and publishing course descriptions and time/data information.
137.1	The solution must include the provider, course descriptions and offered date/time in the list.			Y			
<i>Provider Education Credit Submission</i>							
138.0	The solution must allow a course provider to enter a class roster for a complete class.			Y			Administrators can configure a workflow to automatically prompt course providers upload the class roster .xls at the appropriate time.
138.1	Roster information must include: <ul style="list-style-type: none"> (a) First name (b) Last name (c) Email address (d) Credits (if variable for the course) (e) Operator ID or License # (of student) (f) Course name (g) Course date/time 			Y			Course providers will upload the roster through the submission portal.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
138.2	The solution must allow a course provider to upload a data file representing the class roster information (i.e., MS Excel file in a specified format).			Y			
<i>Contact Information</i>							
139.0	The solution must prevent duplication of contacts when entering class roster information (i.e., reconcile John Smith and Johnathon Smith at time of data entry).			Y			The solution will use fuzzy-match logic to detect potential duplicate contacts and prompt the course provider to correct the roster. If the roster contains a name that cannot be matched to an existing contact, the system will create a new contact.
139.1	The solution must create a new contact when a class roster entry cannot be matched to an existing contact.			Y			
<i>Duplicate Records</i>							
140.0	The solution must reconcile duplication of course completion between course provider information and application information.			Y			Course completion will be maintained in the applicant's "My Education" panel of the Submission Portal. During the reconciliation of rosters and exams, contacts will be compared to ensure the same data has not been submitted by multiple parties or multiple times by the same party.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Application Renewal (Permit, License, Certification, Grant)							
<i>Expiration Notice</i>							
141.0	The solution must notify the applicant an administratively configurable number of days prior to the expiration.	Y					Administrators will be able to configure days until expiration in the application type's general parameters. Remember that each program will have its own application types.
141.1	The solution must allow an authorized system configuration administrator to set the number of calendar days prior to the expiration.	Y					Notifications templates will be configured for each program. The templates include administrator specified communication methods, which can include messages. Workflow steps can then be configured to evaluate conditions, events, and criteria and take specified actions including sending notifications using a specified notification template.
141.1.1	The solution must support a separate configurable duration for each program/type.	Y					Documents will available for download in the application detail screen or they can be provided to the application in an email, or via
141.1.2	The solution must support a separate notification for each program/type (i.e., a campground construction permit may have a different notification than a septic hauler license).	Y					
141.2	The solution must allow a program administrator to select the method(s) of notification to the applicant.			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
141.2.1	Methods of notification must include: (a) Document (b) Message			Y			message with a URL, all of which will be configured in the workflow.
<i>Workflow Initiation</i>							
142.0	The solution must allow a workflow administrator to configure the initiation of a workflow with the expiration notification.	Y					Expiration notification parameters are set in the application type's general parameters and a workflow can be configured with timers to prompt renewal.
142.1	Workflow functionality must include: (a) Initiating invoicing and accounting for assumed renewals (b) Adjusting associated fees when renewals are late (c) Status updates if applicable (i.e., identifying a grace period after expiration to be able to renew, etc.)			Y			
<i>Status</i>							
143.0	The solution must systematically change the status of a permit/certification/license/grant an administratively configured number of calendar days after the expiration date.			Y			Application workflows can be configured with timers that will trigger status changes and renewal notification.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
143.1	The solution must allow an authorized system configuration administrator to configure the number of calendar days.			Y			Expiration parameters are set in the application type's general parameters. Status value will be defined using the lookup tables in system administration.
143.2	The solution must allow an authorized system configuration administrator to set the status value (i.e., set to "lapse", "expired", etc.).	Y					Lookups will be associated with specific programs and application types.
143.2.1	The solution must support separate status values for each program/type.	Y					
<i>Status Notification</i>							
144.0	The solution must notify the applicant of the status change.	Y					Application workflows can be configured with timers for renewal-related actions, such as notifying the applicant and changing the entity's status.
145.0	The solution must update public facing reports regarding the permit/license/certification/grant status change (where applicable).			Y			The Public Portal will be updated to reflect entity status changes at the intervals dictated by the administratively-configured frequency set in system administration.
<i>Reminder Notifications</i>							
146.0	The solution must be able to send reminders for completing renewals.			Y			

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
146.1	The solution must allow reminders to be administratively configured by application type.			Y			Application workflows can be configured with timers that will trigger status changes and renewal notification.
146.1.1	Configuration options must include: (a) Number of days after expiration (b) Content of reminder			Y			The reminder content and delivery method are configured in notification templates that are used by the workflow. Expiration parameters are set in the application type's general parameters.

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Inspections							

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Inspection Trigger(s)</i>							
147.0	The solution must allow an authorized configuration manager to configure the need for an inspection.	Y					Application workflows can trigger inspection tasks based on business rules or administrators can manually request an inspection.
148.0	The solution must allow the trigger for an inspection to be configured for each inspection type.	Y					Workflows can be configured to pair any inspection type with any application type and to trigger as many inspections as the business may require. Workflows can incorporate all the business logic used to determine when an inspection is required and what type of inspection must be performed.
149.0	The solution must allow a single inspection type to be associated with more than one application type.	Y					Inspection type configuration will include parameters for indicating whether an inspection type is schedule-based, duration-
149.1	The solution must allow for more than one trigger for the same inspection type.	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
149.1.1	<p>Inspection triggers must include:</p> <ul style="list-style-type: none"> (a) Schedule-based (i.e., quarterly, annually, etc.) (b) Duration-based (i.e., X months after license was issued, etc.) (c) Criteria-based (i.e., analyte value, X issues in Y number of months, etc.) (d) Compliance activity/schedule (e) On-demand 		Y				based, criteria-based, compliance activity-based, or on-demand.
<i>Workflow Initiation</i>							
150.0	The solution must allow the inspection trigger to be configured to initiate a related workflow/sub workflow (to include related notifications and work assignment).	Y					Workflows can be configured with inspection evaluation logic to trigger related sub-workflows. Workflows can incorporate all the business logic used to determine when an inspection is required and what type of inspection must be performed.
151.0	The solution must initiate related workflows according to the finalized inspection findings (i.e., compliance activities/schedules, change in inspection schedules, etc.).	Y					

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Inspection Maintenance</i>							
152.0	The solution must allow a program administrator to define and maintain the inspections applicable to their program area.	Y					Program administrators can define and associate inspection types with program areas in program configuration.
<i>Inspection Schedule</i>							
153.0	The solution must allow an inspector to record the date of a scheduled inspection (i.e., some inspections are pre-scheduled, and the date and associated workflow activities/reminders are based on the scheduled date).	Y					The inspection app will allow inspectors to record the date of the inspection.
<i>Conduct Inspection</i>							
154.0	The solution must allow an inspector to complete an inspection.	Y					The inspection module will support all inspection activities, including providing access to information related to the inspection, such as previous inspections, related applications, related monitoring and reporting data, related compliance activities, and complaints. The
154.1	The solution must allow an inspector to review related system-accessible information related to the inspection.	Y					

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
154.1.1	Related system-accessible information must include: <ul style="list-style-type: none"> <li>(a) Previous inspections <li>(b) Related applications (permits, licenses, certifications, grants) <li>(c) Related monitoring and reporting data (where applicable) <li>(d) Related compliance activities <li>(e) Complaints 	Y					inspection module supports an offline mode for times when internet connectivity is unreliable. It also supports capturing photos, audio recordings, and videos, and geospatial data. Inspectors can add inspection items as needed.
154.1.2	The solution must allow an inspector to access related system-accessible information “off-line” (i.e., review the materials while in the field to conduct the inspection).	Y					
154.2	The solution must allow an inspector to capture media files (photo, audio, video, etc.) related to an inspection.	Y					
154.3	The solution must allow an inspector to capture geospatial data related to the inspection (i.e., lines, points and polygons related to inspection notes and/or activities).	Y					

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
154.4	The solution must allow an inspector to capture inspection content “off-line” (i.e., fill out an inspection report, capture media, etc. while in the field to conduct the inspection).	Y					Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
154.5	The solution must allow an inspector to manually add inspection items to an active inspection (i.e., add a new location or piece of equipment discovered while conducting the inspection).	Y					
<i>Signatures</i>							
155.0	The solution must allow an inspector to capture acknowledgement from involved parties according to the workflow (i.e., capture an electronic signature of the water operator for the water supply being inspected, etc.).	Y					The inspection module will support electronic signatures.
<i>Finalize Inspection</i>							
156.0	The solution must allow an inspector to finalize a completed inspection according to the associated workflow.	Y					The inspection module will allow an inspector to finalize the inspection according to the associated workflow.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Compliance							
<i>Compliance Schedules</i>							
157.0	The solution must allow a system configuration administrator to configure schedules for compliance activities.			Y			A compliance schedule will be based on a workflow with a timer step or a lifecycle event tied to a regulated entity's monitoring data. Each program will configure the types of monitoring and reporting data that can be referenced in a workflow.
157.1	Compliance activities must include: <ul style="list-style-type: none"> (a) Monitoring (i.e., monthly operating reports, etc.) (b) Reporting (i.e., yearly self-assessment, notice of intent, failed system data report, pumpage reports, etc.) 			Y			Compliance workflows will be triggered by other workflows.
157.2	The solution must allow compliance schedules to be associated with: <ul style="list-style-type: none"> (a) Regulated entity (b) Issued License (c) Certifications 			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Workflow Initiation</i>							
158.0	The solution must allow a workflow administrator to associate compliance schedules with workflows.			Y			<p>A compliance schedule workflow will be based on a workflow with a timer step or a lifecycle event tied to a regulated entity's monitoring data. Each program will configure the types of monitoring and reporting data that can be referenced in a workflow.</p> <p>Compliance workflows will be triggered by other workflows.</p>
<i>Compliance Criteria</i>							
159.0	The solution must identify compliance adherence for defined regulated activities and monitoring based on administratively configured criteria (e.g., receipt of monitoring reports by due date, monitored values for analyzes within regulated ranges, receipt of payments by due dates, etc.).			Y			<p>Compliance adherence can be evaluated with workflows that involve timers, notifications, and status changes based on the required business logic for determining compliance and responding to non-compliance.</p>

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Escalated Enforcement</i>							
<i>Candidates</i>							
160.0	The solution must monitor for and identify escalated enforcement candidates.			Y			An escalated enforcement case will be created when configured enforcement rules detect an enforcement issue. The enforcement case will be the entity associated with the workflow items through the enforcement workflow.
161.0	The solution must allow an authorized configuration manager to define the criteria to identify escalated enforcement candidates.			Y			An authorized user will be able to create enforcement rules that specify the applicable enforcement flags and entities (programs, application types, entities, etc.) that need to be monitored and which workflow to trigger when an enforcement issues is detected.
161.1	Criteria must include: (a) Significant deficiency notice (b) Violation notice		Y				

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
162.0	The solution must allow a program administrator to identify candidates for escalated enforcement.		Y				<p>Enforcement rules will run daily and will trigger the creation of “Enforcement Cases” as well as the appropriate workflow for the rule. An escalated enforcement case will have the following components:</p> <ul style="list-style-type: none"> • Program Participant • Related Entities • Documents • Status • Resolution • Notes <p>Participant communications will be handled through the standard workflow notification system. All other workflow capabilities, such as tasks, will be available for escalated enforcement use as well.</p> <p>When an entity has been flagged for escalated enforcement, that entity’s view page will clearly change visual appearance and provide a link to the escalated enforcement case.</p>

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Workflow Initiation</i>							
163.0	The solution must initiate a workflow when a candidate is identified for escalated enforcement.	Y					Workflows can be used to identify candidates for escalated enforcement based on configured criteria or administrators can manually initiate escalated enforcement. Regardless of how the escalated enforcement case is initiated, the creation of the case can trigger the appropriate workflow/sub-workflow.
163.1	The workflow must be specific to the program (i.e., CWS will have a different workflow than NCWS).	Y					A “Program Manager” role could be defined with the correct permissions to trigger the workflow. The solution is agnostic to the specific names of roles. Business users can define roles with any combination of permissions.
<i>Documents</i>							
164.0	The solution must manage and identify documents associated with escalated enforcement.			Y			Workflows can be configured to identify and create the necessary document, based on the evaluation of criteria configured. Documents will be delivered to the participant per configured parameters and attached, in electronic format, to the escalated enforcement case.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Notes</i>							
165.0	The solution must allow notes and comments to be maintained for an escalated enforcement (i.e., track communications, scheduled meetings/hearings, referrals, etc.).	Y					<p>An escalated enforcement case will have the following components:</p> <ul style="list-style-type: none"> • Program Participant • Related Entities • Documents • Status • Resolution • Notes <p>All communication will be tracked in the enforcement case.</p>
<i>Impacted Entities</i>							
166.0	The solution must identify entities associated with active escalated enforcement activities (i.e., clearly indicate which water supplies have active associated escalated enforcement activities).	Y					The solution will identify entities associated with active escalated enforcement activities and list them on the enforcement case screen.

A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Status</i>							
167.0	The solution must maintain and clearly display the current status and final outcome of escalated enforcement.	Y					The escalated enforcement case will display status and resolution (which include final outcomes).
A	B	C					D
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Public Web Portal</i>							
<i>Access</i>							
168.0	The solution must allow a non-authenticated (public) user to interact with public accessible data via a web portal.			Y			The solution will provide a Public Portal for non-authentication users to interact with accessible data via the web.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Search and Filter</i>							
169.0	The public web portal must support search and filter features using data values and interactive maps.			Y			The Public Portal will provide search and filter features using data values and interactive maps.
<i>Dashboards/Display</i>							
170.0	The public web portal must support public dashboards (and related dashboard functionality for drill-down, etc.).			Y			The Public Portal will support generic dashboard functionality, such as the ability to drill-down into published entity information that is accessible via the portal.
<i>Metrics</i>							
171.0	The solution must track usage metrics associated access to and use of the public web portal (e.g. web analytics).			Y			KL&A recommends a best-in-class analytics suite, such as Google Analytics for tracking usage metrics.
<i>Branding</i>							
172.0	The solution must brand the public web portal to be associated with the State of Michigan EGLE.			Y			KL&A will use EGLE branding and comply with all eMichigan look and feel standards.

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
OPTIONAL							
Ad Hoc Query							
<i>Libraries</i>							
173.0	The solution must support ad hoc queries.	Y					<p>A user will be able to search for various regulated entities and applications in the system. They will be able to save the results of a query and share it with other users. They will run these queries from the Search page of the respective entity or from the central "Query Library."</p> <p>When viewing the search results, a user will have the option to create a new saved search from the current search. When saving a search, a user will select a category from a configured list of options. If the new search is based on a previously saved search, the original search will be retained.</p>
173.1	The solution must maintain a library of developed ad hoc queries.	Y					
173.1.1	Library information must include: <ul style="list-style-type: none"> (a) User that created it (b) Original creation date/time (c) Last date/time it was used (d) Last date/time it was updated (e) Related reports (i.e., was it created based on another ad hoc query?) (f) Category (g) Description 			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Access</i>							
174.0	The solution must prevent visibility and modifications to an existing ad hoc query based on user roles.	Y					Administrators will permit create, edit, and view of ad hoc queries based on user role.
175.0	The solution must allow a query administrator to associate query access with roles.	Y					
<i>Versioning</i>							
176.0	The solution must allow an existing ad hoc query to be used as the foundation for a new ad hoc query.	Y					When viewing the search results, a user will have the option to create a new saved search from the current search. When saving a search, a user will select a category from a configured list of options. If the new search is based on a previously saved search, the original search will be retained.
176.1	The solution must maintain relationship information when an existing ad hoc query was used to create a new ad hoc query.	Y					
<i>Maintenance</i>							
177.0	The solution must allow a query administrator to define the ad hoc category values.			Y			Ad doc category values will be configured with lookups that are defined in system configuration.
177.1	The solution must allow a query administrator to configure the category values to be limited to the maintained list of values.			Y			

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
Analytics							
<i>Timing</i>							
178.0	<p>Analytical analysis must include:</p> <ul style="list-style-type: none"> (a) Systematic analytics triggered by data value changes (b) Systematic analytics scheduled based on point in time data values (c) On-demand 					Y	<p>KL&A has strategic partners that would allow us to easily meet this optional requirement, however, the lack of information surrounding the datasets to be analyzed prevented us from understanding the scale and scope of this requirement; therefore, we have chosen to exclude it from our proposed solution.</p>

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Functionality</i>							
179.0	<p>Analytical functionality must include:</p> <ul style="list-style-type: none"> (a) Trends (b) Threshold monitoring (c) Relationship analysis (d) Geospatial analysis (e) Predictive modeling (f) Statistical analysis 					Y	KL&A has strategic partners that would allow us to easily meet this optional requirement, however, the lack of information surrounding the datasets to be analyzed prevented us from understanding the scale and scope of this requirement; therefore, we have chosen to exclude it from our proposed solution.
<i>Presentation</i>							
180.0	<p>The solution must support multiple analytics presentations:</p> <ul style="list-style-type: none"> (a) Graph formats (b) Pie-chart formats 					Y	KL&A has strategic partners that would allow us to easily meet this optional requirement, however, the lack of information surrounding the datasets to be analyzed prevented us from understanding the scale and scope of this requirement; therefore, we have chosen to exclude it from our proposed solution.
181.0	The solution must allow the data analyst to associate analytics with dashboard panes.					Y	KL&A has strategic partners that would allow us to easily meet this optional requirement, however, the lack of information surrounding the datasets to be analyzed prevented us from understanding the scale and scope of this requirement; therefore, we have chosen to exclude it from our proposed solution.
<i>Notifications</i>							
182.0	The solution must allow calculations to be performed on analytical results to trigger notifications.					Y	KL&A has strategic partners that would allow us to easily meet this optional requirement, however, the lack of information surrounding

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
182.1	The solution must allow notifications to be administratively configured by trigger.					Y	the datasets to be analyzed prevented us from understanding the scale and scope of this requirement; therefore, we have chosen to exclude it from our proposed solution.
182.1.1	Configuration options must include: <ul style="list-style-type: none"> (a) Content of the notification (b) Notification delivery (i.e., dashboard, SMS, email, etc.) (c) Recipient(s) 					Y	
<i>Maintenance</i>							
183.0	The solution must allow the data analyst to manage the business rules and priorities applicable to the analytics (i.e., will not require a code change to refine the analysis).					Y	KL&A has strategic partners that would allow us to easily meet this optional requirement, however, the lack of information surrounding the datasets to be analyzed prevented us from understanding the scale and scope of this requirement; therefore, we have chosen to exclude it from our proposed solution.
184.0	The solution must allow the data analyst to manage the data set used by the analytics (i.e., will not require a code change to modify the data elements being included).					Y	

A	B	C				D	
Business Specification Number	Business Specification	Current Capability	Requires Configuration	Customization to Software	Future Enhancement	Not Available	Contractor must comply with how they will deliver the business Specification. Contractor must meet the details of any configuration/customization and the impacted risk that may be caused if configured/customized to meet the business specification.
<i>Machine Learning</i>							
185.0	The solution must use machine learning/predictive analytics.					Y	KL&A has strategic partners that would allow us to easily meet this optional requirement, however, the lack of information surrounding the datasets to be analyzed prevented us from understanding the scale and scope of this requirement; therefore, we have chosen to exclude it from our proposed solution.

EXHIBIT 2
Data Retention Requirements

Item #	Series Title	Series Description	Retention Period	Approval Date
00000	Introduction	<p>The Drinking Water and Municipal Assistance Division (DWEHD), is responsible for program areas that deal with Drinking Water, Environmental Health, Operator Certification and Training, Campgrounds, Swimming Pools, and On-Site Wastewater.</p> <p>M.C.L. 18.1284 - 18.1292 requires that all state records, regardless of media or location, be listed on an approved Retention and Disposal Schedule. Records, regardless of format, cannot legally be destroyed without the authorization of a schedule. This schedule is supplemented by the State of Michigan's general schedules that are available online.</p>		
37054	Public Water Supply, Act 399 Program Support (supersedes item #25450)	<p>These records document the administration of the Act 399 program. They may include, but may not be limited to, policies, procedures, guidelines, regulations, and correspondence. (Applies to central program office).</p>	RETAIN UNTIL: Superseded by a new version THEN: Transfer to the Archives of Michigan	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37055	Public Water Supply, Act 399 Water Supply Plans and Studies	<p>These records document water supply plans and studies. They may include, but may not be limited to, general plans, reliability studies, emergency response plans, cross connection control programs, bacteriological sample siting plans, technical managerial financial capacity assessments, corrosion control studies, determinations of optimal corrosion control treatment and water quality parameters, decisions or determinations that a water supply must perform an assessment (purge when water system submits the assessment), and consultations with the department concerning the decision or determination related to these plans or studies (purge consultation notes when the decision or determination is made).</p>	<p>RETAIN UNTIL: Superseded by a new version THEN: Destroy</p>	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37056 -	Public Water Supply, Act 399 Decisions and Determinations	<p>These records document decisions and determinations of treatment and water supply status. They may include, but may not be limited to, decisions or determinations made by the department for a water supply relative to the supply's vulnerability status, the type of source water the water system uses (e.g., groundwater, surface water or groundwater under the direct influence of surface water), or its classification or category which determines what requirements it must meet (e.g., bin classification).</p> <p>They may also include:</p> <ul style="list-style-type: none"> --Decisions or determinations made by the department for a water supply relative to alternative or interim treatment, alternative technologies, alternative processes, alternative monitoring locations, reduced frequencies, or alternate limits or levels, including supporting documentation and explanation of technical basis for decision. --Decisions or determinations made by the department that multiple wells are considered one treatment plant. --Decisions or determinations made by the department of disinfectants and DPB other than chlorine, trihalomethanes, and haloacetic acids for which a water supply must monitor. 	RETAIN UNTIL: Superseded by a new version PLUS: 1 year THEN: Destroy	4/20/2010
37057	Public Water Supply, Act 399 Regulatory Records (supersedes item #25451, 25452)	These records document compliance with the Act and other regulatory issues. They may include, but may not be limited to, monitoring schedules, sanitary surveys, level 1 and 2 assessments, lead and copper reports, consumer notices of lead result certificates, lead public education material certificates, operational evaluation level reports of disinfection byproducts, and decisions to invalidate lead and copper samples or invalidate fecal-indicator groundwater source samples.	RETAIN UNTIL: Date created PLUS: 12 years THEN: Destroy	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37058	Public Water Supply, Act 399 Variances and Exemptions	These records document variances and exemptions from drinking water rules. They may include, but may not be limited to, decisions, determinations, and supporting documents.	RETAIN UNTIL: Variance or exemption is no longer valid PLUS: 5 years THEN: Destroy	4/20/2010
37059	Public Water Supply, Act 399 Microbial Monitoring Records	These records document microbial monitoring activities. They may include, but may not be limited to, analyses of microbiological, turbidity, and disinfection sampling documents.	RETAIN UNTIL: Date created PLUS: 2 years THEN: Destroy	4/20/2010
37060	Public Water Supply, Act 399 MORs (supersedes item #25458)	These records document monthly operation reports (MORs) submitted by a water supply regarding the treatment system. They may include, but may not be limited to, MORs, and operational evaluation reports.	RETAIN UNTIL: Date created PLUS: 12 years THEN: Destroy	4/20/2010
37061	Public Water Supply, Act 399 Nonmicrobial Monitoring Records (supersedes item #25460)	These records document nonmicrobial monitoring. They may include, but may not be limited to, analyses of sampling other than of microbiological, turbidity and disinfection, and certifications of water supply compliance with acrylamide and/or epichlorhydrin treatment requirements.	RETAIN UNTIL: Date created PLUS: 12 years THEN: Destroy	4/20/2010
37119	Wellogic Data (supersedes item #25369)	These records document data submitted by water well drilling and pump installation contractors. Data may include, but may not be limited to, the location of the well, permit number, owner of the well, well depth, well use, well casing information, static water level, pumping level, pump information, name of drilling machine operator, and name of water well contractor.	Permanent	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37120	Water Quality Data (supersedes item #25370)	These records document water laboratory testing data for water supplies in Michigan. Each water sample is documented independently and the samples date back to 1983. Data may include, but may not be limited to, sample collection name and address, sample collection methods, sample billing name and address, and results of chemical analysis.	Permanent	4/20/2010
37123	Contractor Records	These records document registrations of well drillers, pump installers, and dewatering well contractors, in accordance with Part 127, 1978 PA 368, as amended. They may include, but may not be limited to, annual applications, lists of equipment operated, examination results, complaints, and correspondence.	RETAIN UNTIL: Contractor is determined to be inactive, plus 3 years PLUS: 7 years THEN: Destroy	12/20/2011
37124	Well Driller/Pump Installer Contractor Registration Data (supersedes item #25374)	These records document water well drillers, water well pump installers, and water well drilling equipment. The database generates annual contractor registration and equipment cards and reports.	Permanent	4/20/2010
37125	Well Construction Local Health Department Quarterly Reports (supersedes item #25375)	These records document reporting by local health departments on a quarterly basis. They may include, but may not be limited to, information about the operational performance of local health department residential well permit program components.	RETAIN UNTIL: Date created PLUS: 10 years THEN: Destroy	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37126	Type 3 Public Water Supply/Local Health Department Evaluation Data (supersedes item #25376)	These records document the operational performance of local health department private and type III well permit program components. They may include, but may not be limited to, the results of the minimum program requirement (mpr) evaluations conducted by: (1) the Environmental Health Programs Unit staff; or (2) by the local health department (self evaluation). For those local health departments NOT in compliance, there is a listing of those mpr(s) that were not met and specific areas needing improvement, along with compliance plan submittal and approval dates.	Permanent	4/20/2010
37127	Clean Water Fund Contracts (supersedes item #25377)	These records document agreements between the state of Michigan and local communities that are participating in the Clean Water Initiative. They may include, but may not be limited to, contracts.	RETAIN UNTIL: Agreement is no longer in effect PLUS: 7 years THEN: Destroy	12/20/2011
37128	Clean Water Fund Data (supersedes item #25378)	These records document the status of Requests for Proposal grants issued by this division to communities as part of the Clean Michigan Initiative, utilizing funds from the Clean Water Fund. They may include, but may not be limited to, wellhead protection data.	RETAIN UNTIL: Data no longer has value PLUS: 10 years THEN: Destroy	4/20/2010
37129	Site Investigation Files (supersedes item #25379)	These records document site investigations of groundwater contamination. They are used for cost recovery and to monitor groundwater quality in accordance with Part 201, 1994 PA 451, as amended. They may include, but may not be limited to, correspondence, water supply laboratory reports, monitoring and hydro geologic reports, and supporting documentation.	RETAIN UNTIL: Site investigation is closed PLUS: 30 years THEN: Destroy	12/20/2011
37130	Contract Records (supersedes item #25380)	These records document contamination sites as defined under Part 201, 1994 PA 451, as amended. They may include, but may not be limited to financial statements, contracts, approval letters, and supporting documentation.	RETAIN UNTIL: Site investigation is closed PLUS: 30 years THEN: Destroy	12/20/2011

Item #	Series Title	Series Description	Retention Period	Approval Date
37131	Drinking Water Quality Records (supersedes item #25381)	These records document water well locations. They may include, but may not be limited to, names, addresses, types of analysis required, and the collection frequency	RETAIN UNTIL: Date Created PLUS: 10 years THEN: Destroy	4/20/2010
37132	Drinking Water Quality Data - GCTS (supersedes item #25382)	These records document water quality from drinking water wells located adjacent to sites of environmental contamination. Each record in the database contains information about a single water sample received. They may include, but may not be limited to, sample collection name and address, sample collection methods, and results of chemical analysis. Data is kept from 1981 to present.	Permanent	4/20/2010
37133	Water Supply Annual Fees (supersedes item #25383)	These records document annual fees that are charged to owners of all community and noncommunity water systems. These funds are collected by the EGLE to support community and noncommunity drinking water program activities. They may include, but may not be limited to, invoices.	RETAIN UNTIL: Date created PLUS: 5 years THEN: Destroy	4/20/2010
37135	Water Haulers Records (supersedes item #25385)	These records document water haulers. They may include, but may not be limited to, inspections of water hauling tanks or containers, licensing and certification information, source of water, water hauling customers, license numbers, and water tank or container capacity.	RETAIN UNTIL: Date created PLUS: 10 years THEN: Destroy	4/20/2010
37136	Water Haulers Data (supersedes item #25386)	These records document information received from water haulers during the annual license application process. They may include, but may not be limited to, license and certification information, license numbers, and water source information.	Permanent	4/20/2010
37137	Bottled Water Records (supersedes item #25387)	These records document bottled water companies. They may include, but may not be limited to, water sampling analyses, bottled water brands and labels, geological reports, well sources, surface sources, treatment diagrams, approval letters, and inspection reports.	RETAIN UNTIL: Date created PLUS: 10 years THEN: Destroy	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37138	Bottled Water Data (supersedes item #25388)	These records document in-state, out-of- state, and out-of-country bottled water source approvals for use in the state of Michigan.	Permanent	4/20/2010
37139	Source Water Assessment Records (supersedes item #25389)	These records document wellhead protection activities. They may include, but may not be limited to, maps and site delineation reports on Michigan cities, correspondence and reports.	RETAIN UNTIL: Date created PLUS: 10 years THEN: Destroy	4/20/2010
37140	Wellhead Protection Records (supersedes item #25390)	These records document existing municipal wells. They may include, but may not be limited to, results of tritium sampling, information on applicants to the wellhead protection grant program, and coordinates of existing municipal wells.	RETAIN UNTIL: Date created PLUS: 10 years THEN: Destroy	4/20/2010
37141	Wellhead Protection Data (supersedes item #25391)	These records document communities involved in wellhead protection activities. Data may include, but may not be limited to, names, addresses, and contacts.	RETAIN UNTIL: Information in no longer accurate THEN: Destroy	4/20/2010
37142	On-Site Systems Program Data (supersedes item #25407)	These records document licensed mobile home parks, including Type I water and on- site sewage systems. Data may include, but may not be limited to, current inspection data of on-site water systems and sewage systems, sanitary survey inspection dates, discharge permit numbers, and supporting data.	Permanent	4/20/2010
37143	Campground Licensing Files - Approved Plans (supersedes item #25410)	These records document approved plans for licensed campgrounds. They may include, but may not be limited to, blueprints.	RETAIN UNTIL: Date created PLUS: 1 year THEN: Microfilm and destroy paper	4/20/2010
37144	Campground Licensing Files - Approved Plans - Microfilm Working Copy (supersedes item #25411)	These records document approved plans for licensed campgrounds. They may include, but may not be limited to, blueprints (aperture cards).	RETAIN UNTIL: Campground is permanently closed THEN: Destroy	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37145	Campground Licensing Files - Approved Plans - Microfilm Original (supersedes item #25412)	These records document approved plans for licensed campgrounds. They may include, but may not be limited to, blueprints (aperture cards).	RETAIN UNTIL: Campground is permanently closed THEN: Destroy	4/20/2010
37146	Campground Certification and Licensing Files (supersedes item #25413)	These records document campgrounds. They may include, but may not be limited to, correspondence, history of construction, construction permits, inspection reports, agreements, license applications, plans, complaints, legal documents, operation and maintenance manuals, and supporting documentation.	RETAIN UNTIL: Campground is permanently closed PLUS: 5 years THEN: Destroy	4/20/2010
37147	Campground Files (supersedes item #25414)	These records document the review and approval of campground facilities. They may include, but may not be limited to, correspondence, history of construction, construction permits, inspection reports, agreements, license applications, plans, blueprints, complaints, legal documents, and operation and maintenance manuals.	RETAIN UNTIL: Campground is permanently closed, plus 3 years PLUS: 2 years THEN: Destroy	12/20/2011
37148	Campground Data (supersedes item #25415)	These records document licensed campgrounds. Data may include, but may not be limited to, names, contact information, license number, inspection data, fee information, activity dates, permit information, and design and construction information.	RETAIN UNTIL: Campground is permanently closed THEN: Destroy	4/20/2010
37149	Subdivision Files (supersedes item #25416)	These records document whether housing subdivisions, using privately-owned water and sewerage facilities and subsurface sewage disposal systems up to 10,000 GPD, meet certain specifications. They may include, but may not be limited to, plat maps, correspondence, site reports, well logs, hydrological reports, engineering reports, deeds, violations, copies of restrictions, and legal documents. Note: Before transfer to the Record Center, the file is to be purged of duplicate and unnecessary correspondence.	RETAIN UNTIL: Date created PLUS: 6 years THEN: Destroy	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37150	On-Site Sewage Files (supersedes item #25417)	These records document complaints involving private water and sewage disposal systems. They may include, but may not be limited to, complaint letters, correspondence, investigative reports, legal documents, and final disposition.	RETAIN UNTIL: Complaint is resolved PLUS: 2 years THEN: Destroy	4/20/2010
37151	Plastic Drainfield Pipe and Tubing Approval File (supersedes item #25418)	These records document the certification of different types of plastic pipe used in water and sewerage projects. They may include, but may not be limited to, correspondence, lab reports, and approval memos/lists.	RETAIN UNTIL: No longer certified THEN: Destroy	4/20/2010
37152	Public Swimming Pool Blueprints - paper (supersedes item #25419)	These records document the review and approval of permits for public swimming pool facilities. They may include, but may not be limited to, blueprints and blueline prints.	RETAIN UNTIL: Date created PLUS: 1 year THEN: Microfilm and destroy paper	4/20/2010
37153	Public Swimming Pool Blueprints - microfilm working copy (supersedes item #25420)	These records document the review and approval of permits for public swimming pool facilities. They may include, but may not be limited to, blueprints and blueline prints.	RETAIN UNTIL: Swimming pool no longer exists THEN: Destroy	4/20/2010
37154	Public Swimming Pool Blueprints - microfilm original (supersedes item #25421)	These records document the review and approval of permits for public swimming pool facilities. They may include, but may not be limited to, blueprints and blueline prints.	RETAIN UNTIL: Swimming pool no longer exists THEN: Destroy	4/20/2010
37155	Public Swimming Pool Specifications (supersedes item #25422)	These records document the review and approval of public swimming pool facilities. They may include, but may not be limited to, detailed specifications that are submitted with the blueprints.	RETAIN UNTIL: Date created PLUS: 1 year THEN: Destroy	4/20/2010

Item #	Series Title	Series Description	Retention Period	Approval Date
37156	Certification and Training Materials (supersedes item #24531)	These records document surface water and groundwater programs to develop and evaluate sewage treatment plan operator exams and training programs. They may include, but may not be limited to, notifications, appointment letters, minutes, original examinations for each year, examination question banks, teaching materials and handouts, manuals, class exams, class enrollment forms, grades, and correspondence.	RETAIN UNTIL: No longer has reference value THEN: Destroy	4/20/2010
37157	Operator Certification Records (supersedes item #24532)	These records document examinations and grades administered to sewage treatment plant operators, industrial wastewater operators and storm water operators during the certification process. They may include, but may not be limited to, applications (which may include college transcripts and copies of certification), last examinations (except for stormwater passed exams), certification number, examination scores, date of written examination, and correspondence.	RETAIN UNTIL: Operator is no longer certified PLUS: 3 years THEN: Destroy	4/20/2010
37158	Federal/State Grant Records for Construction of Sewage Treatment Facilities (supersedes item #24535)	These records document federal and state grant assistance to municipalities for the construction of sewage treatment facilities. They may include, but may not be limited to, grant applications, plans, contract documents, and correspondence.	RETAIN UNTIL: Grant is closed PLUS: 7 years THEN: Destroy	12/20/2011
37159	State Revolving Loan Fund (supersedes item #24536)	These records document administration of the State Revolving Loan Fund (SRF). EGLE co-administers the loan fund with the Michigan Municipal Bond authority, who serves as the financial administrator. They may include, but may not be limited to, applications, review documents, plans and specifications, correspondence, and supporting documentation.	RETAIN UNTIL: Projects are administratively completed, in accordance with EPA requirements PLUS: 6 years THEN: Destroy	12/20/2011

Item #	Series Title	Series Description	Retention Period	Approval Date
37160	Drinking Water Revolving Fund (DWRF) (supersedes item #24537)	These records document administration of the Drinking Water Revolving Fund (DWRF). EGLE co-administers the revolving fund with the Michigan Municipal Bond authority, who serves as the financial administrator. They may include, but may not be limited to, applications, review documents, plans and specifications, correspondence, and supporting documentation.	RETAIN UNTIL: Projects are administratively completed, in accordance with EPA requirements PLUS: 6 years THEN: Destroy	12/20/2011
37165	Water Treatment Plant/Voluntary Distribution System Operator Records (supersedes item #5380)	These records document water treatment plant and voluntary distribution system operators. They may include, but may not be limited to, correspondence, examination applications, and plant operator examinations.	RETAIN UNTIL: Operator is no active PLUS: 10 years THEN: Destroy	4/20/2010
37167	Public Swimming Pool Construction Permits (supersedes item #25423)	These records document permits issued for the construction of public and institution pools. They outline the conditions for use.	RETAIN UNTIL: Permit is no longer in effect THEN: Destroy	4/20/2010
37168	Public Swimming Pool Files (supersedes item #25425)	These records document the permitting and design of public swimming pools. They may include, but may not be limited to, correspondence, construction history, operation permit applications, inspections, and supporting documentation.	RETAIN UNTIL: Swimming pool is removed or demolished, and until the fees for inspection are paid to the local health departments NOTE: Correspondence is kept for five years THEN: Destroy	12/20/2011

Item #	Series Title	Series Description	Retention Period	Approval Date
37169	Public Swimming Pool Data (supersedes item #25426)	These records document each public swimming pool. Data may include, but may not be limited to, name, address, phone number, establishment location, mailing location, owner, the four most recent transactions relating to operating permits (i.e., cash receipts, date issued, conditions), construction permits, and inspections.	RETAIN UNTIL: Swimming pool is removed or demolished, and until the fees for inspection are paid to the local health departments THEN: Destroy	4/20/2010
37171	Water Well Log Records (supersedes item #26550)	These records document individual water wells by county, township, range and section. They may include, but may not be limited to, depth of the ground water, location of the well, owner of the well, and the type of formation that was penetrated upon drilling the well.	Permanent	4/20/2010
37172	Water Well Pump Records (supersedes item #26573)	These records document water well pumps. They are 5 x 8 cards that were created prior to 1965. They may include, but may not be limited to, well owners name, location of the well, well depth, static water level, date of water pump installation, and pumping level.	Permanent	4/20/2010
37597	Construction Plans (Act 399 or Act 451) (paper)	These records document construction permits that are issued per Act 399. They may include, but may not be limited to, plans, and supporting documentation.	RETAIN UNTIL: Date created PLUS: 1 year THEN: Destroy	12/20/2011
37598	Construction Plans (Act 399 or Act 451) (microfilm or other authorized media)	These records document construction permits that are issued per Act 399. They may include, but may not be limited to, plans, and supporting documentation.	RETAIN UNTIL: Date created PLUS: 50 years THEN: Destroy	12/20/2011
37599	Permits for Water Systems (Act 399)	These records document construction permits issued in accordance with Act 399.	RETAIN UNTIL: Date created PLUS: 50 years THEN: Destroy	12/20/2011

Item #	Series Title	Series Description	Retention Period	Approval Date
37600	Specifications for Water Systems (Act 399)	These records document construction specifications in compliance with Act 399.	RETAIN UNTIL: Date created PLUS: 50 years THEN: Destroy	12/20/2011
37601	Engineering Reports for Water Systems (Act 399)	These records document planning and design review activities (such as basis of design reports, project plans, other engineering reports, etc.).	RETAIN UNTIL: Approximate design life of the project (defined as at least 20 years) PLUS: 10 years THEN: Destroy	12/20/2011
37602	WaterTrack - Noncommunity Water Supply Data	These records document inventory management and compliance tracking for the Noncommunity Water Supply Program. Local health departments access the database online to update inventory information, generate violation records, and document follow-up and enforcement activities.	Permanent	12/20/2011
37604	Drinking Water Operator Certification and Training Records	These records document training and certification for drinking water and wastewater system operators. Certifications are issued on a three-year renewal cycle. They may include, but may not be limited to, distribution documents, correspondence, full treatment documents, limited treatment documents, and training documents.	RETAIN UNTIL: Operator is no longer certified PLUS: 6 years THEN: Destroy	9/30/2015
37605	Septage Hauler and Treatment Facility Licenses	These records document the licensing of domestic septage haulers and treatment plants. Licenses are issued on a five-year cycle. They may include, but may not be limited to, correspondence, inspection reports, license applications, licenses, credentials, checklists, insurance documents, and vehicle registrations.	RETAIN UNTIL: License expires PLUS: 2 years THEN: Destroy	9/30/2015

SCHEDULE B

Pricing

1. Price proposals must include all costs for the implementation, licensing, and ongoing support of the Solution. Pricing schedule as follows:

- Implementation Services. Contractor must include all costs associated with implementation services (e.g. configuration, migration, integration, testing and training). All costs shall be on a fixed-fee basis, and must correspond to the relevant milestones set forth in the Milestones and Deliverables Section of **Schedule A – Statement of Work**.
- Agile Methodology. During development of the solution, the Agile methodology allows for adjustments to be made to the phases, moving equivalent amounts of work out of Phase 1 and bringing in work from Phase 2.

Table 1. Updated DWEHD Modernization Pricing

Payment Point*	Milestone Event	Associated Milestone Deliverable(s)	Cost	
1	Sprint Zero	Detailed Project Plan	\$179,095.00	\$537,285.00
		Validation Sessions	\$127,925.00	
		Final Requirements Validation and Gap Analysis	\$51,170.00	
		Transition Plan	\$51,170.00	
		Initial Product Backlog	\$127,925.00	
2	Release 1	R1S01 Acceptance	\$124,964.00	\$1,524,597.00
		R1S02 Acceptance	\$124,964.00	
		R1S03 Acceptance	\$124,964.00	
		R1S04 Acceptance	\$124,964.00	
		R1S05 Acceptance	\$124,963.00	
		R1S06 Acceptance	\$124,963.00	
		R1S07 Acceptance	\$124,963.00	
		R1S08 Acceptance	\$124,963.00	
		R1S09 Acceptance	\$124,963.00	
		R1S10 Acceptance	\$124,963.00	
		R1S11 Acceptance	\$124,963.00	
		Release 1 Acceptance	\$150,000.00	
3	Release 2	R2S01 Acceptance	\$124,964.00	\$1,399,634.00
		R2S02 Acceptance	\$124,964.00	
		R2S03 Acceptance	\$124,964.00	

		R2S04 Acceptance	\$124,964.00	
		R2S05 Acceptance	\$124,963.00	
		R2S06 Acceptance	\$124,963.00	
		R2S07 Acceptance	\$124,963.00	
		R2S08 Acceptance	\$124,963.00	
		R2S09 Acceptance	\$124,963.00	
		R2S10 Acceptance	\$124,963.00	
		Release 2 Acceptance	\$150,000.00	
		R3S01 Acceptance	\$124,964.00	
		R3S02 Acceptance	\$124,964.00	
		R3S03 Acceptance	\$124,964.00	
		R3S04 Acceptance	\$124,964.00	
		R3S05 Acceptance	\$124,963.00	
		R3S06 Acceptance	\$124,963.00	
		R3S07 Acceptance	\$124,963.00	
		R3S08 Acceptance	\$124,963.00	
		R3S09 Acceptance	\$124,963.00	
		R3S10 Acceptance	\$124,963.00	
		Release 3 Acceptance	\$150,000.00	
4	Release 3			\$1,399,634.00
		Maintenance and Support (free of charge) of Break/Fix and/or Documented Bugs	\$0.00	
6	Post Production Warranty	Final Test Results report	\$63,962.50	
		Final Training Documentation	\$63,962.50	
		Final Acceptance	\$63,962.50	
		End to End Training (if applicable)	\$63,962.50	
7	Production Support Services	Ongoing after Final Acceptance		
		DDI sub-total		\$5,117,000.00
8	Maintenance and Support Years 4-5	Year 2***	\$75,000.00	
		Year 3***	\$300,000.00	
		Year 4***	\$300,000.00	
		Year 5	\$300,000.00	
				\$975,000.00

9	Hosting Years 1-5	Year 1	\$360,000	\$1,908,000
		Year 2	\$370,800	
		Year 3	\$381,600	
		Year 4	\$392,400	
		Year 5	\$403,200	
		Maintenance, Support and Hosting sub-total		\$2,883,000.00
		Total Cost for Years 1-5		\$8,000,000.00
		Optional Release 4-5***		
10	By Sprint (R4-R5)	Credit if Optional Release 4-5 are exercised		-\$450,000.00
		Technical Specifications	\$886,395.75	\$3,545,583.00
		Wireframes (for new customization)	\$354,558.30	
		User Stories	\$886,395.75	
		Acceptance Criteria	\$354,558.30	
		Test Plans	\$354,558.30	
		Updated Backlog	\$354,558.30	
		Sprint Acceptance	\$354,558.30	
11	By Release (R4-R5)	Training Plans	\$120,189.30	\$1,201,893.00
		Training Materials	\$120,189.30	
		Release Plan	\$180,283.95	
		Training	\$300,473.25	
		Release Acceptance	\$360,567.90	
		Code Delivery to SOM	\$120,189.30	
8	Maintenance and Support Years 6-10	Year 6	\$300,000.00	\$1,500,000.00
		Year 7	\$300,000.00	
		Year 8	\$300,000.00	
		Year 9	\$300,000.00	
		Year 10	\$300,000.00	
9	Hosting Years 6-10	Year 6	\$414,000.00	\$2,070,000.00
		Year 7	\$414,000.00	
		Year 8	\$414,000.00	
		Year 9	\$414,000.00	

	Year 10	\$414,000.00	
	Total Optional Release R4-R5, Maintenance, Support and Hosting sub-total		\$8,317,476.00

***In the event that optional release 4-5 get exercised, year 2 and year 3 of maintenance and support gets removed and year 4 of maintenance and support gets reduced by \$75,000.00.

Detailed Phase 1 Payment Schedule

Contractor will only invoice once a month.

Payment point requirements:

- By Sprint:
 - Accepted sprint
 - Delivery of code for that sprint
 - Delivery of groomed backlog through that sprint
- By Release:
 - Accepted release
 - Delivery of code through that release
 - Delivery of groomed backlog through that release
 - Accepted Training Materials
 - Accepted Delivery of Training
 - Accepted SEM Documents (601, 603, 606, 607, 702, 703 - to be confirmed by SUITE tailoring)

Milestone	Task Name	Price	Estimated Invoice Month
Sprint Zero	Detailed Project Plan	179,095.00	December 2019
	Validation Sessions	\$127,925.00	December 2019
	Final Requirements Validation and Gap Analysis	\$51,170.00	January 2020
	Transition Plan	\$51,170.00	January 2020
	Initial Product Backlog	\$127,925.00	January 2020
Release 1	R1S01 Acceptance	\$124,964.00	February 2020
	R1S02 Acceptance	\$124,964.00	March 2020
	R1S03 Acceptance	\$124,964.00	March 2020
	R1S04 Acceptance	\$124,964.00	March 2020
	R1S05 Acceptance	\$124,963.00	April 2020
	R1S06 Acceptance	\$124,963.00	April 2020

	R1S07 Acceptance	\$124,963.00	May 2020
	R1S08 Acceptance	\$124,963.00	May 2020
	R1S09 Acceptance	\$124,963.00	June 2020
	R1S10 Acceptance	\$124,963.00	July 2020
	R1S11 Acceptance	\$124,963.00	July 2020
	Release 1 Acceptance	\$150,000.00	September 2020
Release 2	R2S01 Acceptance	\$124,964.00	July 2020
	R2S02 Acceptance	\$124,964.00	August 2020
	R2S03 Acceptance	\$124,964.00	September 2020
	R2S04 Acceptance	\$124,964.00	September 2020
	R2S05 Acceptance	\$124,963.00	October 2020
	R2S06 Acceptance	\$124,963.00	October 2020
	R2S07 Acceptance	\$124,963.00	November 2020
	R2S08 Acceptance	\$124,963.00	November 2020
	R2S09 Acceptance	\$124,963.00	November 2020
	R2S10 Acceptance	\$124,963.00	December 2020
	Release 2 Acceptance	\$150,000.00	February 2021
Release 3	R3S01 Acceptance	\$124,964.00	December 2020
	R3S02 Acceptance	\$124,964.00	January 2021
	R3S03 Acceptance	\$124,964.00	January 2021
	R3S04 Acceptance	\$124,964.00	February 2021
	R3S05 Acceptance	\$124,963.00	February 2021
	R3S06 Acceptance	\$124,963.00	March 2021
	R3S07 Acceptance	\$124,963.00	March 2021
	R3S08 Acceptance	\$124,963.00	April 2021
	R3S09 Acceptance	\$124,963.00	April 2021
	R3S10 Acceptance	\$124,963.00	May 2021
	Release 3 Acceptance	\$150,000.00	June 2021

Post Production Warranty	Maintenance and Support (free of charge) of Break/Fix and/or Documented Bugs (Days 0-90)	\$0.00	June 2021
	Final Test Results report	\$63,962.50	June 2021
	Final Training Documentation	\$63,962.50	June 2021
	Final Acceptance	\$63,962.50	June 2021
	End to End Training (if applicable)	\$63,962.50	June 2021
Maintenance and Support	Year 2 Support (Days 271 - 365)	\$75,000.00	August 2021
	Year 3 Support	\$300,000.00	November 2021
	Year 4 Support	\$300,000.00	November 2022
	Year 5 Support	\$300,000.00	November 2023
HOSTING - Year 1	Year 1 - Month 1	\$30,000.00	December 2019
	Year 1 - Month 2	\$30,000.00	January 2020
	Year 1 - Month 3	\$30,000.00	February 2020
	Year 1 - Month 4	\$30,000.00	March 2020
	Year 1 - Month 5	\$30,000.00	April 2020
	Year 1 - Month 6	\$30,000.00	May 2020
	Year 1 - Month 7	\$30,000.00	June 2020
	Year 1 - Month 8	\$30,000.00	July 2020
	Year 1 - Month 9	\$30,000.00	August 2020
	Year 1 - Month 10	\$30,000.00	September 2020
	Year 1 - Month 11	\$30,000.00	October 2020
	Year 1 - Month 12	\$30,000.00	November 2020
HOSTING - Year 2	Year 2 - Month 1	\$30,900.00	December 2020
	Year 2 - Month 2	\$30,900.00	January 2021
	Year 2 - Month 3	\$30,900.00	February 2021
	Year 2 - Month 4	\$30,900.00	March 2021
	Year 2 - Month 5	\$30,900.00	April 2021

HOSTING - Year 3	Year 2 - Month 6	\$30,900.00	May 2021
	Year 2 - Month 7	\$30,900.00	June 2021
	Year 2 - Month 8	\$30,900.00	July 2021
	Year 2 - Month 9	\$30,900.00	August 2021
	Year 2 - Month 10	\$30,900.00	September 2021
	Year 2 - Month 11	\$30,900.00	October 2021
	Year 2 - Month 12	\$30,900.00	November 2021
	Year 3 - Month 1	\$31,800.00	December 2021
	Year 3 - Month 2	\$31,800.00	January 2022
	Year 3 - Month 3	\$31,800.00	February 2022
	Year 3 - Month 4	\$31,800.00	March 2022
	Year 3 - Month 5	\$31,800.00	April 2022
HOSTING - Year 4	Year 3 - Month 6	\$31,800.00	May 2022
	Year 3 - Month 7	\$31,800.00	June 2022
	Year 3 - Month 8	\$31,800.00	July 2022
	Year 3 - Month 9	\$31,800.00	August 2022
	Year 3 - Month 10	\$31,800.00	September 2022
	Year 3 - Month 11	\$31,800.00	October 2022
	Year 3 - Month 12	\$31,800.00	November 2022
	Year 4 - Month 1	\$32,700.00	December 2022
	Year 4 - Month 2	\$32,700.00	January 2023

HOSTING - Year 5	Year 4 - Month 10	\$32,700.00	September 2023
	Year 4 - Month 11	\$32,700.00	October 2023
	Year 4 - Month 12	\$32,700.00	November 2023
	Year 5 - Month 1	\$33,600.00	December 2023
	Year 5 - Month 2	\$33,600.00	January 2024
	Year 5 - Month 3	\$33,600.00	February 2024
	Year 5 - Month 4	\$33,600.00	March 2024
	Year 5 - Month 5	\$33,600.00	April 2024
	Year 5 - Month 6	\$33,600.00	May 2024
	Year 5 - Month 7	\$33,600.00	June 2024
	Year 5 - Month 8	\$33,600.00	July 2024
	Year 5 - Month 9	\$33,600.00	August 2024
	Year 5 - Month 10	\$33,600.00	September 2024
	Year 5 - Month 11	\$33,600.00	October 2024
	Year 5 - Month 12	\$33,600.00	November 2024

Optional Requirements

Contractor payment points and associated milestones and deliverables.

Payment Point	Milestones/Deliverables	Cost
1	Ad Hoc Querying	\$0
2	Analytics	\$0
	TOTAL	\$0

Warranty

Contractor warranty costs for the following durations. Note that the warranty period does not begin until the State has accepted the production implementation of the final release and that warranty costs for day 1-90 will be accounted for in the payment points above.

Warranty Period	Cost
Day 91-180	\$75,000.00
Day 181-270	\$75,000.00
Day 271-365	\$75,000.00

Licensing (Included in the Maintenance & Support Cost)

Licensing	Annual Cost
ePlanSoft	\$32,000.00

Smarty Streets	\$1,000.00
----------------	------------

Rate Card

Fixed-price hourly-rate card for ancillary professional services (e.g. future enhancements configuration services) broken down by role (e.g. Solution design architect).

Rate Card	
Service	Rate Per Hour
Business Analyst	\$115
Business Analyst Lead	\$140
Contract Administrator	\$150
Consultant	\$200
Data Architect	\$140
Database Administrator/Developer	\$125
Developer/Programmer	\$115
Geographic Information System (GIS) Developer	\$140
Project Manager	\$150
Quality Analyst	\$125
Quality Analyst Test Lead	\$130
Security Officer	\$140
Senior Consultant	\$225
Service Manager	\$130
Technical Lead	\$140
Technical/Workflow Architect	\$140
Training Lead	\$130

Ongoing Training

Pricing must include fixed-price fees for ongoing training beyond the initial Implementation Services. Contract will provide post-implementation training services as need by the State. Training will be provided on a time and materials basis, per the rate card above.

SCHEDULE C
Service Level Agreement

1. Definitions. For purposes of this Schedule, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Section 1** shall have the respective meanings given to them in the Contract.

“**Actual Uptime**” means the total minutes in the Service Period that the Hosted Services are Available.

“**Availability**” has the meaning set forth in **Section 4.1**.

“**Availability Requirement**” has the meaning set forth in **Section 4.1**.

“**Available**” has the meaning set forth in **Section 4.1**.

“**Contractor Service Manager**” has the meaning set forth in **Section 3.1**.

“**Corrective Action Plan**” has the meaning set forth in **Section 5.6**.

“**Critical Service Error**” has the meaning set forth in **Section 5.4(a)**.

“**Exceptions**” has the meaning set forth in **Section 4.2**.

“**Force Majeure Event**” has the meaning set forth in **Section 6.1**.

“**High Service Error**” has the meaning set forth in **Section 5.4(a)**.

“**Hosted Services**” has the meaning set forth in **Section 2.1(a)**.

“**Low Service Error**” has the meaning set forth in **Section 5.4(a)**.

“**Medium Service Error**” has the meaning set forth in **Section 5.4(a)**.

“**Resolve**” has the meaning set forth in **Section 5.4(b)**.

“**Scheduled Downtime**” has the meaning set forth in **Section 4.3**.

“**Scheduled Uptime**” means the total minutes in the Service Period.

“**Service Availability Credits**” has the meaning set forth in **Section 4.6(a)**.

“**Service Error**” means any failure of any Hosted Service to be Available or otherwise perform in accordance with this Schedule.

“**Service Level Credits**” has the meaning set forth in **Section 5.5**.

“**Service Level Failure**” means a failure to perform the Software Support Services fully in compliance with the Support Service Level Requirements.

“**Service Period**” has the meaning set forth in **Section 4.1**.

“**Software**” has the meaning set forth in the Contract.

“Software Support Services” has the meaning set forth in **Section 5**.

“State Service Manager” has the meaning set forth in **Section 3.2**.

“State Systems” means the information technology infrastructure, including the computers, software, databases, electronic systems (including database management systems) and networks, of the State or any of its designees.

“Support Request” has the meaning set forth in **Section 5.4(a)**.

“Support Service Level Requirements” has the meaning set forth in **Section 5.4**.

“Term” has the meaning set forth in the Contract.

2. Services.

2.1. Services. Throughout the Term, Contractor will, in accordance with all terms and conditions set forth in the Contract and this Schedule, provide to the State and its Authorized Users the following services :

- (a) the hosting, management and operation of the Software and other services for remote electronic access and use by the State and its Authorized Users (“**Hosted Services**”);
- (b) the Software Support Services set forth in **Section 5** of this Schedule;

3. Personnel

3.1. Contractor Personnel for the Hosted Services. Contractor will appoint a Contractor employee to serve as a primary contact with respect to the Services who will have the authority to act on behalf of Contractor in matters pertaining to the receipt and processing of Support Requests and the Software Support Services (the “**Contractor Service Manager**”). The Contractor Service Manager will be considered Key Personnel under the Contract.

3.2. State Service Manager for the Hosted Services. The State will appoint and, in its reasonable discretion, replace, a State employee to serve as the primary contact with respect to the Services who will have the authority to act on behalf of the State in matters pertaining to the Software Support Services, including the submission and processing of Support Requests (the “**State Service Manager**”).

4. Service Availability and Service Availability Credits.

4.1. Availability Requirement. Contractor will make the Hosted Services Available, as measured over the course of each calendar month during the Term and any additional periods during which Contractor does or is required to perform any Hosted Services (each such calendar month, a “**Service Period**”), at least 99.98% of the time, excluding only the time the Hosted Services are not Available solely as a result of one or more Exceptions (the “**Availability Requirement**”). “**Available**” means the Hosted Services are available and operable for access and use by the State and its Authorized Users over the Internet in material conformity with the Contract. “**Availability**” has a correlative meaning. The Hosted Services are not considered Available in the event of a material performance degradation or inoperability of the Hosted Services, in whole or in part. The Availability Requirement will be calculated for the Service Period as follows: (Actual Uptime – Total Minutes in Service Period Hosted Services are not Available Due to an Exception) ÷ (Scheduled Uptime – Total

Minutes in Service Period Hosted Services are not Available Due to an Exception) x 100 = Availability.

4.2. Exceptions. No period of Hosted Service degradation or inoperability will be included in calculating Availability to the extent that such downtime or degradation is due to any of the following (“**Exceptions**”):

- (a) failures of the State’s or its Authorized Users’ internet connectivity;
- (b) Scheduled Downtime as set forth in **Section 4.3**.

4.3. Scheduled Downtime. Contractor must notify the State at least twenty-four (24) hours in advance of all scheduled outages of the Hosted Services in whole or in part (“**Scheduled Downtime**”). All such scheduled outages will: (a) last no longer than five (5) hours; (b) be scheduled between the hours of 12:00 a.m. and 5:00 a.m., Eastern Time; and (c) occur no more frequently than once per week; provided that Contractor may request the State to approve extensions of Scheduled Downtime above five (5) hours, and such approval by the State may not be unreasonably withheld or delayed.

4.4. Software Response Time. Software response time, defined as the interval from the time the end user sends a transaction to the time a visual confirmation of transaction completion is received, must be less than two (2) seconds for 98% of all transactions. Unacceptable response times shall be considered to make the Software unavailable and will count against the Availability Requirement.

4.5. Service Availability Reports. Within thirty (30) days after the end of each Service Period, Contractor will provide to the State a report describing the Availability and other performance of the Hosted Services during that calendar month as compared to the Availability Requirement. The report must be in electronic or such other form as the State may approve in writing and shall include, at a minimum: (a) the actual performance of the Hosted Services relative to the Availability Requirement; and (b) if Hosted Service performance has failed in any respect to meet or exceed the Availability Requirement during the reporting period, a description in sufficient detail to inform the State of the cause of such failure and the corrective actions the Contractor has taken and will take to ensure that the Availability Requirement are fully met.

4.6. Remedies for Service Availability Failures.

- (a) If the actual Availability of the Hosted Services is less than the Availability Requirement for any Service Period, such failure will constitute a Service Error for which Contractor will issue to the State the following credits on the fees payable for Hosted Services provided during the Service Period (“**Service Availability Credits**”):

Availability	Credit of Fees
≥99.98%	None
<99.98% but ≥99.0%	15%
<99.0% but ≥95.0%	50%

<95.0%	100%
--------	------

- (b) Any Service Availability Credits due under this **Section 4.6** will be applied in accordance with payment terms of the Contract.
- (c) If the actual Availability of the Hosted Services is less than the Availability Requirement in any two (2) of four (4) consecutive Service Periods, then, in addition to all other remedies available to the State, the State may terminate the Contract on written notice to Contractor with no liability, obligation or penalty to the State by reason of such termination.

5. Support and Maintenance Services. Contractor will provide Hosted Service maintenance and support services (collectively, “**Software Support Services**”) in accordance with the provisions of this **Section 5**. The Software Support Services are included in the Services, and Contractor may not assess any additional fees, costs or charges for such Software Support Services.

5.1. Support Service Responsibilities. Contractor will:

- (a) correct all Service Errors in accordance with the Support Service Level Requirements, including by providing defect repair, programming corrections and remedial programming;
- (b) provide unlimited telephone support between 8:00 am to 5:00 pm EST Support Hours
- (c) provide unlimited online support 24 hours a day, seven days a week;
- (d) provide online access to technical support bulletins and other user support information and forums, to the full extent Contractor makes such resources available to its other customers; and
- (e) respond to and Resolve Support Requests as specified in this **Section 5**.

5.2. Service Monitoring and Management. Contractor will continuously monitor and manage the Hosted Services to optimize Availability that meets or exceeds the Availability Requirement. Such monitoring and management includes:

- (a) proactively monitoring on a twenty-four (24) hour by seven (7) day basis all Hosted Service functions, servers, firewall and other components of Hosted Service security;
- (b) if such monitoring identifies, or Contractor otherwise becomes aware of, any circumstance that is reasonably likely to threaten the Availability of the Hosted Service, taking all necessary and reasonable remedial measures to promptly eliminate such threat and ensure full Availability; and
- (c) if Contractor receives knowledge that the Hosted Service or any Hosted Service function or component is not Available (including by written notice from the State pursuant to the procedures set forth herein):
 - (i) confirming (or disconfirming) the outage by a direct check of the associated facility or facilities;
 - (ii) if Contractor's facility check in accordance with clause (i) above confirms a Hosted Service outage in whole or in part: (A) notifying the State in writing pursuant to the

procedures set forth herein that an outage has occurred, providing such details as may be available, including a Contractor trouble ticket number, if appropriate, and time of outage; and (B) working all problems causing and caused by the outage until they are Resolved as Critical Service Errors in accordance with the Support Request Classification set forth in **Section 5.4**, or, if determined to be an internet provider problem, open a trouble ticket with the internet provider; and

- (iii) notifying the State that Contractor has fully corrected the outage and any related problems, along with any pertinent findings or action taken to close the trouble ticket.

5.3. Service Maintenance. Contractor will continuously maintain the Hosted Services to optimize Availability that meets or exceeds the Availability Requirement. Such maintenance services include providing to the State and its Authorized Users:

- (a) all updates, bug fixes, enhancements, maintenance releases, new versions and other improvements to the Hosted Services, including the Software, at no additional charge; provided that Contractor shall consult with the State and is required to receive State approval prior to modifying or upgrading Hosted Services, including Maintenance Releases and New Versions of Software;
- (b) all such services and repairs as are required to maintain the Hosted Services or are ancillary, necessary or otherwise related to the State's or its Authorized Users' access to or use of the Hosted Services, so that the Hosted Services operate properly in accordance with the Contract and this Schedule; and
- (c) Contractor shall provide the State, at no additional charge, adequate Documentation for and maintenance releases or new versions of the Software, which have been developed and tested by Contractor and Accepted by the State.

5.4. Support Service Level Requirements. Contractor will correct all Service Errors and respond to and Resolve all Support Requests in accordance with the required times and other terms and conditions set forth in this **Section 5.4 (“Support Service Level Requirements”)**, and the Contract.

- (a) Support Requests. The State will classify its requests for Service Error corrections in accordance with the descriptions set forth in the chart below (each a “**Support Request**”). The State Service Manager will notify Contractor of Support Requests by email, telephone or such other means as the parties may hereafter agree to in writing.

Support Request Classification	Description: Any Service Error Comprising or Causing any of the Following Events or Effects
Critical Service Error	<ul style="list-style-type: none">• Issue affecting entire system or single critical production function;• System down or operating in materially degraded state;

Support Request Classification	Description: Any Service Error Comprising or Causing any of the Following Events or Effects
	<ul style="list-style-type: none"> • Data integrity at risk; • Material financial impact • Declared a Critical Support Request by the State; or • Widespread access interruptions.
High Service Error	<ul style="list-style-type: none"> • A Critical Service Error for which the State has received, within the Resolution time for Critical Service Error, a work-around that the State has accepted in writing • Primary component failure that materially impairs its performance; or • Data entry or access is materially impaired on a limited basis.
Medium Service Error	<ul style="list-style-type: none"> • Hosted Service is operating with minor issues that can be addressed with an acceptable (as determined by the State) temporary work around. Minor issues, can include, but are not limited to, the following: <ul style="list-style-type: none"> • Issues that do not significantly affect Software functionality • Issues that can or do impair or disable only certain non-essential Software functions • Issues that do not materially affect the State's use of the Software
Low Service Error	<ul style="list-style-type: none"> • Request for assistance, information, or services that are routine in nature.

(b) Response and Resolution Time Service Levels. Response and Resolution times will be measured from the time Contractor receives a Support Request until the respective times Contractor has (i) responded to, in the case of response time and (ii) Resolved such Support Request, in the case of Resolution time. “**Resolve**” (including “**Resolved**”, “**Resolution**” and correlative capitalized terms) means that, as to any Service Error, Contractor has provided the State the corresponding Service Error correction and the State has confirmed such correction and its acceptance thereof. Contractor will respond to and Resolve all Service Errors within the following times based on the severity of the Service Error:

Support Request Classification	Service Level Metric (Required Response Time)	Service Level Metric (Required Resolution Time)	Service Level Credits (For Failure to Respond to any Support Request Within the Corresponding Response Time)	Service Level Credits (For Failure to Resolve any Support Request Within the Corresponding Required Resolution Time)
Critical Service Error	Thirty (30) minutes	Two (2) hours	Five percent (5%) of the Fees for the month in which the initial Service Level Failure begins and five percent (5%) of such monthly Fees for each additional hour or portion thereof that the corresponding Service Error is not responded to within the required response time.	Five percent (5%) of the Fees for the month in which the initial Service Level Failure begins and five percent (5%) of such monthly Fees for the first additional hour or portion thereof that the corresponding Service Error remains un-Resolved, which amount will thereafter double for each additional one-hour increment.
High Service Error	One (1) hour	Four (4) hours	Three percent (3%) of the Fees for the month in which the initial Service Level	Three percent (3%) of the Fees for the month in which the initial Service Level

			Failure begins and three percent (3%) of such monthly Fees for each additional hour or portion thereof that the corresponding Service Error is not responded to within the required response time.	Failure begins and three percent (3%) of such monthly Fees for the first additional hour or portion thereof that the corresponding Service Error remains un-Resolved, which amount will thereafter double for each additional one-hour increment.
Medium Service Error	Two (2) Business Days	Five (5) Business Days	N/A	N/A
Low Service Error	Two (2) Business Days	Ten (10) Business Days	N/A	N/A

(c) Escalation. With respect to any Critical Service Error Support Request, until such Support Request is Resolved, Contractor will escalate that Support Request within sixty (60) minutes of the receipt of such Support Request by the appropriate Contractor support personnel, including, as applicable, the Contractor Service Manager and Contractor's management or engineering personnel, as appropriate.

5.5. Support Service Level Credits. Failure to achieve any of the Support Service Level Requirements for Critical and High Service Errors will constitute a Service Level Failure for which Contractor will issue to the State the corresponding service credits set forth in **Section 5.4(b)** ("Service Level Credits") in accordance with payment terms set forth in the Contract.

5.6. Corrective Action Plan. If two or more Critical Service Errors occur in any thirty (30) day period during (a) the Term or (b) any additional periods during which Contractor does or is required to perform any Hosted Services, Contractor will promptly investigate the root causes of these Service Errors and provide to the State within five (5) Business Days of its receipt of notice of the second such Support Request an analysis of such root causes and a proposed written corrective action plan for the State's review, comment and approval, which, subject to and upon the State's written approval, shall be a part of, and by this reference is incorporated in, the Contract as the parties' corrective action plan (the "Corrective Action Plan"). The Corrective Action Plan must include, at a minimum: (a) Contractor's commitment to the State to devote the appropriate time, skilled personnel, systems support and equipment and other resources necessary to Resolve and prevent any further

occurrences of the Service Errors giving rise to such Support Requests; (b) a strategy for developing any programming, software updates, fixes, patches, etc. necessary to remedy, and prevent any further occurrences of, such Service Errors; and (c) time frames for implementing the Corrective Action Plan. There will be no additional charge for Contractor's preparation or implementation of the Corrective Action Plan in the time frames and manner set forth therein.

6. Force Majeure.

6.1. **Force Majeure Events.** Subject to **Section 6.3**, neither party will be liable or responsible to the other party, or be deemed to have defaulted under or breached the Contract, for any failure or delay in fulfilling or performing any term hereof, when and to the extent such failure or delay is caused by: acts of God, flood, fire or explosion, war, terrorism, invasion, riot or other civil unrest, embargoes or blockades in effect on or after the date of the Contract, national or regional emergency, or any passage of law or governmental order, rule, regulation or direction, or any action taken by a governmental or public authority, including imposing an embargo, export or import restriction, quota or other restriction or prohibition (each of the foregoing, a "**Force Majeure Event**"), in each case provided that: (a) such event is outside the reasonable control of the affected party; (b) the affected party gives prompt written notice to the other party, stating the period of time the occurrence is expected to continue; (c) the affected party uses diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

6.2. **State Performance; Termination.** In the event of a Force Majeure Event affecting Contractor's performance under the Contract, the State may suspend its performance hereunder until such time as Contractor resumes performance. The State may terminate the Contract by written notice to Contractor if a Force Majeure Event affecting Contractor's performance hereunder continues substantially uninterrupted for a period of five (5) Business Days or more. Unless the State terminates the Contract pursuant to the preceding sentence, any date specifically designated for Contractor's performance under the Contract will automatically be extended for a period up to the duration of the Force Majeure Event.

6.3. **Exclusions; Non-suspended Obligations.** Notwithstanding the foregoing or any other provisions of the Contract or this Schedule:

- (a) in no event will any of the following be considered a Force Majeure Event:
 - (i) shutdowns, disruptions or malfunctions of Contractor Systems or any of Contractor's telecommunication or internet services other than as a result of general and widespread internet or telecommunications failures that are not limited to the Contractor Systems; or
 - (ii) the delay or failure of any Contractor Personnel to perform any obligation of Contractor hereunder unless such delay or failure to perform is itself by reason of a Force Majeure Event.
- (b) no Force Majeure Event modifies or excuses Contractor's obligations under **Sections 22** (State Data), **23** (Confidential Information), or **19** (Indemnification) of the Contract, **Section 7** (Disaster Recovery and Backup) of this Schedule, the Availability Requirement defined in this Schedule, or any security requirements under the Contract, the Statement of Work, or applicable Schedule.

7. Disaster Recovery and Backup.

7.1. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will:

- (a) maintain and operate a backup and disaster recovery plan to achieve a Recovery Point Objective (RPO) of 1 hours, and a Recovery Time Objective (RTO) of 1 hours (the “**DR Plan**”), and implement such DR Plan in the event of any unplanned interruption of the Hosted Services. Contractor’s current DR Plan, revision history, and any reports or summaries relating to past testing of or pursuant to the DR Plan are attached as **Schedule F**. Contractor will actively test, review and update the DR Plan on at least an annual basis using industry best practices as guidance. Contractor will provide the State with copies of all such updates to the Plan within fifteen (15) days of its adoption by Contractor. All updates to the DR Plan are subject to the requirements of this **Section 7**; and
- (b) provide the State with copies of all reports resulting from any testing of or pursuant to the DR Plan promptly after Contractor’s receipt or preparation. If Contractor fails to reinstate all material Hosted Services within the periods of time set forth in the DR Plan, the State may, in addition to any other remedies available under this Contract, in its sole discretion, immediately terminate this Contract as a non-curable default.
- (c) maintain any additional backup requirements set forth in the Statement of Work; and
- (d) retain data pursuant to any data retention requirements set forth in the Statement of Work.

7.2. All backed up State Data shall be located in the continental United States. Contractor must, within five (5) Business Days of the State’s request, provide the State, without charge and without any conditions or contingencies whatsoever (including but not limited to the payment of any fees due to Contractor), an extract of State Data in the format specified by the State.

7.3. Discovery. Contractor shall immediately notify the State upon receipt of any requests which in any way might reasonably require access to State Data or the State’s use of the Hosted Services. Contractor shall notify the State Project Manager by the fastest means available and also in writing. In no event shall Contractor provide such notification more than twenty-four (24) hours after Contractor receives the request. Contractor shall not respond to subpoenas, service of process, FOIA requests, and other legal requests related to the State without first notifying the State and obtaining the State’s prior approval of Contractor’s proposed responses. Contractor agrees to provide its completed responses to the State with adequate time for State review, revision and approval

SCHEDULE D
Data Security Requirements

1. Definitions. For purposes of this Schedule, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Section** Error! Reference source not found. shall have the respective meanings given to them in the Contract.

“**Contractor Security Officer**” has the meaning set forth in **Section** Error! Reference source not found. of this Schedule.

“**Contractor Systems**” has the meaning set forth in **Section** Error! Reference source not found. of this Schedule.

“**FedRAMP**” means the Federal Risk and Authorization Management Program, which is a federally approved risk management program that provides a standardized approach for assessing and monitoring the security of cloud products and services.

“**FISMA**” means The Federal Information Security Modernization Act of 2014 (Pub.L. No. 113-283 (Dec. 18, 2014.).

“**Hosting Provider**” identifies a separate third-party subcontractor that is providing any of the hosting service included management and operation of computing hardware, ancillary equipment, networking, Software, firmware, data, other services used to provide Hosting Services; typically identified as a cloud provider.

“**Hosted Services**” means the hosting, management and operation of the computing hardware, ancillary equipment, networking, Software, firmware, data, other services (including support services), and related resources for remote electronic access and use by the State and its Authorized Users, including any services and facilities related to disaster recovery obligations.

“**NIST**” means the National Institute of Standards and Technology.

“**PSP**” means the State’s IT Policies, Standards and Procedures located at:
http://michigan.gov/dtmb/0,4568,7-150-56355_56579_56755---,00.html

“**PCI**” means the Payment Card Industry.

“**SSAE**” means Statement on Standards for Attestation Engagements.

2. Contractor will appoint a Contractor employee to respond to the State’s inquiries regarding the security of the Contractor Systems who has sufficient knowledge of the security of the Contractor Systems and the authority to act on behalf of Contractor in matters pertaining thereto (“**Contractor Security Officer**”). The Contractor Security Officer will be considered Key Personnel under the Contract.

3. Protection of the State’s Confidential Information. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will:

3.1. any Software or Data must be hosted in a FedRAMP authorized computing environment. In the event the Contractor is unable to maintain FedRAMP compliance the State may move the Software and Data to alternate provider at the Contractors cost and expense.

- 3.2. Contractor must maintain a FedRAMP authorized or an annual SSAE 18 SOC 2 Type 2 audit based on NIST moderate controls for the Hosted Services throughout the Term;
- 3.3. ensure that the Software is securely hosted, supported, administered, and accessed in a data center that resides in the continental United States, and minimally meets Uptime Institute Tier 3 standards (www.uptimeinstitute.com), or its equivalent;
- 3.4. maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State's Confidential Information that comply with the requirements of the State's data security policies as set forth in the Contract, and must, at a minimum, remain compliant with FISMA and the NIST Special Publication 800.53 (most recent version) MOD Controls using minimum control values as established in the applicable SOM PSP, and must, at a minimum, remain compliant with FISMA and the NIST Special Publication 800.53 (most recent version) HIGH Controls using minimum control values as established in the applicable SOM PSP;
- 3.5. provide technical and organizational safeguards against accidental, unlawful or unauthorized access to or use, destruction, loss, alteration, disclosure, transfer, commingling or processing of such information that ensure a level of security appropriate to the risks presented by the processing of the State's Confidential Information and the nature of such Confidential Information, consistent with best industry practice and standards;
- 3.6. take all reasonable measures to:
 - (a) secure and defend all locations, equipment, systems and other materials and facilities employed in connection with the Services against "hackers" and others who may seek, without authorization, to disrupt, damage, modify, access or otherwise use Contractor Systems or the information found therein; and
 - (b) prevent (i) the State and its Authorized Users from having access to the data of other customers or such other customer's users of the Services; (ii) the State's Confidential Information from being commingled with or contaminated by the data of other customers or their users of the Services; and (iii) unauthorized access to any of the State's Confidential Information;
- 3.7. ensure that State Data is encrypted in transit and at rest using AES encryption and a key size of 128 bits or higher 256bits;
- 3.8. ensure that State Data is encrypted in transit and at rest using currently certified encryption modules in accordance with FIPS PUB 140-2 (as amended) *Security Requirements for Cryptographic Modules*;
- 3.9. ensure the Hosted Services support Identity Federation/Single Sign-on (SSO) capabilities using Security Assertion Markup Language (SAML) or comparable mechanisms;
- 3.10. ensure the Hosted Services have multi-factor authentication for privileged/administrative access; and
- 3.11. assist the State, at no additional cost, with development and completion of a system security plan using the State's automated governance, risk and compliance (GRC) platform.

4. Unauthorized Access. Contractor may not access, and shall not permit any access to, State systems, in whole or in part, whether through Contractor's Systems or otherwise, without the State's express prior written authorization. Such authorization may be revoked by the State in writing at any time in its sole discretion. Any access to State systems must be solely in accordance with the Contract and this Schedule, and in no case exceed the scope of the State's authorization pursuant to this **Section** Error! Reference source not found.. All State-authorized connectivity or attempted connectivity to State systems shall be only through the State's security gateways and firewalls and in compliance with the State's security policies set forth in the Contract as the same may be supplemented or amended by the State and provided to Contractor from time to time.

5. Contractor Systems. Contractor will be solely responsible for the information technology infrastructure, including all computers, software, databases, electronic systems (including database management systems) and networks used by or for Contractor in connection with the Services ("Contractor Systems") and shall prevent unauthorized access to State systems through the Contractor Systems.

6. Security Audits. During the Term, Contractor will:

6.1. maintain complete and accurate records relating to its data protection practices, IT security controls, and the security logs of any of the State's Confidential Information, including any backup, disaster recovery or other policies, practices or procedures relating to the State's Confidential Information and any other information relevant to its compliance with this Schedule;

6.2. upon the State's request, make all such records, appropriate personnel and relevant materials available during normal business hours for inspection and audit by the State or an independent data security expert that is reasonably acceptable to Contractor, provided that the State: (i) gives Contractor at least five (5) Business Days prior notice of any such audit; (ii) undertakes such audit no more than once per calendar year, except for good cause shown; and (iii) conducts or causes to be conducted such audit in a manner designed to minimize disruption of Contractor's normal business operations and that complies with the terms and conditions of all data confidentiality, ownership, privacy, security and restricted use provisions of the Contract. The State may, but is not obligated to, perform such security audits, which shall, at the State's option and request, include penetration and security tests, of any and all Contractor Systems and their housing facilities and operating environments; and

6.3. if requested by the State, provide a copy of Contractor's SSAE 16 SOC 2 Type 2 audit report to the State within thirty (30) days after Contractor's receipt of such report. Any such audit reports will be recognized as Contractor's Confidential Information.

6.4. if requested by the State, provide a copy of Contractor's FedRAMP System Security Plan. The System Security Plan will be recognized as Contractor's Confidential Information.

7. Nonexclusive Remedy for Security Breach. Any failure of the Services to meet the requirements of this Schedule with respect to the security of any State Data or other Confidential Information of the State, including any related backup, disaster recovery or other policies, practices or procedures, is a material breach of the Contract for which the State, at its option, may terminate the Contract immediately upon written notice to Contractor without any notice or cure period, and Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination.

SCHEDULE E
Disaster Recovery Plan

(Contractor's Disaster Recovery Plan is to be included as an attachment)

SCHEDULE F
Project Schedule and Deliverables

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
1	1	DWEHD IT Modernization Project	1242 days	12/2/19	11/30/24		
2	1.1	Public Water Supply & Environmental Health Programs Solution	745 days	12/2/19	11/30/22		
3	1.1.1	Executed Contract Project Start Date	0 days	12/2/19	12/2/19		
4	1.1.2	Project Initiation	15 days	12/2/19	12/20/19		
5	1.1.2.1	Key Personnel Orientation	5 days	12/2/19	12/6/19		
9	1.1.2.2	Key Personnel Presence	5 days	12/2/19	12/6/19		
12	1.1.2.3	Organization Structure	5 days	12/2/19	12/6/19		
16	1.1.2.4	Project Charter (PMM-0101)	15 days	12/2/19	12/20/19		
22	1.1.2.5	Project Charter Complete	0 days	12/20/19	12/20/19	16	
23	1.1.3	Project Initiation Complete	0 days	12/20/19	12/20/19	22	
24	1.1.4	Sprint Zero (0)	94 days	12/2/19	4/17/20		
25	1.1.4.1	Project Planning / Control	15 days	12/2/19	12/20/19		
26	1.1.4.1.1	Project Kickoff Meeting	10 days	12/2/19	12/13/19		
30	1.1.4.1.2	Project Kickoff Meeting Complete	0 days	12/13/19	12/13/19	26	
31	1.1.4.1.3	SUITE Tailoring	15 days	12/2/19	12/20/19		
37	1.1.4.1.4	SUITE Tailoring Complete	0 days	12/20/19	12/20/19	31	
38	1.1.4.1.5	Project Schedule (Preliminary)	15 days	12/2/19	12/20/19		
45	1.1.4.1.6	Project Schedule (Preliminary) Complete	0 days	12/20/19	12/20/19	38	
46	1.1.4.1.7	Project Management Plan (PMM-0102)	15 days	12/2/19	12/20/19		
52	1.1.4.1.8	Project Management Plan (PMM-0102) Complete	0 days	12/20/19	12/20/19	46	
53	1.1.4.2	Project Planning / Control Complete	0 days	12/20/19	12/20/19	30,37,45,52	
54	1.1.4.3	Requirements Analysis and Design Validation	84 days	12/16/19	4/17/20		
55	1.1.4.3.1	Requirements Analysis / Validation Sessions	69 days	12/16/19	3/27/20		
59	1.1.4.3.2	Requirements Validation and Gap Analysis Report	15 days	3/30/20	4/17/20	55	
65	1.1.4.4	Requirements Analysis & Validation Complete	0 days	4/17/20	4/17/20	54	
66	1.1.4.5	Stakeholder Analysis	44 days	12/16/19	2/21/20		
72	1.1.4.6	Stakeholder Analysis Complete	0 days	2/21/20	2/21/20	66	
73	1.1.4.7	Conduct JAD Sessions	84 days	12/16/19	4/17/20		
75	1.1.4.8	Create System Development Deliverables (Preliminary)	94 days	12/2/19	4/17/20		
76	1.1.4.8.1	Product Backlog Preliminary	94 days	12/2/19	4/17/20		
82	1.1.4.8.2	Product Backlog Preliminary Complete	0 days	4/17/20	4/17/20	76	

83	1.1.4.8.3	Maintenance Plan (SEM-0301) Preliminary	94 days	12/2/19	4/17/20		
89	1.1.4.8.4	Maintenance Plan (SEM-0301) Preliminary Complete	0 days	4/17/20	4/17/20	83	
90	1.1.4.8.5	Software Configuration Management Plan (SEM-0302) Preliminary	94 days	12/2/19	4/17/20		
96	1.1.4.8.6	SCM Plan (SEM-0302) Preliminary Complete	0 days	4/17/20	4/17/20	90	
97	1.1.4.8.7	Requirements Traceability Matrix (SEM-0401) Preliminary	94 days	12/2/19	4/17/20		
103	1.1.4.8.8	Requirements Traceability Matrix (Preliminary) Complete	0 days	4/17/20	4/17/20	97	
104	1.1.4.8.9	Requirements Specification (SEM-0402) Preliminary	94 days	12/2/19	4/17/20		
110	1.1.4.8.10	Requirements Specification (Preliminary) Complete	0 days	4/17/20	4/17/20	104	
111	1.1.4.8.11	Functional Design Document (SEM-0501) Preliminary	94 days	12/2/19	4/17/20		
ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
117	1.1.4.8.12	Functional Design (Preliminary) Complete	0 days	4/17/20	4/17/20	111	
118	1.1.4.8.13	System Design Document (SEM-0604) Preliminary	94 days	12/2/19	4/17/20		
124	1.1.4.8.14	System Design (Preliminary) Complete	0 days	4/17/20	4/17/20	118	
125	1.1.4.8.15	Detailed Test Plan (SEM-0603) Preliminary	94 days	12/2/19	4/17/20		
131	1.1.4.8.16	Detailed Test Plan (Preliminary) Complete	0 days	4/17/20	4/17/20	125	
132	1.1.4.8.17	Test Cases (SEM-0606) Preliminary	94 days	12/2/19	4/17/20		
138	1.1.4.8.18	Test Cases (Preliminary) Complete	0 days	4/17/20	4/17/20	132	
139	1.1.4.8.19	Data Migration & Conversion Plan (SEM-0601) Preliminary	94 days	12/2/19	4/17/20		
145	1.1.4.8.20	Data Migration & Conversion Plan (Preliminary) Complete	0 days	4/17/20	4/17/20	139	
146	1.1.4.8.21	Transition Plan (SEM-0701) Preliminary	94 days	12/2/19	4/17/20		
152	1.1.4.8.22	Transition Plan (SEM-0701) Preliminary Complete	0 days	4/17/20	4/17/20	146	
153	1.1.4.8.23	Installation Plan (SEM-0702) Preliminary	94 days	12/2/19	4/17/20		
159	1.1.4.8.24	Installation Plan (Preliminary) Complete	0 days	4/17/20	4/17/20	153	
160	1.1.4.8.25	Training Plan (SEM-0703) Preliminary	94 days	12/2/19	4/17/20		
166	1.1.4.8.26	Training Plan (Preliminary) Complete	0 days	4/17/20	4/17/20	160	
167	1.1.4.9	Sprint Review and Approval (SEM-0185)	0 days	4/17/20	4/17/20	53,65,72,73,75	
168	1.1.5	Sprint Zero (0) Complete	0 days	4/17/20	4/17/20	167	
169	1.1.6	Provision Externally Hosted Environments	85 days	12/2/19	4/6/20		
170	1.1.6.1	Environment Construction	80 days	12/2/19	3/30/20		
175	1.1.6.2	Environment Validation	70 days	12/23/19	4/6/20		
180	1.1.6.3	Enterprise Architecture Solution Assessment (EASA) Preliminary	25 days	1/13/20	2/18/20	172SS-9 days	
186	1.1.6.4	EASA Preliminary Complete	0 days	2/18/20	2/18/20	180	

187	1.1.6.5	Infrastructure Service Request (DTMB-0184) Hosting Solution	25 days	1/13/20	2/18/20	180SS	
193	1.1.6.6	Infrastructure Service Request (DTMB-0184) Complete	0 days	2/18/20	2/18/20	187	
194	1.1.7	Provision Externally Hosted Environments Complete	0 days	4/6/20	4/6/20	169	
195	1.1.8	Project Governance Processes	730 days	12/23/19	11/30/22		
205	1.1.9	Project Tracking / Control	735 days	12/16/19	11/30/22		
217	1.1.10	Development / Security / Testing / Training	719 days	1/13/20	11/30/22		
218	1.1.10.1	Release 1	171 days	1/13/20	9/14/20		
219	1.1.10.1.1	Conduct JAD Sessions	110 days	2/10/20	7/15/20		
221	1.1.10.1.2	MiLogin Integration	69 days	1/27/20	5/1/20		
225	1.1.10.1.3	MiLogin Integration Complete	0 days	5/1/20	5/1/20	221	
226	1.1.10.1.4	Security Accreditation - Secure Application Development Life Cycle (SA	162 days	1/13/20	8/31/20		
227	1.1.10.1.4.1	System Security Plan (SSP)	161 days	1/13/20	8/28/20		
232	1.1.10.1.4.2	ATO Issued - SSP Published	0 days	8/28/20	8/28/20	231	
233	1.1.10.1.4.3	Application Scanning and Remediation	90 days	4/21/20	8/26/20		
246	1.1.10.1.4.4	Application Scanning and Remediation Complete	0 days	8/26/20	8/26/20	233	
247	1.1.10.1.4.5	Infrastructure Scanning and Remediation	129 days	3/2/20	8/31/20		
290	1.1.10.1.4.6	Infrastructure Scanning and Remediation Complete	0 days	8/31/20	8/31/20	254,261,268,27	
291	1.1.10.1.5	Security Accreditation - SADLC Complete	0 days	8/31/20	8/31/20	232,246,290	
ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
292	1.1.10.1.6	Construction	110 days	2/10/20	7/15/20		
293	1.1.10.1.6.1	Sprint 1 (R1S1)	10 days	2/10/20	2/24/20	24SS+45 days	
302	1.1.10.1.6.2	Sprint 2 (R1S2)	10 days	2/25/20	3/9/20	293	
311	1.1.10.1.6.3	Sprint 3 (R1S3)	10 days	3/10/20	3/23/20	302	
320	1.1.10.1.6.4	Sprint 4 (R1S4)	10 days	3/24/20	4/6/20	311	
329	1.1.10.1.6.5	Sprint 5 (R1S5)	10 days	4/7/20	4/20/20	320	
338	1.1.10.1.6.6	Sprint 6 (R1S6)	10 days	4/21/20	5/4/20	329	
347	1.1.10.1.6.7	Sprint 7 (R1S7)	10 days	5/5/20	5/18/20	338	
356	1.1.10.1.6.8	Sprint 8 (R1S8)	10 days	5/19/20	6/2/20	347	
365	1.1.10.1.6.9	Sprint 9 (R1S9)	10 days	6/3/20	6/16/20	356	
374	1.1.10.1.6.10	Sprint 10 (R1S10)	10 days	6/17/20	6/30/20	365	
383	1.1.10.1.6.11	Sprint 11 (R1S11)	10 days	7/1/20	7/15/20	374	
392	1.1.10.1.7	Release 1 Construction Complete	0 days	7/15/20	7/15/20	292	
393	1.1.10.1.8	User Story Reviews	110 days	2/10/20	7/15/20		
395	1.1.10.1.9	Data Migration & Conversion Plan (SEM-0601)	110 days	2/25/20	7/29/20	302SS	
401	1.1.10.1.10	Data Migration & Conversion Plan Complete	0 days	7/29/20	7/29/20	395	

402	1.1.10.1.11	Data Migration / Conversion - Initial Staging	110 days	2/25/20	7/29/20	302SS	
407	1.1.10.1.12	Data Migration / Conversion - Initial Staging Complete	0 days	7/29/20	7/29/20	402	
408	1.1.10.1.13	DWEHD Sprint UAT Preparation	10 days	2/10/20	2/24/20	293SS	
411	1.1.10.1.14	DWEHD QA/Preliminary UAT	110 days	2/25/20	7/29/20		
423	1.1.10.1.15	Detailed Test Plan (SEM-0603)	100 days	2/10/20	6/30/20	293SS	
429	1.1.10.1.16	Detailed Test Plan Complete	0 days	6/30/20	6/30/20	423	
430	1.1.10.1.17	Test Cases Document (SEM-0606)	120 days	2/10/20	7/29/20	293SS	
436	1.1.10.1.18	Test Cases Document Complete	0 days	7/29/20	7/29/20	430	
437	1.1.10.1.19	Release 1 Installation Plan (SEM-0702)	71 days	4/20/20	7/29/20	159	
443	1.1.10.1.20	Release 1 Installation Plan Complete	0 days	7/29/20	7/29/20	437	
444	1.1.10.1.21	eMichigan Review - ADA Compliance	60 days	5/5/20	7/29/20		
447	1.1.10.1.22	eMichigan Review - ADA Compliance Complete	0 days	7/29/20	7/29/20	446	
448	1.1.10.1.23	Training Plan (SEM-0703)	120 days	2/10/20	7/29/20	293SS	
454	1.1.10.1.24	Training Plan Complete	0 days	7/29/20	7/29/20	448	
455	1.1.10.1.25	Training and Documentation	151 days	2/10/20	9/11/20		
468	1.1.10.1.26	Training and Documentation Complete	0 days	9/11/20	9/11/20	455	
469	1.1.10.1.27	Release 1 to UAT - Install and Configure in Test Environment	5 days	7/30/20	8/5/20	411,443	
472	1.1.10.1.28	Release 1 to UAT Complete	0 days	8/5/20	8/5/20	469	
473	1.1.10.1.29	UAT Entry Criteria Met	0 days	8/5/20	8/5/20	223,472,429,43	
474	1.1.10.1.30	Release 1 User Acceptance Testing (UAT)	15 days	8/6/20	8/26/20	473	
478	1.1.10.1.31	Release 1 UAT Complete	0 days	8/26/20	8/26/20	474	
479	1.1.10.1.32	Test Closure Report (SEM-0607)	5 days	8/27/20	9/2/20	478	
483	1.1.10.1.33	Production Implementation Entry Criteria Met	0 days	9/2/20	9/2/20	482,224,232,44	
484	1.1.10.1.34	Go / No-Go Decision	0 days	9/2/20	9/2/20	483	
ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
485	1.1.10.1.35	Production Implementation	7 days	9/3/20	9/14/20	484	
492	1.1.10.1.36	Production Implementation Complete	0 days	9/14/20	9/14/20	485	
493	1.1.10.2	Go-Live: Release 1	0 days	9/14/20	9/14/20	492	
494	1.1.10.3	Release 1 Acceptance by State	0 days	9/21/20	9/21/20	493FS+5 days	
495	1.1.10.4	Release 1 Code Delivery to State	0 days	9/21/20	9/21/20	493FS+5 days	
496	1.1.10.5	Release 2	151 days	7/16/20	2/26/21		
497	1.1.10.5.1	Conduct JAD Sessions	100 days	7/16/20	12/9/20		
499	1.1.10.5.2	Security Accreditation - Secure Application Development Life Cycle (SA)	151 days	7/16/20	2/26/21		
500	1.1.10.5.2.1	System Security Plan (SSP)	137 days	7/16/20	2/5/21	566SS	
505	1.1.10.5.2.2	ATO Issued - SSP Published	0 days	2/5/21	2/5/21	504	

506	1.1.10.5.2.3	Application Scanning and Remediation	80 days	9/25/20	1/27/21		
519	1.1.10.5.2.4	Application Scanning and Remediation Complete	0 days	1/27/21	1/27/21	506	
520	1.1.10.5.2.5	Infrastructure Scanning and Remediation	118 days	9/1/20	2/26/21		
563	1.1.10.5.2.6	Infrastructure Scanning and Remediation Complete	0 days	2/26/21	2/26/21	527,534,541,54	
564	1.1.10.5.3	Security Accreditation - SADLC Complete	0 days	2/26/21	2/26/21	505,519,563	
565	1.1.10.5.4	Construction	100 days	7/16/20	12/9/20		
566	1.1.10.5.4.1	Sprint 1 (R2S1)	10 days	7/16/20	7/29/20	392	
575	1.1.10.5.4.2	Sprint 2 (R2S2)	10 days	7/30/20	8/12/20	566	
584	1.1.10.5.4.3	Sprint 3 (R2S3)	10 days	8/13/20	8/26/20	575	
593	1.1.10.5.4.4	Sprint 4 (R2S4)	10 days	8/27/20	9/10/20	584	
602	1.1.10.5.4.5	Sprint 5 (R2S5)	10 days	9/11/20	9/24/20	593	
611	1.1.10.5.4.6	Sprint 6 (R2S6)	10 days	9/25/20	10/8/20	602	
620	1.1.10.5.4.7	Sprint 7 (R2S7)	10 days	10/9/20	10/22/20	611	
629	1.1.10.5.4.8	Sprint 8 (R2S8)	10 days	10/23/20	11/6/20	620	
638	1.1.10.5.4.9	Sprint 9 (R2S9)	10 days	11/9/20	11/23/20	629	
647	1.1.10.5.4.10	Sprint 10 (R2S10)	10 days	11/24/20	12/9/20	638	
656	1.1.10.5.5	Release 2 Construction Complete	0 days	12/9/20	12/9/20	565	
657	1.1.10.5.6	User Story Reviews	100 days	7/16/20	12/9/20		
659	1.1.10.5.7	Data Migration & Conversion Plan (SEM-0601)	100 days	7/30/20	12/23/20	575SS	
665	1.1.10.5.8	Data Migration & Conversion Plan Complete	0 days	12/23/20	12/23/20	659	
666	1.1.10.5.9	Data Migration / Conversion - Initial Staging	100 days	7/30/20	12/23/20	575SS	
671	1.1.10.5.10	Data Migration / Conversion - Initial Staging Complete	0 days	12/23/20	12/23/20	666	
672	1.1.10.5.11	DWEHD Sprint UAT Preparation	10 days	7/16/20	7/29/20	566SS	
675	1.1.10.5.12	DWEHD QA/Preliminary UAT	100 days	7/30/20	12/23/20		
686	1.1.10.5.13	Detailed Test Plan (SEM-0603)	90 days	7/30/20	12/9/20	676SS	
692	1.1.10.5.14	Detailed Test Plan Complete	0 days	12/9/20	12/9/20	686	
693	1.1.10.5.15	Test Cases Document (SEM-0606)	100 days	7/30/20	12/23/20	676SS	
699	1.1.10.5.16	Test Cases Document Complete	0 days	12/23/20	12/23/20	693	
700	1.1.10.5.17	Release 2 Installation Plan (SEM-0702)	100 days	7/30/20	12/23/20	676SS	
706	1.1.10.5.18	Release 2 Installation Plan Complete	0 days	12/23/20	12/23/20	700	
ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
707	1.1.10.5.19	eMichigan Review - ADA Compliance	60 days	9/25/20	12/23/20		
710	1.1.10.5.20	eMichigan Review - ADA Compliance Complete	0 days	12/23/20	12/23/20	709	
711	1.1.10.5.21	Training Plan (SEM-0703)	110 days	7/16/20	12/23/20	566SS	
717	1.1.10.5.22	Training Plan Complete	0 days	12/23/20	12/23/20	711	
718	1.1.10.5.23	Training and Documentation	146 days	7/16/20	2/19/21		
731	1.1.10.5.24	Training and Documentation Complete	0 days	2/19/21	2/19/21	718	

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
732	1.1.10.5.25	Release 2 to UAT - Install and Configure in Test Environment	7 days	12/28/20	1/7/21	675,706	
735	1.1.10.5.26	Release 2 to UAT Complete	0 days	1/7/21	1/7/21	732	
736	1.1.10.5.27	UAT Entry Criteria Met	0 days	1/7/21	1/7/21	735,692,699	
737	1.1.10.5.28	Release 2 User Acceptance Testing (UAT)	15 days	1/8/21	1/29/21	736	
741	1.1.10.5.29	Release 2 UAT Complete	0 days	1/29/21	1/29/21	737	
742	1.1.10.5.30	Test Closure Report (SEM-0607)	5 days	2/1/21	2/5/21	741	
746	1.1.10.5.31	Production Implementation Entry Criteria Met	0 days	2/5/21	2/5/21	745,505,710	
747	1.1.10.5.32	Go / No-Go Decision	0 days	2/5/21	2/5/21	746	
748	1.1.10.5.33	Production Implementation	10 days	2/8/21	2/22/21	747	
755	1.1.10.5.34	Production Implementation Complete	0 days	2/22/21	2/22/21	748	
756	1.1.10.6	Go-Live: Release 2	0 days	2/22/21	2/22/21	755	
757	1.1.10.7	Release 2 Acceptance by State	0 days	3/1/21	3/1/21	756FS+5 days	
758	1.1.10.8	Release 2 Code Delivery to State	0 days	3/1/21	3/1/21	756FS+5 days	
759	1.1.10.9	Release 3	159 days	12/10/20	7/30/21		
760	1.1.10.9.1	Conduct JAD Sessions	100 days	12/10/20	5/6/21		
762	1.1.10.9.2	Security Accreditation - Secure Application Development Life Cycle (SA)	159 days	12/10/20	7/30/21		
763	1.1.10.9.2.1	System Security Plan (SSP)	135 days	12/10/20	6/25/21	822SS	
768	1.1.10.9.2.2	ATO Issued - SSP Published	0 days	6/25/21	6/25/21	767	
769	1.1.10.9.2.3	Application Scanning and Remediation	80 days	2/26/21	6/18/21		
782	1.1.10.9.2.4	Application Scanning and Remediation Complete	0 days	6/18/21	6/18/21	769	
783	1.1.10.9.2.5	Infrastructure Scanning and Remediation	108 days	3/1/21	7/30/21		
819	1.1.10.9.2.6	Infrastructure Scanning and Remediation Complete	0 days	7/30/21	7/30/21	790,797,804,81	
820	1.1.10.9.3	Security Accreditation - SADLC Complete	0 days	7/30/21	7/30/21	768,782,819	
821	1.1.10.9.4	Construction	100 days	12/10/20	5/6/21		
822	1.1.10.9.4.1	Sprint 1 (R3S1)	10 days	12/10/20	12/23/20	656	
831	1.1.10.9.4.2	Sprint 2 (R3S2)	10 days	12/28/20	1/12/21	822	
840	1.1.10.9.4.3	Sprint 3 (R3S3)	10 days	1/13/21	1/27/21	831	
849	1.1.10.9.4.4	Sprint 4 (R3S4)	10 days	1/28/21	2/10/21	840	
858	1.1.10.9.4.5	Sprint 5 (R3S5)	10 days	2/11/21	2/25/21	849	
867	1.1.10.9.4.6	Sprint 6 (R3S6)	10 days	2/26/21	3/11/21	858	
876	1.1.10.9.4.7	Sprint 7 (R3S7)	10 days	3/12/21	3/25/21	867	
885	1.1.10.9.4.8	Sprint 8 (R3S8)	10 days	3/26/21	4/8/21	876	
894	1.1.10.9.4.9	Sprint 9 (R3S9)	10 days	4/9/21	4/22/21	885	
903	1.1.10.9.4.10	Sprint 10 (R3S10)	10 days	4/23/21	5/6/21	894	

912	1.1.10.9.5	Release 3 Construction Complete	0 days	5/6/21	5/6/21	821	
913	1.1.10.9.6	User Story Reviews	100 days	12/10/20	5/6/21		
915	1.1.10.9.7	Data Migration & Conversion Plan (SEM-0601)	100 days	12/28/20	5/20/21	831SS	
921	1.1.10.9.8	Data Migration & Conversion Plan Complete	0 days	5/20/21	5/20/21	915	
922	1.1.10.9.9	Data Migration / Conversion - Initial Staging	100 days	12/28/20	5/20/21	831SS	
927	1.1.10.9.10	Data Migration / Conversion - Initial Staging Complete	0 days	5/20/21	5/20/21	922	
928	1.1.10.9.11	DWEHD Sprint UAT Preparation	10 days	12/10/20	12/23/20	822SS	
931	1.1.10.9.12	DWEHD QA/Preliminary UAT	100 days	12/28/20	5/20/21		
942	1.1.10.9.13	Detailed Test Plan (SEM-0603)	100 days	12/10/20	5/6/21	822SS	
948	1.1.10.9.14	Detailed Test Plan Complete	0 days	5/6/21	5/6/21	942	
949	1.1.10.9.15	Test Cases Document (SEM-0606)	110 days	12/10/20	5/20/21	822SS	
955	1.1.10.9.16	Test Cases Document Complete	0 days	5/20/21	5/20/21	949	
956	1.1.10.9.17	Release 3 Installation Plan (SEM-0702)	110 days	12/10/20	5/20/21	822SS	
962	1.1.10.9.18	Release 3 Installation Plan Complete	0 days	5/20/21	5/20/21	956	
963	1.1.10.9.19	eMichigan Review - ADA Compliance	60 days	2/26/21	5/20/21		
966	1.1.10.9.20	eMichigan Review - ADA Compliance Complete	0 days	5/20/21	5/20/21	965	
967	1.1.10.9.21	Training Plan (SEM-0703)	110 days	12/10/20	5/20/21	822SS	
973	1.1.10.9.22	Training Plan Complete	0 days	5/20/21	5/20/21	967	
974	1.1.10.9.23	Training and Documentation	144 days	12/10/20	7/9/21		
991	1.1.10.9.24	Training and Documentation Complete	0 days	7/9/21	7/9/21	974	
992	1.1.10.9.25	Release 3 to UAT - Install and Configure in Test Environment	5 days	5/21/21	5/27/21	931,962	
995	1.1.10.9.26	Release 3 to UAT Complete	0 days	5/27/21	5/27/21	992	
996	1.1.10.9.27	UAT Entry Criteria Met	0 days	5/27/21	5/27/21	995,948,955	
997	1.1.10.9.28	Release 3 User Acceptance Testing (UAT)	15 days	5/28/21	6/18/21	996	
1001	1.1.10.9.29	Release 3 UAT Complete	0 days	6/18/21	6/18/21	997	
1002	1.1.10.9.30	Test Closure Report (SEM-0607)	5 days	6/21/21	6/25/21	1001	
1006	1.1.10.9.31	Production Implementation Entry Criteria Met	0 days	6/25/21	6/25/21	1005,768,966	
1007	1.1.10.9.32	Go / No-Go Decision	0 days	6/25/21	6/25/21	1006	
1008	1.1.10.9.33	Production Implementation	10 days	6/28/21	7/12/21	1007	
1015	1.1.10.9.34	Production Implementation Complete	0 days	7/12/21	7/12/21	1008	
1016	1.1.10.10	Go-Live: Release 3	0 days	7/12/21	7/12/21	1015	
1017	1.1.10.11	Release 3 Acceptance by State	0 days	7/19/21	7/19/21	1016FS+5 days	
1018	1.1.10.12	Release 3 Code Delivery to State	0 days	7/19/21	7/19/21	1016FS+5 days	
1019	1.1.10.13	Release 4 - Optional	223 days	5/7/21	3/31/22		
020	1.1.10.13.1	Conduct JAD Sessions	170 days	5/7/21	1/13/22		
1022	1.1.10.13.2	Security Accreditation - Secure Application Development Life Cycle (SA)	223 days	5/7/21	3/31/22		

1023	1.1.10.13.2.1	System Security Plan (SSP)	205 days	5/7/21	3/7/22	1103SS	
1028	1.1.10.13.2.2	ATO Issued - SSP Published	0 days	3/7/22	3/7/22	1027	
1029	1.1.10.13.2.3	Application Scanning and Remediation	120 days	8/31/21	2/28/22		
1042	1.1.10.13.2.4	Application Scanning and Remediation Complete	0 days	2/28/22	2/28/22	1029	
ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
1043	1.1.10.13.2.5	Infrastructure Scanning and Remediation	164 days	8/2/21	3/31/22		
1100	1.1.10.13.2.6	Infrastructure Scanning and Remediation Complete	0 days	3/31/22	3/31/22	1050,1057,1064	
1101	1.1.10.13.3	Security Accreditation - SADLC Complete	0 days	3/31/22	3/31/22	1028,1042,1100	
1102	1.1.10.13.4	Construction	170 days	5/7/21	1/13/22		
1103	1.1.10.13.4.1	Sprint 1 (R4S1)	10 days	5/7/21	5/20/21	912	
1112	1.1.10.13.4.2	Sprint 2 (R4S2)	10 days	5/21/21	6/4/21	1103	
1121	1.1.10.13.4.3	Sprint 3 (R4S3)	10 days	6/7/21	6/18/21	1112	
1130	1.1.10.13.4.4	Sprint 4 (R4S4)	10 days	6/21/21	7/2/21	1121	
1139	1.1.10.13.4.5	Sprint 5 (R4S5)	10 days	7/6/21	7/19/21	1130	
1148	1.1.10.13.4.6	Sprint 6 (R4S6)	10 days	7/20/21	8/2/21	1139	
1157	1.1.10.13.4.7	Sprint 7 (R4S7)	10 days	8/3/21	8/16/21	1148	
1166	1.1.10.13.4.8	Sprint 8 (R4S8)	10 days	8/17/21	8/30/21	1157	
1175	1.1.10.13.4.9	Sprint 9 (R4S9)	10 days	8/31/21	9/14/21	1166	
1184	1.1.10.13.4.10	Sprint 10 (R4S10)	10 days	9/15/21	9/28/21	1175	
1193	1.1.10.13.4.11	Sprint 11 (R4S11)	10 days	9/29/21	10/12/21	1184	
1202	1.1.10.13.4.12	Sprint 12 (R4S12)	10 days	10/13/21	10/26/21	1193	
1211	1.1.10.13.4.13	Sprint 13 (R4S13)	10 days	10/27/21	11/9/21	1202	
1220	1.1.10.13.4.14	Sprint 14 (R4S14)	10 days	11/10/21	11/24/21	1211	
1229	1.1.10.13.4.15	Sprint 15 (R4S15)	10 days	11/29/21	12/10/21	1220	
1238	1.1.10.13.4.16	Sprint 16 (R4S16)	10 days	12/13/21	12/28/21	1229	
1247	1.1.10.13.4.17	Sprint 17 (R4S17)	10 days	12/29/21	1/13/22	1238	
1256	1.1.10.13.5	Release 4 Construction Complete	0 days	1/13/22	1/13/22	1102	
1257	1.1.10.13.6	User Story Reviews	170 days	5/7/21	1/13/22		
1259	1.1.10.13.7	Data Migration & Conversion Plan (SEM-0601)	170 days	5/21/21	1/28/22	1112SS	
1265	1.1.10.13.8	Data Migration & Conversion Plan Complete	0 days	1/28/22	1/28/22	1259	
1266	1.1.10.13.9	Data Migration / Conversion - Initial Staging	170 days	5/21/21	1/28/22	1112SS	
1271	1.1.10.13.10	Data Migration / Conversion - Initial Staging Complete	0 days	1/28/22	1/28/22	1266	
1272	1.1.10.13.11	DWEHD Sprint UAT Preparation	10 days	5/7/21	5/20/21	1103SS	
1275	1.1.10.13.12	DWEHD QA/Preliminary UAT	170 days	5/21/21	1/28/22		
1293	1.1.10.13.13	Detailed Test Plan (SEM-0603)	160 days	5/7/21	12/28/21	1103SS	
1299	1.1.10.13.14	Detailed Test Plan Complete	0 days	12/28/21	12/28/21	1293	

1300	1.1.10.13.15	Test Cases Document (SEM-0606)	180 days	5/7/21	1/28/22	1103SS	
1306	1.1.10.13.16	Test Cases Document Complete	0 days	1/28/22	1/28/22	1300	
1307	1.1.10.13.17	Release 4 Installation Plan (SEM-0702)	180 days	5/7/21	1/28/22	1103SS	
1313	1.1.10.13.18	Release 4 Installation Plan Complete	0 days	1/28/22	1/28/22	1307	
1314	1.1.10.13.19	eMichigan Review - ADA Compliance	90 days	9/15/21	1/28/22		
1317	1.1.10.13.20	eMichigan Review - ADA Compliance Complete	0 days	1/28/22	1/28/22	1316	
1318	1.1.10.13.21	Training Plan (SEM-0703)	180 days	5/7/21	1/28/22	1103SS	
1324	1.1.10.13.22	Training Plan Complete	0 days	1/28/22	1/28/22	1318	
1325	1.1.10.13.23	Training and Documentation	214 days	5/7/21	3/18/22		
ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
1338	1.1.10.13.24	Training and Documentation Complete	0 days	3/18/22	3/18/22	1325	
1339	1.1.10.13.25	Release 4 to UAT - Install and Configure in Test Environment	5 days	1/31/22	2/4/22	1275,1313	
1342	1.1.10.13.26	Release 4 to UAT Complete	0 days	2/4/22	2/4/22	1339	
1343	1.1.10.13.27	UAT Entry Criteria Met	0 days	2/4/22	2/4/22	1342,1299,1306	
1344	1.1.10.13.28	Release 4 User Acceptance Testing (UAT)	15 days	2/7/22	2/28/22	1343	
1348	1.1.10.13.29	Release 4 UAT Complete	0 days	2/28/22	2/28/22	1344	
1349	1.1.10.13.30	Test Closure Report (SEM-0607)	5 days	3/1/22	3/7/22	1348	
1353	1.1.10.13.31	Production Implementation Entry Criteria Met	0 days	3/7/22	3/7/22	1352,1028,1317	
1354	1.1.10.13.32	Go / No-Go Decision	0 days	3/7/22	3/7/22	1353	
1355	1.1.10.13.33	Production Implementation	10 days	3/8/22	3/21/22	1354	
1362	1.1.10.13.34	Production Implementation Complete	0 days	3/21/22	3/21/22	1355	
1363	1.1.10.14	Go-Live: Release 4 - Optional	0 days	3/21/22	3/21/22	1362	
1364	1.1.10.15	Release 4 Acceptance by State - Optional	0 days	3/28/22	3/28/22	1363FS+5 days	
1365	1.1.10.16	Release 4 Code Delivery to State - Optional	0 days	3/28/22	3/28/22	1363FS+5 days	
1366	1.1.10.17	Release 5 - Optional	220 days	1/14/22	11/30/22		
1367	1.1.10.17.1	Conduct JAD Sessions	170 days	1/14/22	9/15/22		
1369	1.1.10.17.2	Security Accreditation - Secure Application Development Life Cycle (SA)	220 days	1/14/22	11/30/22		
1370	1.1.10.17.2.1	System Security Plan (SSP)	205 days	1/14/22	11/3/22	1450SS	
1375	1.1.10.17.2.2	ATO Issued - SSP Published	0 days	11/3/22	11/3/22	1374	
1376	1.1.10.17.2.3	Application Scanning and Remediation	120 days	5/10/22	10/27/22		
1389	1.1.10.17.2.4	Application Scanning and Remediation Complete	0 days	10/27/22	10/27/22	1376	
1390	1.1.10.17.2.5	Infrastructure Scanning and Remediation	167 days	4/1/22	11/30/22	1100	
1447	1.1.10.17.2.6	Infrastructure Scanning and Remediation Complete	0 days	11/30/22	11/30/22	1397,1404,1411	
1448	1.1.10.17.3	Security Accreditation - SADLC Complete	0 days	11/30/22	11/30/22	1375,1389,1447	
1449	1.1.10.17.4	Construction	170 days	1/14/22	9/15/22		

1450	1.1.10.17.4.1	Sprint 1 (R5S1)	10 days	1/14/22	1/28/22	1256	
1459	1.1.10.17.4.2	Sprint 2 (R5S2)	10 days	1/31/22	2/11/22	1450	
1468	1.1.10.17.4.3	Sprint 3 (R5S3)	10 days	2/14/22	2/28/22	1459	
1477	1.1.10.17.4.4	Sprint 4 (R5S4)	10 days	3/1/22	3/14/22	1468	
1486	1.1.10.17.4.5	Sprint 5 (R5S5)	10 days	3/15/22	3/28/22	1477	
1495	1.1.10.17.4.6	Sprint 6 (R5S6)	10 days	3/29/22	4/11/22	1486	
1504	1.1.10.17.4.7	Sprint 7 (R5S7)	10 days	4/12/22	4/25/22	1495	
1513	1.1.10.17.4.8	Sprint 8 (R5S8)	10 days	4/26/22	5/9/22	1504	
1522	1.1.10.17.4.9	Sprint 9 (R5S9)	10 days	5/10/22	5/23/22	1513	
1531	1.1.10.17.4.10	Sprint 10 (R5S10)	10 days	5/24/22	6/7/22	1522	
1540	1.1.10.17.4.11	Sprint 11 (R5S11)	10 days	6/8/22	6/21/22	1531	
1549	1.1.10.17.4.12	Sprint 12 (R5S12)	10 days	6/22/22	7/6/22	1540	
1558	1.1.10.17.4.13	Sprint 13 (R5S13)	10 days	7/7/22	7/20/22	1549	
1567	1.1.10.17.4.14	Sprint 14 (R5S14)	10 days	7/21/22	8/3/22	1558	
1576	1.1.10.17.4.15	Sprint 15 (R5S15)	10 days	8/4/22	8/17/22	1567	
ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
1585	1.1.10.17.4.16	Sprint 16 (R5S16)	10 days	8/18/22	8/31/22	1576	
1594	1.1.10.17.4.17	Sprint 17 (R5S17)	10 days	9/1/22	9/15/22	1585	
1603	1.1.10.17.5	Release 5 Construction Complete	0 days	9/15/22	9/15/22	1449	
1604	1.1.10.17.6	User Story Reviews	170 days	1/14/22	9/15/22		
1606	1.1.10.17.7	Data Migration & Conversion Plan (SEM-0601)	170 days	1/31/22	9/29/22	1459SS	
1612	1.1.10.17.8	Data Migration & Conversion Plan Complete	0 days	9/29/22	9/29/22	1606	
1613	1.1.10.17.9	Data Migration / Conversion - Initial Staging	170 days	1/31/22	9/29/22	1459SS	
1618	1.1.10.17.10	Data Migration / Conversion - Initial Staging Complete	0 days	9/29/22	9/29/22	1613	
1619	1.1.10.17.11	DWEHD Sprint UAT Preparation	10 days	1/14/22	1/28/22	1450SS	
1622	1.1.10.17.12	DWEHD QA/Preliminary UAT	170 days	1/31/22	9/29/22		
1640	1.1.10.17.13	Detailed Test Plan (SEM-0603)	160 days	1/14/22	8/31/22	1450SS	
1646	1.1.10.17.14	Detailed Test Plan Complete	0 days	8/31/22	8/31/22	1640	
1647	1.1.10.17.15	Test Cases Document (SEM-0606)	180 days	1/14/22	9/29/22	1450SS	
1653	1.1.10.17.16	Test Cases Document Complete	0 days	9/29/22	9/29/22	1647	
1654	1.1.10.17.17	Release 5 Installation Plan (SEM-0702)	180 days	1/14/22	9/29/22	1450SS	
1660	1.1.10.17.18	Release 5 Installation Plan Complete	0 days	9/29/22	9/29/22	1654	
1661	1.1.10.17.19	eMichigan Review - ADA Compliance	90 days	5/24/22	9/29/22		
1664	1.1.10.17.20	eMichigan Review - ADA Compliance Complete	0 days	9/29/22	9/29/22	1663	
1665	1.1.10.17.21	Training Plan (SEM-0703)	180 days	1/14/22	9/29/22	1450SS	
1671	1.1.10.17.22	Training Plan Complete	0 days	9/29/22	9/29/22	1665	
1672	1.1.10.17.23	Training and Documentation	214 days	1/14/22	11/18/22		

1685	1.1.10.17.24	Training and Documentation Complete	0 days	11/18/22	11/18/22	1672	
1686	1.1.10.17.25	Release 5 to UAT - Install and Configure in Test Environment	5 days	9/30/22	10/6/22	1622,1660	
1689	1.1.10.17.26	Release 5 to UAT Complete	0 days	10/6/22	10/6/22	1686	
1690	1.1.10.17.27	UAT Entry Criteria Met	0 days	10/6/22	10/6/22	1689,1646,1653	
1691	1.1.10.17.28	Release 5 User Acceptance Testing (UAT)	15 days	10/7/22	10/27/22	1690	
1695	1.1.10.17.29	Release 5 UAT Complete	0 days	10/27/22	10/27/22	1691	
1696	1.1.10.17.30	Test Closure Report (SEM-0607)	5 days	10/28/22	11/3/22	1695	
1700	1.1.10.17.31	Production Implementation Entry Criteria Met	0 days	11/3/22	11/3/22	1699,1375,1664	
1701	1.1.10.17.32	Go / No-Go Decision	0 days	11/3/22	11/3/22	1700	
1702	1.1.10.17.33	Production Implementation	10 days	11/4/22	11/21/22	1701	
1709	1.1.10.17.34	Production Implementation Complete	0 days	11/21/22	11/21/22	1702	
1710	1.1.10.18	Go-Live: Release 5 - Optional	0 days	11/21/22	11/21/22	1709	
1711	1.1.10.19	Release 5 Acceptance by State - Optional	0 days	11/30/22	11/30/22	1710FS+5 days	
1712	1.1.10.20	Release 5 Code Delivery to State - Optional	0 days	11/30/22	11/30/22	1710FS+5 days	
1713	1.1.11	Development / Security / Testing / Training Complete	0 days	11/30/22	11/30/22	217	
1714	1.1.12	System Development Deliverables - Release 3	296 days	4/20/20	6/25/21		
1715	1.1.12.1	Product Backlog	296 days	4/20/20	6/25/21	76	
1721	1.1.12.2	Product Backlog Complete	0 days	6/25/21	6/25/21	1715	
1722	1.1.12.3	Maintenance Plan (SEM-0301)	296 days	4/20/20	6/25/21	83	
ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Initials
1728	1.1.12.4	Maintenance Plan Complete	0 days	6/25/21	6/25/21	1722	
1729	1.1.12.5	Software Configuration Management Plan (SEM-0302)	296 days	4/20/20	6/25/21	90	
1735	1.1.12.6	Software Configuration Management Plan Complete	0 days	6/25/21	6/25/21	1729	
1736	1.1.12.7	Requirements Traceability Matrix (SEM-0401)	296 days	4/20/20	6/25/21	97	
1742	1.1.12.8	Requirements Traceability Matrix Complete	0 days	6/25/21	6/25/21	1736	
1743	1.1.12.9	Requirements Specification Document (SEM-0402)	296 days	4/20/20	6/25/21	104	
1749	1.1.12.10	Requirements Specification Document Complete	0 days	6/25/21	6/25/21	1743	
1750	1.1.12.11	Functional Design Document (SEM-0501)	296 days	4/20/20	6/25/21	111	
1756	1.1.12.12	Functional Design Complete	0 days	6/25/21	6/25/21	1750	
1757	1.1.12.13	System Design Document (SEM-0604)	296 days	4/20/20	6/25/21	118	
1763	1.1.12.14	System Design Complete	0 days	6/25/21	6/25/21	1757	
1764	1.1.12.15	Transition Plan (SEM-0701)	296 days	4/20/20	6/25/21	146	
1770	1.1.12.16	Transition Plan Complete	0 days	6/25/21	6/25/21	1764	
1771	1.1.13	System Development Deliverables - Release 3 Complete	0 days	6/25/21	6/25/21	1714	
1772	1.2	Project Closeout - Release 3	30 days	7/19/21	8/27/21		
1773	1.2.1	Project Closure Report (PMM-0104)	30 days	7/19/21	8/27/21	1017FS-1 day	

1779	1.3	Project Closeout - Release 3 Complete	0 days	8/27/21	8/27/21	1772		
1780	1.4	Release 1-3 Warranty	269 days	9/14/20	10/12/21			
1786	1.5	Release 1-3 Warranty Complete	0 days	10/12/21	10/12/21	1780		
1787	1.6	Optional Extended Warranty Support	33 days	10/12/21	11/30/21	1784FS-1 day	KL&A	
1788	1.7	Year 3 Production Maintenance & Support Services	248 days	12/1/21	11/30/22	1787	KL&A	
1789	1.8	Year 4 Production Maintenance & Support Services	249 days	12/1/22	11/30/23	1788	KL&A	
1790	1.9	Year 5 Production Maintenance & Support Services	248 days	12/1/23	11/30/24	1789	KL&A	

SCHEDULE G
Business Requirement Scoping by Phase

Area	Phase 1 – Release 1-3 Scope	Phase 2 – Release 4-5 Optional Scope
Regulated Entity Data Management	<p>Program/Business Areas: Campground, CWS, NCWS, Onsite Wastewater, Public Swimming Pools, Septage</p> <ul style="list-style-type: none"> • All functionality and data is protected based on user roles. • Single table of core functional data (status, key regulated data elements), expectation is 5-30 columns of functional data. • Common data elements, such as primary entities (e.g. campgrounds, water supplies), contacts, sites, permits, notes, etc. will be identified and managed through the solution. • Searching, filtering, sorting, and exporting will be available for all primary entities. • Related entities and data elements will be linked throughout the system, with sorting and pagination available. • Each entity will have categorized documents attached. • Permits and licenses will be generated, stored, and communicated as appropriate. 	<p>Program/Business Areas: Operator Training/Certification, Water Hauler, PWS (related to SDWIS Prime), Source Water Protection Grant</p> <ul style="list-style-type: none"> • Management of the above entities with all functionality from releases 1-3. • Configuration of criteria, such as administratively complete criteria or approval criteria. • Additional data specific to a regulated entity will be modeled and captured in a structured fashion. • Context sensitive help will be curated and displayed appropriately. • The Operator Training / Certification program will be managed through the solution, including the actual operators and their demographic details and status of their license.
Workflow	<p>Customizable, dynamic workflow engine, integrated with all major entities, updatable by workflow administrators</p> <ul style="list-style-type: none"> • Dynamic workflows will be configured in the solution (see Appendix B), allowing configuration managers 	<p>Automatically enforced definitions of administratively complete data, sub workflows</p> <ul style="list-style-type: none"> • Data-driven conditional workflows

	<p>to adjust workflows to meet their changing needs.</p> <ul style="list-style-type: none"> • All entities that need workflows will be identified and configured for workflow support. This will include workflows for major entities and workflows related to document templates, applications, and other to-be-determined entities. • Business processes related to all items in requirement 56.0 will be supported, with minimal required business process changes. • Workgroups will form the foundation for user assignment. Workflows will start and sometimes transition based on a variety of triggers including functional system interactions, timers, and manual decisions. • Insight into the current status of open workflows will be readily available to users based on workgroups, or through interaction with entities that have workflows associated with them. • Workflows will guide communication between internal and external users, and modify functional data such as application statuses. 	<ul style="list-style-type: none"> • Enforcement of administratively complete criteria within a workflow. • Spawning of sub-workflows that can be waited on for completion before resuming the primary workflow. • Additional notification options based on correspondence updates, such as using SMS messages or submission portal notifications.
Forms	<p>Dynamic form builder, mapping to data elements, long term retention</p> <ul style="list-style-type: none"> • A form builder that supports the functionality described in Appendix A will replace the bulk of the PDF forms that are printed, filled out, and mailed or emailed back to program staff. • Forms outlined in 70.1 and the normal suite of monitoring and reporting forms will be recreated with minor modifications by program staff using the 	<p>Automatic scoring, cross-field validation / logic</p> <ul style="list-style-type: none"> • Add business logic for automatically scoring an application. Includes configuration tables to meet changing business needs. • Allow fields to be enabled / disabled or have their options altered based on inputs in other fields.

	<p>form builder. The look and feel of these forms will change compared to the current PDF versions.</p> <ul style="list-style-type: none"> • Functional data that needs to be captured, such as required documentation for a quarterly payment disbursement, will be captured in non-structured data stores tied to dynamic forms. • Form data that maps to functional data stored on a regulated entity may be configured to directly update the regulated entity. These mapped fields will be displayed with the entity, and will be searchable and reportable. • PDF versions of a blank form will be generated from a dynamic form configuration for those scenarios where the form needs to be printed out and completed in hard copy. 	<ul style="list-style-type: none"> • Provide in-line help as the user fills out the form.
Correspondence	<p>Templated letters, email and in-app communication, tracking of all correspondence</p> <ul style="list-style-type: none"> • Letter templates that are easily edited and support variable replacement similar to mail-merge will be managed directly through the system. • Unlimited general templates that are generated on demand may be created and uploaded. Many templates will be automatically generated and sent to recipients during a workflow process. • Letters may be automatically sent to a configurable set of recipients via email. Links to supporting documents or direct attachments will be included in the email. 	<ul style="list-style-type: none"> • SMS Notification delivery • Batched print center integration

	<ul style="list-style-type: none"> Letters or comments may also appear as part of in-app notifications to facilitate internal communication. Communication will be stored with the associated entity, and will be easily retrieved through the solution. 	
Plan Review	<p>ePlanSoft reviews, integration with Workflow</p> <ul style="list-style-type: none"> A plan PDF associated with any functional entity can be forwarded to external ePlan software to initiate a third-party plan review activity. Completed plan from third party plan review software will flow into solution, causing associated workflows to continue to the next step. KL&A proposes ePlanSoft as the plan review software to fill this need. As a leading cloud-based plan review solution, we believe it meets all of the requirements listed in 96.1 related to versioning, collaboration, approvals, comparison, and more. 	None
Compliance	<ul style="list-style-type: none"> Collect monitoring data related to compliance via dynamic forms. Generate reports related to compliance activities based on available structured data. Automatically identify compliance issues via certain configurable criteria. This supports tying a valid range to a data element on a dynamic form or on an entity and identifying when the value is outside of the allowed range. 	<ul style="list-style-type: none"> Automatically identify compliance issues via additional configurable criteria. Configure and associate compliance schedules.

	<ul style="list-style-type: none"> Automatically start workflows or trigger notifications based on automatically identified compliance issues. 	
Enforcement	None	<p>All</p> <ul style="list-style-type: none"> Identify candidates for enforcement Automatically initiate workflows for enforcement Capture documents and notes about enforcement.
SDWIS State, WaterTrack	<p>Reading of water supply data, limited reporting, workflow integrations</p> <ul style="list-style-type: none"> For programs with functional data stored in the SDWIS State or WaterTrack systems related to water supplies, integrations will link the new solution to the SDWIS State or WaterTrack entities. Workflows will be developed to facilitate work that needs to be done directly in SDWIS State or WaterTrack, allowing for work to be done in each system with minimal friction. Information flagged by SDWIS State or WaterTrack as needing attention will trigger workflows in the new solution to facilitate the work that needs to be done, such as evaluating a potential violation and sending communication to the water supply owner/operator. 	<p>Writing data</p> <ul style="list-style-type: none"> Send data back into SDWIS State and WaterTrack, or optionally SDWIS Prime if it is live and stable. This will include updates to functional data, status updates on water supplies, some contact updates, etc.
SDWIS Prime	None	<ul style="list-style-type: none"> KL&A must fully integrate with SDWIS State, or to do a read-only SDWIS State integration along with a write only SDWIS Prime integration. To be determined based on availability and stability of SDWIS Prime.

Data Migration	<p>Core data for all in-scope programs</p> <ul style="list-style-type: none"> Migrations for all in-scope programs will begin immediately upon project kick off, allowing data models to be validated, and testing will be done with real data. This will include contacts, key functional data, site licenses, statuses, etc. Clean, relational data will be mapped and imported into the common data model. Data that is excluded from the migration due to errors or lack of mapping will be identified and communicated to the client. 	<p>Non-core data, all out of scope programs</p> <ul style="list-style-type: none"> Migrations for the remaining programs not covered in releases 1-3 will be performed. Data that could not be migrated due to lack of mapping will be re-evaluated and all data that is appropriate to maintain going forward will be mapped and imported.
Operators/CEC	None	<p>Course providers, schedules, and continuing education credits</p> <ul style="list-style-type: none"> Tracking operators. Exam results (scantron import). Provider roster management. Course schedule management. Continuing Education Credit tracking and management.
Document Storage / Retention	<p>In-app storage and retention, documents linked to relevant entities, forms, workflows, etc. throughout the system</p> <ul style="list-style-type: none"> Documents will be possible to upload and link to all regulated entities, dynamic forms that are configured for file uploads, and other entities as identified during design sessions (such as contacts, 	None

	<p>sites, applications).</p> <ul style="list-style-type: none"> • Documents will not be restricted by type, although a reasonable maximum size will be established in the 10s or 100s of MB range. • Documents will be retained for the life of the entity that its associated with, or with specific document type retention policies. • Documents will have metadata associated with them, primarily a type and file name. Information encoded in the file, such as camera information in a JPEG file, will be preserved in the uploaded file. • CM9 will be used as the document store. Integration between the Azure-hosted application and the SOM-hosted CM9 solution will need to be configured. 	
Dashboard	<p>Custom lists, such as task lists, notifications, and saved searches</p> <ul style="list-style-type: none"> • A dashboard will be available in the internal application to each logged in user. • A user's dashboard may be customized based on the set of widgets to display on the page. These settings may be saved as the user's default for future sessions. • The initial set of widgets will be limited to count and list widgets. These widgets will present a count or a list based on the result of a saved search, allowing the user to build a dashboard with their assigned tasks, open applications in their region, notifications, etc. • Dashboard data will be based on functional data 	<p>Metrics, KPIs, trending, role-based configurations, etc.</p> <ul style="list-style-type: none"> • Creating default dashboards by role that can then be customized on an individual basis. • Adding metrics / KPIs and trend chart widgets based on the needs of each program.

	<p>the solution has collected, or to a limited set of SDWIS State data elements that have been mapped for real-time querying.</p>	
Financials	<p>Functionality that can be transferred from LPS (Licensing Portal System) invoice lists from MiCaRS</p> <ul style="list-style-type: none"> • Financial management in line with what the LPS system has developed. Anything that can be reused will be reused. • When the reference number is available in the new solution and is available in MiCaRS, show an invoice list for an entity and whether each invoice is paid or unpaid. 	<p>Customization beyond what the LPS system currently supports</p> <ul style="list-style-type: none"> • Fee schedule customization. • Refund determinations and issuance. • CEPAS and MiCaRS interfaces for payment receipting. • SIGMA integration for grant payments. • MiCaRS interface for invoice generation.
Public Portal	<p>Storage of blank forms, limited suite of pre-generated reports</p> <ul style="list-style-type: none"> • Dynamic forms that were created for public consumption may be automatically converted to PDF and made available for download. • Reports designed for public viewing may be marked as such internally, and then published so that the generated PDF or CSV version of the report will be publicly accessible. • A PDF listing of the applicants for the public catalog will be made available online. 	<ul style="list-style-type: none"> • Searchable database of applicants • Dashboard • Usage metrics

	<ul style="list-style-type: none"> • All branding will be consistent with EGLE's requirements, and all eMichigan requirements will be adhered to. 	
Submission Portal	<p>Dynamic application form, save and continue, document upload, upload a scanned application</p> <ul style="list-style-type: none"> • A portal requiring authentication will be made available to external users, primarily LHDs and staff at regulated entities. • Dynamically designed forms in the internal application may be made available for online completion in the submission portal, or for download in PDF format to be filled out manually. • Forms, in particular applications and monitoring data submissions will be available for completion online. Alternatively, a few identifying fields can be completed online and then an attachment of the paper form may be submitted instead of using the online form interface. • Submitted forms will optionally trigger workflows, such as review and approval workflows, payment workflows, etc. • Requests for more information, questions, or comments from internal staff will be shown to the external user when logged into the submission portal. This facilitates workflows that have a back and forth dialog between the internal staff and the submitter. 	<ul style="list-style-type: none"> • Self-service management of continuing education credits • Education provider roster submissions • Incomplete application purging • Application notifications
Inspections	Workflows, dynamic forms, baseline data common to all inspections	<ul style="list-style-type: none"> • Public portal map display / search

	<ul style="list-style-type: none"> • A one-size-fits-all inspection system will be provided that tracks common inspection information across applicable regulated entities. • Inspections can be triggered on-demand from the internal application. • Inspectors will utilize custom workflows and dynamic forms to facilitate their work. Much of the resulting inspection data will be captured in dynamic forms, where it will be available anytime inspections are viewed. Searching, reporting, or performing analysis against this form data will not be available. 	<ul style="list-style-type: none"> • Inspection geospatial data capturing
GIS	<ul style="list-style-type: none"> • Use addresses/contacts to find lat/long from Smarty Streets API (Geocoding) and use in contact or regulated entity • Allow for geospatial queries in advanced search (find regulated entities within <i>n</i> miles of lat/long) • Display contacts and/or functional lat/long data on a map using SOM ESRI JavaScript API • Display advanced search results on a map if lat/long is present in a common area 	<ul style="list-style-type: none"> • Public portal map display / search • Inspection geospatial data capturing
CROMERR	<ul style="list-style-type: none"> • Compliance will be completed by the end of this phase of the contract. 	<ul style="list-style-type: none"> • Maintain compliance as new functionality comes online.
Integrations	<p>Those called out above</p> <ul style="list-style-type: none"> • SDWIS State: read-only integration with water supplies will be performed. • Dymo Label: report templates matching the expected format will be developed. 	<p>All other integrations</p> <ul style="list-style-type: none"> • CEPAS • To Be Determined eSignature Solution (removed EQuIS in favor of this integration)

	<ul style="list-style-type: none"> • LHDs: portal access will be provided to LHDs in order to submit applications and review decisions. • MiLogin: authentication. • CM9: document storage and retrieval. • WaterTrack • MiCaRS <p>Functionality that can be transferred from LPS (Licensing Portal System) invoice lists from MiCaRS)</p> <ul style="list-style-type: none"> ◦ Financial management in line with what the LPS system has developed. Anything that can be reused will be reused. ◦ When the reference number is available in the new solution and is available in MiCaRS, show an invoice list for an entity and whether each invoice is paid or unpaid. 	<ul style="list-style-type: none"> • MiCaRS (Customization beyond what the LPS system currently supports) <ul style="list-style-type: none"> ◦ Fee schedule customization. ◦ Refund determinations and issuance. ◦ CEPAS and MiCaRS interfaces for payment receipting. ◦ SIGMA integration for grant payments. ◦ MiCaRS interface for invoice generation. • MS Office 365 • ParScore • Promium Elements • ScanTools • SDWIS Prime • SIGMA • WaterChem • Wellogic
--	--	---

Appendix A: Form Builder

Developed from the Project Assumptions document from RFP 190000000111, under heading “Dynamic Form Builder: Online Forms, Applications, and Monitoring Data”

A configurable online form builder must be developed as part of Phase 1 that will allow users to define forms at a program level for submission through the online portal. Configurability will include:

- Form Name
- Field Labels
- Field Help Text
- Heading Groups
- Heading Help Text
- Attestations/Electronic Signature
- Data type validation rules (integer, floating point, string length, currency, dates greater/less than values) not conditional on other values
- Required/Optional
- Controls:
 - Text
 - Numeric
 - Floating Point
 - Dates
 - Contact/Address (Validated)
 - Drop Down Field and Values (single or multi-select)
 - Yes, No, N/A Questions
 - Checkbox Groups
 - Radio Buttons Group
 - Data Grids
 - Users may define grids with a set number of named columns and a fixed or expanding number of rows.
- Entity Mapping]
 - Top level fields from the online form can be mapped to a configurable regulated entity, and contacts may be mapped to functional properties of a regulated entity so that the values can automatically update functional data.
 - All data that is not mapped to an entity will be captured and stored.
 - An online form can be mapped to monitoring and compliance data and associated to a proper regulated entity.
- Online forms can still be associated with specific Program Areas, Regulated Entities or Licenses.

Appendix B: Workflow Configuration

Developed from Project Assumptions from RFP 190000000111, under the heading “Workflow Configuration” This is required for Phase 1 implementation.

Workflow configuration will be fully scriptable but will also utilize a collection of business rules that are themselves configured. An example, in scriptable business rule workflow engine, the user would be required to write a rule like: application.particulatesSampleValue > 200

As part of this contract workflow engine, a user would also be able to set a condition on the workflow state transition by selecting the “Validate Sample Value” business rule in the workflow user interface. The “Validate Sample Value” business rule would then be configurable at the program or application level where an administrator could set or change the value to 200.

If a user still wishes to define business rules in a scripted manner the ability to define conditional expressions will exist through a “Expressions Builder” functional action, where a user can define expressions against the associated entity (application, regulated entity, etc.)