



State of South Carolina  
RECORD OF NEGOTIATIONS

**Solicitation** : 5400011269  
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Columbia SC 29201

DESCRIPTION: Website and Marketing Services

USING GOVERNMENTAL UNIT: SC Lieutenant Governor's Office on Aging

OFFEROR'S NAME AND ADDRESS: Cyberwoven, LLC  
1523 Huger Street  
Columbia, SC 29201

**IMPORTANT NOTICE:**

Offeror is required to sign this document and return 1 copy to the procurement officer named above by the following date:  
February 9, 2017, 10:00am EST.

DESCRIPTION OF NEGOTIATED CHANGES:

This Record of Negotiations constitutes the negotiated and mutually agreed upon provisions, that in conjunction with the solicitation referenced above and proposal submitted by Cyberwoven LLC, will govern the resulting contract.

Exhibits:

- Exhibit A: Cyberwoven negotiation response letter
- Exhibit B: Subsequent negotiated provisions

Except as provided herein, all terms and conditions of the Offer and the Solicitation remain unchanged and remain in full force and effect.

OFFEROR'S CERTIFICATE OF CURRENT COST OR PRICING DATA: The Offeror certifies that, to the best of its knowledge and belief, the cost or pricing data (as defined by 48 C.F.R. 2.101) submitted, either actually or by specific identification in writing, by the Offeror to the Procurement Officer in support of the proposed contract are accurate, complete, and current as of the date this record of negotiations is signed. [*Procurement Officer must initial here \_\_\_\_\_ if Certificate inapplicable to this Record of Negotiations*]  
(See "Pricing Data – Audit – Inspection" provision.) (Reference § 11-35-1830 & R. 19-445.2120)

SIGNATURE OF PERSON AUTHORIZED TO SUBMIT  
BINDING OFFER TO ENTER A CONTRACT ON BEHALF OF  
OFFEROR:

By: \_\_\_\_\_  
(authorized signature)

\_\_\_\_\_  
(printed name of person signing above)

Its: \_\_\_\_\_  
(title of person signing above)

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

SIGNATURE OF PERSON AUTHORIZED TO APPROVE  
NEGOTIATED MODIFICATIONS ON BEHALF OF USING  
GOVERNMENTAL UNIT:

By: \_\_\_\_\_  
(authorized signature)

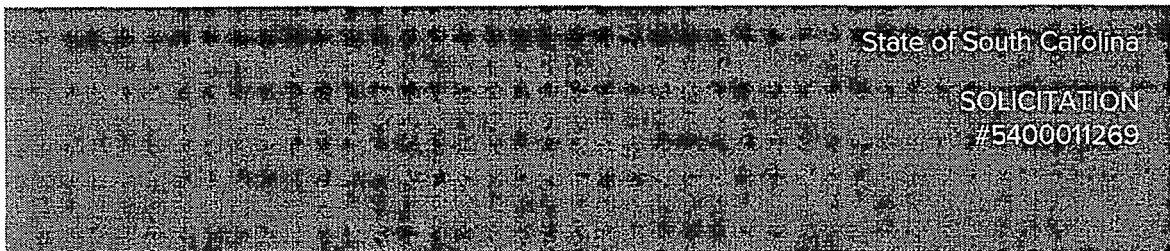
\_\_\_\_\_  
(printed name of person signing above)

Its: \_\_\_\_\_  
(title of person signing above)

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

# **South Carolina Lieutenant Governor's Office on Aging**

Website Redesign and Marketing Services



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This proposal including all content, rates, and conditions shall be valid through March 10, 2017.

## RESPONSE TO QUESTIONS

Cyberwoven looks forward to working with the Lieutenant Governor's Office on Aging. Below, you will find responses to the questions raised in your letter dated January 23, 2017.

**Question #1: Pursuant to Section 3.2 of the solicitation and Amendment #1 (See the State's answers to questions 8, 10, and 32). Please provide the following, with an emphasis on each type of testing required by the State:**

**A detailed write-up of what your firm perceives to be required.**

**A detailed write-up of how those requirements will be fulfilled, to include a detailed description of the technical solution(s) that will be implemented to accomplish your solution, to include, but not limited to:**

The RFP outlines a range of website redesign and development requirements for the new LGOA website. Cyberwoven has combined the detailed write-up of the perceived requirement and proposed solution below. We then provide a detailed explanation of the testing process that will be utilized.

- **Provide conceptual development, graphic design, and content development to redesign and rebrand the existing website to allow for a more user friendly interface;**

The LGOA website is a critical resource to the citizens of South Carolina. It allows seniors and vulnerable adults to connect with the programs and services that can improve their quality of life. For this reason, the website should be user friendly and memorable. To that end, Cyberwoven will rebrand, redesign, and redevelop the existing site to:

- Present the Office as the first resource considered for information, service options and guidance concerning issues related to seniors and vulnerable adults
- Engage senior citizens and their caregivers
- Provide a positive user experience
- Build bridges to the community and partner organizations
- Function as the hub of communication

This will include developing the following:

- New visually engaging pages
- New and refreshed content
  - Copy
  - Photos
  - Infographics
  - Charts/Graphs
- Optimized URL structures
- An intuitive and user friendly search process
- The ability to collect analytics data regarding user behavior

Each of these deliverables is outlined in the questions below. In addition, you will find an overview of our plan regarding usability testing and content migration.

- **Identify and assign writers, edit and proof copy, provide visually exciting layouts, design charts, graphs or other visual interpretations of data, identify and procure photography and appropriate photo releases;**

The LGOA is looking for a provider to provide a complete solution. To this end, the Cyberwoven team will assign writers to review, edit and proof all of the existing content as well as write new content for up to 20 additional pages. In addition, the Cyberwoven design team will design layouts and select photography and other visual aids to powerfully communicate with the LGOA's diverse array of audiences. Cyberwoven will utilize existing LGOA content assets as well as identify and procure supplemental photography and, as required, obtain photo releases.

- **Implement a cleaner URL;**

The LGOA website needs to be optimized for search-engines so that it is easy for citizens to access the critical services delivered. To this end, Cyberwoven will deliver a website with readable URL (i.e. /sc\_service\_providers). rather than cryptic codes (i.e. scaccess.communityos.org/cms/node/40).

- **Implement a user friendly search capability (whole-site search options as well as page search options);**

The new LGOA website will centralize a wide range of resources and serve as the gateway to critical information concerning issues related to seniors and vulnerable adults. It is critical that visitors to the website find information quickly and easily. To this end, Cyberwoven will implement three different search processes on the new LGOA website. Each search process is outlined below:

- Directory of Resources and Programs – The Directory of Resources and Programs search process will be the centerpiece of the new website. It will allow users to find providers quickly and easily using natural language.
- Bed Locator – The Bed Locator search process will become a native element of the new LGOA website. It will allow users to find beds by providing either county, facility type, bed type, or facility name.
- Site Search – The new LOGA website will also feature a site-wide natural language search that allows users to enter a keyword and receive results.

- **Implement the ability to collect analytical data (usage data such as browsing history, click history, search history);**

The new LGOA website must capture analytics data regarding user engagement. To this end, Cyberwoven will setup and configure Google Analytics to track user behavior. In addition, we will add custom Google Analytics Events to specific page elements so that more granular analysis of specific events can be captured and analyzed.

- **Perform usability testing prior to publication; and**

The new LGOA website must not only meet the functional requirements outlined. It must do so in a way that is easy and enjoyable. The Nielsen Norman Group states it well like this:

- Definition of **Utility** = whether it provides the **features you need**.
- Definition of **Usability** = how **easy & pleasant** these features are to use.
- Definition of **Useful** = **usability + utility**

Cyberwoven will deliver a new website that is “useful” by conducting usability testing prior to publication. There are three points in the process where this will be done:

1. Site Architecture
2. Design
3. Pre-Launch Testing

- **Potentially provide Content Migration Services.**

The new LGOA website will utilize existing and new content. Cyberwoven will migrate all of the existing pages (per the response to question #41 in Amendment #1 this will be ~50 pages). Each page will be processed by Cyberwoven’s content team for maximum clarity and impact. The goal is for 100% of content on the site to be accurate, senior-friendly and web ready.

**A. Description(s) of the testing techniques employed;**

As it pertains to each type of testing, Cyberwoven plans to employ a range of testing techniques to confirm that the new LGOA website is ready to serve the citizens of South Carolina. Cyberwoven will complete the following testing as part of the development of the new LGOA website:

- Usability testing to ensure that navigation works correctly and content is accurate.
- Compatibility testing to ensure your site works across supported browsers and operating systems.
- Functionality testing to ensure all elements of the site work correctly, including links, forms, and features.
- Performance testing to ensure your site performs well under load.
- Security testing to ensure that, when applicable, your certificate is working correctly and that your site is hardened against hacking attempts.
- Confirming that your website’s structure supports compliance with Section 508 of the Rehabilitation Act of 1973 and ADA accessibility standards.

**B. A schedule, in coordination with your proposed work plan to implement each type of testing required. Specify the nature and number of test iterations to be conducted, i.e. start week, end week, and scheduled number of hours to be devoted to the task(s).**

Cyberwoven will complete testing throughout the project. The timing for and approach to each type of testing is outlined below. The schedule may need to be modified if additional iterations are required to achieve the desired outcome.

Usability testing occurs in three phases (outlined below). The site's usability will be considered accepted when all usability issues discovered during testing have been addressed.

- Site architecture (week 2 – week 6)
  - Nature of testing: language and terminology within the site architecture are evaluated by a content specialist for consistency and clarity from the perspective of each target audience. Client will include actual users to gain insights into whether specific language or terminology is appropriate. Cyberwoven will lead the user tests and the client will be responsible for recruiting participants. Findings from each round of testing will inform usability improvements to the site architecture.
  - Number of iterations: 2+ (Cyberwoven, Client, Users)
  - Estimated LOE: 4-16 hours
  - Deliverables: usability testing report
- Design (week 6 – week 12)
  - Nature of testing: the static design is evaluated by an interactive designer for best practices and perception from the perspective of each target audience. Client will include actual users to gain insights into design and design elements. Cyberwoven will lead the user tests and the client will be responsible for recruiting participants. Findings from each round of testing will inform usability improvements to the website design and interface.
  - Number of iterations: 2+ (Cyberwoven, Client, Users)
  - Estimated LOE: 8-24 hours
  - Deliverables: usability testing report
- Test site (week 20 – week 22)
  - Nature of testing: the test site is evaluated by a QA specialist for ease of use and navigation. Cyberwoven also recommends conducting 4-6 usability tests with individuals from each target audience. Cyberwoven will lead the user tests and the client will be responsible for recruiting participants. Findings from each round of testing will inform usability improvements to the user experience.
  - Number of iterations: 6-8 (Cyberwoven, Client, Users)
  - Estimated LOE: 8-24 hours
  - Deliverables: usability testing report

Compatibility testing occurs in two phases (outlined below). The site will be considered compatible when all acceptance criteria have been met, however quarterly post launch testing of the production site is recommended to ensure compatibility with new version releases.

- Design (week 6 – week 12)
  - Nature of testing: the static design is evaluated by a front end developer to confirm that planned design elements and interactions are achievable in the required browsers and operating systems. Any issues will be remediated by the designer.
  - Number of iterations: 1 (Cyberwoven)
  - Estimated LOE: 2-4 hours
  - Deliverables: design sketch
- Test site (week 14 – week 22)
  - Nature of testing: the test site is evaluated by a QA specialist using a pass/fail test derived from the compatibility criteria. Any failure to meet criteria will be remediated by the Cyberwoven team.

# cyberwoven

- Number of Iterations: 2+ (Cyberwoven, Client)
- Estimated LOE: 8-16 hours
- Deliverables: compatibility test results (included in website testing report)

Requirements gathering for functional testing begins at the start of the project, but the true functional testing occurs after the test site development is complete (week 14 – week 24). The site will be considered functional when all acceptance criteria have been met.

- Nature of testing: the test site is evaluated by a QA specialist using pass/fail criteria derived from the project's approved requirements and Cyberwoven best practices. Any failure to meet standards will be remediated by the Cyberwoven team.
- Number of Iterations: 2+ (Cyberwoven, Client)
- Estimated LOE: 20-80 hours
- Deliverables: functionality criteria and test results (included in website testing report)

Requirements gathering for performance testing begins at the start of the project, but the true performance testing occurs after the test site development is complete (week 20 – week 24). The site's performance will be considered accepted when all acceptance criteria have been met, however quarterly post launch testing of the production site is recommended to ensure optimal performance as the site and its content are enhanced.

- Nature of testing: the test site will be evaluated by an application developer using a variety of third party tools and pass/fail criteria developed by a QA specialist. The criteria will be derived from the project's approved requirements. The site will be tested after development is complete in Cyberwoven's test environment, before content entry begins in the production environment, and after content entry is complete in the production environment. Any failure to meet standards will be remediated by the Cyberwoven team and/or LGOA datacenter staff.
- Number of Iterations: 3+ (Cyberwoven)
- Estimated LOE: 4-16 hours
- Deliverables: performance testing criteria and test results (included in website testing report)

Security testing occurs after the test site development is complete (week 14 – week 22). The site will be considered secure when all acceptance criteria have been met, however quarterly post launch testing of the production site is recommended to ensure your site is protected as new threats are identified.

- Nature of Testing: the test site's configuration and code will be evaluated by a senior application developer using pass/fail criteria developed by a QA specialist. The criteria will be derived from the project requirements and Cyberwoven best practices. Any failure to meet standards will be remediated by the Cyberwoven team.
- Number of Iterations: 1+ (Cyberwoven)
- Estimated LOE: 8-24 hours
- Deliverables: security criteria and test results (included in website testing report)

508 compliance testing is conducted in two phases (outlined below). The site will be considered compliant when all acceptance criteria have been met, however quarterly post launch testing of the production site is recommended to ensure your site is compliant as new standards are released.

- Design (week 6 – week 12)
  - Nature of testing: the static design is evaluated by an interactive designer, front end developer, and QA specialist for visual aspects of 508 compliance. Any issues will be remediated by the designer.
  - Number of iterations: 1+ (Cyberwoven)
  - Estimated LOE: 4-12 hours
  - Deliverables: finalized design sketch
- Test site (week 12 – week 24)
  - The test site will be evaluated by using PowerMapper SortSite's automated scan (<https://www.powermapper.com/products/sortsite/>) and pass/fail criteria developed by a QA specialist. The criteria will be derived from Section 508 requirements. The scan will be run before and after content entry to ensure both code and content meet accessibility standards. Any failure to meet criteria will be remediated by the Cyberwoven team.
  - Number of Iterations: 2+ (Cyberwoven)
  - Estimated LOE: 8-24 hours
  - Deliverables: accessibility testing report

**C. Provide examples of what will be delivered for review by the LGOA and when those examples will be provided to LGOA;**

- Website testing report (includes compatibility, functional, performance, and security testing criteria and results); delivered in week 22-24 – Appendix A
- Usability testing report; delivered in week 24 – Appendix B
- Accessibility testing report; delivered in week 24 – Appendix C

**D. Respective to Functional Usability Testing, specify the empirical data to be collected during the observation of users performing realistic tasks, and explain how the results will be documented along with the corresponding solutions used to resolve any problems found;**

The following questions will be focused on during this process:

- Are users able to accomplish basic tasks the first time?
- How quickly can tasks be completed?
- How easy is it to learn and/or remember a task?
- How often do users fail to complete the task?
- How enjoyable is the task to complete?

To answer these questions, Cyberwoven will field participants from the following groups:

- Cyberwoven team members
- LGOA team members
- Representative users



Each will be given a series of tasks to complete. Cyberwoven will assign an observer to monitor and measure the results of each participant. We will conduct the tests at the Cyberwoven office.

**E. Specify who will be conducting/observing the tests, and provide their qualifications.**

The following Cyberwoven team members will be utilized to conduct/observe the testing outlined above. Each team member's qualifications are listed below:

- **Content Specialist** – Content Specialists are responsible for creation and maintenance of documentation. They translate technical and/or complicated information into clear, concise documents appropriate for various target audiences. They work with all teams to produce a wide variety of technical and other publications. They interview subject matter experts to collect information, prepare written text, and coordinate layout and material organization. They research information such as drawings, design reports, equipment and test specifications to fill any gaps. They also: Conduct research and content audits to guide strategy and ensure high quality and intuitive user-centered content. Work with stakeholders to define and plan content to be created, rewritten, migrated or removed. Apply research and analytics to create compelling content strategies based on user needs and business objectives. Guide the creation and/or implementation of brand messaging. Apply appropriate brand voice and tone for online audience and ensures brand compliance. Develop content guidelines and editorial procedures for consistent tone, style and voice. Develop maintenance plans and editorial timeline. Conduct keyword research and incorporates into content strategy. Provide analysis of monthly and quarterly web metrics reports as needed. Monitor effectiveness and suggests improvements. Develop content inventories, assessments and creation plans. Generate detailed site content inventories/audits. Analyze data and current site architecture to assess its effectiveness. Develop and manage the customer-facing content taxonomies and metadata frameworks for large-scale projects, including information hierarchy and final content structure.

- Part of the following testing:
  - Usability testing

- **Interactive Designer** – The Interactive Designer develops design solutions for web and print projects. They also: Leverage understanding of technology, user interface design and design fundamentals in generating designs. Articulate how the design solution answers user needs, business goals, technical constraints, and other project facets. Consider technology requirements and design a solution that complements the technical strategy and/or partners with the technology staff to overcome implementation obstacles. Work collaboratively with other project team members, has a clear understanding of how a project team operates, their responsibilities throughout a project and what is expected in team meetings. Ensure that internal deadlines, timetables and approval procedures are adhered to for assigned project phases. Incorporate revisions per client and/or team feedback as appropriate. Actively participate in team meetings to discuss assignment parameters.

- Part of the following testing:
  - Usability testing

- Front End Developer – The Front End Developer develops front end solutions for the web using industry best standards and provides quality assurance for the front end development team. This position: Provides reliable estimates for front-end tasks/deliverables. Implement approved designs across multiple media and devices via front end mark up with attention to web standards. Review and self-test work products across multiple browsers, platforms and devices. Integrate static code with the chosen CMS. Collaborate with internal team members. Communicate with project team throughout the project duration.
  - Part of the following testing:
    - Compatibility testing
    - 508 compliance testing
- Application Developer – The Application Developer understands business requirements for a variety of projects, develops implementation plans, leads the application development and provides support for maintaining current and future projects over the course of their lifetimes. This position meets with account and project management staff to gain an understanding of a project's goals and requirements. Articulates and builds innovative solutions based on needs, limitations, constraints and industry best practices; incorporating scalability, availability, security, and maintainability characteristics. Plans how to architect the data, code and infrastructure for incoming projects. Works closely with other Developers and Designers to deliver the best possible solution within the given parameters. Meet with the account and project management staff regularly to communicate updates and changes to the application plan and timeline. Participate as the development subject matter expert on new client opportunities. Provides support for the ongoing maintenance of existing and future projects.
  - Part of the following testing:
    - Performance testing
    - Security testing
- QA Specialist – The Quality Assurance Specialist is responsible for successful project delivery and adherence to all Quality Assurance standards and procedures. This encompasses leading the test efforts on our initiative projects, working closely with all project team members, and ensuring a high quality deliverable for our clients. This position: performs the role of a QA Lead across multiple applications and projects; reviews all requirements and creates test strategies; ensures appropriate test capabilities and techniques are utilized for each project and has the ability to provide multiple paths of testing utilizing a risk based approach. This position is accountable for all test planning and test execution activities; identifies any potential test automation candidates that exist for each project and reports back on usage; provides hands on assistance as necessary for testing tasks.
  - Part of the following testing:
    - Usability testing
    - Compatibility testing
    - Functional testing
    - Performance testing
    - Security testing
    - 508 compliance testing

- F. Fill in the blank, A minimum of   5   users will test the product during each test iteration.

**Question #2:** Section 3.5 of the solicitation reads, “The Contractor shall provide for appropriate storage, maintenance, and protection of all produced and virtual documents and material produced for and owned by LGOA during the term of the contact and for an additional five (5) years”. Please provide the following:

**A detailed write-up of what your firm perceives to be required pursuant to Section 3.5, regarding maintenance (i.e. define “maintenance”).**

In order for the new LGOA website to continue to fulfill its mission over time, it must receive routine scheduled maintenance. Cyberwoven defines maintenance as the ongoing activities required to maintain a healthy, secure and engaging website. This maintenance will be delivered as part of the ongoing service agreement. We will utilize 20 hours each quarter (80 hours / year) completing essential maintenance tasks to maintain the health of your website and address ad hoc support needs, such as additional training or content updates.

**A detailed write-up of how those requirements will be fulfilled, to include a detailed description of the technical solution(s) that will be implemented to accomplish your solution.**

Cyberwoven will assign internal resources to ensure the efficient management and timely completion of maintenance tasks. At the beginning of each quarter, we will plan and schedule the maintenance activities with you. The following maintenance schedule will be utilized:

#### Quarterly

- Drupal updates
  - Core
  - Specific Modules
- Analytics review
- Operating system updates
- Server reboots quarterly, or as soon as necessary (e.g., kernel security updates).
- Confirm back-ups
- Check server logs
- Confirm server patches applied

#### On Demand

- Content Updates
- Drupal security updates are assessed as soon as they are released and applied to the site when necessary
- Server security updates will be run automatically, nightly
- Training

#### Ongoing System Monitoring

- Critical services are running on the server (httpd, sshd, mysql)
- Site is accessible from external networks (i.e., Pingdom)
- Resource thresholds monitored

- Disk
- CPU
- RAM
- Critical subscriptions
  - TLS/SSL cert expiration
  - domain registration expiration

**Question #3: Section 3.2 of the solicitation requires the Contractor to implement a user friendly search capability. Please provide the following for each of the search applications:**

**A detailed write-up of what you perceive to be required pursuant to Section 3.2, regarding user friendly search capability;**

The new LGOA website will centralize a wide range of resources and serve as the gateway to critical information concerning issues related to seniors and vulnerable adults. To this end, it is critical that visitors to the website can find information quickly and easily. To achieve this primary goal for the website, Cyberwoven recommends implementing three different search applications on the new LGOA website. Each search application is outlined below:

- Directory of Resources and Programs – The Directory of Resources and Programs search process will be the centerpiece of the new website. It will allow users to find providers and quickly and easily using natural language.
- Bed Locator – The Bed Locator search process will become a native element of the new LGOA website. It will allow users to find beds by providing either county, facility type, bed type, or facility name.
- Site Search – The new LOGA website will also feature a site-wide search that allows users to enter a natural language search and receive results.

**A detailed write-up of how those requirements will be fulfilled, to include a detailed description of the technical solution(s) that will be implemented to accomplish your solution.**

Directory of Resources and Programs – The Directory of Resources and Programs search process will be transformed as part of this project. The current hierarchical search process will be replaced with a natural language search. For example, if a user wishes to find to find an Adult Day Care center serving Newberry County, they would simply enter a statement link “adult care newberry county”. This will replace the current process that requires the user to choose a location, then choose a service, and maybe enter keywords.

This new approach will include the creation of a list of interchangeable/synonyms (i.e., caregiver and caretaker) that could be used to describe a resource or program.

To achieve this solution, Cyberwoven will work with the State of South Carolina datacenter to install a Solr instance on a server that supports synonyms.txt. Next, Cyberwoven will work with the LGOA to develop their vocabularies (i.e. the terms that need to have synonyms, and what those terms are). This will take place during the discovery phase of the project and will be a component of the larger content audit and information architecture activities.

To support this evolution, we will log:

- The terms used in searches that yielded no results.

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- The percent of searches the produced a result first time.
- Repeated searches (i.e. searches that are followed by another search).
- The percentage of website traffic using search. We expect this to be low for general site search and high for service provider search.

We expect the range of terms included in the vocabularies will evolve over time as we review the search metrics.

**Bed Locator** – The Bed Locator search process will be presented within the context of the new LGOA website using a custom module to provide the search form and search result page. The module will retrieve data from the existing MySQL database hosted by the LGOA.

**Site Search** – To achieve this solution, Cyberwoven will work with the State of South Carolina datacenter to install a Solr instance on a server that supports Solr's standard synonyms.txt format.

## **Database preparation technique(s) to be utilized in your proposed solution to this requirement;**

**Directory of Resources and Programs** – The creation of the Directory of Resources and Programs database in the new LGOA website will start with defining the elements of the new data model. In Drupal, this will be represented as a content type. The fields will then be mapped to a desired import file format. The requested import file structure will be a CSV file.

**Bed Locator** – The Bed Locator database will be queried directly or, for performance reasons, may be replicated to the new LGOA website on a scheduled basis. It is expected that the administration of the Bed Locator database will continue AS-IS. The only preparation required will be to confirm network access between the new LGOA website and the MySQL database with the Bed Locator data.

**Site Search** – The new Site Search will not require any database preparation.

## **A description of the data sources which will be prepared to accomplish the proposed solution to this requirement;**

**Directory of Resources and Programs** – Cyberwoven will work with LGOA to develop an agreed on text-based format (i.e. CSV) for importing the existing data into Drupal. Cyberwoven will build an import tool to load that data into the site prior to launch. There may be data improvements required to achieve LGOA's goals. LGOA will be responsible for provided the data in the mutually agreed on format, and Cyberwoven will be responsible for making sure it is loaded into the new web site.

**Bed Locator** – The Bed Locator data source will not be modified in order to accomplish the proposed solution. It is already prepared to support the solution.

**Site Search** – The new site search will not require any new data sources to be prepared.

**Specify who will be implementing the user friendly search capability, and provide their qualifications.**

Cyberwoven has a talented and experienced development team. The search components of the LGOA website will be led by two Senior Web Developers. You will find their background below:

Aaron Crosman

Aaron Crosman is a Senior Drupal Developer at Cyberwoven with over ten years' experience with Drupal. Aaron graduated from Hamilton College with departmental honors in Computer Science and a minor in Economics. He has experience with the entire technology stack used for Drupal as well as experience as a site maintainer and content editor. Aaron has worked on projects for government agencies, nonprofits, and companies of all sizes. Aaron is very active in the Drupal Community.

Drew King

Drew King is a Senior Drupal Developer at Cyberwoven, where he focuses on Drupal development, server management, and third party integrations. Drew graduated from NC State University in 2002 with a Bachelor of Science in Computer Science. He has been developing web applications, focusing primarily on the server side of the LAMP stack, for the past 17 years, the last 4 of which have been with Cyberwoven.

## Appendix A

CYBERWOVEN

January 30, 2017

Client Name

# Website Testing Report

Website URL

Cyberwoven.com

(803) 376-8899

info@cyberwoven.com

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- 4.0 - Performance Testing
- 5.0 - Security Testing



## 1.0 - Executive Summary

Testing verifies that all of the specified requirements have been incorporated into the website and that the website is conforming to those requirements. Areas of testing covered by this report include:

- Functionality testing to ensure all elements of the site work correctly, including links, forms, and features
- Compatibility testing to ensure your site works across supported browsers and operating systems
- Security testing to ensure that, when applicable, your certificate is working correctly and that your site is hardened against hacking attempts
- Performance testing to ensure your site performs well under load

Please provide a brief overview of the results as well as provide a paragraph describing what is included in the document.

## 2.0 - Functional Testing

### 2.1 - Assumptions

Project assumptions will be outlined here. This section will continue to be updated as new assumptions are identified.

Assumption	Validator Name	Validation Date

### 2.2 - Requirements

Project requirements will be outlined here. This section will continue to be updated as new requirements are identified. Any items that are not within the scope of the current project will be flagged as new scope.

#### Req 2.2.1 - Requirement

Requirement Detail

Requirement Sub-detail

#### Req 2.2.2 - Requirement

Requirement Detail

Requirement Sub-detail

### 2.3 - User Stories

Relevant use cases of specific website functionality will be documented here using non-technical language.

Requirement ID	User Story

### 2.4 - Out of Scope

Features and functionality that are not within the scope of the project will be documented here.

Feature	Description

## 2.5 - Functional Test Matrix

## Test 1

**Environment:** Test

**Date:** MM/DD/YYYY

[illegible]

## Test 2

**Environment:** Test

**Date:** MM/DD/YYYY

[illegible]

### 3.0 - Compatibility Testing

#### 3.1 - Assumptions

Project assumptions will be outlined here. This section will continue to be updated as new assumptions are identified.

Assumption	Validator Name	Validation Date

#### 3.2 - Requirements

Project requirements will be outlined here. This section will continue to be updated as new requirements are identified. Any items that are not within the scope of the current project will be flagged as new scope.

##### Req 3.2.1 - Requirement

Requirement Detail

Requirement Sub-detail

##### Req 3.2.2 - Requirement

Requirement Detail

Requirement Sub-detail

#### 3.3 - Compatibility Test Matrix

Test 1

Environment: Test

Date: MM/DD/YYYY

Operating System	Browser	Pass	Fail	Recommended Remediation
Android	Chrome			
IOS	Safari			
IOS	Firefox			
iOS	Chrome			
Windows	Internet Explorer 11.0			
Windows	Internet Explorer 10.0			
Windows	Microsoft Edge			
Windows	Chrome			
Windows	Firefox			

**Test 2****Environment: Test****Date: MM/DD/YYYY**

Operating System	Browser	Pass	Fail	Recommended Remediation
Android	Chrome			
iOS	Safari			
iOS	Firefox			
iOS	Chrome			
Windows	Internet Explorer 11.0			
Windows	Internet Explorer 10.0			
Windows	Microsoft Edge			
Windows	Chrome			
Windows	Firefox			

**4.0 - Performance Testing****4.1 - Assumptions**

Project assumptions will be outlined here. This section will continue to be updated as new assumptions are identified.

Assumption	Validator Name	Validation Date

**4.2 - Requirements**

Project requirements will be outlined here. This section will continue to be updated as new requirements are identified. Any items that are not within the scope of the current project will be flagged as new scope.

**Req 4.2.1 - Requirement****Requirement Detail**

Requirement Sub-detail

**Req 4.2.2 - Requirement****Requirement Detail**

Requirement Sub-detail

**4.3 - Performance Test Matrix**

Test 1		Environment: Test		Date: MM/DD/YYYY	
Metric	Single User		Under Load		Recommended Remediation
	Pass	Fail	Pass	Fail	
Samples					
Average (ms)					
Median (ms)					
90% Line					
95% Line					
99% Line					
Minimum					
Maximum					
Error %					
Throughput					

Test 1		Environment: Test		Date: MM/DD/YYYY	
Metric	Single User		Under Load		Recommended Remediation
	Pass	Fail	Pass	Fail	
Samples					
Average (ms)					
Median (ms)					
90% Line					
95% Line					
99% Line					
Minimum					
Maximum					
Error %					
Throughput					

5.0 - Security Testing

5.1 - Assumptions

Project assumptions will be outlined here. This section will continue to be updated as new assumptions are identified.

Assumption	Validator Name	Validation Date

Assumption	Validator Name	Validation Date

## 5.2 - Requirements

Project requirements will be outlined here. This section will continue to be updated as new requirements are identified. Any items that are not within the scope of the current project will be flagged as new scope.

### Req 5.2.1 - Requirement

Requirement Detail

Requirement Sub-detail

### Req 5.2.2 - Requirement

Requirement Detail

Requirement Sub-detail

## 5.3 - Security Test Matrix

### Test 1

Environment: Test

Date: MM/DD/YYYY

Criteria	Pass	Fail	Recommended Remediation
Files are stored properly in private or public files systems in correctly setup subdirectories.			
All patches to the site clearly documented.			
All patches posted on Drupal.org.			
All PHP code follows Drupal and Cyberwoven coding standards			
All JS code follows Drupal coding standards			
All forms are created and processed through the Drupal Form API.			
All database queries are handled through Drupal's data abstraction layer or Drupal entity system.			

Criteria	Pass	Fail	Recommended Remediation
All submitted data is properly checked for type and safety before processing.			
All business logic and permission handling are in config or a custom module.			
User roles are clearly named and documented.			
User permissions match the description of the role.			
Text users have been created for each role.			
The Security Review module installed.			
The Security Review module's report is free of any problems.			



CYBERWOVEN

January 30, 2017

Client Name

## Usability Testing Report

Website URL

Cyberwoven.com

(803) 376-8899

info@cyberwoven.com

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## CONTENTS

1.0 - Introduction

2.0 - Executive Summary

3.0 - Methodology

4.0 - Results

5.0 - Recommendations

6.0 - Conclusion

7.0 - Appendices

## **1.0 - Introduction**

A usability test is intended to determine the extent an interface facilitates a user's ability to complete routine tasks. Typically the test is conducted with a group of potential users either in a usability lab, remotely, or on-site with portable equipment. Users are asked to complete a series of routine tasks. Sessions are recorded and analyzed to identify potential areas for improvement to the web site.

## **2.0 - Executive Summary**

The Executive Summary should describe when and where the usability test took place. Describe the purpose of the test. Include the number of participants and the length of the sessions. Provide any additional information about the test.

Provide a brief overview of the results. Include a glimpse of the overall ease of use and some of the participant demographic information. Provide a bulleted list of the problems.

Provide a paragraph describing what is included in the document.

## 3.0 - Methodology

### 3.1 - Sessions

Describe how the participants were recruited. Describe the individual sessions – length of time and what happened during those sessions. Explain what the participant was asked to do and what happened post test session. Describe any pre- or post-test questionnaires. Include the subjective and overall questionnaires in the attachments' section.

### 3.2 - Participants

Provide a description of the participants. Include the total number of participants, dates and the number of participants on each testing day.

Provide a summary of the results from the demographic/background questionnaire and display this information in a table.

User 1	User 2	User 3	User 4	User 5
Demographics	Demographics	Demographics	Demographics	Demographics

### 3.3 - Evaluation Tasks/Scenarios

[Explain who created the task scenarios. Display the task titles in a bulleted list.]

## 4.0 - Results

### 4.1 - Task Completion Success Rate

Explain who recorded the participant's ability to complete the tasks without prompting. The task success rate is the number of successes divided by the number of participants completing the task.

Describe the results by: explaining any task that had 100% completion rates. Follow this with the tasks that had the next highest completion rates. Then describe the tasks with the poor completion rates. Display the task completion rates in a table that shows the participant by task completion rates and the mean rate across task (see example table).

User	Task 1	Task 2	Task 3	Task 4	Task 5
1					
2					
3					
4					
5					
Success					
Completion Rate					

### 4.2 - Task Ratings

After the completion of each task, participants rated the ease or difficult of completing the task for three factors:

- It was easy to find my way to this information from the homepage.

- As I was searching for this information, I was able to keep track of where I was in the website.
- I was able to accurately predict which section of the website contained this information.

The 5-point rating scale ranged from 1 (Strongly disagree) to 5 (Strongly agree). Agree ratings are the agree and strongly agree ratings combined with a mean agreement ratings of > 4.0 considered as the user agrees that the information was easy to find, that they could keep track of their location and predict the section to find the information.

#### 4.2.1 - Ease in Finding Information

[Describe the results for this rating variable. Begin with the highest mean rating tasks followed by the lowest mean rating tasks.]

#### 4.2.2 - Keeping Track of Location in Site

[Describe the results for this rating variable. Begin with the highest mean rating tasks followed by the lowest mean rating tasks.]

#### 4.2.3 - Predicting Information Section

[Describe the results for this rating variable. Begin with the highest mean rating tasks followed by the lowest mean rating tasks.]

Task	Overall	Location in Site	Predict Section	Overall
Task 1	1-5 (%)	1-5 (%)	1-5 (%)	1-5 (%)
Task 2	1-5 (%)	1-5 (%)	1-5 (%)	1-5 (%)
Task 3	1-5 (%)	1-5 (%)	1-5 (%)	1-5 (%)
Task 4	1-5 (%)	1-5 (%)	1-5 (%)	1-5 (%)
Task 5	1-5 (%)	1-5 (%)	1-5 (%)	1-5 (%)

#### 4.3 - Time on Task

The testing software recorded the time on task for each participant. Some tasks were inherently more difficult to complete than others and is reflected by the average time on task.

[Provide a task by task description – include the task title or goal and the mean time to complete. Provide the range of completion times.]

[Display the time data in participant by task table and include the mean total time by task.]

	User 1	User 2	User 3	User 4	User 5	Avg. Total Time
Task 1						
Task 2						
Task 3						
Task 4						
Task 5						

#### 4.4 - Errors

[Insert who captured the errors here] captured the number of errors participants made while trying to complete the task scenarios.

[Describe the task in which participants made the most errors. Describe any tasks that were made without a non-critical error. Provide the results in a table showing number of errors by participant and task. ] A non-critical error is an error that does not prevent successful completion of the scenario.

Task	Task Completion	Errors	Time on Task	Satisfaction
Task 1				
Task 2				
Task 3				
Task 4				
Task 5				

#### 4.5 - Summary of Data

The table below displays a summary of the test data. Low completion rates and satisfaction ratings and high errors and time on tasks are highlighted in red.

#### 4.6 - Overall Metrics

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean Rating	% Agree
Thought Website was easy to use							
Would use website frequently							
Found it difficult to keep track of where they were in website							
Thought most people would learn to use website quickly							
Can get information quickly							
Homepage's content makes me want to explore site							
Site's content would keep me coming back							
Website is well organized							

##### 4.6.1 - Overall Ratings

After task session completion, participants rated the site for eight overall measures (See Attachment insert attachment letter here). These measures include:

- Ease of use
- Frequency of use
- Difficulty of keeping track of where they were in the site
- How quickly most people would learn to use the site
- Getting information quickly
- Homepage's content facilitates exploration
- Relevancy of site content
- Site organization

[Describe the highest percent of 'agreed' satisfaction ratings first. Combine the strongly agree and agreed ratings into an agreed ratings. Then describe the variables that received the lowest satisfaction ratings. Display the results in a table]

#### 4.6.2 - Likes, Dislikes, Participant Recommendations

Upon completion of the tasks, participants provided feedback for what they liked most and least about the website, and recommendations for improving the website.

##### Liked Most

The following comments capture what the participants liked most:

[insert liked most comments here]

##### Liked Least

The following comments capture what the participants liked the least:

[insert liked least comments here]

##### Recommendations for Improvement

[insert recommendations here]

### 5.0 - Recommendations

The recommendations section provides recommended changes and justifications driven by the participant success rate, behaviors, and comments. Each recommendation includes a severity rating. The following recommendations will improve the overall ease of use and address the areas where participants experienced problems or found the interface/information architecture unclear.

[Provide the task title and an overview of the task. In a table, present the change, justification for the change and the severity rating for the change. Do this for each recommendation]

Change	Justification	Severity

### 6.0 - Conclusion

[Provide a short conclusion paragraph. Begin with an overall statement of what the participants found and what is key about the Web site/application].

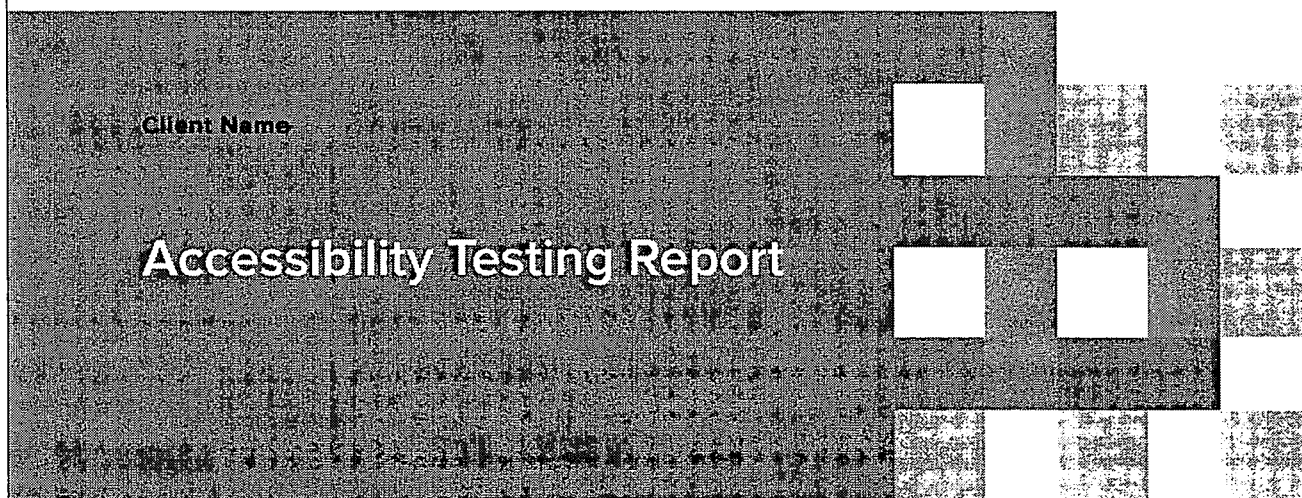
Implementing the recommendations and continuing to work with users (i.e., real lay persons) will ensure a continued user-centered website.

### 7.0 - Appendices

[Add Attachments. Attachments may include: Attachment A – Background Questionnaire, Attachment B – Post-Task Questionnaire, Attachment C – Post-session Overall Subjective Questionnaire, Attachment D – Task Scenarios]

CYBERWOVEN

January 30, 2017





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## 1.0 - Executive Summary

This report describes the conformance of *www.\_\_\_\_\_.com/org* with W3C's Web Content Accessibility Guidelines (WCAG) 2.0. The review process is described in Section 5 below and is based on the W3C's Conformance Evaluation method as described in Evaluating Web Sites for Accessibility.

Based on this evaluation, *www.\_\_\_\_\_.com/org* [*meets/ does not meet/ is close to meeting*] WCAG 2.0, Conformance Level Double A. Detailed review results are available in Section 5.0. Resources for follow-up study are listed in Section 6.0. Feedback on this evaluation is welcome.

## 2.0 - Background about Evaluation

Conformance evaluation of Web accessibility requires a combination of semi-automated evaluation tools and manual evaluation by an experienced reviewer. The evaluation results in this report are based on evaluation conducted on the following date(s): \_\_\_\_\_. The Web site may have changed since that time. Additional information on the evaluation process is available in Guidelines for WCAG Website Accessibility.

## 3.0 - Web Site Reviewed

**Name of website:**

*[Name of Web site]*

**Purpose of website:**

*[and purpose of site, if relevant]*

**Base URL of website:**

*[Primary URL]*

**URLs included in review:**

*[if dynamically generated Web site, provide sample screen captures to demonstrate what was reviewed]*

*[indicate which pages were reviewed manually as opposed to by semi-automated evaluation tools]*

**URLs excluded from review:**

*[URL's excluded from review]*

**Date(s) of Review:**

*[Exact date, or range of dates, on which review conducted]*

**Natural Language of Website:**

*[Natural language(s) of Web site]*

## 4.0 - Review Process

**WCAG 2.0 Level of Conformance Tested:**

*[Identify WCAG 2.0 Level for which conformance was tested, e.g. WCAG 2.0 Level A, Double A, Triple A]*

**WCAG 2.0 Checklist:**

*[Used WCAG 2.0 checklist (essential)]*

**Tools used:**

*[Identify evaluation and validation tools used, and versions thereof]*

**Manual Review Description:**

*[Description of manual reviews (usability testing of accessibility features) used]*

## 5.0 - Results and Recommended Actions

*[Interpretative summary of review results]*

*[e.g. this Web site appears to [meet/ not meet/ is close to meeting] WCAG 2.0 Level A, Double A, Triple A, etc.]*  
*[accessibility features in which this site is strong include \_\_\_\_\_]*  
*[recommended priorities for addressing inaccessible features of site]*  
*[Detailed results, structured according to WCAG 2.0 Checklist]*  
*[include links to WCAG 2.0 Checkpoints and Techniques for all non-conformant items]*  
*[attach or link to specific reports in appendices, e.g. output of validators and evaluation tools]*  
*[provide recommendations for addressing non-conformant checkpoints]*  
*[Describe or point to a suggested program of on-going monitoring of Web site accessibility, re-evaluation of authoring tools, etc.]*

## 6.0 - References

Web Content Accessibility Guidelines 1.0

[<http://www.w3.org/TR/WCAG10/>](http://www.w3.org/TR/WCAG10/)

Checklist for Web Content Accessibility Guidelines 1.0

[<http://www.w3.org/TR/WCAG10/full-checklist.html>](http://www.w3.org/TR/WCAG10/full-checklist.html)

Techniques for Web Content Accessibility Guidelines 1.0

[<http://www.w3.org/TR/WCAG10-TECHS/>](http://www.w3.org/TR/WCAG10-TECHS/)

Evaluating Web Sites for Accessibility

[<http://www.w3.org/WAI/eval/>](http://www.w3.org/WAI/eval/)

Evaluation, Repair, and Transformation Tools for Web Content Accessibility

[<http://www.w3.org/WAI/ER/existingtools.html>](http://www.w3.org/WAI/ER/existingtools.html)

Selecting and Using Authoring Tools for Web Accessibility [draft]

[<http://www.w3.org/WAI/EO/Drafts/impl/software5.html>](http://www.w3.org/WAI/EO/Drafts/impl/software5.html)

Review Teams for Evaluating Web Site Accessibility [draft]

[<http://www.w3.org/WAI/EO/Drafts/review/reviewteams.html>](http://www.w3.org/WAI/EO/Drafts/review/reviewteams.html)

## 7.0 - Outline WCAG Level AA Website Accessibility

### Outline of Compliance Guidelines

#### Perceivable

Information and user interface components must be presentable to users in ways they can perceive (e.g. alt tags that say what the item actually does, like 'Submit form Button').

#### Operable

User interface components and navigation must be operable (e.g., you must be able to navigate the site using a keyboard as well as a mouse).

#### Understandable

Information and the operation of user interface must be understandable, (e.g. error messaging on a form should make sense; instead of 'Invalid field' messaging, use 'The Email field must be in a valid format').

#### Robust

Content must be robust enough so it can be interpreted reliably by a wide variety of user agents, including assistive technologies. In other words, don't use tags or code that only certain browsers understand.

### Outline of Compliance Requirements

#### Text Alternatives

Provide alternatives for non-text content (e.g., images) so that it can be accessed by impaired individuals.

#### Time-Based Media

Provide an alternative (e.g., transcript) for time-based media (e.g., audio/video) that presents equivalent information, or link to textual information with comparable information for non-prerecorded media).

#### Adaptable

Create content that can be presented in different ways without losing information or structure.

#### Distinguishable

Make it easy for users to see and hear content, including separating foreground and background, by using readable fonts, larger font sizes, and highlighted link styling for example.

#### Keyboard Accessible

Make all functionality available from a keyboard.

#### Timing

Provide enough time for users to read and use content.

#### Seizures

Do not include design elements that are known to cause seizures (e.g., rapid flashing).

#### Navigable

Provide multiple ways to allow users to navigate content including obvious/prominent links and other techniques.

### **Readable**

Make text content readable and understandable via styling and other techniques.

### **Predictable**

Make web pages appear and operate in predictable ways

### **Input Assistance**

Assist users with web experience, correct mistakes and describe errors in text.

### **Compatible**

Maximize compatibility with current and future user agents, including assistive technologies.

## 8.0 - WCAG 2.0 Checklist

DATE

URL:

PASS/FAIL:

Guideline	Description	Level	Notes	P/F
1.1.1 - Non-text Content	Provide text alternatives for non-text content	A		
1.2.1 - Audio-only and Video-only (Pre-recorded)	Provide an alternative to video-only and audio-only content	A		
1.2.2 – Captions (Pre-recorded)	Provide captions for videos with audio	A		
1.2.3 – Audio Description or Media Alternative (Pre-recorded)	Video with audio has a second alternative	A		
1.2.4 - Captions (Live)	Live Videos have captions	AA		
1.2.5 - Audio Description (Pre-recorded)	Users have access to audio description for video content	AA		
1.3.1 - Info and Relationships	Logical structure	A		
1.3.2 - Meaningful Sequence	Present content in a meaningful order	A		
1.3.3 - Sensory Characteristics	Use more than one sense for instructions	A		
1.4.1 - Use of Color	Don't use presentation that relies solely on color	A		
1.4.2 - Audio Control	Don't play audio automatically	A		
1.4.3 - Contrast (Minimum)	Contrast ratio between text and background is at least 4.5:1	AA		
1.4.4 - Resize Text	Text can be resized to 200% without loss of content or function	AA		
1.4.5 - Images of Text	Don't use images of text	AA		
2.1.1 - Keyboard	Accessible by keyboard only	A		
2.1.2 - No Keyboard trap	Don't trap keyboard users	A		

DATE

URL:

PASS/FAIL:

Guideline	Description	Level	Notes	P/F
2.2.1 - Timing Adjustable	Time limits have user controls	A		
2.2.2 - Pause, Stop, hide	Provide user controls for moving content	A		
2.3.1 - Three flashes or below	No content flashes more than 3 times per second	A		
2.4.1 - Bypass Blocks	Provide a 'Skip to Content' link	A		
2.4.2 - Page Titled	Helpful and clear page title	A		
2.4.3 - Focus Order	Logical Order	A		
2.4.4 - Link Purpose (in Context)	Every links purpose is clear from it's context	A		
2.4.5 - Multiple ways	Offer several ways to find pages	AA		
2.4.6 - Headings and Labels	Use clear headings and labels	AA		
2.4.7 - Focus Visible	Keyboard focus is visible and clear	AA		
3.1.1 - Language of Page	Page has a language assigned	A		
3.1.2 - Language of Parts	Tell users when the language on a page changes	AA		
3.2.1 - On Focus	Elements do not change when they recieve focus	A		
3.2.2 - On Input	Elements do not change when they receive input	A		
3.2.3 - Consistent Navigation	Use menus consistently	AA		
3.2.4 - Consistent Identification	Use Icons and buttons consistently	AA		



DATE

URL:

PASS/FAIL:

Guideline	Description	Level	Notes	P/F
3.3.1 - Error Identification	Clearly Identify input errors	A		
3.3.2 - Labels or Instructions	Label elements and give instructions	A		
3.3.3 - Error Suggestion	Suggest fixes when users make errors	AA		
3.3.4 - Error Prevention (Legal, Financial, Data)	Reduce the risk of input errors for sensitive data	AA		
4.1.1 - Parsing	No major code errors	A		
4.1.2 - Name, Role, Value	Build all elements for accessibility	A		

## 9.0 - Appendices

[Attach detailed validator and evaluation tool reports here]

### Subsequent Negotiated Provisions

1. Cyberwoven agrees to provide preliminary website testing results to the LGOA.
2. Cyberwoven agrees that a minimum of three LGOA employees, or substitutes will be invited to observe testing, and LGOA can choose which employee(s) or substitutes attend such testing.
3. Cyberwoven agrees to provide “low and high times” in addition to “mean total time” per task, respective to Section 4.3 of the following pages, titled “Time on Task”.