

AMENDMENT NO. 2

This Amendment modifies Contract No. 1390-13069, for Website Implementation Branding and Governance by and between the County of Cook, Illinois, herein referred to as "County" and Clarity Partners, LLC authorized to do business in the State of Illinois hereinafter referred to as "Contractor":

RECITALS

Whereas, the County and Contractor have entered into a Contract approved by the County Board on October 8, 2014, (hereinafter referred to as the "Contract"), wherein the Contractor is to provide Website Implementation Branding and Governance (hereinafter referred to as the "Services") from November 1, 2014 through October 31, 2019, with two (2), two (2) year renewal options, in an amount not to exceed \$1,245,279.33; and

Whereas, Amendment # 1 was executed on February 26, 2016 for an increase in the amount of \$135,338.00; and

Whereas, the County and Contractor desire to add the Cook County Clerk and the Office of Technology Geographical Information System Services to the Contract for website updates and redesign services as set forth in Attachments A and B, Statements of Work; and

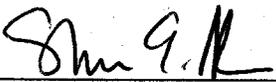
Whereas, an increase in the amount of \$1,125,338.00 is required for above-mentioned Department's Services; and

Now therefore, in consideration of mutual covenants contained herein, it is agreed by and between the parties to amend the Contract as follows:

1. The Contract is increased by \$1,125,338.00 and the Total Contract Amount is revised to \$2,505,955.33.
2. The Contract is hereby amended to incorporate Attachments A and B and made part of the Contract.
3. The attached MBE/WBE Utilization Plan forms are incorporated and made a part of this Contract.
4. All other terms and conditions remain as stated in the Contract.

In witness whereof, the County and Contractor have caused this Amendment No. 2 to be executed on the date and year last written below.

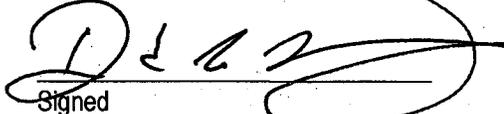
County of Cook, Illinois

By: 
Chief Procurement Officer

By: 
State's Attorney (if applicable)

Date: 24 June 2016

Clarity Partners, LLC

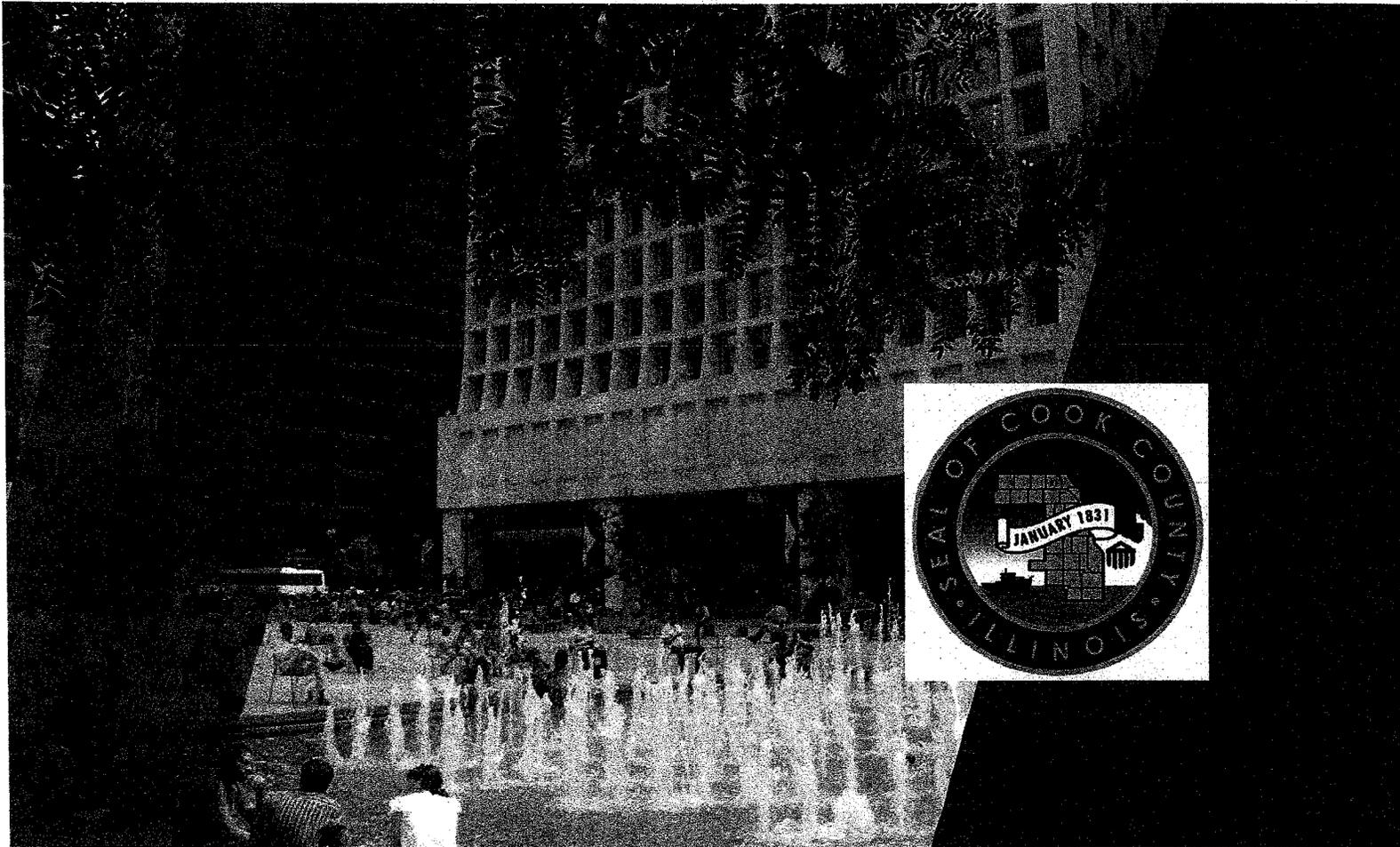

Signed

David C. Namkung
Type or print name

Managing Member
Title

Date: 6/10/2016

ATTACHMENT A



Statement of Work for GIS Cloud Failover Solution

(Based on Cook County Contract #1390-13069)

PREPARED FOR
Cook County Bureau
of Technology,
Geographic
Information Systems
(GIS)

September 30, 2015



1. OVERVIEW

This Statement of Work (“SOW”) defines the implementation, support, maintenance, and hosting services, solution software, and other related service requirements for the Cook County Geographic Information Systems (“GIS”) Cloud Failover Solution project (the “Project”).





plan. GIS personnel shall be available for quick turnaround on information requests, meetings, and other reasonable needs of the Clarity team to accomplish the project goals in an efficient and effective manner.

- 2.3.1.5. **Subject Matter Expert Availability** – Participation by GIS technical and functional experts and users are required to ensure that proposed solutions meet the needs of the Cook County GIS's Office. The participants should represent GIS experts that are able to contribute to the refinement of the solution analysis, requirements, and design.
- 2.3.1.6. **Supporting Materials** – The GIS's Office shall provide all requested materials and information necessary for project delivery throughout the Project.
- 2.3.1.7. **Timely Review and Approval of Deliverables** – Relevant GIS personnel involved in this Project shall be available for all reviews and approvals as required for completion of this Project on agreed upon review dates. The GIS shall provide the Clarity team with written deliverable approval, or acceptance variances, within the timeframe outlined for each task.
- 2.3.1.8. **Status Meeting Availability** – Appropriate GIS personnel shall be available for status meetings when needed.
- 2.3.1.9. **Delivery Dates** – The actual Project delivery dates shall be mutually determined by Clarity and GIS, and take into account the actual Project start-date.
- 2.3.1.10. **Change Management** – In the event of a change in scope or delay caused by the County GIS's Office, Clarity shall discuss the impact with the GIS before proceeding. Any significant material change to the Project scope or material delay caused by the GIS shall be escalated to GIS management and may result in a change order for an increase in project cost and/or schedule change

2.3.2. DELIVERY AND SCOPE

- 2.3.2.1. **Scope** – Any service or deliverable not described in this SOW shall be considered out of scope.
- 2.3.2.2. **GIS Input Responsibility** – Clarity will rely on GIS expertise to identify detailed requirements for enhancements if/when needed.
- 2.3.2.3. **Environment Access** – The GIS is responsible for providing any external access and necessary network configurations to evaluate the current environment and its existing applications.



3. EXHIBIT 2: GIS CLOUD FAILOVER SOLUTION COST

The Clarity Team will perform the work as detailed in this SOW for five (5) years, with two (2) two-year renewal options. All hosting services shall be managed by the Clarity team.

The County shall pay actual usage-based hosting and support fees charged by AWS, a 35% management fee on a month-to-month basis, and any applicable professional services fees for new services.

Professional Services Implementation Fees are one-time fixed fee costs and shall be invoiced when implemented. All other fees are usage-based. Annual instance fees shall be invoiced at the end of the month they are implemented. Monthly based fees will be billed at the end of the month that they are incurred.

Description	Annual Reserved Instance	One Time Cost	Monthly
Production Traffic Director 1	\$421		\$27
Production Traffic Director 2	\$421		\$27
Production Control Dashboard	\$204		\$10
Bandwidth/VPN/Networking	\$0		\$35
Storage/Networking/ELB/EIP	\$0		\$35
PROFESSIONAL SERVICES:			
<i>IMPLEMENTATION</i>			
Setup and Configuration		\$2,500	
Develop Control Dashboard		\$10,000	
Testing/Deployment/Project Management		\$2,500	
<i>ONGOING</i>			
Amazon Support	\$73		\$10
Management	\$392		\$52
TOTALS	\$1,511	\$15,000	\$199

3.1. FIVE YEAR COST SUMMARY

Cook County fiscal year is December 1 to November 30.

Description	2015 (Oct/Nov)	2016	2017	2018	2019
Production Traffic Director 1	\$475	\$745	\$745	\$745	\$745
Production Traffic Director 2	\$475	\$745	\$745	\$745	\$745
Production Control Dashboard	\$224	\$324	\$324	\$324	\$324
Bandwidth/VPN/Networking	\$70	\$420	\$420	\$420	\$420
Storage	\$70	\$420	\$420	\$420	\$420



2. EXHIBIT 1: GIS CLOUD FAILOVER SOLUTION STATEMENT OF WORK

2.1. UNDERSTANDING

This project shall implement HTTP/HTTPS failover services for the Cook County Geographic Information System (GIS). Currently the production GIS is hosted in the County's datacenters and the GIS disaster recovery platform is hosted in Amazon Web Services (AWS).

2.2. SCOPE

Functional Requirements/Assumptions:

1. Transparent failover for all GIS users
2. No lag to GIS user base after failover initiation (i.e., no DNS TTL Lag)
3. No change to URL used to access GIS system
4. Dashboard that allows non-technical County staff to control which installation GIS URL points to
5. Dashboard capability to add additional HTTP/HTTPS URLs beyond GIS system*
6. Dashboard functionality that allows County staff to administer who has access to failover dashboard
7. High availability of traffic directors
8. SSL termination on ELB to ensure GIS users have verified SSL experience regardless of GIS back end
9. All dashboard functionality should be encrypted via SSL
10. Load balancer and traffic directors should be spread across AWS availability zones to ensure high availability
11. Ability to provide HTTP/HTTPS functionality for other sites in addition to GIS
12. Assumption that GIS servers in AWS and County datacenter are accessible from AWS
13. Assumption that County will route roughly 55gb of traffic per month through the solution
14. Assumption that Turing Group is providing full managed AWS solution

*SSL Certificates will be installed and managed by Turing Group since they are loaded on to the Amazon Elastic Load Balancer. This functionality cannot be included in the Dashboard. If the County requires this capability that can be quoted as a separate project after this implementation.

2.3. PROJECT ASSUMPTIONS

2.3.1. GENERAL

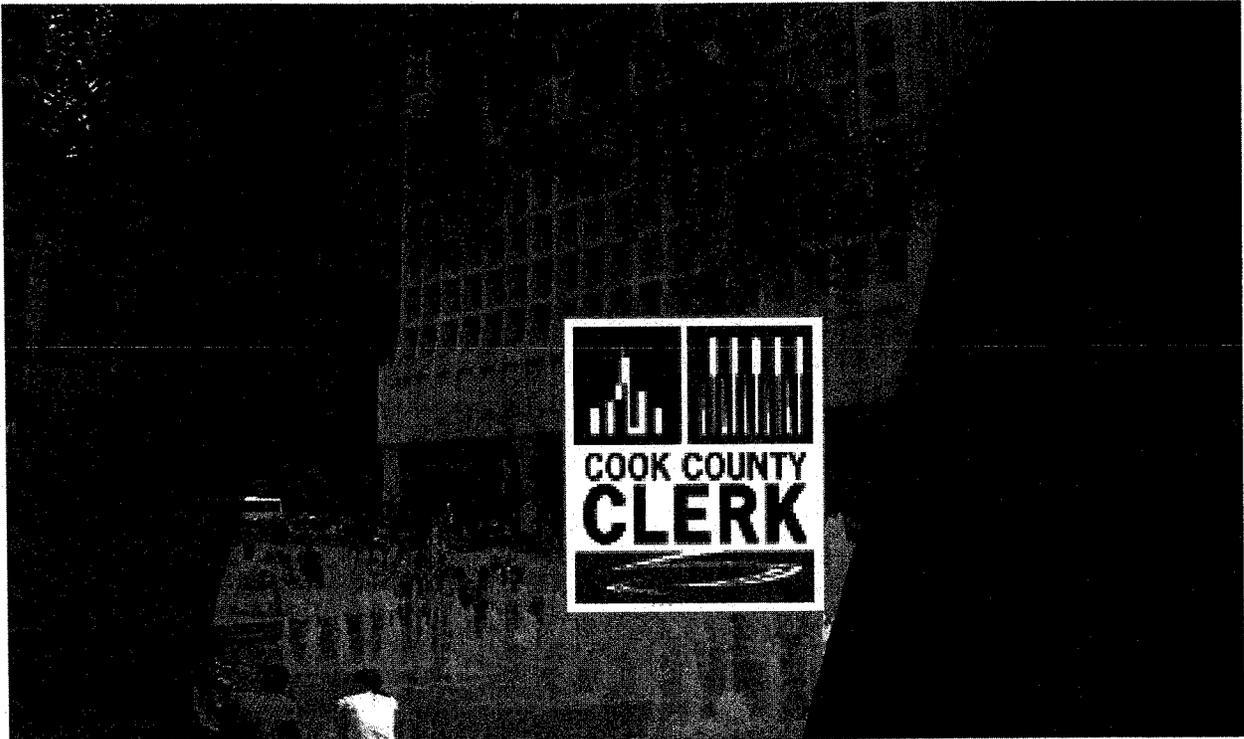
- 2.3.1.1. **Business Hours** – All business shall be conducted during normal business hours (Monday through Friday, 8:00 a.m. to 5:00 p.m.) unless a specific exception is required.
- 2.3.1.2. **Workspace and Other Resources** – GIS shall provide appropriate workspace, network and printer access, phone access, and other reasonable accommodations if/when Clarity team resources work on site.
- 2.3.1.3. **GIS Project Lead** – GIS shall assign an employee to serve as its internal project lead. This person shall serve as the Clarity team's main point of contact throughout the Project and shall work with the Clarity team to align GIS resources and resolve issues.
- 2.3.1.4. **Resource Availability** – Appropriate GIS user representative resources shall be identified and scheduled for relevant work activities by the GIS project manager prior to or coincident with the requisite task necessary to complete all items as outlined in the negotiated project



Description	2015 (Oct/Nov)	2016	2017	2018	2019
PROFESSIONAL SERVICES:					
IMPLEMENTATION*					
Setup and Configuration	\$2,500	-	-	-	-
Develop Control Dashboard	\$10,000	-	-	-	-
Testing/Deployment/Project Management	\$2,500	-	-	-	-
ONGOING					
Amazon Support	\$93	\$193	\$193	\$193	\$193
Management	\$496	\$1,016	\$1,016	\$1,016	\$1,016
TOTALS	\$16,903	\$3,863	\$3,863	\$3,863	\$3,863

*Assumes implementation will be completed prior to December 1, 2015.

ATTACHMENT B



**Statement of Work for Cook
County Clerk's Office: Website
Redesign Implementation**

(Based on Cook County Contract
#1390-13069)

PREPARED FOR
Cook County Clerk's
Office

November 19, 2015



1. OVERVIEW

This Statement of Work ("SOW") defines the implementation services, solution software, and other related service requirements for the Cook County Clerk's ("Clerk") Website Redesign Implementation project (the "Project").



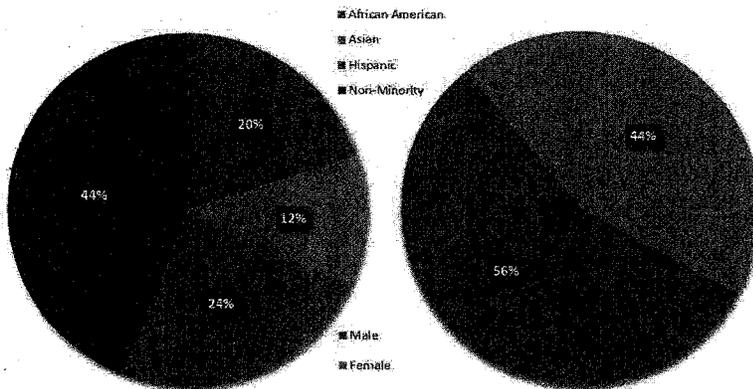
2. EXHIBIT 1: COOK COUNTY CLERK STATEMENT OF WORK

Clarity Partners, LLC is to implement a new public facing website for the Cook County Clerk. The deliverables include the new website itself, as well as several associated applications that support the site. Deliverables will also include hosting, training, and ongoing maintenance of the newly redesigned website.

2.1. OVERVIEW OF CLARITY PARTNERS

Founded in 2004, Clarity has served a variety of clients since its inception 11 years ago. We are a certified minority business enterprise (MBE) and as such, one of our core values is to encourage workplace diversity. Clarity has expanded its workforce from its original three members to over 100 people, which we are proud to say is made up of 56% minority employees and 44% women. The chart below illustrates our workplace diversity.

Workplace Diversity at Clarity Partners



2.2. WHY CLARITY?

From a purely technical and logistical perspective, the Clarity Team is the right choice to ensure the successful Discovery work for the new Cook County Clerk's Office website for the following reasons:

2.2.1. WEB AND MOBILE APPLICATION DESIGN AND DEVELOPMENT EXPERTISE

Clarity has developed mobile and web applications for both private and public sector agencies. Collectively, our proposed consultants have designed, developed, and managed the completion of dozens of web applications, mobile applications, and websites for public and private sector organizations.

2.2.2. SENIOR TEAM OF COMMITTED LOCAL RESOURCES

We are a local firm, ready to work with you directly and in person. Our proposed consultants have over 40 years of collective, relevant experience, including:

- Web application design and development, including mobile and responsive development
- Graphic design and web design
- Application architecture and technical design
- Business analysis and functional requirements definition
- Project management, planning, and communication skills



Additionally, we have chosen a team that contains multiple skillsets within each member of the project team. That enables us to be nimble and flexible – especially crucial for the proposed timeline of this Discovery effort.

2.3. UNDERSTANDING

The Cook County Clerk's Office would like to rebuild its existing public-facing website using a platform that allows more flexibility in terms of growth, management, maintenance, and support. The new platform will allow a more robust architecture including the ability to support complex content taxonomies, an updated look and feel, decentralized content management, and dashboard functionality for frequent site users.

The new website:

- Ensures that content can be created and maintained at every level of the organization;
- Ensures that end-users have easy-to-use tools/interfaces;
- Ensures that interfaces to other existing Clerk applications as well as other external applications can be easily integrated;
- Ensures that a "Minimum Viable Product" can be created quickly, acting as a platform for additional functionality build-out over time;
- Allows for the site to be presented on a range of devices and platforms;
- Ensures that the overall design focuses on usability, intuitive navigation, and an elegant look and feel.

Additionally, we understand that the following are priorities for this project:

- The goal for the new website and associated applications within Phase 1 is to be functional prior to the general election in November 2016.
- We are approaching this project with a "first do no harm" attitude.
- We will generally focus on better incorporation of existing applications.
- We will provide an expanded voter tool.
- We will integrate with a third-party voter tool, if possible.
- We will provide the foundation for future integrations and centralization.

2.4. SCOPE AND DELIVERABLES

The scope of this implementation is as follows:

- Phase 1, to be completed by August 2016:
 - Conduct a kick-off meeting to refine the scope and outline methodology for the engagement
 - Mirror the Early Voting database to support the new public-facing Clerk site
 - Re-platform the public-facing <http://www.cookcountyclerk.com/> site from SharePoint to Drupal
 - Integrate with a new third-party voter information tool
 - Rebuild/enhance applications:
 - Be a Candidate (aka, Build My Petition)
 - Candidate Statement
 - E-Certification
 - Mail Ballot Tracking
 - Online Mail Ballot
 - Results
 - TAX Delinquent
 - Tax Report (Public Search)
 - Tax Report (Secure Login)
 - TIF



- Move existing applications to AWS hosting:
 - ABA
 - ACF
 - Assumed Business Name
 - Commemorative
 - GO
 - Lobbyist
 - UOG/SEI
- Phase 2, to be completed by April 2017:
 - Rebuild/enhance applications:
 - DOEO, to be completed prior to April 2017
 - Redesign and re-theme Vitals Storefront
 - Build new applications:
 - SSO Dashboard

Project Deliverables

Phase One

1. Detailed Work Plan & Project Plan
2. Information Architecture
3. Wireframes
4. Visual Designs
5. Stage Site with Content Types (Initial Stage Release)
6. Stage Site with Drupal Theme (Applied CSS, Initial Release)
7. Integration with Third-party Voter Tool
8. Stage Site with Search
9. Stage .NET Applications: Online Mail Ballot
10. Stage .NET Applications: Results
11. Stage .NET Applications: Tax Delinquent
12. Stage .NET Applications: TIF
13. Stage Drupal Applications: Tax Report (Public Search)
14. Stage Drupal Applications: Tax Report (Secure Login)
15. Beta Launch
16. Test Plan
17. Load Test
18. Training
19. Launch

Phase Two

1. Detailed Work Plan & Project Plan
2. Visual Designs
3. Application Flow
4. PDF Templates
5. Stage Site with Feeds (Initial DOEO Stage Release)
6. Stage Site with PDF Generation (Initial DOEO Release)



- 7. Stage Site with Re-Themed Vitals Storefront
- 8. Stage .NET Applications: SSO Dashboard
- 9. Beta Launch
- 10. Test Plan
- 11. Load Test
- 12. Training
- 13. Launch

Project Activities

Activities
Phase 1: Plan and Define
Prepare for and Conduct Project Kick-off Meeting
Conduct and Document Preliminary Discovery
Conduct and Document Initial Requirements Meetings
Prepare Detailed Work Plan & Project Plan
Phase 1: Analyze and Design
Conduct Needs Assessment
Conduct Benchmark Analysis
Analyze Requirements and Document Findings & Recommendations
Define Information Architecture and Wireframes
Define Infrastructure Architecture
Create Website Style Guide
Develop Website Template Design Concepts
Conduct Website Design Reviews & Refinements
Finalize Design
Prepare Final Website Requirements Document
Phase 1: Develop and Configure
Install and Configure Development Server and CMS
Develop Drupal Content Types, Views, Taxonomy
Generate HTML/CSS Mock-ups
Mirror Early Voting Database, with ETL Middle Layer
Develop Scheduled Delta Early Voting Database Delta Updates
Integrate HTML/CSS Finalized Templates
Content Re-Factoring (Archives, Doc Searches)
Implement Multi-lingual Page Translation
Video: Control Order, Preview Image
Press Release Integration with Email Systems
Integration with DemocracyLive
Notifications for Taxes Constituents
Implement Drupal Site Search
Develop New .NET Applications: Be a Candidate (aka, Build My Petition), Candidate Statement , E-Certification, Mail Ballot Tracking, Online Mail Ballot, Results, TAX Delinquent, TIF
Develop New Drupal Applications: Tax Report (Public, Secure)



Activities
Phase 1: Migration (includes Development)
Launch Beta Website
Modify Site Pursuant to Beta Review and Testing Results
Migrate Finalized Website Content
Phase 1: Test, Train and Deploy
Prepare Test Plan
Load Test
Conduct User Acceptance Testing
Gather and Analyze UAT Results
Conduct UAT Reviews
Modify CMS/Site Content as Needed Based on UAT Reviews
Develop Training Materials and Conduct Training
Deploy Production Website
Phase 1: Project Management
Phase 2: Plan and Define
Prepare for and Conduct Project Kick-off Meeting
Conduct and Document Preliminary Discovery
Conduct and Document Initial Requirements Meetings
Prepare Detailed Work Plan & Project Plan
Phase 2: Analyze and Design
Define Information Architecture and Wireframes: Application Flow
Define Infrastructure Architecture
Develop PDF Template Concepts
Develop Website Template Design for Vitals Storefront
Phase 2: Develop and Configure
Install and Configure Development Environment
Develop New Drupal Applications: DOEO feeds and applications
Develop New Drupal Applications: DOEO PDF generation
Theme Vitals Storefront
Launch Beta DOEO
Develop SSO Dashboard
Modify Pursuant to Beta Review and Testing Results
Phase 2: Test, Train and Deploy
Prepare Test Plan
Conduct User Acceptance Testing
Gather and Analyze UAT Results
Conduct UAT Reviews
Modify as Needed Based on UAT Reviews
Develop Training Materials and Conduct Training
Deploy Production Application
Phase 2: Project Management



2.5. PROJECT ASSUMPTIONS

2.5.1. GENERAL

- 2.5.1.1. **Business Hours** – All business shall be conducted during normal business hours (Monday through Friday, 8:00 a.m. to 5:00 p.m.) unless a specific exception is required.
- 2.5.1.2. **Workspace and Other Resources** – The Clerk shall provide appropriate workspace, network and printer access, phone access, and other reasonable accommodations if/when Clarity team resources work on site.
- 2.5.1.3. **Clerk Project Manager** – The Clerk shall assign an employee to serve as its internal project manager. This person shall serve as the Clarity team's main point of contact throughout the Project and shall work with the Clarity team to align Clerk resources and resolve issues in order to maintain the project schedule.
- 2.5.1.4. **Resource Availability** – Appropriate Clerk user representative resources shall be identified and scheduled for relevant work activities by the Clerk project manager prior to or coincident with the requisite task necessary to complete all items as outlined in the negotiated project plan. Clerk personnel shall be available for quick turnaround on information requests, meetings, and other reasonable needs of the Clarity team to accomplish the project goals in an efficient and effective manner.
- 2.5.1.5. **Subject Matter Expert Availability** – Participation by Clerk technical and functional experts and users are required to ensure that proposed solutions meet the needs of the Cook County Clerk's Office. The participants should represent Clerk experts that are able to contribute to the refinement of the solution analysis, requirements, and design.
- 2.5.1.6. **Supporting Materials** – The Clerk's Office shall provide all requested materials and information necessary for project delivery throughout the Project.
- 2.5.1.7. **Timely Review and Approval of Deliverables** – Relevant Clerk personnel involved in this Project shall be available for all reviews and approvals as required for completion of this Project on agreed upon review dates. The Clerk shall provide the Clarity team with written deliverable approval, or acceptance variances, within the timeframe outlined for each task.
- 2.5.1.8. **Status Meeting Availability** – Appropriate Clerk personnel shall be available for regular status meetings.
- 2.5.1.9. **Delivery Dates** – The actual Project delivery dates shall be mutually determined by Clarity and the Clerk, and take into account the actual Project start-date.
- 2.5.1.10. **Change Management** – In the event of a change in scope or delay caused by the County Clerk's Office, Clarity shall discuss the impact with the Clerk before proceeding. Any significant material change to the Project scope or material delay caused by the Clerk shall be escalated to Clerk management and may result in a change order for an increase in project cost and/or schedule change.
- 2.5.1.11. **IT Support** – The Clerk shall provide the Clarity team with reasonable and necessary IT support in order to complete the agreed upon deliverables as described in this SOW. The Clarity team is not responsible for supporting or maintaining the Clerk's existing internal infrastructure or network unless as otherwise described in this SOW.

2.5.2. DELIVERY AND SCOPE

- 2.5.2.1. **Scope** – Any service or deliverable not described in this SOW shall be considered out of scope.
- 2.5.2.2. **Clerk Input Responsibility** – Client will provide all documentation of existing requirements, designs, and constraints at the start of the project in .DOC, .TXT, or .RTF format. This scope assumes project implementation will follow the Discovery project findings completed by Clarity in October 2015.
- 2.5.2.3. **Main Site Platform and Application Technologies** – This SOW assumes theming and development for the new site will be on the Drupal 7 platform or the newest stable Drupal release available, as hosted using a LAMP stack. Applications to be rebuilt will be on either on Drupal or ASP.NET MVC 5.x or the newest stable version as identified below.
- 2.5.2.4. **Application Rebuild Effort** – This assumes that all applications encompassed within this scope will be completed as a coherent group. If County Clerk would like to further phase out the redevelopment of the identified .NET applications in particular, that would incur additional effort. This also assumes that no additional features, other than those already identified, will be added to the applications or the source databases (including the Early Voting Database) during the length of the project encompassed here.
- 2.5.2.5. **Wireframes** – This scope assumes 10 wireframes.
- 2.5.2.6. **Design** – This scope assumes 2-1-1 design rounds, guided by the wireframes.



- 2.5.2.7. **Media Assets** -- The Clarity team is not responsible for photography and videography for the Clerk site. The Clerk is responsible for providing all media (e.g., photo, video, logos, etc.) content to be published on the websites in a standard web-ready format.
- 2.5.2.8. **Browser Support** -- Browser support is assumed to include only the following common browsers: Chrome, Firefox, Safari, and Internet Explorer ("IE"). Supported versions of the listed browsers are limited to the newest stable version published at the time of the project start-date and the version immediately prior; IE browsers are supported as indicated, although not in downgraded compliance modes. Website/page viewing is assumed to occur using a default zoom level of 100% for the device/browser the site is loaded on.
- 2.5.2.9. **Responsive Adaptations** -- This SOW assumes mobile support through responsive design. This SOW assumes three (3) responsive design adaptations: small grid, medium grid, and large grid. The Responsive Design requirement shall accommodate all display sizes; this SOW assumes no additional mobile-specific functionality.
- 2.5.2.10. **Mobile Theme** -- This SOW assumes mobile theme design will be derivative of desktop design based on wireframes. This SOW assumes that designing for responsiveness shall occur simultaneously with the design of the desktop version of the sites. This SOW assumes mobile support is for the front-end of the site only, not the administrative tools or any back-end functionality.
- 2.5.2.11. **URL Re-Mapping** -- This SOW assumes there is no URL re-mapping from the existing site URLs to the new site URLs included within this scope. The existing sites URLs shall be taken offline when the new sites URLs move to production. Old page URLs shall not link to new page URLs, with the exception of site level domain forwarding and existing external sites (i.e. defined as "vanity URLs").
- 2.5.2.12. **Multi-lingual Support** -- This scope assumes primary multiple language support through the use of Google Translate, with the foundational support for manual translation. Manual translation services would be provided by the County Clerk.
- 2.5.2.13. **Customizations** -- This SOW assumes that customizations not specifically listed within this document are out of scope. The sites shall use existing Drupal modules that offer the most robust solutions and most closely fit the determined requirements, but may not encompass all features listed.
- 2.5.2.14. **Integrations** -- Assumes third-party integration estimates for the following:

- Online Mail Ballot (.NET)
- Results (.NET)
- Tax Delinquent (.NET)
- TIF (.NET)
- SSO Dashboard (.NET)
- Tax Report (Public Search) (Drupal)
- Tax Report (Secure Login) (Drupal)
- DOEO (Drupal)
- Flickr
- YouTube
- Third-Party Voter Tool

This scope assumes existing accessible APIs and/or feeds from third-party vendors, with their development finalized and available for use at the time of Drupal website development.

- 2.5.2.15. **Search** - This scope assumes the use of Solr search.
- 2.5.2.16. **Additional Integrations** -- This SOW assumes any internal or external integrations that are not specifically listed within this document are out of scope. All other 3rd-party integration beyond those listed are assumed to be links to external sites and/or are provided by the County Clerk users in the Drupal solution using embedded code (e.g. YouTube videos, County Clerk Google Calendars, data center searches, maps, etc.).
- 2.5.2.17. **Shared Development Environment** -- This SOW assumes one (1) centralized development environment which all relevant team members can access and update as needed in accordance with mutually agreed-upon configuration/customization procedures.
- 2.5.2.18. **Shared Source Control** -- This SOW assumes that all project team members who configure, develop and promote code shall do so according to mutually agreed-upon Source Code Management ("SCM") guidelines. If additional effort is required to repair or maintain code because non-Clarity parties violated those processes and procedures, the project timeline, scope, and costs will likely be affected.
- 2.5.2.19. **Licensing** -- It is assumed that the County will provide MS SQL Enterprise licenses.
- 2.5.2.20. **Hosting Costs** -- Hosting costs will begin when environments are set up.



2.6. SOLUTION OVERVIEW

The approach to develop the content/content strategy centric technical architecture, software and systems shall follow a standard, linear, requirements-driven Systems Development Life Cycle (SDLC). The SDLC will minimize rework, required resources, and risk in developing something that doesn't fully address the organization's and user's needs while at the same time providing a solid foundation for future expansion.

This project shall leverage Drupal as the Content Management System (CMS) for the main public site (<http://www.cookcountyclerk.com/>) and potentially other contributed modules, frameworks, or established third-party applications to speed development and reduce ongoing maintenance costs. Custom development efforts for the CMS will be minimized, with the goal that ongoing website content updates will be as self-service as possible for staff within the Cook County Clerk's Office.

Existing custom applications that support the main public site will be ported or rebuilt, as identified below. These applications will be ported or rebuilt as either Drupal-incorporated or stand-alone .NET applications that will be maintained by the Cook County Clerk IT staff.

It is expected that development of the new Drupal CMS platform and the porting and rebuilding of the custom applications can largely happen in parallel in order to speed overall development.

Both the new Drupal CMS and relevant .NET applications (as noted below) will be hosted in the AWS cloud environment. Some legacy .NET applications will remain with Catalyst hosting, with the understanding that eventually all such applications will migrate away from Catalyst by 2017.

Because the current underlying infrastructure and application architecture for the full family of Cook County Clerk applications is so interconnected, we will be phasing in changes over time. As a first step, Clarity will mirror the existing Early Voter database and strip it down to only those elements which serve the Cook County Clerk public site; all other applications would be unaffected. Clarity will develop a service to refresh the relevant data from the Early Voter database to the new mirrored database. Note that the ETL (Extract, Transform, Load) process moving the data between the MS SQL database and the MySQL database will likely require a middle transitional layer, to be hosted on AWS. Timing of the refresh service itself will be determined during the development process, but currently Clarity assumes a standard hourly refresh schedule with the ability for County Clerk staff to manually refresh as needed. Because of the frequency of the data refreshes, Clarity assumes a process whereby only the delta changes will migrate to the mirrored database, rather than a truncation and full restore.

This "mirroring" approach will allow us to address the desire to launch a new site prior to the 2016 general election, greatly reduce project risk, and provide a clean foundation for future work.

After the launch of the new public facing website, the next phase will be to address the other applications attached to the existing Early Voter database, followed by all other applications currently hosted with Catalyst. The goal is to move all such currently Catalyst-hosted applications to a new environment by the end of 2017.

Throughout the implementation effort, there will be a focus on performance and scalability, both in hosting and application development.

2.6.1. TECHNICAL ARCHITECTURE – DRUPAL

The Clarity team shall install and configure Drupal version 7.x or the newest stable version available; this will replace the existing SharePoint 2010 CMS.

Drupal is an open-source application framework under the GNU General Public License. A core set of functionality shall be installed and extended by the Clarity team through configuration of a system of modules. Drupal modules fall into two groups: core modules and contributed modules. Core modules shall include the minimal code needed to start the software and contributed modules shall provide additional functionality beyond the base installation.

Drupal currently offers approximately 23,000 modules, and most are available for download at drupal.org.

Drupal is an open source project, and thus almost all modules are available without licensing fees. Core modules include the minimal code needed to start the software. The Clarity project team shall select the final list of modules needed after careful review with the Cook County Clerk during the initial phase of the project, evaluating each module for feature-fit, efficiency, and appropriateness.



The Clarity team shall install the Drupal platform on a UNIX server with Apache, MySQL, and PHP (LAMP). Server configuration options can vary greatly, depending on server load, authenticated/unauthenticated user ratio, caching requirements, load balancing, image serving, CDN, etc. The Clarity team shall work with the Cook County Clerk to determine the best configuration options.

All Drupal applications, including the CMS, will be hosted in an Amazon cloud hosting instance (AWS).

The Clarity team shall work with the Cook County Clerk to determine if the following typical Drupal configuration is appropriate, based on the most current versions of these technologies that have been approved to work in concert together (see <https://www.drupal.org/requirements>):

1. **Technology platform:** Drupal 7.x or newest stable version
2. **Number of hosted environments:** Two (Staging and Production)
3. **Minimum requirements for front and backend applications:**
 - a. Ubuntu Linux 14.04.x LTS
 - b. PHP 5.3.x
 - i. PHP modules / libraries:
 1. php5-gd
 2. php-pear
 3. php5-dev
 4. php5-curl build-essential
 5. php5-mysql
 - c. Apache 2.2.x
 - i. Apache modules / libraries:
 1. apache2-prefork-dev
 2. apache2-mpm-prefork
 3. apache2-utils
 4. apache2.2-bin
 5. apache2.2-common
 6. libapache2-mod-php5
 7. libapr1
 8. libaprutil1
 9. libaprutil1-dbd-sqlite3
 10. libaprutil1-ldap
 11. libdbd-mysql-perl
 12. libdbi-perl
 13. libhtml-template-perl
 14. libmysqlclient16
 15. libnet-daemon-perl
 16. libplrpc-perl
 17. libwrap0
 18. MySQL 5.0.15 or higher with PD

2.6.2. TECHNICAL ARCHITECTURE -- .NET

The Clarity team shall use a consistent framework of ASP.NET MVC 5.x or the newest stable version available to develop the .NET applications. Applications will be built so that the Drupal interface can consume the data via iFrame or REST APIs, whichever is more appropriate within the given circumstance.

It is assumed that the databases supporting the .NET applications will continue to be MS SQL, and that the County will be able to provide the appropriate Enterprise licenses (note that if the County cannot provide Enterprise licensing, additional hosting costs may be incurred).



2.6.3. APPLICATIONS

BUILD FRESH / ENHANCE

- E-Certification
 - Specifications for enhancements are expected to be completed in Fall 2015. Enhancements of the existing application and its integration will be part of the new website.
 - .NET
- Be a Candidate (aka, Build My Petition)
 - Note that this is currently being prototyped: <http://52.10.62.32/candmodule>
 - .NET
 - Hosted: AWS
- Candidate Statement
 - This may be an element of the new third-party voter information tool
 - Should be incorporated as part of the Voter Tool
 - Feeds into the candidate list / voter tool
 - .NET
 - Hosted: externally
- SSO Dashboard
 - Lobbyist (role: Lobbyist) – Can login to file fiscal reports.
 - SEI/UOG (role: Elected Official) – Can login to file fiscal reports.
 - Candidate statement tool (role: Candidate) – Can login to add a statement to the voter information center.
 - Directory of Elected Officials (role: Elected Official) – Logins for local administrators to update and edit elected officials information.
 - Tax delinquent search (role: Tax Buyer) – Login to save searches
 - Tax agency reports portal (2-way communication) (role: Outside Agency) – Login to participate.
 - Vitals authentication (roles: Funeral Director, Public Defender) – login to submit initial paperwork.
 - This would be a stand-alone authentication application that would then connect to the relevant sub-systems
 - .NET
 - Hosted: AWS

REBUILD: .NET

Note that all applications to be rebuilt using .NET will be hosted on AWS.

- TAX Delinquent
 - Current Framework: ASP.NET 2.0
 - Current SQL: 2008
 - Database Name: TaxDelinquent
 - Database Size: 100MB
 - Data Change Rate Per Year: 100MB
 - We will continue to process the nightly export files while improving the user interface and accessibility.
 - .NET
- Early Voting (Mirrored)
 - ~~Generate reports to give to campaigns~~
 - Links to Evoters
 - Feeds voter lookup tool
 - This database will mirror the website-relevant data in a new database
 - Current Framework: ASP.Net 3.5



- Current SQL: 2008
- Database Name: [TBD]
- Database Size: Unknown; full database for EarlyVoting is 11GB
- Data Change Rate Per Year: Unknown; current rate for full database is 2GB
- URL: earlyvoting.cookcountyclerk.com
- .NET
- TIF
 - Current Framework: ASP.Net 3.5
 - Current SQL: 2008
 - Database Name: TIF
 - Database Size: 600MB
 - Data Change Rate Per Year: 600MB
 - URL: 208.66.170.86/tif/revisedsearch.aspx
 - .NET
- Results
 - Current Framework: ASP.Net 3.5
 - Current SQL: 2008
 - Database Name: Results
 - Database Size: 215MB
 - Data Change Rate Per Year: 100MB
 - URL: results.cookcountyclerk.com
 - .NET
- OnlineMailBallot/Full
 - Current Framework: ASP.Net 4.0
- OnlineMailBallot/Mobile
 - (Note: Clerk's Office would like to merge these into one application)
 - Current Framework: ASP.Net 4.0
 - Current SQL: 2008 R2
 - Database Name: evoterdb
 - Database Size: 40MB
 - Data Change Rate Per Year: 30MB
 - URL: mailvoting.cookcountyclerk.com
 - .NET

REBUILD: DRUPAL

Note that all applications to be rebuilt using Drupal will be hosted on AWS.

- Tax Report (Public Search)
 - Current Framework: ASP.Net 3.5
 - Current SQL: 2008
 - Database Name: TaxReport
 - Database Size: 822MB
 - Data Change Rate Per Year: 500MB
 - URL: 208.66.170.86/taxreport/
 - This needs to be rebuilt in tandem with Tax Report (Secure Login)
- Tax Report (Secure Login)



- Current Framework: ASP.Net 3.5
- Current SQL: 2008
- Database Names: TaxReport, TaxReport_aspnetdb
- Database Size: 822MB, 36MB
- Data Change Rate Per Year: 500MB
- URL: taxreports.cookcountyclerk.com
- Drupal.
- **DOEO**
 - Current Framework: ASP.Net 3.5
 - Current SQL: 2008
 - Database Name: DOEO
 - Database Size: 10MB
 - Data Change Rate Per Year: 5MB
 - Supported by Additional Datasets:
 - CookCountyClerk_ElectionData
 - Results
 - DOEO_REF
 - URL: doeo.cookcountyclerk.com
 - Needs to be available mid-2017, post April elections
 - This should be developed as part of a larger solution for managing Elected officials information
 - Drupal.

NO UPDATES NEEDED

Although no updates will be needed to the following applications, they will move to AWS hosting. Eventually all applications will be migrated to AWS hosting, but the focus below is on the first phase effort, and it has been determined that for the first phase, applications related to elections should stay in place.

- **ACF**
 - Current Framework: ASP.Net 4.0
 - Current SQL: 2008
 - Database Name: ACF
 - Database Size: 18MB
 - Data Change Rate Per Year: 20MB
 - URL: acf.cookcountyclerk.com
 - Hosted: AWS
- **GO**
 - Current Framework: ASP.Net 4.0
 - Current SQL: 2005
 - Database Size: 4.2GB; data is 1.75GB with the remainder as transaction log
 - Images: spread over 3 drives, 2TB of storage
 - URL: www.cookcountygenealogy.com
 - Hosted: AWS

- **ABA**
 - Current Framework: ASP.Net 4.0
 - Current SQL: 2005
 - Database Size: 443MB
 - URL: agenda.cookcountyclerk.com



- Hosted: AWS
- Commemorative
 - Current Framework: ASP.NET MVC Framework 3.0
 - URL: commemorative.cookcountyclerk.com/
 - Hosted: AWS
- UOG/SEI
 - Current Framework: ASP.Net 4.0
 - Current SQL: 2008
 - Database Size: 1.8GB
 - Data Change Rate Per Year: 1.5GB
 - URL: ethics.cookcountyclerk.com
 - Hosted: AWS
- Assumed Business Name
 - Current Framework: ASP.Net 4.5, ASP.NET MVC Framework 4.0
 - Current SQL: 2008 R2
 - Database Name: AssumedBusinessName
 - Database Size: 200MB
 - URL: assumednames.cookcountyclerk.com
 - Hosted: AWS
- Lobbyist
 - Current Framework: ASP.Net 4.0
 - Current SQL: 2008
 - Database Size: 50MB
 - Data Change Rate Per Year: 2GB
 - URL: lobbyist.cookcountyclerk.com
 - Hosted: AWS

2.7. HOSTING

The Clarity team shall install the Drupal platform on a UNIX server with Apache, MySQL, and PHP (LAMP) or a .NET platform on a Windows server, as specified below. Server configuration options can vary greatly, depending on server load, authenticated/unauthenticated user ratio, caching requirements, load balancing, image serving, CDN, etc. The Clarity team shall work with the County Clerk team to determine the best configuration options. The Clarity team shall update the system architecture diagram depicted below as needed to better reflect the County Clerk's final solution.

2.7.1. HARDWARE

The Clarity team shall build the County Clerk solution on Amazon Web Services' cloud platform.

Description	Specifications	Environment	Role	Operating System
Aws Volume	50GB SSD GP (Root)	Production	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Production	Drupal	Ubuntu 14.04



Description	Specifications	Environment	Role	Operating System
Aws Volume	50GB SSD GP (Root)	Production	Drupal	
Production Varnish Caching Server 1	m3.large	Production	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Production	Drupal	
Production Varnish Caching Server 2	m3.large	Production	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Production	Drupal	
Production Database Instance (Multi-AZ)	m3.large 100GB 500 IOPs MySQL	Production	Drupal	N/A
Production Replicated File System 1	m3.large	Production	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Production	Drupal	
Aws Volume	100GB SSD GP (WebRoot)	Production	Drupal	
Aws Images Volume	2TB SSD GP	Production	.Net Apps	
Production Replicated File System 2	m3.large	Production	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Production	Drupal	
Aws Volume	100GB SSD GP (WebRoot)	Production	Drupal	
Aws Images Volume	2TB SSD GP	Production	.Net Apps	
Production Shared SQL Server 1	m3.large	Production	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Production	.Net Apps	
Aws SQL Data Volume	50GB SSD 500 IOPs	Production	.Net Apps	
Aws SQL Logs Volume	50GB SSD 500 IOPs	Production	.Net Apps	
Aws SQL Backup Volume	500gb Magnetic	Production	.Net Apps	
Production Shared SQL Server 2	m3.large	Production	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Production	.Net Apps	
Aws SQL Data Volume	50GB SSD 500 IOPs	Production	.Net Apps	
Aws SQL Logs Volume	50GB SSD 500 IOPs	Production	.Net Apps	
Aws SQL Backup Volume	500gb Magnetic	Production	.Net Apps	
Production Results SQL Server 1	m3.large	Production	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Production	.Net Apps	
Aws SQL Data Volume	50GB SSD 500 IOPs	Production	.Net Apps	
Aws SQL Logs Volume	50GB SSD 500 IOPs	Production	.Net Apps	
Aws SQL Backup Volume	500gb Magnetic	Production	.Net Apps	
Production Results SQL Server 2	m3.large	Production	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Production	.Net Apps	
Aws SQL Data Volume	50GB SSD 500 IOPs	Production	.Net Apps	
Aws SQL Logs Volume	50GB SSD 500 IOPs	Production	.Net Apps	
Aws SQL Backup Volume	500gb Magnetic	Production	.Net Apps	
Production Results .Net Server 1	m3.large	Production	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Production	.Net Apps	
Production Results .Net Server 2	m3.large	Production	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Production	.Net Apps	

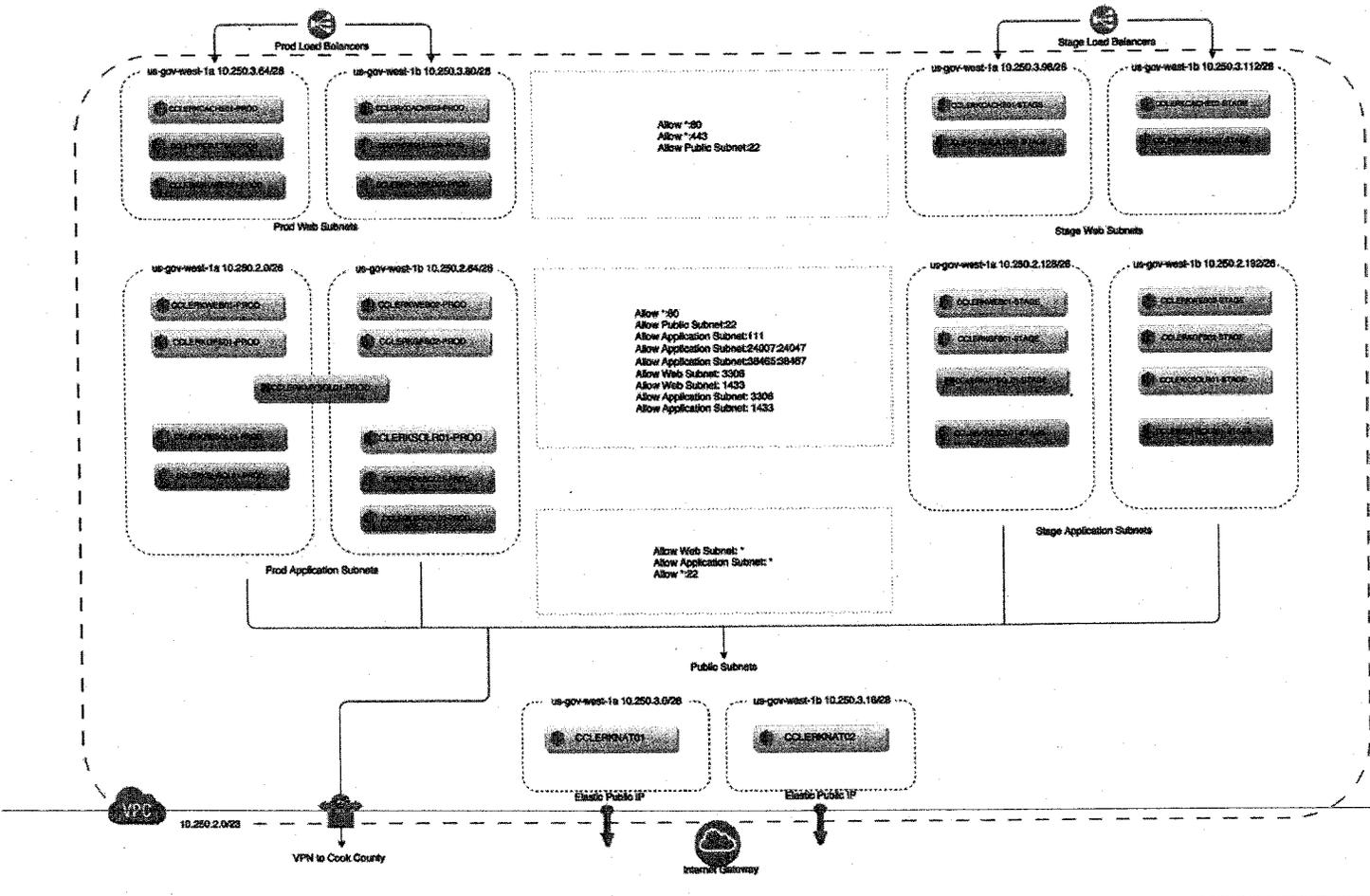


Description	Specifications	Environment	Role	Operating System
Production Shared .Net Server 1	m2.large	Production	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Production	.Net Apps	
Production Shared .Net Server 2	m2.large	Production	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Production	.Net Apps	
Staging Drupal Server 1 - Web Firewall	t2.medium	Staging/Dev	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Staging/Dev	Drupal	
Staging Drupal Server 2 - Web Firewall	t2.medium	Staging/Dev	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Staging/Dev	Drupal	
Staging Varnish Caching Server 1	t2.medium	Staging/Dev	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Staging/Dev	Drupal	
Staging Varnish Caching Server 2	t2.medium	Staging/Dev	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Staging/Dev	Drupal	
Staging Database Instance (Single AZ)	m3.medium 100GB GP MySQL	Staging/Dev	Drupal	NA
Staging Database Instance (Single AZ)	t2.medium	Staging/Dev	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Staging/Dev	Drupal	
Aws Volume	100GB SSD GP (WebRoot)	Staging/Dev	Drupal	
Staging Replicated File System 1	t2.medium	Staging/Dev	Drupal	Ubuntu 14.04
Aws Volume	50GB SSD GP (Root)	Staging/Dev	Drupal	
Aws Volume	100GB SSD GP (WebRoot)	Staging/Dev	Drupal	
Staging Shared .Net Server	m2.large	Staging/Dev	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Staging/Dev	.Net Apps	
Staging Results .Net Server	m2.large	Staging/Dev	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Staging/Dev	.Net Apps	
Staging Shared SQL Server	m2.large	Staging/Dev	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Staging/Dev	.Net Apps	
Aws SQL Data Volume	50GB SSD GP	Staging/Dev	.Net Apps	
Aws SQL Logs Volume	50GB SSD GP	Staging/Dev	.Net Apps	
Aws SQL Backup Volume	500gb Magnetic	Staging/Dev	.Net Apps	
Staging Results SQL Server	m2.large	Staging/Dev	.Net Apps	Windows 2012 Server
Aws Volume c:\	120GB SSD GP (Root)	Staging/Dev	.Net Apps	
Aws SQL Data Volume	50GB SSD GP	Staging/Dev	.Net Apps	
Aws SQL Logs Volume	50GB SSD GP	Staging/Dev	.Net Apps	
Aws SQL Backup Volume	500gb Magnetic	Staging/Dev	.Net Apps	
NAT Instance 1	t2.medium	All	Shared	Amazon Linux
Aws Volume	120GB SSD GP (Root)	All	Shared	
NAT Instance 2	t2.medium	All	Shared	Amazon Linux
Aws Volume	120GB SSD GP (Root)	All	Shared	



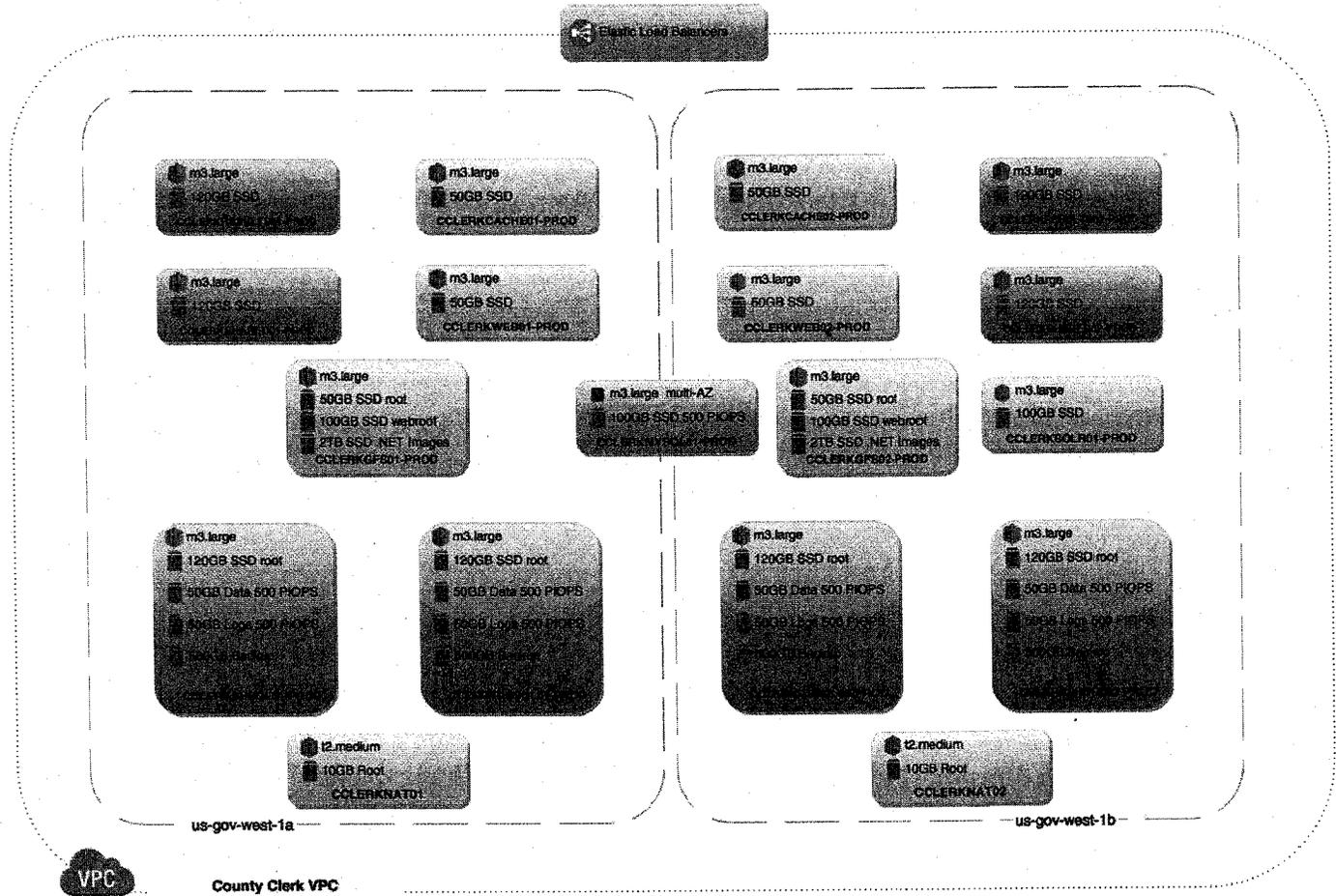
Description	Specifications	Environment	Role	Operating System
Estimated 6 Load Balancers, 6 EIP, 50GB Estimated Network Traffic	50 GB Of Data transfer	All	Shared	

2.7.2. AWS NETWORK OVERVIEW



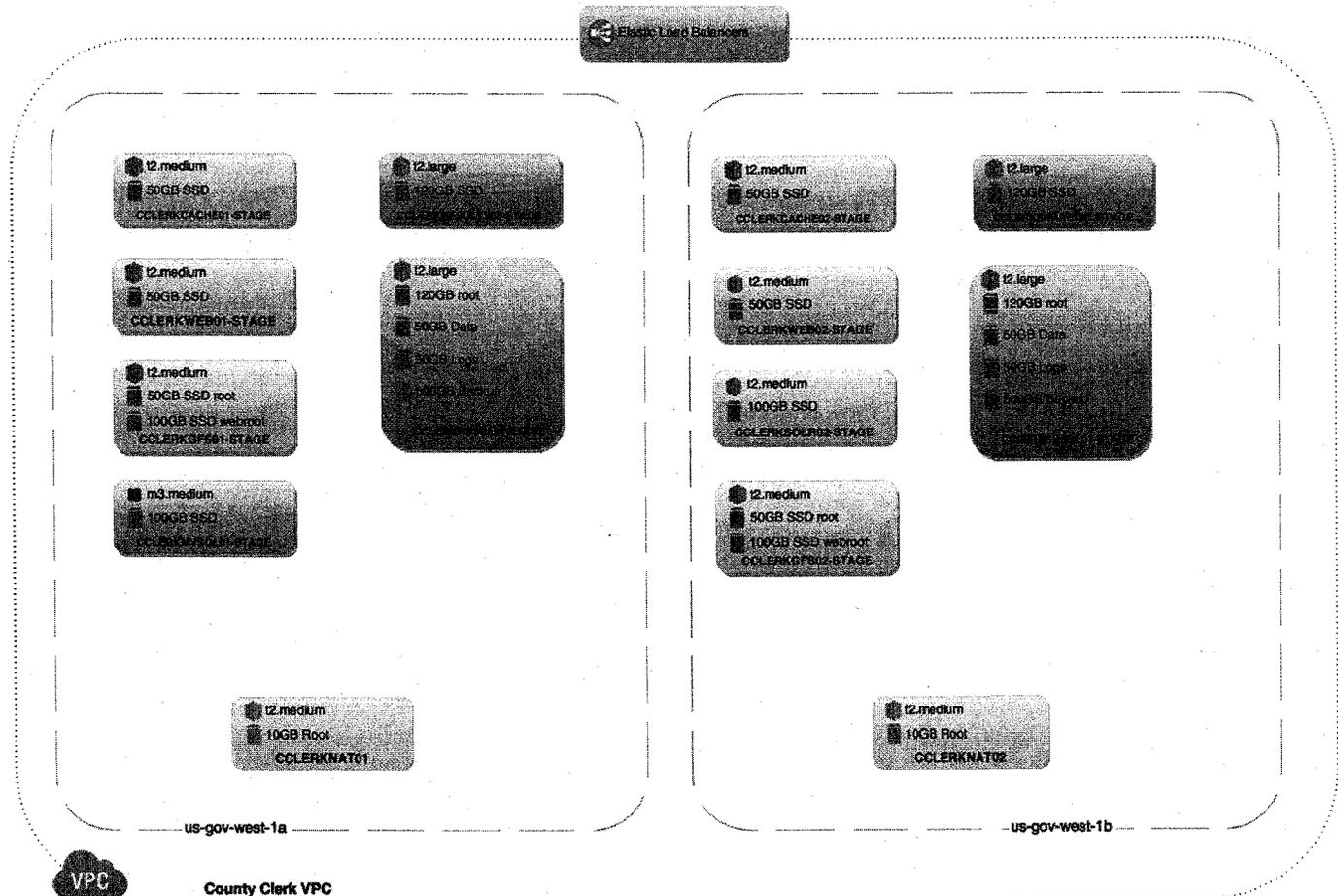


2.7.3. OVERVIEW – PRODUCTION ENVIRONMENT





2.7.4. OVERVIEW – STAGING ENVIRONMENT



2.7.5. SCALING

This infrastructure approach assumes that the Cook County Clerk will auto-scale as necessary (i.e., during election season). Clarity estimates a rough cost of \$8.50 - \$10 per day per additional .NET server in the cluster. Scaling the SQL server up to a very large and fast instance would increase their cost about \$28 - \$30 per day.

2.8. BACKUP & RECOVERY

2.8.1. OVERVIEW

Clarity shall provide all backup processes, testing, reporting, notification, and recovery as part of this contract. As such, there are no responsibilities on the Cook County Clerk's Office other than to specify retention periods for backups. The Clarity shall perform the following tasks:

1. Initial configuration and deployment of file system and database backups;



2. Monitoring of all daily backup processes;
3. Mount and verify files on EBS snapshots with critical Drupal Files.
4. Mount and RDS snapshot and verify MySQL connectivity and Drupal tables.
5. Reporting of backup status including successes and failures
6. Notification to Cook County Clerk of any backup or test failure.

2.8.2. BACKUP AND RECOVERY STRATEGY

The Clarity team shall formally document the Cook County Clerk's backup and recovery plan including the backup method, schedule for backup testing, and application/data restoring procedures. The plan shall include requirements to backup any applicable data. The Clarity team shall configure the solution to leverage the file system backups of the Drupal file base via Amazons EBS volume snapshot technology. The AWS system shall automatically snapshot the primary Drupal file root on a regular basis.

For MySQL RDS Drupal databases, The Clarity team shall configure database backups utilizing Amazon's RDS backup service. Automated backups shall allow for point-in-time recovery of the Drupal system. The Clarity team shall configure retention to allow the restoration of the Drupal database up to the backup time (within a 35-day maximum) or within one-second resolution within five-minutes of a failure in an availability zone and as long as both RDS instances have not failed due to a region based failure or outage.

For MSSQL Server databases, the clarity team will schedule regular backups to a dedicated backup volume using the SQL Agent. Transaction logs will be configured to allow for a role back to any point in time with a five-minute resolution. Since both servers will be operating in an Active/Active configuration, if an availability zones goes down the remaining server in the alternate availability zone will be available in real-time with most current data within one second of the outage.

The Clarity team shall leverage proprietary software to perform all backups.

Furthermore, the Clarity team shall configure daily snapshots of the Drupal database, completed each night and kept for a duration determined by the Cook County Clerk's office. The Clerk's office shall specify retention timeframes for backups.

The Clarity team shall adhere to a multi-layered approach to backup and recovery. The first layer shall aim to avoid any data loss or system outages by distributing the production environment across Amazon availability zones the AWS GovCloud datacenter located in the Northwestern United States. The two availability zones shall work in tandem to provide both scalability and high availability.

Amazon availability zones are fully independent infrastructure environments whose individual failures do not affect one another. Amazon provides high-speed low-latency links between availability zones that allow for real-time replication of data and scalability of an application between zones. The goal of this configuration is never to lose data because of hardware or datacenter failure. If an availability zone were to go down entirely, **there shall be no data loss for the Cook County Clerk site.**

NOTE: Since Amazon only operates one Gov Cloud datacenter, there is a limited and rare chance that the Cook County Clerk could lose up to 24 hours of data. Replication between availability zones shall happen in real time, but the availability zones are physically very close to one another and sometimes within the same datacenter. The Clarity team shall snapshot the RDS instances every 24 hours. Snapshots shall be stored in S3, which shall be replicated outside of the availability zones into regions. Since Gov cloud is only available in one region there is a chance that both datacenters could be destroyed and the Clarity team would then have to go to S3 to recover snapshots. Thus the assumption that up to 24-hours of data may be lost represent a "worst-case" scenario. This scenario would only occur if:

- 1) Both availability zones are destroyed.
- 2) An authorized user writes bad code that deletes data in the database, and the deleted data replicates to the secondary availability zone (the replica).

The Clarity team shall provide a 99.95% uptime guarantee outside of scheduled maintenance hours.



The proposed maintenance window is the first Saturday of each month between the hours of 1am and 4am CST. Maintenance activities include but are not limited to Security updates, patches, Disk upgrades, Amazon maintenance, etc. The maintenance window might not be used every weekend but is identified and scheduled to be used as needed. See the maintenance and support section of this document for further details.

The Clarity team shall configure data replication between availability zones at two levels. The first level is file system based, and it shall encompass an hourly sync of the Drupal file system between Drupal webservers located in each availability zone. The second level of replication is built into Amazon's MySQL RDS servers and shall replicate database writes to a standby instance located in an alternate availability zone. The Clarity team shall configure this setup to ensure that there is always a minimum of two copies of active data.

In General, the Clarity team shall perform all backup and recovery tasks to ensure high availability (99.95%). The Clarity team shall configure a full backup of the Drupal database on a daily basis, and a monthly backup of the database files. Where possible, the Clarity team shall automate these tasks.

2.8.3. SNAPSHOT AND BACKUP SCHEDULE

A. EBS Volumes:

Backups of all EBS volumes, including root disks and data volumes, shall be performed on a daily basis and be retained for 90 days. Snapshots shall be performed at the following times:

1. Monday 7:00 GMT
2. Tuesday 7:00 GMT
3. Wednesday 7:00 GMT
4. Thursday 7:00 GMT
5. Friday 7:00 GMT
6. Saturday 7:00 GMT
7. Sunday 7:00 GMT

B. MSSQL Databases:

Microsoft SQL Servers will be configured in an active/active replication configuration and transaction logs will be backed up by snapshotting the EBS transaction log volume and retained for up to 90 days. The snapshot schedule will follow the same schedule as EBS volume snapshots identified above.

C. RDS Databases:

RDS Databases shall be backed up on a daily basis and shall include snapshots of the databases and transaction logs. Backups of RDS databases shall be retained for 35 days and run on the following schedule:

1. Monday 7:00 GMT
2. Tuesday 7:00 GMT
3. Wednesday 7:00 GMT
4. Thursday 7:00 GMT
5. Friday 7:00 GMT
6. Saturday 7:00 GMT
7. Sunday 7:00 GMT

2.9. DEVELOPMENT AND CONFIGURATION PRACTICES

The Clarity team shall adhere to Drupal development best practices for security and sustainable development. In summary, this includes:

1. Never "hack" core. Drupal is written with the assumption that every release upgrade shall overwrite every Drupal core file. Therefore, local edits ("hacks") to Drupal core files are strongly discouraged. (<https://drupal.org/node/1559728>)



2. Using popular and actively maintained Drupal modules to achieve desired functionality of the site, when possible.
3. Avoid allowing PHP code as input in areas not specifically designed to handle it, for example, within the body content of a page.

2.9.1. CONTRIBUTED DRUPAL MODULES

Drupal's modular structure allows community-contributed modules to extend the functionality of Drupal's core features. The Clarity team shall evaluate the desired functionality of the County Clerk's site and select popular, actively maintained contributed modules to use on the site.

2.9.2. CUSTOM DRUPAL MODULES

In some cases, contributed Drupal modules do not exist for specific use cases or requirements. In these instances, the Clarity team shall develop custom Drupal modules to meet these use cases or requirements. Additionally, the Clarity team may choose to develop custom modules at its discretion in situations where contributed modules exist, but a custom module would be more effective. When a custom module is developed, the Clarity team shall adhere to the following security and development practices:

1. All database queries shall be performed using the Drupal database API rather than using direct database queries. The Drupal database API performs a number of validations and checks to prevent attempts at exploits to the database. In instances where user input (either via form or via URL parameters) is accepted, the input is validated and escaped to further protect against SQL injection attacks;
2. Where appropriate, create and grant permissions to specific roles to access functionality within the custom module;
3. Leverage the well-established Drupal API and contributed module functions to streamline code and development effort;
4. Follow Drupal coding standards and best practices (available and periodically updated at <https://drupal.org/coding-standards>);

2.9.3. CODE-DRIVEN DEVELOPMENT

Drupal 7 allows for a mix of both content and configuration to be stored in the CMS database. This storage of configuration in the database allows for changes to the behavior of a site (for example, adding a new field to a content type) without the need for a developer to be familiar with Drupal. While this convenience is helpful in some situations, in others it creates challenges. For example, changing an existing Drupal view in a development environment via database configuration, those changes must somehow be 'replayed' in the admin interface when deploying the changes to other environments. In many cases, Drupal allows for configurations to be exported to code (using Exportables or Features) so that this challenge is lessened. The Clarity team shall, when possible and practical, adhere to a code-driven development approach to minimize the effort required to make changes to the site within the administration interface.

2.9.4. DRUPAL USER #1 AND USER ROLES

When a site is created, Drupal creates an administrator account (User #1). This account has full access to the Drupal site. To help prevent exploitation of this user account, the Clarity team shall adhere to the following measures:

1. Use a non-standard name for User #1 (e.g. Do not use admin, administrator, sysadmin, root, etc.);
2. Use a complex, randomly generated password for this account;
3. Change the password regularly;
4. This account information is selectively shared with only those who need to know it;
5. User Roles in Drupal are based on a set of permissions that each user within that role share;
6. Permissions in Drupal are permissive and not restrictive.

The Clarity team shall work closely with the Cook County Clerk's office during discovery to define the appropriate user roles and their permission sets. Users shall only be granted the roles to which their work on the site pertains.

2.9.5. SOURCE CODE CONTROL

The Clarity team shall utilize Git (<http://git-scm.com/>) for source code management. Only developers who are working on the County Clerk's site shall have access to the Git repository for the project. The source code for the project shall only be accessible over SSH between the development environment and the Git repository.



2.10. SYSTEM SECURITY

The Clarity team shall continually monitor the system for potential security flaws at the core and contributed module levels. If any security flaw potentially affects the Cook County Clerk, the Clarity team shall notify the designated Cook County Clerk personnel. While this system shall provide alerts for newly discovered security threats, the Clarity team shall take the following additional steps to provide defense against common security issues.

1. **Custom input filters for all content entry:** Every user role shall include a fully-configured set of text filters to remove unwanted or malicious markup. These filters shall include the HTML Purifier Library. Other enabled filters include:
 - a) Automated line break/paragraph conversion
 - b) Link Validation (and auto-URL generation)
 - c) Limitation of accepted HT
2. **Password Hardening:** This installation shall include the Password Policy module that shall force strong passwords via length and complexity. It also shall establish time-based password renewals whereby users shall be forced to update their passwords based on a strict time policy. Administrators shall be able to define the length, character makeup, and history of passwords, forcing users with specific roles to update their passwords on a pre-defined time limit.
3. **Security (Hardening) Module Installation:** The Drupal installation for Cook County Clerk shall include the contributed security modules 'Security Review' and 'Secure Kit.' These modules shall evaluate and identify security risks on an ongoing basis. **Security Kit ("Secit")** shall provide a central security system to help mitigate the known security issues.
4. **Form Input Field Validation:** Field input shall be validated through Drupal field validation.
5. **Login Security:** Unsuccessful login attempts shall be blocked after a threshold configurable by an administrator. This shall have the ability to initiate a cooling off period, or the forced invalidation of user credentials. Additionally, Drupal shall provide audit capabilities. At the system level, the Events Log module shall log system event and error messages to the database or to the system logs.
6. **Firewall Security:** Web Application firewall shall filter all known web application attacks in the Trustwave ModSecurity attack signature database.
7. **Security Certificates:** The Clarity team shall work the Cook County Clerk to obtain the appropriate security certificates for SSL needs within the County. The Clarity team shall be responsible for installing all security certificates where appropriate. The Cook County Clerk shall remain the certificate holder.

2.10.1. SECURING USER DATA

The Clarity team shall configure the system to ensure that it limits the storage of sensitive or non-essential user data while protecting essential information with data encryption. The Clarity team shall achieve this in two ways:

1. Limit the storage of sensitive or non-essential user data
 - a. Unless necessary, any stored user information shall be limited to those who need administrative capabilities.
 - b. Sensitive, but essential, user information shall be encrypted with Drupal's Encrypt module, capable of providing AES 256 data encryption through PHP's MCrypt Library. This shall be enabled on a field-by-field basis. Fields shall be defined during the Plan, Discover, and Define phase of the project.
2. Create a System of Progressive User Roles and Permissions. The Drupal system has the ability to create an unlimited number of user roles and permission sets that permit access to administrative features. The system shall have the capability to define user permissions for specific site functions (e.g., the ability to add or delete a document) or for a specific document. User roles and permissions shall be defined during the Plan, Discover, and Define phase of the project.



2.10.2. DRUPAL PROJECT SECURITY

The Clarity team shall adhere to the newest Drupal Security Report, which outlines detailed information on core Drupal Project Security features, including but not limited to Injection, Cross Site Scripting, Broken Authentication, Session Management, Insecure Cryptographic Storage, and Insufficient Transport Layer Protection.

2.10.3. AMAZON WEB SERVICES (AWS) DATACENTER SECURITY

All AWS datacenters utilized by the Clarity team shall operate under AWS regulations and standards, which are continuously maintained and updated by AWS at <http://aws.amazon.com/compliance>. The Cook County Clerk may request the reports and certifications produced by AWS third-party auditors that attest to the design and operating effectiveness of the AWS environment. Report and certification requests shall be made through the Clarity team or directly through AWS. Full details on the AWS Risk and Compliance program are available on the Amazon Web Services Compliance website.

2.10.4. DATA SECURITY AND COMPLIANCE

The Clarity team shall configure Drupal to protect the system and Cook County Clerk data. The Drupal system and Amazon Web Services hosting solutions shall meet all of the following County Data Security and Compliance requirements with the exception of Payment Card Industry standards and HIPAA/HITECH rules. These standards and rules are not applicable because the solution is not expected to accept credit card payments or process Personally Identifiable Information. However, should HIPAA, HITECH or PCI requirements be identified, the Clarity team shall work with the Cook County Clerk to address necessary security requirements and shall immediately sign a Business Associate Agreement.

- a. Password configurations;
- b. Authentication configurations;
- c. Encryption configurations for both data at rest and data in motion;
- d. Logging/Auditing capabilities;
- e. Personnel security;
- f. Web application configurations;
- g. HIPAA, HITECH and the rules promulgated thereunder – if applicable;
- h. Section 508;
- i. ISO 27001/27002, as revised.

2.11. SUPPORT & MAINTENANCE

The Clarity team shall provide the following types of post-implementation support and maintenance:

1. Hosting Support Services;
2. Standard Application Support and Maintenance;
3. Non-Standard Application Support and Maintenance;
4. On-Demand Support Services.

The Clarity team shall leverage the County Clerk's AWS account to manage the County Clerk's hosted environment, thus allowing the County Clerk real-time security access to online dashboards, AWS management console and other self-serve tools.

2.11.1. MANAGED HOSTING SUPPORT SERVICES

Managed Hosting Support Services shall be provided via the Turing Group AWS Hosting Services and shall include the following:

1. 24x7/365 Network Operations Center (NOC);
 2. Management of AWS related services (EC2, RDS, etc.);
 3. Basic monitoring 300-second intervals;
 4. Communication to Cook County Clerk about incident(s) and action taken/to be taken as defined by the support service levels define herein;
 5. Backup, replication, and recovery (See the Backup and Recovery Section of this SOW);
-



6. Operating system support;
7. Dedicated service ticket manager;
8. Security updates and patches;
9. DNS hosting and management services.

Other Turing Group Infrastructure Support for Amazon EC2 in this contract includes, but is not limited to:

1. Creating and management of Amazon EC2 accounts and associated billing;
2. Consulting and advice on Amazon EC2 design and best practices;
3. Monitoring of all EC2 instances and services;
4. EBS volume provisioning, expansion, and management;
5. Configuration of Amazon networking services such as VPC, VPN, Route53, and Security Groups;
6. Instance creation/shutdown and life cycle management;
7. Act as primary support contact and liaison between client and Amazon for all Amazon related services hosted by Turing Group;
8. Create and maintain daily snapshots of all Volumes identified as critical;
9. Managing clients reserved instance inventory to maximize cost savings;
10. Configure, maintain Route53, S3, CloudFront, and Elastic Load Balancers as needed;
11. Basic changes such as DNS and Elastic IP updates;
12. Creating and management of any script used to automate, control, or modify the Amazon EC2 environment;
13. Manage and work around possible Amazon EC2 outages;
14. All operating system related tasks associated with running in the Amazon EC2 environment;
15. 24 x 7 Incidence Response;
16. Manage all support related interaction with Amazon Business support.

2.11.2. STANDARD APPLICATION SUPPORT AND MAINTENANCE

The Clarity team has included the following optional ongoing Standard Application Support and Maintenance services during standard business hours M-F 9:00 AM to 5:00 PM CST:

1. Level 2+ Application Support;
2. Troubleshoot issues;
3. Facilitate user testing;
4. Software testing;
5. Software upgrades, patches and fixes;
6. Adding new site sections/pages using existing templates;
7. Conduct analytics;
8. Content authoring and/or technical writing on existing pages.

2.11.3. NON-STANDARD APPLICATION SUPPORT AND MAINTENANCE

The Clarity team has included the following optional ongoing Non-Standard Application Support and Maintenance services during non-standard business hours (i.e., outside of standard business hours M-F 9:00 AM to 5:00 PM CST) intended for on-site support during high-traffic/high-usage times:

1. Level 2+ Application Support;
2. Troubleshoot issues;
3. Facilitate user testing;
4. Software testing
5. Software upgrades, patches and fixes.



2.11.4. ON-DEMAND SUPPORT

The Clarity team has included the following optional ongoing On-Demand Support services during standard business hours M-F 9:00 AM to 5:00 PM CST:

1. Web and mobile application development;
2. Content management system application integrations;
3. Database administration;
4. Search Engine Optimization (SEO);
5. Content strategy;
6. Email newsletter marketing;
7. Content marketing;
8. UX design;
9. Graphic design;
10. Theming;
11. Social media support;

2.11.5. HELP DESK INFORMATION

CONTACTING SUPPORT

During standard business hours (Monday through Friday, 9:00 a.m. to 5:00 p.m.):

- 1) County Clerk shall contact Clarity at 312-920-0550 and let the operator know you are reporting an issue in regards to the County Clerk website
- 2) Clarity shall work with the County Clerk to classify the request (application or hosting), assign severity, and when applicable issue a support ticket
- 3) Clarity shall involve pertinent County Clerk resources with appropriate Clarity and/or Turing staff to resolve the issue

During non-business hours:

- 1) County Clerk shall contact Turing at 866-960-9123 or email support@turinggroup.com and let the operator know you are reporting an issue in regards to the County Clerk website
- 2) Turing shall work with the County Clerk to classify the request (application or hosting), assign severity, and when applicable issue a support ticket

The website shall be available 99.95% outside of scheduled maintenance hours.

The Clarity team shall involve the appropriate Clarity and/or Turing staff to resolve issues, and provide timely communication to County Clerk and request assistance as needed.

TROUBLESHOOTING

At a minimum, the County Clerk may be asked the following when contacting Support. This information shall be used to determine issue severity and prioritization:

1. What environment is this incident happening?
2. Where is the issue happening?
3. Did you receive an error message of any kind?
4. Is this the first time this incident has occurred?
5. What were you attempting to do when you received the issue (step-by-step)?
6. Can you replicate this issue every time or is it sporadic?
7. Are you aware of others experiencing the same issue?
8. Have any troubleshooting steps already been taken?

The Clarity team shall review all support requests and reply with the following relevant level of effort estimate details that shall need approval by authorized County Clerk resources prior to completing the requested services:

1. Service request details;





2. Understanding of goals/objectives;
3. Expected milestones and deliverables;
4. Estimated timeline to completion;
5. Estimated number of hours;
6. Estimated cost per deliverable.

SOFTWARE VERSION UPGRADES

The Clarity team shall utilize the free and open source Git as its versioning source control system. The Clarity team shall contact the County Clerk when a system software upgrade is available or necessary. The County Clerk and Clarity team will determine if and when any upgrades are necessary. The system will only be upgraded with written approval from the County Clerk.

RESOLUTION

After gathering Support information, the Clarity technician shall enter it into the incident log/report along with any relevant files/screenshots. Follow-up and update communication by phone or email shall be disseminated based on the severity of the incident (see Support Service Levels). The Clarity team shall send updates of any open issue tickets to the County Clerk resource which submitted the ticket. Summary-level reports shall be available by request. These updates/reports shall include a description of the incident, the severity, and the current status. Once an issue has been closed, a notification shall be emailed to the County Clerk resource which submitted the ticket.

2.11.6. SUPPORT SERVICE LEVELS

The Clarity team and the County Clerk shall determine the condition of each issue or request and assign a priority level accordingly. The description and associated response times are as follows:

1. **Critical:** Complete failure of the system. This includes severe slowdowns of productivity or throughput that are tantamount to a site-down scenario. The Clarity team shall respond by telephone or email within thirty (30) minutes and assign the appropriate resource within one (1) hour. Clarity shall resolve the issue in less than two (2) hours for a complete site down scenario;
2. **High:** Serious failure of software/hardware component, which does not result in complete system failure, but does significantly impact productivity and/or throughput. The Clarity team shall respond by telephone or email within one (1) hour. The Clarity team shall assign resources within one (2) hours. Clarity shall resolve the issue within one (1) business day;
3. **Medium:** Recurrent problem, which affects productivity or the throughput of the system. The Clarity team shall respond by telephone or email within four (4) *business* hours. The Clarity team shall assign the appropriate resources within twenty-four (24) hours; Communication about expected resolution shall occur within forty-eight (48) hours;
4. **Low:** Cosmetic errors not impacting production, requests for enhancements, or on-demand services. The Clarity team shall respond by telephone or email within twenty-four (24) *business* hours; The Clarity team shall assign the appropriate resources within forty-eight (48) hours; Communication about expected resolution shall occur within seventy-two (72) hours;
5. As issues may be caused by factors external to the Clarity team (such as third party software, hardware, bandwidth, and customer actions.), the Clarity team is unable to guarantee a time to resolution.

2.11.7. CRISIS MANAGEMENT PROCEDURE

Crisis (management procedure) refers to events or incidents that would likely require the restoring of the system, its configuration and/or databases, but may also include website performance issues that may affect productivity.

The Clarity team shall document in its backup and recovery plan examples of crisis events, and the authorized County Clerk staff that shall invoke system and/or data recovery.

The Clarity team shall adhere to the following Crisis Management Procedure:

1. Cook County Clerk authorized resource makes a call that may require the restoring of systems, system configurations and /or databases. The names of these authorized resources shall be formally documented and communicated to all key stakeholders; Or



2. The Clarity team, as part of its monitoring tasks identifies an incident, calls the County Clerk's authorized user(s) to report the incident and recommended course of action. The authorized County Clerk resources shall be formally documented and communicated to all key stakeholders. See the **Incident Response Section** in this document for applicable communications expectations.
3. The Clarity team shall open an issue ticket and assign a priority level as defined in the section above.

Escalation List

Shall the County Clerk suspect the need to restore the websites, configurations and/or databases, it shall adhere to the following escalation list.

Contact Order	Name	Title	Contact info
1st	During Normal Business Hours	N/A	312-920-0550 support@claritypartners.com
1st	After Normal Business Hours Support Desk	N/A	866-960-9123 Email: support@turinggroup.com
2nd	Josh Quint	Senior Engineer	Direct: 866-960-9123 x4005 Cell: 218-368-4043 Email: josh@turinggroup.com
3rd	Eric Dynowski	CEO	Direct: 312-488-4683 Cell: 773-991-5531 Email: Eric@turinggroup.com
4th	Brendan Caulfield	COO	Direct: 312-488-4689 Cell: 312-981-9795 Email: Brendan@turinggroup.com

2.11.8. SECURITY INCIDENT RESPONSE

Maintenance of Clarity team's Incident Response Plan.

- a. The Clarity team shall update the incident response policy on a yearly basis.
- b. Amazon updates its Incident Response Policy periodically online at amazon.com.
- c. Amazon is in conformance with the Illinois Personal Information Protection Act and the breach notification laws of the fifty states;
- d. The Clarity team shall grant Cook County Clerk's rights of review, approval and reasonable modification to its incident response plan;
- e. The Clarity team shall promptly notify and email the County Clerk reports on the nature of incidents and identified data lost or stolen;
- f. The Clarity team shall promptly notify the County Clerk in writing of any security incidents and data breaches in alignment with the following requirements. For all security incidents and data breaches of which Clarity is aware, the Clarity team shall:
 - i. Immediately notify the County Clerk of incidents and breaches;
 - ii. Identify immediate plan of action to mitigate further incident progression;
 - iii. For any data breaches that Clarity's acts or omissions cause, it shall also work with the County Clerk within reason to provide outbound and inbound incident-related communications.

The names of authorized County Clerk resources that shall be informed about incidents shall be formally documented and communicated to all key stakeholders.

Security on the site shall be actively monitored. If a security incident occurs on the production site, the Clarity team shall follow the communication procedures outlined in the Crisis Management Procedure section to keep the County Clerk informed. Mitigation procedures depend on the nature of the incident, but may involve data, code and/or hosting rollbacks/failovers as indicated in the Backup and Recovery Strategy section.



3. EXHIBIT 2: COOK COUNTY CLERK TIMELINE AND COST

3.1. ESTIMATED TIMELINE

The following is an estimated timeline and will be updated during project implementation.

Activities	Wks	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Phase 1: Plan and Define	6	█	█												
Phase 1: Analyze and Design	8		█	█	█										
Phase 1: Develop and Configure	14			█	█	█	█	█							
Phase 1: Migration (includes Development)	8						█	█	█						
Phase 1: Test, Train and Deploy	8							█	█	█					
Phase 2: Plan and Define	4								█	█					
Phase 2: Analyze and Design	8									█	█	█	█	█	█
Phase 2: Develop and Configure	17										█	█	█	█	█
Phase 2: Test, Train and Deploy	6														█

3.2. COOK COUNTY CLERK TEAM ROLES AND RESPONSIBILITIES

The County Clerk shall assign the following resources to this project. The County Clerk has the ability to reassign roles and responsibilities to other resources and will provide Clarity notice to such reassignment of roles and responsibilities.

Project Role	Responsibilities
Executive Project Sponsor	<ul style="list-style-type: none"> ▪ Ultimately responsible for securing spending authority and resources for the project ▪ Acts as a vocal and visible champion ▪ Legitimizes the project's goals and objectives ▪ Keeps abreast of major project activities ▪ Ultimate decision-maker for the project ▪ Provides support for all County Clerk resources ▪ Has final approval of all scope changes ▪ Signs off on approvals to proceed to each succeeding project phase ▪ May elect to delegate some of the above responsibilities to the County Clerk Project Director ▪ Chairs the Steering Committee
Steering Committee Members	<ul style="list-style-type: none"> ▪ Informed about project oversight and control ▪ Acts individually and collectively as a vocal and visible project champion ▪ May approve project deliverables, when requested by the County Clerk Project Owner ▪ Helps resolve issues and policy decisions, approve scope changes, and provide direction and guidance to the project ▪ Attends Executive Steering Committee meetings



Project Role	Responsibilities
County Clerk Project Director	<ul style="list-style-type: none"> ▪ Securing spending authority and County Clerk resources for the project ▪ Vocal and visible champion ▪ Legitimizes the project's goals and objectives ▪ Keeps abreast of major project activities ▪ Ultimate County Clerk decision-maker for the project ▪ Approves scope changes ▪ Signs off on major deliverables ▪ Signs off on approvals to proceed to each succeeding project phase ▪ May elect to delegate some of the above responsibilities to Designated Project Representatives
Designated Project Representatives (Program/Dept. Owners)	<ul style="list-style-type: none"> ▪ Collaborates with the Project Director to ensure that work is in alignment with the goals, objectives and tactics specific to their program area or department ▪ Securing spending authority and County Clerk resources for their program area or department ▪ Vocal and visible champion for their program area or department ▪ Legitimizes goals and objectives are in alignment with their program area or department ▪ Keeps abreast of major project activities
County Clerk Project Manager	<ul style="list-style-type: none"> ▪ Project management of County Clerk resources ▪ Obtains all content for website ▪ Project liaison between client and customer ▪ Works collaboratively with the Clarity Project Manager ▪ Assists with resolving issues, problems, and policy conflicts ▪ Removes obstacles ▪ Active in planning the scope ▪ Manages review and approvals of scope changes ▪ Signs off on major deliverables
Web Masters/ Systems Managers	<ul style="list-style-type: none"> ▪ Work in collaboration with Clarity's technical resources ▪ Review and advise on systems architecture ▪ Provide access to internal systems when necessary ▪ May participate in QA/testing



3.3. DETAILED TASK BREAKDOWN

Activities	Clarity Activities/Deliverables	County Clerk Activities/Deliverables	Time Frame
Phase 1: Plan and Define			Jan - Feb 2016
Prepare for and Conduct Project Kick-off Meeting	1. Kickoff Meeting Presentation	1. Define and provide project team resources and contact list 2. Establish core team roles and responsibilities 3. Attend Kickoff meeting (max 2-hours) 4. Review kickoff materials 5. Provide existing documented requirements (if any)	
Conduct and Document Preliminary Discovery	1. Initial requirements gathering notes	1. Stakeholders review kickoff materials and initial requirements notes	
Conduct and Document Initial Requirements Meetings	1. Initial requirements stakeholder meetings	1. Stakeholders attend a total of four (4) 1-hour discovery meetings	
Prepare Detailed Work Plan & Project Plan	1. Baseline Project Schedule 2. Establish format of project management logs (Progress Reports, Action Item Log, Issues/Risks Log, Scope Change Management)	1. Core team review project schedule 2. Establish project management reporting schedule, frequency, and format	
Phase 1: Analyze and Design			Feb - Mar 2016
Conduct Needs Assessment	1. Review of existing systems and resources, identify gaps, gather requirements	1. Provide access to any in-scope systems, resolve issues if needed 2. Provide access to 3rd party systems (e.g. DemocracyLive)	
Conduct Benchmark Analysis	1. Benchmark systems, identify gaps, gather requirements		
Analyze Requirements and Document Findings & Recommendations	1. Requirements Document	1. County Clerk project owner review Requirements Document offline, provide edits if needed, approve to proceed	
Define Information Architecture and Wireframes	1. Information Architecture 2. Wireframes (10 max)	1. Core team attend IA review meetings (2 max) 2. Core team attend Wireframe review meetings (2 max)	
Define Infrastructure Architecture	1. Infrastructure Diagram	1. County Clerk technical stakeholders review and approve Infrastructure Diagram offline	
Create Website Style Guide	1. Website Style Guide	1. County Clerk project owner review and approve Website Style Guide offline	



Activities	Clarity Activities/Deliverables	County Clerk Activities/Deliverables	Time Frame
Develop Website Template Design Concepts	1. Initial Website Designs (Graphical - 5 max)	1. Core team attend initial design review session (1 hour), provide feedback	
Conduct Website Design Reviews & Refinements	1. Revised Website Designs (Graphical - 5 max)	1. Core team attend 2nd design review session (1 hour), provide feedback	
Finalize Design	1. Final Website Designs (Graphical - 5 max)	1. County Clerk project owner provide final design review and approval offline	
Prepare Final Website Requirements Document	1. Updates to Requirements Documents based on design updates	1. County Clerk project owner review Requirements Document offline, provide edits if needed, approve to proceed	
Phase 1: Develop and Configure			Mar - Jun 2016
Install and Configure Development Server and CMS	1. Setup technical environment	1. Provide list of County Clerk content owners and testers for each in-scope system 2. Provide technical access to County Clerk systems/data when necessary	
Develop Drupal Content Types, Views, Taxonomy	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Generate HTML/CSS Mock-ups	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Mirror Early Voting Database, with ETL Middle Layer	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Develop Scheduled Delta Early Voting Database Delta Updates	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Integrate HTML/CSS Finalized Templates	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Content Re-Factoring (Archives, Doc Searches)	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Implement Multi-lingual Page Translation	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Video: Control Order, Preview Image	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Press Release Integration with Email Systems	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Integration with DemocracyLive	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Notifications for Taxes Constituents	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Implement Drupal Site Search	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Develop New .NET Applications: Be a Candidate (aka, Build My Petition), Candidate Statement, E-Certification, Mail Ballot Tracking, Online Mail Ballot, Results, TAX Delinquent, TIF	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	



Activities	Clarity Activities/Deliverables	County Clerk Activities/Deliverables	Time Frame
Develop New Drupal Applications: Tax Report (Public, Secure)	1. Development and unit testing	1. Provide technical access to County Clerk systems/data when necessary	
Phase 1: Migration (includes Development)			Jun - Aug 2016
Launch Beta Website	1. Beta Website	1. Core team verify access to Beta Website	
Modify Site Pursuant to Beta Review and Testing Results	1. Create Content Migration Worksheet	1. Content owners conduct beta review of pages and migrate initial content	
Migrate Finalized Website Content	1. Facilitate content migration	1. Content owners migrate and edit final content	
Phase 1: Test, Train and Deploy			Jun - Aug 2016
Prepare Test Plan	1. Test Plan	1. County Clerk project owner review and approve format of Test Plan	
Load Test	1. Conduct load testing, fixes if needed	1. Approve additional software/hardware if needed based on load test results	
Conduct User Acceptance Testing	1. UAT Discrepancy Log 2. Deliver sample UAT Test Plan to County	1. County Clerk project owner schedules full or half day internal UAT session 2. Content owners complete UAT testing, communicate bugs/discrepancies	
Gather and Analyze UAT Results	1. Gather and Analyze UAT Results, send to core team	1. Core team review UAT results offline	
Conduct UAT Reviews	1. Present UAT findings to core team	1. Core team complete final round of UAT testing, communicate bugs/discrepancies	
Modify CMS/Site Content as Needed Based on UAT Reviews	1. Iterative break/fix development and testing based on bugs/discrepancies identified throughout UAT	1. Content owners make updates to content in beta as needed based on UAT	
Develop Training Materials and Conduct Training	1. Training Materials 2. Training Sessions	1. County Clerk project owner create and send internal communications in preparation for training 2. County Clerk project owner review and approve Training Materials 3. County Clerk project owner schedule Training Sessions	
Deploy Production Website	1. Complete final deployment checklist 2. County Clerk Website	1. County Clerk project owner create and send internal communications in preparation for go-live	



Activities	Clarity Activities/Deliverables	County Clerk Activities/Deliverables	Time Frame
Phase 1: Project Management	<ol style="list-style-type: none"> 1. Set Up Project Management Tools 2. Assure Quality 3. Manage Project Communications 4. Progress Report Meetings 5. Manage Action Items 6. Manage Project Records 7. Manage Scope 8. Manage Requirements 9. Control Decisions 10. Control Changes 11. Manage Project Acceptance 12. Track Status 13. Maintain Project Schedule 14. Maintain Work Plans 15. Monitor Cost/Schedule Variance 16. Control Costs 17. Control Quality 18. Participate in Testing 19. Measure Quality Levels 20. Manage Communications 21. Meet With Team 22. Report Weekly Status 23. Manage Stakeholders 24. Manage Risks and Issues 25. Contract Administration 	<ol style="list-style-type: none"> 1. Core team members attend weekly progress meetings (See Roles and Responsibilities for ongoing County Clerk activities) 	
Phase 2: Plan and Define			Aug - Sep 2016
Prepare for and Conduct Project Kick-off Meeting	<ol style="list-style-type: none"> 1. Kickoff Meeting Presentation 	<ol style="list-style-type: none"> 1. Define and provide project team resources and contact list 2. Establish core team roles and responsibilities 3. Attend Kickoff meeting (max 2-hours) 4. Review kickoff materials 5. Provide existing documented requirements (if any) 	
Conduct and Document Preliminary Discovery	<ol style="list-style-type: none"> 1. Initial requirements gathering notes 	<ol style="list-style-type: none"> 1. Stakeholders review kickoff materials and initial requirements notes 	
Conduct and Document Initial Requirements Meetings	<ol style="list-style-type: none"> 1. Initial requirements stakeholder meetings 	<ol style="list-style-type: none"> 1. Stakeholders attend a total of four (4) 1-hour discovery meetings 	
Prepare Detailed Work Plan & Project Plan	<ol style="list-style-type: none"> 1. Baseline Project Schedule 2. Establish format of project management logs (Progress Reports, Action Item Log, Issues/Risks Log, Scope Change Management) 	<ol style="list-style-type: none"> 1. Core team review project schedule 2. Establish project management reporting schedule, frequency, and format 	
Phase 2: Analyze and Design			Aug - Oct 2016



Activities	Clarity Activities/Deliverables	County Clerk Activities/Deliverables	Time Frame
Define Information Architecture and Wireframes: Application Flow	<ol style="list-style-type: none"> 1. Information Architecture 2. Wireframes (10 max) 	<ol style="list-style-type: none"> 1. Core team attend IA review meetings (2 max) 2. Core team attend Wireframe review meetings (2 max) 	
Define Infrastructure Architecture	<ol style="list-style-type: none"> 1. Infrastructure Diagram 	<ol style="list-style-type: none"> 1. County Clerk technical stakeholders review and approve Infrastructure Diagram offline 	
Develop PDF Template Concepts	<ol style="list-style-type: none"> 1. PDF Template Concepts 	<ol style="list-style-type: none"> 1. County Clerk technical stakeholders review and approve PDF Template Concepts 	
Develop Website Template Design for Vitals Storefront	<ol style="list-style-type: none"> 1. Website Design (Graphical) 	<ol style="list-style-type: none"> 1. Core team attend two design review sessions (1 hour each), provide feedback 	
Phase 2: Develop and Configure			Sep 2016 - Jan 2017
Install and Configure Development Environment	<ol style="list-style-type: none"> 1. Setup technical environment 	<ol style="list-style-type: none"> 1. Provide list of County Clerk content owners and testers for each in-scope system 2. Provide technical access to County Clerk systems/data when necessary 	
Develop New Drupal Applications: DOEO feeds and applications	<ol style="list-style-type: none"> 1. Development and unit testing 	<ol style="list-style-type: none"> 1. Provide technical access to County Clerk systems/data when necessary 	
Develop New Drupal Applications: DOEO PDF generation	<ol style="list-style-type: none"> 1. Development and unit testing 	<ol style="list-style-type: none"> 1. Provide technical access to County Clerk systems/data when necessary 	
Theme Vitals Storefront	<ol style="list-style-type: none"> 1. Development and unit testing 	<ol style="list-style-type: none"> 1. Provide technical access to County Clerk systems/data when necessary 	
Launch Beta DOEO	<ol style="list-style-type: none"> 1. Beta DOEO 	<ol style="list-style-type: none"> 1. Core team verify access to Beta DOEO 	
Develop SSO Dashboard	<ol style="list-style-type: none"> 1. Development and unit testing 	<ol style="list-style-type: none"> 1. Provide technical access to County Clerk systems/data when necessary 	
Modify Pursuant to Beta Review and Testing Results	<ol style="list-style-type: none"> 1. Create Content Migration Worksheet 	<ol style="list-style-type: none"> 1. Content owners conduct beta review of pages and migrate initial content 	
Phase 2: Test, Train and Deploy			Jan - Mar 2017
Prepare Test Plan	<ol style="list-style-type: none"> 1. Test Plan 	<ol style="list-style-type: none"> 1. County Clerk project owner review and approve format of Test Plan 	
Conduct User Acceptance Testing	<ol style="list-style-type: none"> 1. UAT Discrepancy Log 2. Deliver sample UAT Test Plan to County 	<ol style="list-style-type: none"> 1. County Clerk project owner schedules full or half day internal UAT session 2. Content owners complete UAT testing, communicate bugs/discrepancies 	
Gather and Analyze UAT Results	<ol style="list-style-type: none"> 1. Gather and Analyze UAT Results, send to core team 	<ol style="list-style-type: none"> 1. Core team review UAT results offline 	
Conduct UAT Reviews	<ol style="list-style-type: none"> 1. Present UAT findings to core team 	<ol style="list-style-type: none"> 1. Core team complete final round of UAT testing, communicate bugs/discrepancies 	



Activities	Clarity Activities/Deliverables	County Clerk Activities/Deliverables	Time Frame
Modify as Needed Based on UAT Reviews	<ol style="list-style-type: none"> 1. Iterative break/fix development and testing based on bugs/discrepancies identified throughout UAT 	<ol style="list-style-type: none"> 1. Content owners make updates to content in beta as needed based on UAT 	
Develop Training Materials and Conduct Training	<ol style="list-style-type: none"> 1. Training Materials 2. Training Sessions 	<ol style="list-style-type: none"> 1. County Clerk project owner create and send internal communications in preparation for training 2. County Clerk project owner review and approve Training Materials 3. County Clerk project owner schedule Training Sessions 	
Deploy Production Application	<ol style="list-style-type: none"> 1. Complete final deployment checklist 2. County Clerk Website 	<ol style="list-style-type: none"> 1. County Clerk project owner create and send internal communications in preparation for go live 	
Phase 2: Project Management	<ol style="list-style-type: none"> 1. Set Up Project Management Tools 2. Assure Quality 3. Manage Project Communications 4. Progress Report Meetings 5. Manage Action Items 6. Manage Project Records 7. Manage Scope 8. Manage Requirements 9. Control Decisions 10. Control Changes 11. Manage Project Acceptance 12. Track Status 13. Maintain Project Schedule 14. Maintain Work Plans 15. Monitor Cost/Schedule Variance 16. Control Costs 17. Control Quality 18. Participate in Testing 19. Measure Quality Levels 20. Manage Communications 21. Meet With Team 22. Report Weekly Status 23. Manage Stakeholders 24. Manage Risks and Issues 25. Contract Administration 	<ol style="list-style-type: none"> 1. Core team members attend weekly progress meetings (See Roles and Responsibilities for ongoing County Clerk activities) 	



3.4. PROFESSIONAL IMPLEMENTATION SERVICES

The Clarity Team will perform the work as detailed in the "Scope and Deliverables" section of this document at an estimated fee of \$626,663. Work will be done on a time and materials basis, and invoices will be submitted monthly.

Role	Acronym	Hourly Rate
Project Manager	PM	\$145.00
Content Strategist	CS	\$120.00
Business Analyst and Quality Assurance Specialist	BA	\$105.00
Migration Specialist	MS	\$75.00
Drupal Architect	DA	\$150.00
Front-End Developer	FED	\$125.00
Visual Designer	VD	\$125.00
Database Administrator	DBA	\$130.00
Solution Architect	SA	\$150.00

Description	Estimated Cost
Phase One	
Plan and Define	\$8,855
Analyze and Design	\$21,360
Develop and Configure: Drupal CMS platform; New .NET Applications: Be a Candidate (aka, Build My Petition), Candidate Statement, E-Certification, Mail Ballot Tracking, Online Mail Ballot, Results, TAX Delinquent, TIF; New Drupal Applications: Tax Report (Public, Secure)	\$176,650
Migration	\$64,400
Test, Train and Deploy	\$27,760
Project Management	\$84,575
PHASE 1: TOTAL	\$383,600
Phase Two	
Plan and Define	\$4,775
Analyze and Design	\$17,080
Develop and Configure: DOEO, Vitals Storefront, SSO Dashboard	\$149,050
Test, Train and Deploy	\$19,480
Project Management	\$52,679
PHASE 2: TOTAL	\$243,064
PROJECT IMPLEMENTATION TOTAL	\$626,663

3.5. HOSTING

All hosting services shall be managed by the Clarity team. The County Clerk shall pay actual usage-based hosting fees charged by AWS, a 35% management fee on a month-to-month basis, and any applicable setup/migrations fees for new services. All hosting fees including Reserve Instance annual one-time fees shall be



estimated and submitted to the County Clerk on the contract anniversary date. All other one-time management fees shall only be applicable to year one of this contract or new accounts if deemed necessary.

Hosting Setup Fee is a one-time fixed fee cost and shall be invoiced when the County Clerk's environments are implemented. Annual Reserve Instance fees shall be invoiced at the end of the month they are implemented. Monthly fees will be billed at the end of the month that they are incurred.

Description	Annual Reserved Instance Cost	Estimated Monthly Cost	Year 1 (7 months) Estimated Costs*	Total Annual Estimated Costs
Production Drupal Server 1 - Web Firewall	\$608	\$28	\$804	\$1,412
Aws Volume		\$16	\$112	\$192
Production Drupal Server 2 - Web Firewall	\$608	\$28	\$804	\$1,412
Aws Volume		\$16	\$112	\$192
Production Solr Search Server	\$608	\$28	\$804	\$1,412
Aws Volume		\$16	\$112	\$192
Production Varnish Caching Server 1	\$608	\$28	\$804	\$1,412
Aws Volume		\$16	\$112	\$192
Production Varnish Caching Server 2	\$608	\$28	\$804	\$1,412
Aws Volume		\$16	\$112	\$192
Production Database Instance (Multi-AZ)	\$1,715	\$497	\$4,415	\$6,130
Production Replicated File System 1	\$608	\$28	\$804	\$1,412
Aws Volume		\$16	\$112	\$192
Aws Volume		\$31	\$217	\$372
Aws Images Volume		\$456	\$3,192	\$5,472
Production Replicated File System 2	\$608	\$28	\$804	\$1,412
Aws Volume		\$16	\$112	\$192
Aws Volume		\$31	\$217	\$372
Aws Images Volume		\$456	\$3,192	\$5,472
Production Shared SQL Server 1	\$707	\$79	\$1,260	\$1,967
Aws Volume c:\		\$37	\$259	\$444
Aws SQL Data Volume		\$47	\$329	\$564
Aws SQL Logs Volume		\$47	\$329	\$564
Aws SQL Backup Volume		\$92	\$644	\$1,104
Production Shared SQL Server 2	\$707	\$79	\$1,260	\$1,967
Aws Volume c:\		\$37	\$259	\$444
Aws SQL Data Volume		\$47	\$329	\$564
Aws SQL Logs Volume		\$47	\$329	\$564
Aws SQL Backup Volume		\$92	\$644	\$1,104
Production Results SQL Server 1	\$707	\$79	\$1,260	\$1,967
Aws Volume c:\		\$37	\$259	\$444
Aws SQL Data Volume		\$47	\$329	\$564
Aws SQL Logs Volume		\$47	\$329	\$564



Statement of Work for Cook County Clerk's Office: Website Redesign Implementation

Description	Annual Reserved Instance Cost	Estimated Monthly Cost	Year 1 (7 months) Estimated Costs*	Total Annual Estimated Costs
Aws SQL Backup Volume		\$92	\$644	\$1,104
Production Results SQL Server 2	\$707	\$79	\$1,280	\$1,695
Aws Volume c:\		\$37	\$259	\$444
Aws SQL Data Volume		\$47	\$329	\$564
Aws SQL Logs Volume		\$47	\$329	\$564
Aws SQL Backup Volume		\$92	\$644	\$1,104
Production Results .Net Server 1	\$707	\$79	\$1,280	\$1,695
Aws Volume c:\		\$37	\$259	\$444
Production Results .Net Server 2	\$707	\$79	\$1,280	\$1,695
Aws Volume c:\		\$37	\$259	\$444
Production Shared .Net Server 1	\$707	\$79	\$1,280	\$1,695
Aws Volume c:\		\$37	\$259	\$444
Production Shared .Net Server 2	\$707	\$79	\$1,280	\$1,695
Aws Volume c:\		\$37	\$259	\$444
Staging Drupal Server 1 + Web Firewall	\$244	\$11	\$321	\$376
Aws Volume		\$16	\$112	\$192
Staging Drupal Server 2 + Web Firewall	\$244	\$11	\$321	\$376
Aws Volume		\$16	\$112	\$192
Staging Varnish Caching Server 1	\$244	\$11	\$321	\$376
Aws Volume		\$16	\$112	\$192
Staging Varnish Caching Server 2	\$244	\$11	\$321	\$376
Aws Volume		\$16	\$112	\$192
Staging Database Instance (Single AZ)	\$244	\$31	\$428	\$514
Staging Database Instance (Single AZ)	\$244	\$31	\$428	\$514
Aws Volume		\$16	\$112	\$192
Aws Volume		\$31	\$217	\$372
Staging Replicated File System 2	\$244	\$11	\$321	\$376
Aws Volume		\$16	\$112	\$192
Aws Volume		\$31	\$217	\$372
Staging Shared .Net Server	\$555	\$81	\$772	\$927
Aws Volume c:\		\$37	\$259	\$444
Staging Results .Net Server	\$555	\$81	\$772	\$927
Aws Volume c:\		\$37	\$259	\$444
Staging Shared SQL Server	\$555	\$81	\$772	\$927
Aws Volume c:\		\$37	\$259	\$444
Aws SQL Data Volume		\$16	\$112	\$192
Aws SQL Logs Volume		\$16	\$112	\$192
Aws SQL Backup Volume		\$92	\$644	\$1,104
Staging Results SQL Server	\$555	\$81	\$772	\$927



Description	Annual Reserved Instance Cost	Estimated Monthly Cost	Year 1 (7 months) Estimated Costs*	Total Annual Estimated Costs
Aws Volume c:\		\$37	\$259	\$444
Aws SQL Data Volume		\$16	\$112	\$192
Aws SQL Logs Volume		\$16	\$112	\$192
Aws SQL Backup Volume		\$92	\$644	\$1,104
NAV Instance 1	\$224	\$11	\$221	\$576
Aws Volume		\$4	\$28	\$48
NAV Instance 2	\$224	\$11	\$221	\$576
Aws Volume		\$4	\$28	\$48
Estimated 6 Load Balancers, 6 EIP, 50GB Estimated Network Traffic		\$154	\$1,078	\$1,848
Hosting Setup (One-Time Fixed Fee)			\$43,875	
Management*	\$5,433	\$1,530	\$16,139	\$23,787
AWS Business Support (7% of usage)	\$380	\$306	\$2,522	\$4,052
TOTALS	\$20,955	\$6,206	\$108,648	\$95,801

*Monthly management fees are the greater of 35% of the monthly AWS bill or \$350. AWS Business Support Fees are 7% of the monthly AWS bill.

**Assumes May 2016 Start

3.6. SUPPORT AND MAINTENANCE

3.6.1. STANDARD APPLICATION SUPPORT AND MAINTENANCE

If application support is not needed, the County Clerk can elect not to consume these support services and thus they shall not be billed. These services shall be invoiced at the negotiated rate of \$130/hour with the exception of rates for content authoring and/or technical writing which shall be invoiced at the negotiated rate of \$75.00. Unused hours may rollover to the next year and the Clarity team shall only invoice for services rendered under this type of support.

3.6.2. ELECTIONS SUPPORT AND MAINTENANCE

If elections-specific support is not needed, the County Clerk can elect not to consume these support services and thus they shall not be billed. These services shall be invoiced based on the resources used according to the rates indicated above. For the purposes of estimation, Clarity assumes that a Solution Architect will be needed, and thus these services shall be invoiced at the rate of \$150/hour. Unused hours may rollover to the next year and the Clarity team shall only invoice for services rendered under this type of support.

3.6.3. ON-DEMAND SERVICES

If on-demand support is not needed, the County Clerk can elect not to consume these support services and thus shall not be billed. These services shall be invoiced at the negotiated rate of \$130/hr. Unused hours may rollover to the next year and the Clarity team shall only invoice for services rendered under this type of support.

**3.6.4. COST SUMMARY FOR SUPPORT AND MAINTENANCE SERVICES**

Support and Maintenance Type	Est. Annual Hours	Est. Annual Cost
Standard Application Support and Maintenance	240	\$31,200
Elections Support and Maintenance	40	\$6,000
On-Demand Services	204	\$26,520
Annual Total	480	\$63,720

3.7. ESTIMATED COST SUMMARY

The County fiscal year is December 1 to November 30. Monthly Hosting Management Fees are the greater of 35% of the monthly AWS bill or \$350. AWS Business Support Fees are 7% of the monthly AWS bill.

Category	FY2016	FY2017	FY2018	TOTAL
Professional Implementation Services*	\$505,380	\$121,284	\$ -	\$626,663
Hosting Setup (One-Time Fixed Fee)**	\$43,875	\$ -	\$ -	\$43,875
Hosting and Hosting Management Fees**	\$64,773	\$95,801	\$ 95,801	\$256,375
Standard Application Support and Maintenance**	\$18,200	\$31,200	\$ 31,200	\$80,600
Elections Support and Maintenance**	\$6,000	\$6,000	\$ 6,000	\$18,000
On-Demand Services**	\$15,470	\$26,000	\$ 26,000	\$67,470
Total (3 Year Contract)	\$653,698	\$280,285	\$159,001	\$1,092,983

* Assumes January 2016 Start Date

** Assumes May 2016 Start Date



OFFICE OF CONTRACT COMPLIANCE

JACQUELINE GOMEZ

DIRECTOR

118 N. Clark, County Building, Room 1020 • Chicago, Illinois 60602 • (312) 603-5502

June 3, 2016

TONI PRECKWINKLE

PRESIDENT

**Cook County Board
of Commissioners**

RICHARD R. BOYKIN

1st District

ROBERT STEELE

2nd District

JERRY BUTLER

3rd District

STANLEY MOORE

4th District

DEBORAH SIMS

5th District

JOAN PATRICIA MURPHY

6th District

JESUS G. GARCIA

7th District

LUIS ARROYO, JR

8th District

PETER N. SILVESTRI

9th District

BRIDGET GAINER

10th District

JOHN P. DALEY

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JOHN A. FRITCHEY

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LARRY SUFFREDIN

13th District

GREGG GOSLIN

14th District

TIMOTHY O. SCHNEIDER

15th District

JEFFREY R. TOBOLSKI

16th District

SEAN M. MORRISON

17th District

Ms. Shannon E. Andrews
Chief Procurement Officer
County Building-Room 1018
Chicago, IL 60602

Re: Contract No. 1390-13069 (Amendment No. 2) - **Revised**
Website, Implementation, Branding and Governance
Homeland Security and Energy Management

Dear Ms. Andrews:

The following bid for the above-referenced contract has been reviewed for compliance with the General Conditions regarding the Minority- and Women- owned Business Enterprises (MBE/WBE) Ordinance and have been found to be responsive to the ordinance.

Bidder: Clarity Partners

Original Contract Value: \$1,245,279.33

Increased Contract Value: \$135,338.00

New Contract Value: \$1,380,617.33

Increased Contract Value: \$1,125,338.00 (Amendment No. 2) - Revised

New Contract Amount: \$2,505,955.33

Contract Goal: 35% MBE/WBE

<u>MBE/WBE</u>	<u>Status</u>	<u>Certifying Agency</u>	<u>Commitment</u>
Clarity Partners	MBE-8	City of Chicago	94% (Direct)
Catalyst, Inc.	MBE-8	City of Chicago	6% (Direct)

The Office of Contract Compliance has been advised by the Requesting Department that no other bidders are being recommended for award. Original MBE/WBE forms were used in the determination of the responsiveness of this contract.

Sincerely,

Jacqueline Gomez
Contract Compliance Director

JG/smp

cc: Toyla Rice, OCPO
Michael Herbstman, DHSEM



OFFICE OF CONTRACT COMPLIANCE

JACQUELINE GOMEZ

DIRECTOR

118 N. Clark, County Building, Room 1020 • Chicago, Illinois 60602 • (312) 603-5502

April 29, 2016

Ms. Shannon E. Andrews
Chief Procurement Officer
County Building-Room 1018
Chicago, IL 60602

Re: Contract No. 1390-13069 (Amendment No. 2)
Website, Implementation, Branding and Governance
Homeland Security and Energy Management

Dear Ms. Andrews:

The following bid for the above-referenced contract has been reviewed for compliance with the General Conditions regarding the Minority- and Women- owned Business Enterprises (MBE/WBE) Ordinance and have been found to be responsive to the ordinance.

Bidder: Clarity Partners
Original Contract Value: \$1,245,279.33
Increased Contract Value: \$135,338.00
New Contract Value: \$1,380,617.33
Increased Contract Value: \$1,124,338.00 (Amendment No. 2)
New Contract Amount: \$2,504,955.33
Contract Goal: 35% MBE/WBE

<u>MBE/WBE</u>	<u>Status</u>	<u>Certifying Agency</u>	<u>Commitment</u>
Clarity Partners	MBE-8	City of Chicago	94% (Direct)
Catalyst, Inc.	MBE-8	City of Chicago	6% (Direct)

The Office of Contract Compliance has been advised by the Requesting Department that no other bidders are being recommended for award. Original MBE/WBE forms were used in the determination of the responsiveness of this contract.

Sincerely,

Jacqueline Gomez
Contract Compliance Director

JG/smp

cc: Toyla Rice, OCPO

Michael Herbstman DHSEFM

TONI PRECKWINKLE

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16th District

SEAN M. MORRISON
17th District

MBE/WBE UTILIZATION PLAN - FORM 1

BIDDER/PROPOSER HEREBY STATES that all MBE/WBE firms included in this Plan are certified MBEs/WBEs by at least one of the entities listed in the General Conditions – Section 19.

I. BIDDER/PROPOSER MBE/WBE STATUS: (check the appropriate line)

- Bidder/Proposer is a certified MBE or WBE firm. (If so, attach copy of current Letter of Certification)
- Bidder/Proposer is a Joint Venture and one or more Joint Venture partners are certified MBEs or WBEs. (If so, attach copies of Letter(s) of Certification, a copy of Joint Venture Agreement clearly describing the role of the MBE/WBE firm(s) and its ownership interest in the Joint Venture and a completed Joint Venture Affidavit – available online at www.cookcountyil.gov/contractcompliance)
- Bidder/Proposer is not a certified MBE or WBE firm, nor a Joint Venture with MBE/WBE partners, but will utilize MBE and WBE firms either directly or indirectly in the performance of the Contract. (If so, complete Sections II below and the Letter(s) of Intent – Form 2).

II. **Direct Participation of MBE/WBE Firms** **Indirect Participation of MBE/WBE Firms**

NOTE: Where goals have not been achieved through direct participation, Bidder/Proposer shall include documentation outlining efforts to achieve Direct Participation at the time of Bid/Proposal submission. Indirect Participation will only be considered after all efforts to achieve Direct Participation have been exhausted. Only after written documentation of Good Faith Efforts is received will Indirect Participation be considered.

MBEs/WBEs that will perform as subcontractors/suppliers/consultants include the following:

MBE/WBE Firm: Clarity Partners, LLC
Address: 20 N. Clark St., Suite 3600, Chicago, IL 60602
E-mail: d.namkung@claritypartners.com
Contact Person: David Namkung Phone: 312-920.0550
Dollar Amount Participation: \$ 1,578,682.56
Percent Amount of Participation: 63 %

*Letter of Intent attached? Yes No
*Current Letter of Certification attached? Yes No

MBE/WBE Firm: N/A
Address: N/A
E-mail: N/A
Contact Person: N/A Phone: N/A
Dollar Amount Participation: \$ N/A N/A
Percent Amount of Participation: N/A %

*Letter of Intent attached? Yes N/A No N/A
*Current Letter of Certification attached? Yes N/A No N/A

Attach additional sheets as needed.

*** Letter(s) of Intent and current Letters of Certification must be submitted at the time of bid.**

MBE/WBE LETTER OF INTENT - FORM 2

M/WBE Firm: Clarity Partners, LLC
Contact Person: David C. Namkung
Address: 20 N. Clark Street, Suite 3600
City/State: Chicago, IL Zip: 60602
Phone: 312.920.0550 Fax: 312.920.0554
Email: d.namkung@claritypartners.com

Certifying Agency: City of Chicago
Certification Expiration Date: 1/15/2021
Ethnicity: Asian
Bid/Proposal/Contract #: _____
FEIN #: 80-0123899

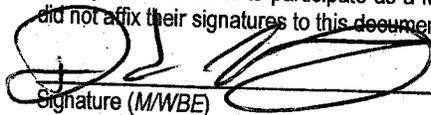
Participation: Direct Indirect

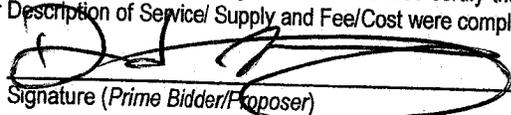
Will the M/WBE firm be subcontracting any of the goods or services of this contract to another firm?
 No Yes - Please attach explanation. Proposed Subcontractor(s): Duo Consulting; Turing Group

The undersigned M/WBE is prepared to provide the following Commodities/Services for the above named Project/ Contract: (If more space is needed to fully describe M/WBE Firm's proposed scope of work and/or payment schedule, attach additional sheets)
Project management, business analysis, development, content migration, training, testing, etc.

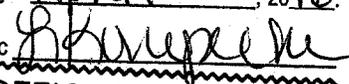
Indicate the **Dollar Amount**, **Percentage**, and the **Terms of Payment** for the above-described Commodities/ Services:
Clarity Partners, LLC is the MBE and the prime contractor for this project, therefore payment terms in this scenario are not applicable.

THE UNDERSIGNED PARTIES AGREE that this Letter of Intent will become a binding Subcontract Agreement for the above work, conditioned upon (1) the Bidder/Proposer's receipt of a signed contract from the County of Cook; (2) Undersigned Subcontractor remaining compliant with all relevant credentials, codes, ordinances and statutes required by Contractor, Cook County, and the State to participate as a MBE/WBE firm for the above work. The Undersigned Parties do also certify that they did not affix their signatures to this document until all areas under Description of Service/ Supply and Fee/Cost were completed.

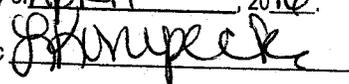

Signature (M/WBE)
David C. Namkung
Print Name
Clarity Partners, LLC
Firm Name
4/4/2016
Date


Signature (Prime Bidder/Proposer)
David C. Namkung
Print Name
Clarity Partners, LLC
Firm Name
4/4/2016
Date

Subscribed and sworn before me
this 4th day of April, 2016.

Notary Public 
"OFFICIAL SEAL" SEAL
Laura Krupecki
Notary Public, State of Illinois
My Commission Expires 7/30/2019

Subscribed and sworn before me
this 4th day of April, 2016.

Notary Public 
"OFFICIAL SEAL" SEAL
Laura Krupecki
Notary Public, State of Illinois
My Commission Expires 7/30/2019

PETITION FOR WAIVER OF MBE/WBE PARTICIPATION – FORM 3

A. BIDDER/PROPOSER HEREBY REQUESTS:

None **FULL MBE WAIVER**

None **FULL WBE WAIVER**

None **REDUCTION (PARTIAL MBE and/or WBE PARTICIPATION)**

None % of Reduction for MBE Participation

None % of Reduction for WBE Participation

B. REASON FOR FULL/REDUCTION WAIVER REQUEST

Bidder/Proposer shall check each item applicable to its reason for a waiver request. Additionally, supporting documentation shall be submitted with this request.

- N/A (1) Lack of sufficient qualified MBEs and/or WBEs capable of providing the goods or services required by the contract. **(Please explain)**
- N/A (2) The specifications and necessary requirements for performing the contract make it impossible or economically infeasible to divide the contract to enable the contractor to utilize MBEs and/or WBEs in accordance with the applicable participation. **(Please explain)**
- N/A (3) Price(s) quoted by potential MBEs and/or WBEs are above competitive levels and increase cost of doing business and would make acceptance of such MBE and/or WBE bid economically impracticable, taking into consideration the percentage of total contract price represented by such MBE and/or WBE bid. **(Please explain)**
- N/A (4) There are other relevant factors making it impossible or economically infeasible to utilize MBE and/or WBE firms. **(Please explain)**

C. GOOD FAITH EFFORTS TO OBTAIN MBE/WBE PARTICIPATION

- N/A (1) Made timely written solicitation to identified MBEs and WBEs for utilization of goods and/or services; and provided MBEs and WBEs with a timely opportunity to review and obtain relevant specifications, terms and conditions of the proposal to enable MBEs and WBEs to prepare an informed response to solicitation. **(Attach of copy written solicitations made)**
- N/A (2) Used the services and assistance of the Office of Contract Compliance staff. **(Please explain)**
- N/A (3) Timely notified and used the services and assistance of community, minority and women business organizations. **(Attach of copy written solicitations made)**
- N/A (4) Followed up on initial solicitation of MBEs and WBEs to determine if firms are interested in doing business. **(Attach supporting documentation)**
- N/A (5) Engaged MBEs & WBEs for direct/indirect participation. **(Please explain)**

D. OTHER RELEVANT INFORMATION

Attach any other documentation relative to Good Faith Efforts in complying with MBE/WBE participation.

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY: <input type="radio"/> Disqualification <input type="radio"/> Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.: 1390-13069	Date: 5/12/2016
Total Bid or Proposal Amount: \$1,125,338	Contract Title: Website Implementation Branding and Governance
Contractor: Clarity Partners, LLC	Subcontractor/Supplier/ Subconsultant to be added or substitute: Turing Group
Authorized Contact for Contractor: David Namkung	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Eric Dynowski
Email Address (Contractor): d.namkung@claritypartners.com	Email Address (Subcontractor): eric@turinggroup.com
Company Address (Contractor): 20 N Clark St., Suite 3600	Company Address (Subcontractor): 309 W Washington, Suite 1050
City, State and Zip (Contractor): Chicago, IL 60602	City, State and Zip (Subcontractor): Chicago, IL 60606
Telephone and Fax (Contractor): 312-920-0550, 312-920-0554	Telephone and Fax (Subcontractor): 312-488-4683, 847-563-1370
Estimated Start and Completion Dates (Contractor) 5/1/2016 to 10/31/2019	Estimated Start and Completion Dates (Subcontractor) 5/1/2016 to 10/31/2019

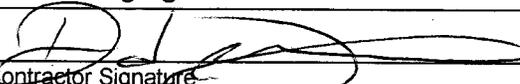
Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Hosting, Managed Hosting Services, Development and Project Management	\$332,605

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor **David C. Namkung**

Name **Managing Partner**

Title  **5/12/2016**

Prime Contractor Signature _____ Date

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY:
<input type="radio"/> Disqualification
<input type="radio"/> Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.: 1390-13069	Date: 5/12/2016
Total Bid or Proposal Amount: \$1,125,338	Contract Title: Website Implementation Branding and Governance
Contractor: Clarity Partners, LLC	Subcontractor/Supplier/ Subconsultant to be added or substitute: Duo Consulting
Authorized Contact for Contractor: David Namkung	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Michael Silverman
Email Address (Contractor): d.namkung@claritypartners.com	Email Address (Subcontractor): msilverman@duoconsulting.com
Company Address (Contractor): 20 N Clark St., Suite 3600	Company Address (Subcontractor): 641 W Lake St, Suite 301
City, State and Zip (Contractor): Chicago, IL 60602	City, State and Zip (Subcontractor): Chicago, IL 60661
Telephone and Fax (Contractor): 312-920-0550, 312-920-0554	Telephone and Fax (Subcontractor): 312-529-3000
Estimated Start and Completion Dates (Contractor): 5/1/2016 to 10/31/2019	Estimated Start and Completion Dates (Subcontractor): 5/1/2016 to 10/31/2019

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Design and Development	\$25,000

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor David C. Namkung

Name Managing Partner

Title [Signature] Date 5/12/2016

Prime Contractor Signature [Signature] Date

**COOK COUNTY
ECONOMIC DISCLOSURE STATEMENT
AND EXECUTION DOCUMENT
INDEX**

Section	Description	Pages
1	Instructions for Completion of EDS	EDS i - ii
2	Certifications	EDS 1-2
3	Economic and Other Disclosures, Affidavit of Child Support Obligations, Disclosure of Ownership Interest and Familial Relationship Disclosure Form	EDS 3 - 12
4	Cook County Affidavit for Wage Theft Ordinance	EDS 13-14
5	Contract and EDS Execution Page	EDS 15-17
6	Cook County Signature Page	EDS 18

SECTION 1
INSTRUCTIONS FOR COMPLETION OF
ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT

This Economic Disclosure Statement and Execution Document ("EDS") is to be completed and executed by every Bidder on a County contract, every Proposer responding to a Request for Proposals, and every Respondent responding to a Request for Qualifications, and others as required by the Chief Procurement Officer. The execution of the EDS shall serve as the execution of a contract awarded by the County. The Chief Procurement Officer reserves the right to request that the Bidder or Proposer, or Respondent provide an updated EDS on an annual basis.

Definitions. Terms used in this EDS and not otherwise defined herein shall have the meanings given to such terms in the Instructions to Bidders, General Conditions, Request for Proposals, Request for Qualifications, as applicable.

Affiliate means a person that directly or indirectly through one or more intermediaries, Controls is Controlled by, or is under common Control with the Person specified.

Applicant means a person who executes this EDS.

Bidder means any person who submits a Bid.

Code means the Code of Ordinances, Cook County, Illinois available on municode.com.

Contract shall include any written document to make Procurements by or on behalf of Cook County.

Contractor or Contracting Party means a person that enters into a Contract with the County.

Control means the unfettered authority to directly or indirectly manage governance, administration, work, and all other aspects of a business.

EDS means this complete Economic Disclosure Statement and Execution Document, including all sections listed in the Index and any attachments.

Joint Venture means an association of two or more Persons proposing to perform a for-profit business enterprise. Joint Ventures must have an agreement in writing specifying the terms and conditions of the relationship between the partners and their relationship and respective responsibility for the Contract

Lobby or lobbying means to, for compensation, attempt to influence a County official or County employee with respect to any County matter.

Lobbyist means any person who lobbies.

Person or Persons means any individual, corporation, partnership, Joint Venture, trust, association, Limited Liability Company, sole proprietorship or other legal entity.

Prohibited Acts means any of the actions or occurrences which form the basis for disqualification under the Code, or under the Certifications hereinafter set forth.

Proposal means a response to an RFP.

Proposer means a person submitting a Proposal.

Response means response to an RFQ.

Respondent means a person responding to an RFQ.

RFP means a Request for Proposals issued pursuant to this Procurement Code.

RFQ means a Request for Qualifications issued to obtain the qualifications of interested parties.

**INSTRUCTIONS FOR COMPLETION OF
ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT**

Section 1: Instructions. Section 1 sets forth the instructions for completing and executing this EDS.

Section 2: Certifications. Section 2 sets forth certifications that are required for contracting parties under the Code and other applicable laws. Execution of this EDS constitutes a warranty that all the statements and certifications contained, and all the facts stated, in the Certifications are true, correct and complete as of the date of execution.

Section 3: Economic and Other Disclosures Statement. Section 3 is the County's required Economic and Other Disclosures Statement form. Execution of this EDS constitutes a warranty that all the information provided in the EDS is true, correct and complete as of the date of execution, and binds the Applicant to the warranties, representations, agreements and acknowledgements contained therein.

Required Updates. The Applicant is required to keep all information provided in this EDS current and accurate. In the event of any change in the information provided, including but not limited to any change which would render inaccurate or incomplete any certification or statement made in this EDS, the Applicant shall supplement this EDS up to the time the County takes action, by filing an amended EDS or such other documentation as is required.

Additional Information. The County's Governmental Ethics and Campaign Financing Ordinances impose certain duties and obligations on persons or entities seeking County contracts, work, business, or transactions, and the Applicant is expected to comply fully with these ordinances. For further information please contact the Director of Ethics at (312) 603-4304 (69 W. Washington St. Suite 3040, Chicago, IL 60602) or visit the web-site at cookcountyil.gov/ethics-board-of.

Authorized Signers of Contract and EDS Execution Page. If the Applicant is a corporation, the President and Secretary must execute the EDS. In the event that this EDS is executed by someone other than the President, attach hereto a certified copy of that section of the Corporate By-Laws or other authorization by the Corporation, satisfactory to the County that permits the person to execute EDS for said corporation. If the corporation is not registered in the State of Illinois, a copy of the Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

If the Applicant is a partnership or joint venture, all partners or joint venturers must execute the EDS, unless one partner or joint venture has been authorized to sign for the partnership or joint venture, in which case, the partnership agreement, resolution or evidence of such authority satisfactory to the Office of the Chief Procurement Officer must be submitted with this Signature Page.

If the Applicant is a member-managed LLC all members must execute the EDS, unless otherwise provided in the operating agreement, resolution or other corporate documents. If the Applicant is a manager-managed LLC, the manager(s) must execute the EDS. The Applicant must attach either a certified copy of the operating agreement, resolution or other authorization, satisfactory to the County, demonstrating such person has the authority to execute the EDS on behalf of the LLC. If the LLC is not registered in the State of Illinois, a copy of a current Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

If the Applicant is a Sole Proprietorship, the sole proprietor must execute the EDS.

A "Partnership" "Joint Venture" or "Sole Proprietorship" operating under an Assumed Name must be registered with the Illinois county in which it is located, as provided in 805 ILCS 405 (2012), and documentation evidencing registration must be submitted with the EDS.

SECTION 2

CERTIFICATIONS

THE FOLLOWING CERTIFICATIONS ARE MADE PURSUANT TO STATE LAW AND THE CODE. THE APPLICANT IS CAUTIONED TO CAREFULLY READ THESE CERTIFICATIONS PRIOR TO SIGNING THE SIGNATURE PAGE. SIGNING THE SIGNATURE PAGE SHALL CONSTITUTE A WARRANTY BY THE APPLICANT THAT ALL THE STATEMENTS, CERTIFICATIONS AND INFORMATION SET FORTH WITHIN THESE CERTIFICATIONS ARE TRUE, COMPLETE AND CORRECT AS OF THE DATE THE SIGNATURE PAGE IS SIGNED. THE APPLICANT IS NOTIFIED THAT IF THE COUNTY LEARNS THAT ANY OF THE FOLLOWING CERTIFICATIONS WERE FALSELY MADE, THAT ANY CONTRACT ENTERED INTO WITH THE APPLICANT SHALL BE SUBJECT TO TERMINATION.

A. PERSONS AND ENTITIES SUBJECT TO DISQUALIFICATION

No person or business entity shall be awarded a contract or sub-contract, for a period of five (5) years from the date of conviction or entry of a plea or admission of guilt, civil or criminal, if that person or business entity:

- 1) Has been convicted of an act committed, within the State of Illinois, of bribery or attempting to bribe an officer or employee of a unit of state, federal or local government or school district in the State of Illinois in that officer's or employee's official capacity;
- 2) Has been convicted by federal, state or local government of an act of bid-rigging or attempting to rig bids as defined in the Sherman Anti-Trust Act and Clayton Act. Act. 15 U.S.C. Section 1 *et seq.*;
- 3) Has been convicted of bid-rigging or attempting to rig bids under the laws of federal, state or local government;
- 4) Has been convicted of an act committed, within the State, of price-fixing or attempting to fix prices as defined by the Sherman Anti-Trust Act and the Clayton Act. 15 U.S.C. Section 1, *et seq.*;
- 5) Has been convicted of price-fixing or attempting to fix prices under the laws the State;
- 6) Has been convicted of defrauding or attempting to defraud any unit of state or local government or school district within the State of Illinois;
- 7) Has made an admission of guilt of such conduct as set forth in subsections (1) through (6) above which admission is a matter of record, whether or not such person or business entity was subject to prosecution for the offense or offenses admitted to; or
- 8) Has entered a plea of *nolo contendere* to charge of bribery, price-fixing, bid-rigging, or fraud, as set forth in subparagraphs (1) through (6) above.

In the case of bribery or attempting to bribe, a business entity may not be awarded a contract if an official, agent or employee of such business entity committed the Prohibited Act on behalf of the business entity and pursuant to the direction or authorization of an officer, director or other responsible official of the business entity, and such Prohibited Act occurred within three years prior to the award of the contract. In addition, a business entity shall be disqualified if an owner, partner or shareholder controlling, directly or indirectly, 20% or more of the business entity, or an officer of the business entity has performed any Prohibited Act within five years prior to the award of the Contract.

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant has read the provisions of Section A, Persons and Entities Subject to Disqualification, that the Applicant has not committed any Prohibited Act set forth in Section A, and that award of the Contract to the Applicant would not violate the provisions of such Section or of the Code.

B. BID-RIGGING OR BID ROTATING

THE APPLICANT HEREBY CERTIFIES THAT: *In accordance with 720 ILCS 5/33 E-11, neither the Applicant nor any Affiliated Entity is barred from award of this Contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid-rotating.*

C. DRUG FREE WORKPLACE ACT

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant will provide a drug free workplace, as required by (30 ILCS 580/3).

D. DELINQUENCY IN PAYMENT OF TAXES

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant is not an owner or a party responsible for the payment of any tax or fee administered by Cook County, by a local municipality, or by the Illinois Department of Revenue, which such tax or fee is delinquent, such as bar award of a contract or subcontract pursuant to the Code, Chapter 34, Section 34-171.

E. HUMAN RIGHTS ORDINANCE

No person who is a party to a contract with Cook County ("County") shall engage in unlawful discrimination or sexual harassment against any individual in the terms or conditions of employment, credit, public accommodations, housing, or provision of County facilities, services or programs (Code Chapter 42, Section 42-30 *et seq.*).

F. ILLINOIS HUMAN RIGHTS ACT

THE APPLICANT HEREBY CERTIFIES THAT: It is in compliance with the Illinois Human Rights Act (775 ILCS 5/2-105), and agrees to abide by the requirements of the Act as part of its contractual obligations.

G. INSPECTOR GENERAL (COOK COUNTY CODE, CHAPTER 34, SECTION 34-174 and Section 34-250)

The Applicant has not willfully failed to cooperate in an investigation by the Cook County Independent Inspector General or to report to the Independent Inspector General any and all information concerning conduct which they know to involve corruption, or other criminal activity, by another county employee or official, which concerns his or her office of employment or County related transaction.

The Applicant has reported directly and without any undue delay any suspected or known fraudulent activity in the County's Procurement process to the Office of the Cook County Inspector General.

H. CAMPAIGN CONTRIBUTIONS (COOK COUNTY CODE, CHAPTER 2, SECTION 2-585)

THE APPLICANT CERTIFIES THAT: It has read and shall comply with the Cook County's Ordinance concerning campaign contributions, which is codified at Chapter 2, Division 2, Subdivision II, Section 585, and can be read in its entirety at www.municode.com.

I. GIFT BAN, (COOK COUNTY CODE, CHAPTER 2, SECTION 2-574)

THE APPLICANT CERTIFIES THAT: It has read and shall comply with the Cook County's Ordinance concerning receiving and soliciting gifts and favors, which is codified at Chapter 2, Division 2, Subdivision II, Section 574, and can be read in its entirety at www.municode.com.

J. LIVING WAGE ORDINANCE PREFERENCE (COOK COUNTY CODE, CHAPTER 34, SECTION 34-160;

Unless expressly waived by the Cook County Board of Commissioners, the Code requires that a living wage must be paid to individuals employed by a Contractor which has a County Contract and by all subcontractors of such Contractor under a County Contract, throughout the duration of such County Contract. The amount of such living wage is annually by the Chief Financial Officer of the County, and shall be posted on the Chief Procurement Officer's website.

The term "Contract" as used in Section 4, I, of this EDS, specifically excludes contracts with the following:

- 1) Not-For Profit Organizations (defined as a corporation having tax exempt status under Section 501(C)(3) of the United State Internal Revenue Code and recognized under the Illinois State not-for -profit law);

- 2) Community Development Block Grants;

- 3) Cook County Works Department;

- 4) Sheriff's Work Alternative Program; and

- 5) Department of Correction inmates.

SECTION 3

REQUIRED DISCLOSURES

1. **DISCLOSURE OF LOBBYIST CONTACTS**

List all persons that have made lobbying contacts on your behalf with respect to this contract:

Name	Address
N/A	

2. **LOCAL BUSINESS PREFERENCE STATEMENT (CODE, CHAPTER 34, SECTION 34-230)**

Local business means a Person, including a foreign corporation authorized to transact business in Illinois, having a bona fide establishment located within the County at which it is transacting business on the date when a Bid is submitted to the County, and which employs the majority of its regular, full-time work force within the County. A Joint Venture shall constitute a Local Business if one or more Persons that qualify as a "Local Business" hold interests totaling over 50 percent in the Joint Venture, even if the Joint Venture does not, at the time of the Bid submittal, have such a bona fide establishment within the County.

a) Is Applicant a "Local Business" as defined above?
Yes: No:

b) If yes, list business addresses within Cook County:
227 W. Monroe St., Suite 3950
Chicago, IL 60606

c) Does Applicant employ the majority of its regular full-time workforce within Cook County?
Yes: No:

3. **THE CHILD SUPPORT ENFORCEMENT ORDINANCE (CODE, CHAPTER 34, SECTION 34-172)**

Every Applicant for a County Privilege shall be in full compliance with any child support order before such Applicant is entitled to receive or renew a County Privilege. When delinquent child support exists, the County shall not issue or renew any County Privilege, and may revoke any County Privilege.

All Applicants are required to review the Cook County Affidavit of Child Support Obligations attached to this EDS (EDS-5) and complete the Affidavit based on the instructions in the Affidavit.

Clarity Partners LLC

CONTRACT NO. 1390-13060

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT

The Cook County Code of Ordinances (32-610 et seq.) requires that any Applicant for any County Action must disclose information concerning ownership interests in the Applicant. This Disclosure of Ownership Interest Statement must be completed with all information current as of the date this Statement is signed. Furthermore, this Statement must be kept current by filing an amended Statement, until such time as the County Board or County Agency shall take action on the application. The information contained in this Statement will be maintained in a database and made available for public viewing.

If you are asked to list names, but there are no applicable names to list, you must state NONE. An incomplete Statement will be returned, and any action regarding this contract will be delayed. A failure to fully comply with the ordinance may result in the action taken by the County Board or County Agency being voided.

"Applicant" means any Entity or person making an application to the County for any County Action.

"County Action" means any action by a County Agency, a County Department, or the County Board regarding an ordinance or ordinance amendment, a County Board approval, or other County agency approval, with respect to contracts, leases, or sale or purchase of real estate.

"Person," "Entity" or "Legal Entity" means a sole proprietorship, corporation, partnership, association, business trust, estate, two or more persons having a joint or common interest, trustee of a land trust, other commercial or legal entity or any beneficiary or beneficiaries thereof.

This Disclosure of Ownership Interest Statement must be submitted by:

- 1. An Applicant for County Action and
2. A Person that holds stock or a beneficial interest in the Applicant and is listed on the Applicant's Statement (a "Holder") must file a Statement and complete #1 only under Ownership Interest Declaration.

Please print or type responses clearly and legibly. Add additional pages if needed, being careful to identify each portion of the form to which each additional page refers.

This Statement is being made by the [X] Applicant or [] Stock/Beneficial Interest Holder

This Statement is an: [X] Original Statement or [] Amended Statement

Identifying Information:

Name: Clarity Partners, LLC

D/B/A: N/A FEIN NO.: 80-0123899

Street Address: 227 W. Monroe St., 3950

City: Chicago State: IL Zip Code: 60606

Phone No: 312-920-0550 Fax Number: 312-920-0554 Email: d.namkung@claritypartners.com

Cook County Business Registration Number: N/A (Sole Proprietor, Joint Venture, Partnership)

Corporate File Number (if applicable): N/A

Form of Legal Entity:

[] Sole Proprietor [] Partnership [] Corporation [] Trustee of Land Trust

[] Business Trust [] Estate [] Association [] Joint Venture

[X] Other (describe) Limited Liability Company

Ownership Interest Declaration:

1. List the name(s), address, and percent ownership of each Person having a legal or beneficial interest (including ownership) of more than five percent (5%) in the Applicant/Holder.

Name	Address	Percentage Interest in Applicant/Holder
David C. Namkung	227 W. Monroe, Suite 3950, Chicago, IL 60606	51%
Rodney S. Zech	227 W. Monroe, Suite 3950, Chicago, IL 60606	49%

2. If the interest of any Person listed in (1) above is held as an agent or agents, or a nominee or nominees, list the name and address of the principal on whose behalf the interest is held.

Name of Agent/Nominee	Name of Principal	Principal's Address
N/A		
N/A		
N/A		

3. Is the Applicant constructively controlled by another person or Legal Entity? Yes No
 If yes, state the name, address and percentage of beneficial interest of such person, and the relationship under which such control is being or may be exercised.

Name	Address	Percentage of Beneficial Interest	Relationship
N/A			
N/A			
N/A			

Corporate Officers, Members and Partners Information:

For all corporations, list the names, addresses, and terms for all corporate officers. For all limited liability companies, list the names, addresses for all members. For all partnerships and joint ventures, list the names, addresses, for each partner or joint venture.

Name	Address	Title (specify title of Office, or whether manager or partner/joint venture)	Term of Office
N/A			
N/A			
N/A			

Declaration (check the applicable box):

- I state under oath that the Applicant has withheld no disclosure as to ownership interest in the Applicant nor reserved any information, data or plan as to the intended use or purpose for which the Applicant seeks County Board or other County Agency action.
- I state under oath that the Holder has withheld no disclosure as to ownership interest nor reserved any information required to be disclosed.

CONTRACT NO. 1390-13069

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT SIGNATURE PAGE

David C. Namkung

Managing Member

Name of Authorized Applicant/Holder Representative (please print or type)

Title

Signature

11-10-15

d.namkung@claritypartners.com

Date

E-mail address

312-920-0550

Phone Number

Subscribed to and sworn before me
this 10th day of November, 2015

My commission expires: 7/30/2019

x Laura Kaupecki
Notary Public Signature





COOK COUNTY BOARD OF ETHICS
 69 W. WASHINGTON STREET, SUITE 3040
 CHICAGO, ILLINOIS 60602
 312/603-4304 Office 312/603-9988 Fax.

FAMILIAL RELATIONSHIP DISCLOSURE PROVISION

Notification Disclosure Requirement:

Doing a significant amount of business with the County requires that you disclose to the Board of Ethics the existence of any familial relationships with any County employee or any person holding elective office in the State of Illinois, the County, or in any municipality within the County. The Ethics Ordinance defines a significant amount of business for the purpose of this disclosure requirement as more than \$25,000 in aggregate County leases, contracts, purchases or sales in any calendar year.

If you are unsure of whether the business you do with the County or a County agency will cross this threshold, err on the side of caution by completing the attached familial disclosure form because, among other potential penalties, any person found guilty of failing to make a required disclosure or knowingly filing a false, misleading, or incomplete disclosure will be prohibited from doing any business with the County for a period of three years. The required disclosure should be filed with the Board of Ethics by January 1 of each calendar year in which you are doing business with the County and again with each bid/proposal/quotation to do business with Cook County. The Board of Ethics may assess a late filing fee of \$100 per day after an initial 30-day grace period.

The person that is doing business with the County must disclose his or her familial relationships. If the person on the County lease or contract or purchasing from or selling to the County is a business entity, then the business entity must disclose the familial relationships of the individuals who are and, during the year prior to doing business with the County, were:

- its board of directors,
- its officers,
- its employees or independent contractors responsible for the general administration of the entity,
- its agents authorized to execute documents on behalf of the entity, and
- its employees who directly engage or engaged in doing work with the County on behalf of the entity.

Do not hesitate to contact the Board of Ethics at (312) 603-4304 for assistance in determining the scope of any required familial relationship disclosure.

Additional Definitions:

"Familial relationship" means a person who is a spouse, domestic partner or civil union partner of a County employee or State, County or municipal official, or any person who is related to such an employee or official, whether by blood, marriage or adoption, as a:

- | | | |
|----------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Parent | <input type="checkbox"/> Grandparent | <input type="checkbox"/> Stepfather |
| <input type="checkbox"/> Child | <input type="checkbox"/> Grandchild | <input type="checkbox"/> Stepmother |
| <input type="checkbox"/> Brother | <input type="checkbox"/> Father-in-law | <input type="checkbox"/> Stepson |
| <input type="checkbox"/> Sister | <input type="checkbox"/> Mother-in-law | <input type="checkbox"/> Stepdaughter |
| <input type="checkbox"/> Aunt | <input type="checkbox"/> Son-in-law | <input type="checkbox"/> Stepbrother |
| <input type="checkbox"/> Uncle | <input type="checkbox"/> Daughter-in-law | <input type="checkbox"/> Stepsister |
| <input type="checkbox"/> Niece | <input type="checkbox"/> Brother-in-law | <input type="checkbox"/> Half-brother |
| <input type="checkbox"/> Nephew | <input type="checkbox"/> Sister-in-law | <input type="checkbox"/> Half-sister |

CONTRACT NO. 1390-13069

**COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM**

A. PERSON DOING OR SEEKING TO DO BUSINESS WITH THE COUNTY

Name of Person Doing Business with the County: Clarly Partners, LLC

Address of Person Doing Business with the County: 227 W. Monroe St., Suite 3950

Phone number of Person Doing Business with the County: 312-920-0550

Email address of Person Doing Business with the County: d.namkung@clarlypartners.com

If Person Doing Business with the County is a Business Entity, provide the name, title and contact information for the individual completing this disclosure on behalf of the Person Doing Business with the County:
David C. Namkung, Managing Member, 312-920-0550 / d.namkung@clarlypartners.com

B. DESCRIPTION OF BUSINESS WITH THE COUNTY

Append additional pages as needed and for each County lease, contract, purchase or sale sought and/or obtained during the calendar year of this disclosure (or the preceding calendar year if disclosure is made on January 1), identify:

The lease number, contract number, purchase order number, request for proposal number and/or request for qualification number associated with the business you are doing or seeking to do with the County: _____

The aggregate dollar value of the business you are doing or seeking to do with the County: \$ _____

The name, title and contact information for the County official(s) or employee(s) involved in negotiating the business you are doing or seeking to do with the County: _____

The name, title and contact information for the County official(s) or employee(s) involved in managing the business you are doing or seeking to do with the County: _____

C. DISCLOSURE OF FAMILIAL RELATIONSHIPS WITH COUNTY EMPLOYEES OR STATE, COUNTY OR MUNICIPAL ELECTED OFFICIALS

Check the box that applies and provide related information where needed

The Person Doing Business with the County is an individual and there is no familial relationship between this individual and any Cook County employee or any person holding elective office in the State of Illinois, Cook County, or any municipality within Cook County.

The Person Doing Business with the County is a business entity and there is no familial relationship between any member of this business entity's board of directors, officers, persons responsible for general administration of the business entity, agents authorized to execute documents on behalf of the business entity or employees directly engaged in contractual work with the County on behalf of the business entity, and any Cook County employee or any person holding elective office in the State of Illinois, Cook County, or any municipality within Cook County.

**COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM**

The Person Doing Business with the County is an individual and there is a familial relationship between this individual and at least one Cook County employee and/or a person or persons holding elective office in the State of Illinois, Cook County, and/or any municipality within Cook County. The familial relationships are as follows:

Name of Individual Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship
N/A			
N/A			
N/A			

If more space is needed, attach an additional sheet following the above format.

The Person Doing Business with the County is a business entity and there is a familial relationship between at least one member of this business entity's board of directors, officers, persons responsible for general administration of the business entity, agents authorized to execute documents on behalf of the business entity and/or employees directly engaged in contractual work with the County on behalf of the business entity, on the one hand, and at least one Cook County employee and/or a person holding elective office in the State of Illinois, Cook County, and/or any municipality within Cook County, on the other. The familial relationships are as follows:

Name of Member of Board of Director for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship
N/A			
N/A			
N/A			

Name of Officer for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship
N/A			
N/A			
N/A			

Name of Person Responsible for the General Administration of the Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship
N/A			
N/A			
N/A			

Name of Agent Authorized to Execute Documents for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship
N/A			
N/A			
N/A			

Name of Employee of Business Entity Directly Engaged in Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship
N/A			
N/A			
N/A			

If more space is needed, attach an additional sheet following the above format.

N/A

VERIFICATION: To the best of my knowledge, the information I have provided on this disclosure form is accurate and complete. I acknowledge that an inaccurate or incomplete disclosure is punishable by law, including but not limited to fines and debarment.


Signature of Recipient

11-10-15

Date

SUBMIT COMPLETED FORM TO:

Cook County Board of Ethics
69 West Washington Street, Suite 3040, Chicago, Illinois 60602
Office (312) 603-4304 - Fax (312) 603-9988
CookCounty.Ethics@cookcountyil.gov

* Spouse, domestic partner, civil union partner or parent, child, sibling, aunt, uncle, niece, nephew, grandparent or grandchild by blood, marriage (i.e. in laws and step relations) or adoption.

SECTION 4

COOK COUNTY AFFIDAVIT FOR WAGE THEFT ORDINANCE

Effective May 1, 2016, every Person, *including Substantial Owners*, seeking a Contract with Cook County must comply with the Cook County Wage Theft Ordinance set forth in Chapter 34, Article IV, Section 179. Any Person/Substantial Owner, who fails to comply with Cook County Wage Theft Ordinance, may request that the Chief Procurement Officer grant a reduction or waiver in accordance with Section 34-179(d).

"Contract" means any written document to make Procurements by or on behalf of Cook County.

"Person" means any individual, corporation, partnership, joint venture, trust, association, limited liability company, sole proprietorship or other legal entity.

"Procurement" means obtaining supplies, equipment, goods, or services of any kind.

"Substantial Owner" means any person or persons who own or hold a twenty-five percent (25%) or more percentage of interest in any business entity seeking a County Privilege, including those shareholders, general or limited partners, beneficiaries and principals; except where a business entity is an individual or sole proprietorship, Substantial Owner means that individual or sole proprietor.

All Persons/Substantial Owners are required to complete this affidavit and comply with the Cook County Wage Theft Ordinance before any Contract is awarded. Signature of this form constitutes a certification the information provided below is correct and complete, and that the individual(s) signing this form has/have personal knowledge of such information.

I. Contract Information:

Contract Number: 1390-13069
 County Using Agency (requesting Procurement): Cook

II. Person/Substantial Owner Information:

Person (Corporate Entity Name): Clarity Partners, LLC
 Substantial Owner Complete Name: David C. Namkung
 FEIN#: 80-0123899
 Date of Birth: _____ E-mail address: d.namkung@claritypartners.com
 Street Address: 130 N. Garland Court, Unit 4707
 City: Chicago State: Illinois Zip: 60602
 Home Phone: (312) 933-6664 Driver's License No. _____

III. Compliance with Wage Laws:

Within the past five years has the Person/Substantial Owner, in any judicial or administrative proceeding, been convicted of, entered a plea, made an admission of guilt or liability, or had an administrative finding made for committing a repeated or willful violation of any of the following laws:

Illinois Wage Payment and Collection Act, 820 ILCS 115/1 et seq., YES or NO

Illinois Minimum Wage Act, 820 ILCS 105/1 et seq., YES or NO

Illinois Worker Adjustment and Retraining Notification Act, 820 ILCS 65/1 et seq., YES or NO

Employee Classification Act, 820 ILCS 185/1 et seq., YES or NO

Fair Labor Standards Act of 1938, 29 U.S.C. 201, et seq., YES or NO

Any comparable state statute or regulation of any state, which governs the payment of wages YES or NO

If the Person/Substantial Owner answered "Yes" to any of the questions above, it is ineligible to enter into a Contract with Cook County, but can request a reduction or waiver under Section IV.

IV. Request for Waiver or Reduction:

If Person/Substantial Owner answered "Yes" to any of the questions above, it may request a reduction or waiver in accordance with Section 34-179(d), provided that the request for reduction or waiver is made on the basis of one or more of the following actions that have taken place:

There has been a bona fide change in ownership or Control of the Ineligible Person or Substantial Owner
YES or NO

Disciplinary action has been taken against the individual(s) responsible for the acts giving rise to the violation
YES or NO

Remedial action has been taken to prevent a recurrence of the acts giving rise to the disqualification or default
YES or NO

Other factors that the Person or Substantial Owner believe are relevant
YES or NO

The Person/Substantial Owner must submit documentation to support the basis of its request for a reduction or waiver. The Chief Procurement Officer reserves the right to make additional inquiries and request additional documentation.

V. Affirmation

The Person/Substantial Owner affirms that all statements contained in the Affidavit are true, accurate and complete.

Signature:

[Handwritten Signature]

Date: 11-10-15

Name of Person signing (Print): David C. Namkung

Title: Managing Member

Subscribed and sworn to before me this 10th day of November, 2015

X

[Handwritten Signature]

Notary Public Signature

Notary Seal

Note: The above information is subject to verification prior to the award of the Contract.



SECTION 5

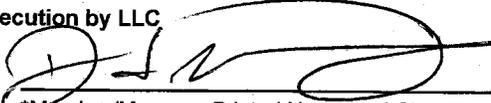
CONTRACT AND EDS EXECUTION PAGE
PLEASE EXECUTE THREE ORIGINAL COPIES

The Applicant hereby certifies and warrants that all of the statements, certifications and representations set forth in this EDS are true, complete and correct; that the Applicant is in full compliance and will continue to be in compliance throughout the term of the Contract or County Privilege issued to the Applicant with all the policies and requirements set forth in this EDS; and that all facts and information provided by the Applicant in this EDS are true, complete and correct. The Applicant agrees to inform the Chief Procurement Officer in writing if any of such statements, certifications, representations, facts or information becomes or is found to be untrue, incomplete or incorrect during the term of the Contract or County Privilege.

Execution by Corporation

N/A	N/A
Corporation's Name	President's Printed Name and Signature
N/A	N/A
Telephone	Email
N/A	N/A
Secretary Signature	Date

Execution by LLC

Clarity Partners, LLC	
LLC Name	*Member/Manager Printed Name and Signature
4/4/2016	312.920.0550 & d.namkung@claritypartners.com
Date	Telephone and Email

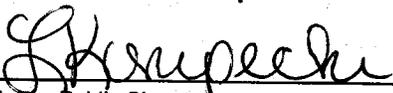
Execution by Partnership/Joint Venture

N/A	N/A
Partnership/Joint Venture Name	*Partner/Joint Venturer Printed Name and Signature
N/A	N/A
Date	Telephone and Email

Execution by Sole Proprietorship

N/A	N/A
Printed Name and Signature	Date
N/A	N/A
Telephone	Email

Subscribed and sworn to before me this
4th day of April, 20 16


Notary Public Signature

My commission expires:
7/30/2019
Notary Seal



If the operating agreement, partnership agreement or governing documents requiring execution by multiple members, managers, partners, or joint venturers, please complete and execute additional Contract and EDS Execution Pages.