SPECIFICATIONS/SPECIAL PROVISIONS
Traffic Sign Inventory & Management System and Assessments

Proposal Opening Time: 1:30 p.m.
Date: February 6, 2012
Location: City of Crystal Lake
Municipal Complex (Council Chambers)
100 W. Woodstock Street
Crystal Lake, IL 60014

The City of Crystal Lake (“City”) seeks proposals from qualified firms to develop a traffic sign management system (“System”), to assist the City with meeting the requirements of the Manual of Uniform Traffic Control Devices (MUTCD) sign retro-reflectivity standards.

Background: The City of Crystal Lake is located 50 miles northwest of Chicago with a population of nearly 40,860 and 15,176 households. The Public Works Department is responsible for the maintenance of approximately 175 center lane miles of roadways and alleys. The City is requesting proposals from qualified firms that will provide a complete sign inventory and management system on a Geographical Information System (GIS) Platform, provide all necessary apparatuses, including day and nighttime assessment of all signs for retro-reflectivity.

The City reserves the right to accept or reject any or all proposals received as a result of this RFP.

The City reserves the right to terminate or cancel, in part or in its entirety, this RFP.

Any changes to the RFP requirements will be made by addendum. All addendums shall be signed by proposers and attached to the proposal. Failure to attach any addendum may render the proposal non-responsive and cause it to be eliminated from consideration.

1. **SCOPE OF WORK**

The goal of the proposal shall be to acquire an asset management tool, collect data for an inventory, provide a traffic sign assessment, acquire field tools and an inventory management system to be used for current and future traffic signs of all regulatory, warning, guide and street name signs located within the right-of-way of the City. The selected vendor will provide full “turn-key” services to inspect, record, manage maintenance activities and inventory all City-owned signs. The selected vendor shall also provide an upgradeable electronic sign management system to document and track sign inventory and maintenance activities. The system shall be web-based with the ability for the City to export data through the interface.

Guidelines for sign data collection:
• The vendor shall collect sign data in one direction at a time
• Sign data shall be collected in two passes on roadways
• Data shall be collected safely in a manner that does not put City staff or motorists in harms way

The City specifically intends to procure the following:

A. Build and populate an inventory database of signs located within the City rights-of way. The following attributes will be captured for each sign and upload all information to a hosted web/cloud-based sign management system used by the City.

• GPS Longitude & Latitude (Sub Meter) – on an axis parallel to the roadway and insuring correctness in both sequential order and position to the road
• Nearest Postal Address – with street name first so as to be searchable i.e. Main St. 1234, etc.
• Sign Type – MUTCD designation or custom designation as specified by City for specialized signs
• Other Sign Information – specific information unique to sign i.e. day and time restrictions, no truck parking etc.
• Sign Size – assumed sign dimensions using standard specifications from MUTCD and the City
• Sign Category per MUTCD (i.e. warning, regulatory, etc.)
• Sign Height to bottom of sign
• Sign Color
• Sign Orientation – 8-point compass direction, the direction the front of sign is facing (i.e. North, Northeast, East, Southeast, South etc.)
• Post Type – i.e. 2x2 square, 3” round, traffic signal mast or street light pole
• Position – overhead, center, left or right of road centerline
• Post Condition (i.e. good, rusted, bent, needs replacement)
• Shared Post
• Number of Posts
• Sign Photos – Video generated still pictures that are of good quality and clearly legible
• Reflectibility From Side Of Road
• Street Name
• Sign ID Unique Identifier – Work with City to recommend and assign a unique sign ID such as a bar code
• Ordinance Number (this field is to be filled by City staff)
• Install Date (this field is to be filled by City staff)
• Other Attributes As Needed

B. Perform daytime condition assessment and nighttime retroreflectivity assessment of these signs following the rules and guidelines in the latest version of MUTCD and record and capture the following information in the inventory database.
C. Provide one (1) year of maintenance for the System, including upgrades in software as they become available, as well as one (1) year of data hosting.

D. Sign Management System Features / Capabilities

- System shall be constructed on a base map provided by the City, and must be able to be incorporated into the City’s GIS system.
- The base map shall indicate all applicable roadways within the city right-of-way and shall designate such roadways by proper name.
- System shall include navigation capabilities to pan and zoom different views at various locations and resolutions on the base map.
- System shall be accessible from a standard Windows-based computer and shall be accessible by password only. Passwords shall be granted to individuals at the City’s discretion. If the proposed system is web based, the internet site shall be a secure site.
- System shall exhibit click and drag capability to allow the user to select a project feature.
- Within the data table, there shall be the ability to link a photograph associate to that specific feature.
- All tabular data shall be downloadable into a format consistent with Microsoft Excel separated values.
- The sign database shall include a search function that queries the data by any attributes identified in Section A or Section B.
- The sign database shall have up to five custom attribute fields that the City deems necessary to add at a later time i.e. sign install date, sign sheeting type, graffiti resistant film, sign height, etc.
- The sign database shall be fully functional within 120 working days of notice to proceed on contract and after receipt of base map from City.
- City shall be able to modify data in the database, i.e. add or remove signs, change sign attributes, add or update photos, etc.
- Sign components shall be identified by symbol according to type of sign and shall be color-coded according to sign style. A legend shall be provided identifying the color code for each sign group.

E. Provide two (2) tablet computers or iPads (Field Assessment Tools) with GPS capability to track and manage the sign data, including all software, licenses, technical support, software upgrades as they become available and training for two (2) years.

Field Assessment Tool Specifications:

- The field tool shall allow the user to perform sign and post assessment tasks from a moving vehicle, via touch screen interface on a standard tablet computer.
• The unit shall be a stand-alone desktop GIS application not connected to the internet for any functionality or data to be used on tablet computer.
• The field tool shall use GIS data files in both ESRI Shapefile format and ESRI Personal Geo Database format.
• The field tool shall utilize GPS to continually update the user’s current location relative to sign locations at a minimum of one second intervals.
• The graphical user interface (GUI) of the GIS application shall include:
  o Legend panel showing symbology information for each GIS layer
  o Reference map showing the current map window in relation to the total project area
  o Scalebar and cursor location information
  o Basic pan / zoom navigation tools including selection tools
  o Features attributes table showing attributes of selected signs
  o Sign data files shall be editable by either assessment buttons and / or editing the feature attributes data table directly. The user making the edits and the date / time stamp when the edit was made will be logged in the database
  o Feature attributes table shall include the ability to sort the data in ascending or descending order based on the column heading and able to select which attribute fields are to be displayed for assessment.
  o Application shall use data transfer utility to connect (dock) with repository (master) sign database to extract a copy of the sign database that will be used in the field assessment tool
  o The vendor shall provide technical support for the field assessment tool throughout the contract term, in addition to providing unlimited updates via automatic docking

The System will be used to achieve the following objectives:

1. The final version of the system will be a comprehensive sign inventory database, for use as an asset management tool for all current and future signs within the City.
2. Meet objective outlined in the MUTCD to manage and maintain signs at the proper retroreflectivity levels.

The City desires a packaged solution that will provide a high level of functionality with ease of use. The City will only consider, in its sole opinion, well designed and proven software that has adequate, if not superior, vendor support.

The Scope of Work, as may be modified through negotiation, and / or written addendum issued by the City, will be made a part of the Agreement.

2. TECHNICAL SPECIFICATIONS

Current Technology Environment
In addition to providing an overview of the software solution proposed for the City, the vendor must present, in detail, the key technology features and capabilities of the proposed application software as they relate to this project.

In regard to the City’s technology architecture as they relate to this project, vendors should take into consideration the following preferences:

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<thead>
<tr>
<th>Technical Function</th>
<th>Preferred Technology/Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server Operating Systems</td>
<td>Microsoft Windows Server 2008</td>
</tr>
<tr>
<td>Client Operating Systems</td>
<td>Microsoft Windows XP Professional Windows 7</td>
</tr>
<tr>
<td>Database Software</td>
<td>Microsoft SQL 2008</td>
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<tr>
<td>Web Server Software</td>
<td>Microsoft IIS</td>
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<td>Web Browser</td>
<td>Microsoft Internet Explorer 8.0</td>
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<td>Microsoft Internet Explorer 9.0</td>
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<tr>
<td>Mail Server Software</td>
<td>Microsoft Exchange 2010</td>
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<tr>
<td>Office Applications</td>
<td>Microsoft Office 2007</td>
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The City prefers software that is standards-based and does not lock the City into proprietary technology. In addition, the City preference is for GUI-based applications running in a web-based environment. Applications should be user-friendly and table-driven, and able to utilize the City’s installed Ethernet TCP/IP network. **If the proposed system can only be locally hosted, utilize basic operating environment that the City uses (i.e. SQL)**

The information is provided for informational purposes only. Vendors are encouraged to recommend the optimal enterprise technology environment to support their own proposed solution.

3. **DATA TO BE SUBMITTED WITH PROPOSALS**

The content and sequence of the information contained in each copy of the proposal shall be as follows:

A. **Letter of Transmittal**

Include your firm’s understanding of the work to be performed. In addition, state why your firm believes it to be the best qualified to perform the services requested. Clearly state how long your proposal shall be valid for consideration by the City.

B. **Table of Contents**

Include a clear identification of the material by section and page number.
C. **Summary Sheet**

1. This section of the proposal must be a completed copy of the Summary Sheet (Appendix B) included with this RFP.
2. Provide the name, title, experience and qualifications of the personnel who will be assigned to the project.
3. Provide the resumes of the management contact with the City and the person(s) responsible for the day-to-day work on the account.

D. **Description of Firm**

1. Provide legal name and description (e.g. corporation, partnership, etc.).
2. Provide total number of employees.
3. Provide office locations from which this engagement would be implemented and serviced.
4. Describe lines of business and how this product fits into the firm’s overall business plans.

E. **Conceptual Plan and Implementation**

Provide a conceptual plan for services to the City that you believe are appropriate for the City. Indicate features, skills or services which distinguish your firm and make it the better choice for the City. Submittal of a project schedule is required as part of the Conceptual Plan.

Describe the approach to administer the project. Submit specific plans how you will manage, control and supervise the project in order to ensure satisfactory provision of services. Provide a description of the implementation plan considerations, including estimated time frames and deliverables for each stage of the project. Detail the type and amount of implementation support to be provided including number and type of personnel, time commitment and training content and format.

F. **Product Vision**

Describe your vision for the continuing expandability of your System. Statements made in this section of the RFP response shall not be constructed to be a contractual commitment to deliver future functionality to the City beyond that which is included in the other sections of this proposal.

The vendor shall disclose the evolution of its software functionality. Future versions shall be discussed in addition to the proposed version. Include the expected release date of the next version. Describe the methods by which clients are kept informed of the new releases, builds, known bugs and fixes, and any additional information the vendor deems appropriate. Describe any implications of new releases to purchase price of maintenance contract, if any. Describe how enhancements are prioritized and by whom.
City specific functionality should be highlighted. The description should also include anticipated deliverables for at least the next two years and should describe how the new functionality could enhance the solution described in the proposal. Explain the affect of any customization on future upgrades and maintenance.

G. Technical Specifications

List all specifications for hardware, operating environment, database, mapping and security. This includes, but not limited to disk storage and memory requirements, etc.

H. Maintenance and Support

1. Provide a comprehensive description of support options.
2. Ownership. Provide ownership information on the source code in the event the City drops support of the software or the vendor goes out of business.
3. Data shall be the property of the City. If system is web-based, vendor shall provide City with a non-password protected copy of the database.

I. References

List similar services performed for all similar organizations/entities in the last five years and when performed. Show names of organizations, and names and telephone numbers of persons who can be contacted with regard to the services you have provided.

J. Cost

Cost Quotations Summary. The City wishes to know the final and complete cost of each proposal and to realize only those additional costs beyond the proposal that the city requests or causes. All cost quotations must include but not be limited to license fees, modifications, training, travel per diem, installation, service charges, upgrades, documentation, etc. Costs associated with on-going maintenance and support must be identified. Define the specific length of time that the price quotes are valid. All Cost tables should be sub-totaled and totaled. Costs should be broken down as follows:

One-Time Costs:
- Gathering of all City traffic sign information, daytime assessment and converting all field data electronically for system database
- Both daytime and nighttime assessment for sign condition and retroreflectivity
- Two (2) tablet computers (field tools) – These will be an option to be exercised at the sole discretion of the City
- Hardware (if necessary)
- Other (all other one-time costs). Please define each cost

Recurring Costs:
- Annual maintenance cost, including software updates
- Annual cost for web hosting
- Other (list all other recurring costs)

K. **Proposed Agreement Language**

Each firm must submit a proposed software / licensing agreement in its entirety. If required of the City by the vendor, the submittal will be reviewed and subject of negotiation with the City before being attached to a final agreement between the vendor and City.

L. **Oral Presentations**

During the evaluation process, the Selection Committee may, at its sole discretion, request any or all firms to provide oral presentations and / or system demonstrations; including, but not limited to, a demonstration of the proposed software. Such presentations will provide firms with an opportunity to answer any questions the Selection Committee may have on a firm’s proposal. Not all firms will be asked to make oral presentations. Additionally, the Selection Committee may conduct site visits where proposed software has been installed.

There is no expressed or implied obligation for the City to reimburse responding firms for any expenses incurred in making an oral presentation to the Selection Committee.