Ohio Department of Transportation

Office of Contracts

1980 West Broad St. Columbus, OH 43223

Request for Information

For

Roadway Information Inventory Management System

Office of Technical Services

Issue Date: 1/6/2012

Response Date: 1/27/2012

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I. Introduction

This is a request for information (RFI), and does not constitute a commitment, implied or otherwise, that the Ohio Department of Transportation (ODOT) will take procurement action in this matter. This RFI is being used to gather information for ODOT to make decisions regarding the development/purchase of a replacement Roadway Inventory Maintenance System. The replacement system will be used by ODOT for the purpose of maintaining the Department's various Roadway Inventory databases, Linear Referencing System (LRS), and Location Base Response System (LBRS) datasets geometries and attributes. The replacement system should include all existing Roadway Inventory business, data validation and reporting functions. In addition, the replacement system will incorporate an Oracle database platform, as well as, GIS tools and spatial data technologies.

This RFI is designed to provide Respondents with the information necessary for the preparation of an appropriate response. It is not intended to be comprehensive, and each Respondent is responsible for determining all factors necessary for submission of a comprehensive response. Responses should be based on the material contained in this RFI or any other relevant information the Respondent thinks is appropriate. By submitting a response, each Respondent agrees that it will not bring any claim or have any cause of action against the ODOT, the State of Ohio, or any employee of ODOT or the State, based on any misunderstanding concerning the information provided or concerning the ODOT's failure, negligent or otherwise, to provide the Respondent with pertinent information as intended by this RFI. Information submitted in response to this RFI will become property of the State of Ohio. The State of Ohio will not pay for any information herein requested nor is it liable for any cost incurred by the vendor.

<u>RFI Confidentiality</u>

All Respondents are strongly discouraged from including in a RFI any information that the Respondent considers to be a "trade secret," as that term is defined in Section 1333.61(D) of the Ohio Revised Code. All information submitted in response to this RFI is public information unless a statutory exception exists that exempts it from public release. If any information in the RFI is to be treated as a trade secret, the RFI must:

- Identify each and every occurrence of the information within the RFI with an asterisk before and after each line containing trade secret information and underline the trade secret information itself.
- Check the "This RFI Does include information considered a 'trade secret'" box on the Respondent Information Page.
- Include a page immediately after the Respondent Information Page that lists each page in the RFI that includes trade secret information and the number of occurrences of trade secret information on that page.

To determine what qualifies as trade secret information, refer to the definition of "trade secret" in the Ohio Revised Code, which is reproduced below for reference:

(D) "Trade Secret" means information, including the whole or any portion or phase of any scientific or technical information, design, process, procedure, formula, pattern, compilation, program, device, method, technique, or improvement, or any business information or plans, financial

information, or listing of names, addresses, or telephone numbers, that satisfies both of the following:

(1) It derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

(2) It is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

II. Background

ODOT currently maintains the Department's Roadway Inventory (RI) datasets in a dBase platform that is no longer compatible with the Windows 7 environment. ODOT would like to implement an enterprise solution within its current Oracle environment for maintaining these datasets. The road inventory includes all state, local, and municipal roads, and catalogs numerous physical roadway characteristics used extensively for planning, reporting and funding. The solution should provide methods for importing new event data, and provide automated processes for validating and reconciling the new event data with the current roadway inventory.

III. Scope

The replacement system needs to have the following functionality:

- Import Location Based Response System (LBRS) county shape files into the RI data model
- Validate the LBRS county attribute data
- Validate the LBRS county geometry data
- Update ODOT's existing Linear Referencing System (LRS) utilizing LBRS datasets
- Reconcile/conflate RI Event data utilizing associated LBRS event data
- Generate audit files of changes/differences between LRS, RI event data and LBRS.
- Manage event data - Provide tools to create, update, edit and delete
- Provide ability to conduct ad-hoc reporting
- Generate Gas Tax Mileage report
- Generate HPMS submittal and associated reports
- Perform cross checks of LRS and RI event data
- Perform cross checks between various RI databases
- Tools for creating business process validation functions
- Ability to conflate external roadway dataset(s) with ODOT's LRS and RI event datasets
- Ability to normalize RI event databases
- Ability to query and display results as a report, graphically and geo-spatially
- Ability to track/query changes by date and operator/user
- Ability to manage identify concurrent /overlapping routes
- Support a multi-user concurrent roadway editing environment which manages and prevents edit conflicts at the feature/record level.

- Provide a system which is fully GIS enabled, i.e., the solution must support spatial representation of the road network and inventory items with the ability to add, update, delete/retire (CRUD rights) and query via both spatial and tabular interfaces.
- Avoid double counting of road lengths when overlapping route segments exist.
- Manage multiple route designations over the same line segments.
- Manage primary and non-primary designation on all routes. Primary routes are the designations and mileages that will, by default, be associated with features and attributes for a portion of pavement. Non-primary routes are the designations and mileages that may run concurrently with a primary route on a section of pavement, but against which features and attributes are not reported by default and will not be included in total mileage calculations.
- Provide the capability for user to choose a graphical representation format for reports (e.g. maps, bar charts, histograms, s-curves, maps, etc) or a tabular format.
- Enforce referential integrity checks at the database level.
- Enforce data constraints at the database level.
- Provide a method for entering a reason for change when changes are made to the road inventory. This reason must be kept as part of the audit trail data maintained within the system.
- Support the use of dropdown lists to facilitate data entry and to facilitate quality control.

IV. RFI Procedure

Responses to this RFI should utilize the template in the RFI Questionnaire Section. All responses must be emailed as PDF or Word documents to:

ODOT Office of Contracts
Contracts.purchasing@dot.state.oh.us

Responses are due by **4:30 p.m. January 27, 2012**

V. RFI Questionnaire

1. Respondent Information

   Organization
   Point of Contact
   Phone Number
   Email Address

   This RFI does include information considered a 'trade secret' Yes/No

2. A. Describe any current or similar applications which exist with comparable functionality.

   B. Describe any limitations or areas of improvement for existing applications of comparable functionality.

3. Describe known problems when performing similar data management processes on similar datasets.

4. Describe the general amount of time necessary to develop and implement an application of this nature.