

## Web Site Information Submission Forms

Three lists of information are provided to assist the lead states teams in delivering information to the AASHTO TIG program manager for posting on the AASHTO TIG web site. Email submission is preferred.

Immediate Information List. Preliminary technology information and lead states team contact information should be submitted as early as possible to the AASHTO program manager for posting, and no later than 30 calendar days after the initial lead states team meeting. The table below may be used to transmit this information.

### Table of Information Needed for Immediate AASHTO TIG Web Posting

Name of Technology: **Linear Referencing System**

(Please affirm the name of the technology as shown on the nomination form or as recommended to be updated by the TIG executive committee. A generic name for the technology should be used rather than a name associated with a single manufacturer or service provider.)

#### Description:

A location referencing system (LRS) is "a set of office and field procedures that include a highway location reference method." A location referencing method (LRM) is a "way to identify a specific location with respect to a known point" (Baker, W. and W. Blessing. (1974). *Highway Linear Reference Methods, Synthesis of Highway Practice 21*. National Cooperative Highway Research Program. National Academy Press. Washington, D.C.).

The Iowa LRS was designed using the results of the National Cooperative Highway Research Program (NCHRP) 20-27(2) project. The NCHRP 20-27(2) linear LRS data model was developed in response to a growing awareness of the need to integrate increasing amounts of linearly-referenced data used by the transportation community (Vonderohe, A.P., Chou, C.L., Sun, F., and T.M. Adams. (1997). "A Generic Data Model for Linear Referencing Systems", Research Results Digest 218, National Cooperative Highway Research Program, Transportation Research Board, Washington, D.C., August, 28 pp.).

(The description of the technology can be the description shown on the nomination form, but the LST is asked to closely review that information to assure good communication for the web site.)

**Benefits:**

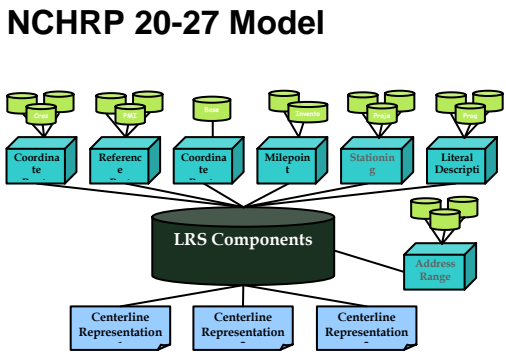
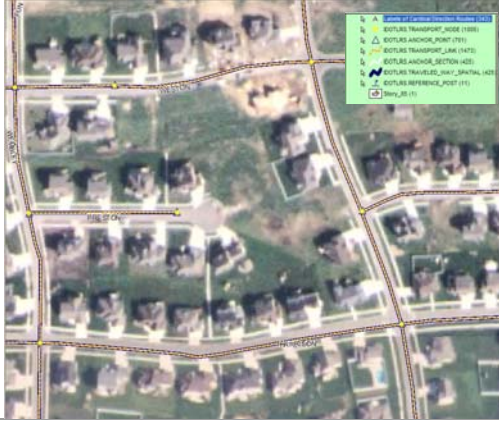
Combining information from different data sources within a department of transportation has been an information processing concern. Spatial data, whether in the form of a mile marker, literal description or other location component, has varied in the many different databases used over the years. Since a vast majority of the data collected is referenced to the Earth in some manner, the use of spatial location and Geographic Information System products is the logical choice to accomplish this integration. The Linear Reference System (LRS) aligns the linear reference points in all databases so information from crash statistics, pavement management and other business data can be accurately mapped and data more easily analyzed. Through this integration, the LRS improves data integration and access, improves accuracy, minimizes redundancy in the databases, minimizes data maintenance activities and includes all public roads.

An improved road network is very important in many areas. Safety professionals make extensive use of the road network to plan and execute engineering, enforcement, education and emergency response treatments for safety problems. Routing and Navigation utilize the road network to solve the problem of shortest path to a selected destination from current vehicle position. Tying the data together from throughout all areas via location improves our ability to manage our road systems. Through the investment in the LRS, the DOT's are able to provide a base for emergency response coordination across jurisdictions.

It is the desire of the Lead States Team to assist other states in creating and/or enhancing their LRS.

(The LST may choose to provide a list of benefits or prepare the information in paragraph form. The objective of the list is to show the types of benefits potentially available to users. Examples are reduced crashes, saved lives, reduction in state DOT labor requirements, reduced cost of providing services, reduced life-cycle cost of the structure, improved construction/maintenance worker safety, reduced traffic congestion, and similar descriptive phrases. The descriptors do not need to be mutually exclusive, as some may overlap.)

**Photograph(s):**

<p><b>NCHRP 20-27 Model</b></p> 	
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(Please provide one or more digital photographs or graphics depicting the technology and a desired caption for each.)

**Lead States Team Contact Information:**

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<p><b>John Farley</b> GIS Unit Manager North Carolina Department of Transportation 919-707-2151 <a href="mailto:jefarley@ncdot.gov">jefarley@ncdot.gov</a></p>	<p><b>David Blackstone</b> GIS Manager Ohio Department of Transportation 614-466-2594 <a href="mailto:Dave.Blackstone@dot.state.oh.us">Dave.Blackstone@dot.state.oh.us</a></p>
<p><b>Janet O. Lowe, GISP</b> Spatial Data Manager North Carolina Depart. of Transportation GIS Unit 919-707-2153 <a href="mailto:jolowe@ncdot.gov">jolowe@ncdot.gov</a></p>	<p><b>Oscar Jarquin</b> Chief, Office of GIS California Department of Transportation 916-654-3853 <a href="mailto:oscar_jarquin@dot.ca.gov">oscar_jarquin@dot.ca.gov</a></p>
<p><b>Thomas Martin</b> Transportation Data Coordination Supervisor Data Systems &amp; Coordination Mn/DOT Office of Transp. &amp; Data 651-366-3872 <a href="mailto:Thomas.Martin@dot.state.mn.us">Thomas.Martin@dot.state.mn.us</a></p>	<p><b>Jonathan (JJ) DuChateau</b> IT Strategy &amp; Architecture Section Wisconsin Department of Transportation 608-266-6975 <a href="mailto:jonathon.duchateau@dot.state.wi.us">jonathon.duchateau@dot.state.wi.us</a></p>
<p><b>Dave Fletcher</b> President Geographic Paradigm Computing, Inc. 505-833-3309 <a href="mailto:fletcher.d@att.net">fletcher.d@att.net</a></p>	<p><b>Tim Bisch</b> Bentley Systems, Inc 512-733-1911 <a href="mailto:Tim.Bisch@bentley.com">Tim.Bisch@bentley.com</a></p>

**Later Information List.** Please submit these information items to the AASHTO TIG program manager for web site posting as soon as the information becomes available:

- 1) Brochures and other marketing publications suitable for electronic posting
- 2) PowerPoint presentations prepared by the lead states team  
(Iowa's MLLRS TIG.ppt) [www.iowadot.gov/gis/](http://www.iowadot.gov/gis/) (under Presentations)
- 3) List of workshops and demonstration (past and planned), if applicable  
**In Development (Webinar)**  
LRS Panel discussion scheduled for GIST in Oklahoma City, April 6-8, 2009
- 4) Announcement flyers for upcoming workshops or demonstrations
- 5) Reference material list, with a document pdf, web url, or the name of the publisher for each item.  
[www.iowadot.gov/gis/LRS/intro.htm](http://www.iowadot.gov/gis/LRS/intro.htm)
- 6) New or changed LST member contact information  
Please see updated LST member contact information above.

- 7) Completed projects. For each project, include the project name, location, completion date, and contact information. The project description should include a paragraph that briefly describes how the technology was used, the project size, the length of time from project start to completion date, etc. The contact information should include name, title, affiliation, phone number, and email address.

Optional Information List. Additional items may also be submitted for posting on the AASHTO TIG web site. Items which have been found of value by some lead states teams include:

- 1) FAQs list
- 2) Additional media – photos, videos
- 3) Reviews by technology users
- 4) Links to related technology information