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Reestablishment of Research Library Operations at the New Jersey Department of Transportation

Final Report
Task Order #1
Project 7510

by
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prepared by
New Jersey State Library
affiliated with Thomas Edison State College

in cooperation with
New Jersey Department of Transportation
Division of Research and Technology
and
U.S. Department of Transportation
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16. Abstract

In order to reopen its Research Library which had closed for several years upon the retirement of its operating clerk, the New Jersey Department of Transportation Research Unit undertook creation of a project funded by the USDOT Federal Highway Administration and conducted by the New Jersey State Library under a task order executed with Thomas Edison State College, the State Library's affiliate agency. The project's objective was to reestablish a research library and to improve upon its past operation as an information center. To proceed with this process, the State Library hired a professional librarian and, in the course of a year, with much support from NJDOT and NJ State Library staffs, a consultant from Rutgers working on a related project, and colleagues from professional associations, the Research Library now physically exists within the Department as a working library with basic furnishings and equipment, services, and clientele. Its collection is undergoing reorganization with future plans for entry into the State Library's online catalog, and additional staff will be hired to hasten ongoing tasks and begin new ones.

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INTRODUCTION AND BACKGROUND

In June 1997, the New Jersey Department of Transportation (NJDOT) executed a contract with the New Jersey State Library, affiliated with Thomas Edison State College, to perform a Federal Highway Administration State Planning and Research Program funded research project. The purpose was to establish and operate a branch Research Library at NJDOT and to improve the operation beyond its previous operation as an NJDOT Information Center. The Information Center librarian had retired without a replacement almost two years prior to the State Library's hiring of a professional librarian for the project. The professional librarian was hired with the understanding that the NJDOT branch would continue to be funded by NJDOT beyond this project.

The previous librarian, without formal training in library science, did an admirable job maintaining the research literature collection using her own call numbering scheme. She sought to provide access to the collection by means of a card file containing a keyword index to the documents and by distributing a printed list of newly received Transportation Research Board (TRB) reports. This list was also posted on the Department's "Bulletin Board," a modem-accessible set of electronic files available to people both within and from outside the Department. In addition, she distributed "Hot Topics," bibliographies provided by TRB on timely subjects, in their print form to be shared by the research staff. She kept a daily log of her activities, and a circulation card file of who had borrowed what items. Also, as do most of the secretarial staff at NJDOT, she kept a correspondence log to track incoming mail. Literature searching was done either by the researchers themselves or by a technical project manager who had training in Dialog (a vendor-based collection of over 400 databases on a myriad of topics including many related to engineering, materials, and transportation). Searches of TRIS, TRB's Transportation Research Information Service database, were requested by the technical project manager from TRB.

In addition to the Research Division's Information Center there was, until 1984, a larger state-funded Transportation Department Library that covered more general transportation topics and served organizational needs including those of the Commissioner and his staff. The Transportation Department Library was run by a staff of three or four under the supervision of Margaret Webb, who had a professional background in library studies. This Department Library had extensive transportation literature holdings and, at the request of one of the Commissioners, the Library provided a newspaper clipping service and maintained subscriptions for general periodicals. The Commissioners that followed, however, were not as information-oriented, so the Library was discontinued with the first indication of cost concerns or difficulties in 1984.

Several months before the new librarian's start date in mid-February 1998, the research collection was packed into boxes and moved from the basement of the Finance & Administration Building to the 5th floor of the Engineering & Operations Building. Many items deemed old or superfluous were discarded by the research staff at this time, and the amount of materials left was approximately halved. Even so, upon the arrival of the new librarian, about 200 boxes piled four high took up the center of the floor space which the Research Library shares with Document Control, a unit within the Bureau of Quality Management Services. The previous librarian's keyword index card catalog never made the transition to the new building, and is presumed lost. Since this catalog had been cumbersome to use (according to at least one researcher), lacked information on actual report titles, and did not use a controlled vocabulary, no heroic attempts were made to recover it.

OBJECTIVES

The objectives of the project were to reopen, operate, and improve the New Jersey Department of Transportation Research Library in a way that better serves the technical information needs of NJDOT researchers, research and technology transfer program customers, technical innovation managers, and those within other cooperating agencies. In pursuit of the above, the Research Library would seek to make maximum use of newer, more effective, efficient, or cost saving methods toward improved maintenance of and access to transportation research and technology transfer information, specifically, to:

- Establish state of the art on-site library research services to NJDOT using NJDOT literature.
- Provide reference services including the capability to perform bibliographic database searches.
- Review and select library materials for the collection based on the research needs of NJDOT.
- Disseminate information on available materials and databases.
- Organize and maintain the branch library collection.

SCOPE

This investigation includes a review of any past research library operations, current library operations, current information user opinions, current working environments, new communication methods and library science methods that are deemed by the State Library to be relevant to the improvement of the Research Library operation.

IMPROVEMENT OPPORTUNITIES

Basically, ways to improve operating Research Library function can be categorized as follows: the physical environment, resources, user services, and staffing. In terms of the physical environment, the move from the Finance & Administration Building to the Engineering & Operations building was a good one. It makes sense for the Library to be near its users, and most people seeking information hail from the technical operations sphere. Although these two buildings and the Main Office Building have connecting passageways, some slight psychological barriers as well as physical distance must be overcome in going to another building. The space is semi-secure in that it is bounded by 5.5 ft partitions (only slightly taller than the librarian) and file cabinets and has two locking doors. The total floor space measures approximately 33 ft by 45 ft, with two additional cubicles about 12 square feet each. As mentioned previously, the Library shares space with Document Control which, in addition to one of the cubicles and operating space for large distributions of documents, has about 150 boxes piled four-deep in one of the corners on the floor. This latter storage takes up about a ninth of the usable floor space. Unless these two (Research Library and Document Control) functions are blended in the future, the main reason for sharing the space would appear to be the general unavailability of open (i.e., non-cubicle), lockable space at NJDOT. Most of the old shelving is still being used, and while wood is natural and warm-looking, the shelves are sagging quite a bit. There is currently a need for a bit more shelving, and there definitely will be more of a demand in the future, as TRB, the states, and other organizations keep pumping out new research literature. Specialized shelving geared toward the display of current periodicals would be useful. In addition, better lighting is needed in the stack areas.

The fact that the Research Library and its precursor, the Information Center, had not yet entered the Information Age yielded boundless opportunities for improvement of library operations. Most libraries have gone beyond the conventional card catalog to online public access catalogs (OPACs) for access to materials in their collections. This collection did not have any standard cataloging whatsoever, be it print or electronic. The physical arrangement of material on the shelves went horizontally across multiple bookcases so that not finding a document at the end of one row meant walking back the width of four bookcases to follow the next row down. Some items were shelved by location of the publisher, regardless of corporate author or subject. Because the previous librarian was given other tasks and responsibilities besides maintenance of the library, she did not have time to "process" much of the material that arrived in the months prior to her retirement. Thus, many of the materials had not been interfiled with the collection but had been arranged alphabetically by title and placed in plastic mail cartons. Until such time as the State Library could make arrangements for formal cataloging of the collection and for entry into their online catalog, some scheme of physical arrangement of materials on the shelves had to be devised.

The collection, in dire need of cataloging, appears to have a lot of strengths, but it also needs weeding, or culling, as well as new materials. Partly as a consequence of not having an existing library, but also due to the size and complexity of the Department, various units have developed their own minicollections for which there are also no records or bibliographic control. Ideally, these resources can be included with the cataloging of other library materials, while allowing them to physically remain near those users who need them most. A better understanding is needed of how the journals received in the Library actually get there and which are already received elsewhere throughout the Department. Since the Research Unit, to which the Research Library reports at NJDOT, is currently split across two different divisions of the Department, mail is brought to the Library by different staff from several different areas and may or may not have been previously opened. It is often addressed to people who are deceased, retired, or transferred, and sometimes when it arrives there is no envelope or address; thus, the sources can be difficult to determine. Many issues of journals appear to be donated by NJDOT staff; the Library sometimes receives multiple copies, and sometimes none.

There are videos in the Library but no VCR to view them with at the present time. Access to the Internet is possible both on the librarian's PC and on the PC that was donated to the Department by TRB for purposes of uploading information about NJDOT's current research in progress. This PC, about five years old, has some corruption problems and aside from the Internet, email, and WordPerfect, has very little other functionality. Both PC's also have a CD-ROM drive, which is helpful since some of the collection is in that format. A photocopy machine would be a welcome addition as far as equipment goes. This would save both staff and patrons a lot of time from having to go to one of the copiers located at the far corners of the building.

As far as user services are concerned, one main area of concern is still getting the word out that the Library is here and open for business. More marketing is needed, and also a better understanding on the part of NJDOT staff of the types of functions that the Research Library can and cannot serve at this time. There needs to be an improved mechanism whereby the librarian can learn the upcoming research needs of the organization rather than simply reacting to user demand. Inclusion in such meetings as the Research Users Committee would probably be very useful.

NJDOT, through contract with the State Library, took a big step in the hiring of a full-time librarian. The next step, which is already in the works, is to provide supplemental staff so that work can continue at a quicker pace. As volume picks up and services are expanded, future staffing increases may be necessary.

STUDY APPROACH

Several challenges confronted the new librarian upon starting at NJDOT in February 1998. The most apparent was the large number of boxes of materials and unopened mail taking up a good portion of the floor. Some materials had been shelved by the research staff using the previous librarian's shelf order, but about 200 boxes remained. New ways had to be found to communicate new holdings to NJDOT staff and to ascertain their research needs. In order to determine what new material to acquire, the librarian needed to know what was already here. Since full-blown cataloging was out of the question until State Library staff could catch up with their other cataloging obligations, shelf order of the documents assumed primary importance both for access to and awareness of the contents of the collection.

Adding to the challenge was the predicament of not knowing all the players -- who does what in the organization, not only formally according to the charts, but informally as well. Directories and organizational charts only told part of the story, as no Department-wide directory appeared to exist which correlated personnel with job function below the level of manager. Luckily, the Bureau of Quality Management Services (QMS), a Bureau with many research and information needs, had a staff meeting, and different units not only presented their ongoing projects, but they also provided handouts detailing their respective functions and personnel. This type of information was extremely helpful, and would have been good to have across the entire Department. One huge advantage of the Research Library's shared space arrangement has been the presence of Ed Mulcahy of Document Control, and until August, Ann Fratticcioli, who between them know almost everyone at NJDOT, and helped the new Librarian immensely with contacts within the Department.

Shortly after her arrival at NJDOT, the new librarian was pleased to learn that efforts were already in the works to learn about information needs and sharing among NJDOT staff. Donald King, Rutgers University Professor Emeritus of Library and Information Studies, was already engaged in a research project in progress entitled, "On-line Library Catalog and Database Needs Assessment." He had created and administered a questionnaire to 36 NJDOT staff members to find out about their information needs and information seeking behavior. In addition to the survey, Arthur Roberts, the project manager, set up a series of interviews for Don King and the new librarian to meet with key people involved with various aspects of information at NJDOT. In fact, there is considerable overlap between these two projects, and in some ways, this report can be seen as a subset of his which, with his permission, appears in its totality in Appendix A.

With all the sub-projects that needed development, the librarian devised a work plan to try to organize and prioritize the myriad tasks to be accomplished or at least addressed over the course of the year. This workplan is attached as Appendix B. Options for access to the collection in the absence of any cataloging were discussed NJDOT research staff, consultant Don King, and with librarians from other state DOT's and transportation agencies.

Members of the Online Research Project Technical Panel and the librarian made a field trip to the New Jersey Department of Environmental Protection (NJDEP) Information Resource Center to see how another state agency handles its information requirements. Maria Baratta and Dorothy Alibrando gave an extensive tour and explanation of their operation and methods. A May visit to NJDOT by TRB representative Elaine King provided an opportunity to discuss information needs and services available from TRB.

The October Research Peer Exchange organized by Arthur Roberts afforded a rare view of other researchers' take on the NJDOT research operation and the role of the Library. This group of research managers from around the country focused on the research function and how to improve program stability, communications, balance, outreach and networking. The committee mentioned the need for strong support for the library several times, and the importance of information sharing was a key theme of the entire process.

Networking with other libraries and consortia was possible through membership in professional organizations and by virtue of the Research Library's new status as a branch of the NJ State Library. Attendance at the Special Libraries Association (SLA) Annual Conference in Indianapolis in June provided extensive networking opportunities and exposure to other transportation-related agencies and library methods. The Transportation Division of SLA is extremely active, and with a membership directory in the process of being compiled by Susan Dresley of the Volpe National Transportation Systems Center, the NJDOT Research Library gained entry for the first time in several years with a name other than "vacant."

In the meantime, various publications appeared which were of extreme interest, among them the March-April 1998 issue of *TR News* (Number 195), a special issue dedicated to "Transportation Information." This issue contained several articles applicable to transportation research library functions, as did some of the articles in the spring 1998 issue of *AASHTO Quarterly* (Volume 77, Number 2). These provided some framework of the state of information within the transportation industry, and showed that current progress on the National Transportation Library as an emerging institution has some parallels with our own NJDOT Research Library.

STUDY RESULTS

In terms of the four categories of improvements sought for the operation which were physical environment, library resources, user services, and staff development, the year did see some positive results. As mentioned earlier, much of the groundwork for the reopening Research Library was taken care of prior to the new librarian's actual start date. The research staff had moved the collection to its new and improved location and had shelved some of the material.

Getting furnishings and equipment proved rather difficult at first -- tables and chairs from the old Information Center apparently disappeared en route to the new location, and visitors to the reopening library had to either stand or take turns sitting in the new librarian's chair. In June, Ann Fratticcioli, a secretary from QMS sharing our space (specifically, the cubicle that the librarian was originally to occupy), cornered Peter Yull of Records, Services, and Warehousing. In a scene reminiscent of the TV series *MASH*, the Research Library offered up a file cabinet for other needed furniture, and in return received within a week's time five tables, fourteen chairs, and two

bookcases. The tables and chairs were for the use of Document Control as well as for the Library, and the bookcases for use by the librarian.

The inadequacies and instability of the TRB-donated PC were apparent from the beginning, and the librarian tried every avenue to get a new machine with more functionality and less corruption. The Bureau of Quality Management Services temporarily provided a 486 but removed it a few months later for use by other staff. In September the State Library was able to supply a new machine with Microsoft Office on it -- this greatly enhanced the ability to read and send files in applications other than WordPerfect, the capability to create spreadsheets and databases, faster downloading time, and a more stable Windows environment than the TRB machine could provide. The State Library has also donated a both a microfiche and a microfilm reader/printer. From its inception, the Library had use of a telephone and a fax machine, and got use of voicemail several months later. In a one-person operation, voicemail provides a critical function for messaging of calls from both within and from outside of the Department.

With the input of researchers Arthur Roberts and Mark Marsella, Don King, and SLA Transportation Division colleagues, the librarian devised a plan for temporary arrangement of the materials on the shelves to maximize access. The proposed shelf order, which is still evolving, was essentially a hybridization based primarily on corporate author, and then by report number where available, and appears in Appendix C. In the absence of a consistent report numbering scheme, either alphabetical by title was used or a modified arrangement by subject or chronology depending upon how the materials seemed best collocated. Researchers Mark Marsella and Tony Chmiel, New Jersey State Library staffer Wayne Woodruff, and intern Bobby Hunsicker assisted with rearrangement of some of the materials on the shelf according to the new plan. Some indexes of sorts existed in the form of the TRB Publications Index available on the Web, TRIS, and the online catalogs of other transportation libraries, such as the MELVYL catalog searchable via the University of California website.

The collection consists in large part of research reports from the federal government, especially the USDOT Federal Highway Administration (FHWA), other state and research institutions, and organizations and associations. In particular, publications of the TRB form a significant component of the collection. The exact number of unique titles in the collection is difficult to estimate, but counting the number of documents occupying one foot of shelf space and then multiplying by the number of shelf feet yielded a figure of about 12,710 individual titles. A small monograph collection spans such topics as management and quality, transportation engineering design, and science textbooks. As for periodicals, there appear to be about 40 current subscriptions and 60 non-current periodical titles represented. In addition, there are about 50 videos and 20 CD-ROMs.

As a branch of the New Jersey State Library, the Research Library has access to the resources of that library as well as membership in the New Jersey Library Network and the Central Jersey Regional Library Cooperative. These affiliations facilitate interlibrary lending and offer reference services and training opportunities. An annual contract executed with Dialog Corporation provides access to over 400 databases for a fixed monthly fee. As a TRB sponsor, NJDOT has access to TRIS which is now available on the Web as well as through Dialog.

For user services, outreach was a prime consideration. Luckily, Arthur Roberts had already organized a "Technical Panel" of about ten information-oriented people for the related "On-Line Library Catalog and Database Needs Assessment" project. This group had a singular awareness of the status of the Research Library and the need for its resurrection. To reach the rest of the Department, the librarian made up a brochure which is now in its fifth edition (Appendix D). This brochure outlines the services available through the Research Library and contains a description of the collection and provides contact information to reach the librarian or the NJ State Library. The first edition was presented to managers and directors at a meeting of the Assistant Commissioner for Capital Program Management, and subsequent editions have been available to visitors and anyone else expressing an interest.

Other means of gaining visibility have presented themselves as well. In April, the Research Library hosted a demonstration of the NJ State Library's CyberDesk, a remote access information service available on the Web. Bob Bland and Edith Beckett presented the functionality of the website and the depth of information available on it to an audience of NJDOT staff and Don King. A small article on the Library's reopening appeared in the April issue of *The Transporter*, NJDOT's monthly newsletter. Due to the article's placement, size, and title, "Researchers, look no more," not too many people noticed it. Perhaps a more effective outreach tool than the article has been the dissemination via email and print of a compiled list of selected recent acquisitions that goes out every few months. Over the course of the year, four have been sent out to directors, managers, researchers, and basically anyone else who wishes to be added to the distribution list; the latest, covering receipts for November/December 1998, appears in Appendix E. The librarian, with the help of CPM Webmaster, Larry McElmoyl, is working on a website that will link to NJDOT's website and to that of the State Library. In regard to outreach outside of NJDOT, the Research Library has a listing in the LDA's *Official Directory of New Jersey Libraries and Media Centers*, Gale's *Directory of Special libraries and Information Centers*, the business index of Special Libraries Association's *Who's Who in Special Libraries*, and the aforementioned SLA Transportation Division *Membership Directory*.

As a measure of output of user services, the librarian has been keeping counts of the number of questions received per month, the corporate affiliation of the requestors, type of information sought, method of contact, and disposition of the requests. Through January 1999, the Research Library has processed 520 requests for information. Of these requests, NJDOT staff initiated 393, which represents slightly more than 75 percent of the total. Requests for documents (417) far exceeded both reference requests (72) and literature searches (31). Items circulated as loans from the collection numbered 218, and 17 items were requested via interlibrary loan. Most of the requests were made in person (272), more than half the total. Telephone (133) was the next most popular method of contact followed by email (78), mail including both US and interoffice (31), and fax (6). Percentages equal 52, 26, 1, 6, and 1 respectively. Most requests (90 percent) were "filled," or received some sort of definitive answer in terms of a document, loan, photocopy, printout, or verbal or written reply. Referrals accounted for eight percent and cancelled requests two percent. Still heavily invested in use of the TRB machine, the new librarian has kept circulation records in a WordPerfect file. The lists of new acquisitions which go out electronically via email include other documents besides TRB reports and are arranged by subject. Although the previous librarian had compiled several types of lists and kept various activity logs, no specifically quantitative performance measures for the Information Center have surfaced.

In regard to staff development, the new librarian has had some volunteer assistance from the NJDOT research staff and the NJ State Library. Ongoing training has included workshops in computer software applications, Internet issues, and library methods. Attendance at conferences of the New Jersey Library Association, the Special Libraries Association, and the Documents Association of New Jersey has afforded valuable information as well as networking opportunities. Monitoring of several listservs helps to keep current on a variety of topics and to keep informed of upcoming events.

CONCLUSIONS AND RECOMMENDATIONS

NJDOT, as a huge state department heavily involved in the acquisition, creation, organization, use, and dissemination of information, has a tremendous need for a library. The dissolution of the Department Transportation Library years ago has created myriad problems in terms of information handling, storage and retrieval, and collocation of a Department historical record. The Research Library function has a much more narrow scope than what the Department ultimately needs. These needs versus the resources that are currently available through this FHWA-funded research project called Research Library Operations has caused some confusion among NJDOT staff, the State Library, and even the new librarian. Since the Department has no other library (excluding the unit collections), there is definite pressure for the Research Library to take over this more generalized function. Until such time as there is support in terms of space, staffing, and funding, however, the Research Library cannot fully undertake this mammoth task. With additional staffing, assumption of some new tasks will be possible, but until the Department can make a full commitment to take bibliographic control of its written (and electronic) resources, the focus will remain on primarily on research materials since the Research and Technology Division has garnered the support for a Research Library.

While the Research Library needs to do more outreach, marketing, and PR, care must be taken to ensure that NJDOT staff understand the parameters of service and do not expect more than can be delivered at this time. For instance, the Research Library cannot store archival or unit-generated material that does not have a research function. Due in part to space limitations and sharing of facilities, a shortage of shelf space already exists. Library holdings tend to grow even with removal of old or unneeded materials, as the pace of new publication exceeds obsolescence.

Work must continue on the Research Library website with links to other transportation-related sites and the State Library. Other outreach ideas as suggested by Bob Bland include a small flyer to fit into staff paychecks, and another *Transporter* article. Once the Research Library setup nears completion, or perhaps when cataloging becomes available for its holdings, an open house would raise awareness of the Library's existence.

Next year's funding does include support for additional personnel: a principal library assistant, and a temporary cataloger. With this additional help, more projects will get underway including cataloging of the collection, conversion of files such as the one for circulation to databases, creation of a serials holdings database, and a database of researchers and their subjects of interest. Even more than the printed and electronic resources at NJDOT, the Department staff hold tremendous amounts of information and expertise. One major database of personnel, indexed and including title, position description, subject specializations, location, telephone, and email address would go

a long way in helping not only the librarian, but all of NJDOT staff to find eachother and to better collaborate on areas of mutual interest. Such a one-stop directory does not exist at this time, but hopefully with the cooperation of Human Resources, Information Technology, Support Services, and the Communications Office, a searchable document like this will assist the operations of the Department in the future. Along the same lines, a Department listserv would enhance communications within the Department. Webmaster Larry McElmoyl is currently working on an Intranet, which would be an excellent place for postings from the Research Library.

Much of the progress made thusfar has been due to groundwork started before the Research Library reopened, and the two-year gap in services has made for an appreciative audience. Still much remains to be done. The Library has benefited greatly from the vision and expertise of many people -- their continued support is vital to the Library's progress. As long as the Library can provide needed services, it is hoped that its users will not allow it to close again.

REFERENCES

Batty, David. Transportation Research Thesaurus: The Why, the What, the How. *TR News,* No. 195, March-April 1998, pp. 17-20, 41.

Derr, Ray. Technology Transfer on the World Wide Web. *TR News*, No. 195, March-April 1998, p. 21.

Dresley, Susan C. and Annalynn Lacombe. *The Value of Information and Information Services: Draft.* Volpe National Transportation Systems Center. U.S. Department of Transportation, Cambridge, Mass., October 1998.

Halladay, Michael and Mike Burk. Sharing What We Know: Leveraging Innovation Through Knowledge Management in the Transportation Community. *AASHTO Quarterly,* Vol. 77, No. 2, Spring 1998, pp. 32-36.

Howard, Colin. International Road Research Documentation (IRRD): A Cooperative Worldwide Database of Information on Road Transport. *TR News*, No. 195, March-April 1998, pp. 12-16.

King, Donald W. *Information Needs and Information Services at the New Jersey Department of Transportation.* Office of Continuing Engineering Education, College of Engineering, Rutgers University, February 1999.

Newsome, Pamela J. Minnesota DOT Library Goes the Extra Mile With IRIS. *AASHTO Quarterly,* Vol. 77, No. 2, Spring 1998, pp. 29-31.

Post, Barbara. Useful Internet Sites for Transportation Information. *TR News,* No. 195, March-April 1998, p. 11.

Sime, James M. And Eric C. Lohrey. Retrieval and Distribution of Transportation Research Information: One State's Approach. *TR News,* No. 195, March-April 1998, pp. 7-10.

Special Libraries Association. *Special Libraries: Putting Knowledge to Work.* Online. Available: http://www.sla.org/what.html. 7 October 1997.

Swartzman, Sue. KDOT's Records and Workflow Management System. *AASHTO Quarterly,* Vol. 77, No. 2, Spring 1998, pp. 4-27.

Zarnetske, Robert et al. Toward a National Transportation Library. *TR News,* No. 195, March-April 1998, pp. 4-6.

APPENDIX A

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INFORMATION NEEDS AND INFORMATION SERVICES AT THE NEW JERSEY DEPARTMENT OF TRANSPORTATION

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By

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16. Abstract

Questionnaires and interviews with selected NJ Department of Transportation staff members were the vehicle for a study of information needs and information services. Recommendations for improved services include revitalized NJ Department of Transportation Research Library, cooperation with the NJ State Library, a flexible internet access policy, support for intercolleague information sharing, and management's acknowledgment of and support for information services.

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Donald R. King

Information Needs and Information Services at the New Jersey Department of Transportation

I. Introduction

Task Order No. 49, between Rutgers, the State University of New Jersey and the State of New Jersey, Department of Transportation was approved in January 1997. The purpose of the Task Order was to establish a research project entitled "On-line Library Catalog and Database Needs Assessment." The project objectives and scope of work are as follows:

Project Objectives:

The aims of this project are to assist the NJDOT Research Bureau to:

1. choose a system for the maintenance of an on-line catalog of the library holdings.
2. choose a database structure which meets the Research Bureau's internal needs.
3. provide options for public use of a catalog of library holdings and database resources.
4. research the feasibility of providing internet access to on-line library catalog and database resources.

Scope of the Work:

The achieve these objectives the team will:

1. analyze NJDOT's current computing facilities for research projects and problem statement submissions.
2. conduct interviews with research bureau personnel to learn about current library catalog and existing database resources.
3. design options or online library and database systems after determining where the systems should be different for the current research projects and problem statement submissions.
4. present recommendations for prototype systems to the research bureau at NJDOT and get additional feedback from bureau administrators.
5. finalize recommendations for an on-line library catalog and database system.

An initial meeting of people concerned with this project took place on September 23, 1997, at the Rutgers College of Engineering. Present at the meeting were Arthur Roberts of the NJDOT, Robert Bland of the New Jersey State Library, Joseph Czapp of the Rutgers College of Engineering, and Donald R. King, Professor Emeritus of Library and Information Studies and consultant for the project. At the meeting the role of the State Library in the project was explored, and there was a preliminary discussion of the steps to be followed in the conduct of the study. It was also recognized that the scope of the study should be broadened to look at the information needs of NJDOT personnel and at means of satisfying these needs. It was agreed that a questionnaire would be developed to explore information needs. The administration of the questionnaire would be aimed at finding areas of need and would not be exhaustive in terms of the number of people surveyed. The questionnaire responses would be analyzed and interviews with selected NJDOT personnel would further explore the findings of the questionnaires. Mr. Roberts

would be responsible for selecting individuals who would receive the questionnaire and those who would be interviewed. There would be no attempt at selecting a statistically significant sample size. It was also determined at this meeting that the contributions of the New Jersey State Library would significantly advance the goals of the Project.

II. Role of the State Library

It was recognized at the outset of the Project that the NJDOT Library had in reality ceased to function. Materials that had been in the Library were in boxes. There was no librarian. The card files that had provided some limited access to the research materials had been discarded. Mr. Bland from the State Library explained at the outset that the State Library in an outreach program was willing to establish under contract with NJDOT what amounted to a branch of the State Library. Such a library would be staffed by librarians employed by the State Library. The State Library would also make available the use of its DYNIX library automation system for the purpose of providing an online catalog for the NJDOT Library's holdings. In addition the State Library would make available to NJDOT personnel its online information reference services. Access cards would be issued to NJDOT personnel. A search for a professional librarian for NJDOT was underway. Carol Paszamant, a research librarian for NJDOT, was hired by the State Library and began her duties at NJDOT in February 1998.

III. Questionnaires

In a series of small group sessions a questionnaire was presented and discussed with members of the NJDOT staff. A copy of the questionnaire is attached to this report as Appendix A. These people had been selected as users or potential users of the NJDOT library. The purpose of the questionnaire was to solicit information about information needs and information seeking behavior of staff members. The information obtained from the staff responses will be used as the basis for recommendations for an improved information system for the NJDOT. There were 36 responses from staff members . One of the returned questionnaires was incomplete and in several of the other responses some questions were unanswered. The size of the group responding to the questionnaire and the nature of the questions were such that a statistical analysis of the responses was not appropriate. This report will summarize the responses and will offer some suggestions about the significance of the responses.

Computer Access and Network Use

Thirty-three (33) people have their own personal computer (PC) and three people have shared access to a PC. It was not possible from the responses to determine the model of PC used. It appears that they are all IBM compatible and that many, if not most, are 486 chip based. All were reported to be either Dell or Gateway machines.

All responses indicated that they were connected to the NJDOT network. Network uses listed by the respondents were as follows:

Mail 28
Network resident applications 13
Netscape or Internet 12
Shared files 7
Time sheet input 7
File transfer 4
Ten other applications with 3 or fewer mentions

Twenty-two (22) people indicated that they had Internet access, twelve (12) said that they did not have Internet access, and two (2) people said they used Internet at home. One person said that they have Internet access, but cannot use it without approval.

Useful Internet resources listed were:

TRB, AASHTO, NCHRP, SHRP, and FHWA
Vendor's product information and Web pages
e-mail
New technology publications
Library of Congress
Search engines
Other DOT Bulletin Boards and Web sites
Vendor online documentation

Professional Interests of Respondents

The respondents were asked to list up to five (5) keywords to describe their professional interests. The responses are summarized as follows:

Legal – statutes, regulations – both state and federal
New products
Various aspects of civil engineering
Specifications
Landscape design and construction
Safety
Computer software
Communications networks
Organizations – TRB, ASCE, AASHTO, ASTM
Government agencies
Pollution and environmental protection
Freight and freight movement
Construction bids, cost estimates
Contracts – administration and status

Importance of Information

Respondents were asked to indicate the importance of information to success in their work by scoring 1 (low) to 5 (high). The responses were as follows:

One	1
Two	0
Three	0
Four	12
Five	20
NR	3

In one of the small group discussions prior to distribution of the questionnaires, one individual stated that there was never anything new in his area, and that he did not need new information. The preponderance of responses at the 4 or 5 level indicate that, except for the one individual, information is extremely important to success in their work.

Specific Information Needs

Respondents were asked to list up to five recent specific information needs. Some of the replies were specific, but in most cases the answers were too general to be useful. Most of the answers were similar to the replies above where people were asked to list their professional interests. Two examples of specific information needs were:

What are the travel costs to the AASHTO conference?
When was the Pulaski Skyway opened?
Most of the replies were engineering or product related queries.

Information Resources

The following information resources were listed:

USDOT
NJDOT colleagues
Other DOT colleagues
TRB, AASHTO, NCHRP, FHWA reports
Consultants
Vendors and vendor publications, specification sheets
WWW, INTERNET
DIALOG
Contractor proposals
Software manuals
Meetings, seminars, conferences
NJDOT databases, procedures manuals
Project files
NJDEP easy access guide
NJIT, Princeton, or Rutgers University faculty and libraries
Standard specifications book.

Information Packages

Respondents were asked to rate a variety of information packages with respect to importance as an information resource for themselves. The ratings were "A" for most important, "B" for moderate importance, and "C" for not important. The results are as follows:

	A	B	C
Journal articles	16	15	4
Research reports	23	13	1
Product literature	14	12	9
Local databases	14	17	4
Handbooks	18	12	5
NJDOT colleagues	21	11	2
Non-NJDOT colleagues	19	13	3
Remote databases	10	15	10
Books	13	11	11
Industry trade magazines	6	17	5

Other information packages suggested were:
Lexis, Westlaw
Consultants, vendors
DIALOG, INTERNET
State and Federal regulations

It is especially interesting to note the high ratings given to research reports, NJDOT colleagues, and Non-NJDOT colleagues. The use of colleagues as information sources is of major significance.

Locating Information

Respondents were asked to identify the means by which they learned where a specific piece of information might be located. The following resources were identified:

Co-workers
INTERNET
Library
FHWA
TRB index
Literature search - DIALOG
Experts
Review journals
E-mail
Product literature
Trade journals
University libraries
Library of Congress
Vendors
ASTM/AASHTO Standards Review

Telephone directory
ACI Standards and Magazine Review

Again it is interesting to note that Co-workers ranks high among the resources.

Document Resource

Respondents were asked to indicate where they got their hands (or eyes) on a document containing the sought information. The following document resources were identified:

Library, Interlibrary loan
INTERNET
Co-workers
Other states (DOTS)
Telephone requests, personal requests
FAX
Computer access
Order from source
E-mail
Subscriptions
Vendors
TRB, FHWA, etc.

Ongoing Information Needs Resources

Respondents were asked to rank information sources with respect to importance to keeping up to date in their field. "A" indicated major importance, "B" indicated moderate importance, and "C" indicated no importance. The results are as follows:

	A	B	C
Conventions	22	8	6
Journals	20	15	1
Research reports	18	16	1
Product literature	11	14	10
Vendor representatives	9	13	14
Professional organizations	14	6	5
NJDOT colleagues	22	9	4
Non- NJDOT colleagues	18	11	7
Continuing education	11	19	4

Other sources listed were product demonstrations, FHWA demonstration projects, Web pages, and the Library.

In looking at the responses just listed it is important to note the high rankings given to colleagues (NJDOT and non-NJDOT), journals, research reports, and conventions.

Importance of Keeping Up To Date

Respondents were asked to indicate on a scale of 1 (low) to 5 (high) how important it is to them to keep up to date. The replies are as follows:

One	3
Two	0
Three	1
Four	8
Five	23

Time Spent Keeping Up To Date

How many hours a week do you spend keeping up to date?

The responses ranged from 0 to 35 with an average of 7.70.

Personal Journal Subscriptions

To how many journals do you personally subscribe?
The responses ranged from 0 to 10 with an average of 1.57.

Journals Read or Scanned

How many journals do you actually read or scan on a regular basis?
The responses ranged from 0 to 10 with an average of 3.26.

Professional Organization Memberships

To how many professional organizations do you belong?
The responses ranged from 0 to 7 with an average of 1.49

Attendance at Professional Meetings or Conferences

How many professional organization meetings or conferences did you attend last year?
The responses ranged from 0 to 4 with an average of 1.09.

Subsidized Memberships

Does NJDOT subsidize professional memberships or attendance at professional meetings for you?
Yes 14 No 20

Continuing Education Assistance

Does NJDOT provide tuition assistance for continuing education for you?
Yes 18 No 17

Facilitating Information Access

Respondents were asked to list up to five factors (things, people or services) which facilitate their access to information. The significant factors listed are:

Well organized library
Good information system
Fellow workers
Professional organizations
Other DOT's
INTERNET access
Subscriptions
Vendors – product information
DEP, FHWA, etc.
DIALOG
New technology presentations
Rutgers, Princeton Univ. libraries
Consultants

The importance of a well organized library and a good information system are to be expected as significant factors. It is interesting to again note the importance given to colleagues as factors in facilitating access to information.

Impediments to Information Access

Respondents were asked to list up to five factors (things, people, services) which impede their access to information. Significant responses are:

Lack of NJDOT library – librarian
Workload
Inadequate department resources
Lack of funding
Lack of training in INTERNET, systems
Poorly written product literature
NJDOT/MIS restrictions on INTERNET access
Travel restrictions
Poor attitude of management and supervisory personnel
Poor interpersonal communications/attitude
Micromanagement by managers
Lack of preservation of NJDOT history

It is important to note the role of management in impeding access to information.

New Information Services

Respondents were asked to suggest up to five specific information resources or services that would be helpful to them, but which are not now available. The following are the more significant suggestions:

Library/librarian
Indexes for TRB, ASSHTO, NCHRP, FHWA, etc.
Direct access to TRIS
Working info servers at NJDOT
Attendance at conferences, user group meetings, etc.
Library of product literature with indexes
Better INTERNET access
Online access to other libraries
Topic specific databases
Directory of what NJDOT can provide
Directory of who knows what at NJDOT
Directory of who knows what at other DOT's
More focused professional training

Suggestions Regarding Information Access at NJDOT

Respondents were asked for suggestions or comments about information access and resources at NJDOT. The following are the suggestions:

Provide INTERNET access to the NJDOT library and to other libraries
Make technology for information access available to libraries
Provide a central listing of state paid memberships and subscriptions
Wider direct access by staff to WWW and better training in the use of WWW
Periodic briefings or newsletters which describe information resources
Database for product literature
One respondent stated, "Management needs to understand that information access is the basis for designing and maintaining an adequate transportation system."
This last suggestion regarding management is very important.

IV. The Interviews

A number of interviews were conducted with key people in NJDOT. Participating in the interviews were Arthur Roberts of NJDOT, Carol Paszamant, the Librarian at NJDOT, and Donald R. King, the Rutgers Consultant. The intent of the interviews was to explore issues raised in the questionnaire responses and in the discussions held prior to the distribution of the questionnaires. Interviewees were encouraged to raise other topics as they felt necessary. It is interesting to note that when all the interviews are considered in retrospect a few issues seemed to be of common interest and importance. These issues will now be discussed.

Network Structure

In modern organizations of any size essential communication and information flow is most readily accomplished through a local area network or LAN. At NJDOT there are two LAN's, one based on the Novell system, and the other based on Windows NT. The existence of the two networks is an artifact of historical development. While the two networks do permit the exchange of information they are not totally compatible and the same application software in one may work differently on the other. Some information resources are not accessible in one or the other network. It was stated that if funds are available the Novell system will be phased out and the Novell users will be migrated to the Windows NT system at some time in 1999. This step will be important in making information universally available within NJDOT.

Public Folders

The questionnaire responses indicated that a major source of information for NJDOT staff members was colleagues in NJDOT. The use of "public folders" in the LAN would serve to facilitate of the exchange of questions and answers within the Department. Such "public folders" should be organized along broad subject areas and would have an organizer who would be responsible for purging the folder of out-dated material. The use of "public folders" is now discouraged because of the storage space required and the lack of organizers. It was ascertained in the interviews that "public folders" now exist to some small degree, but that Novell users could not access them. When the shift to the Windows NT system is complete folders will be made more available. The compilation of a "Who Knows What" list by the Librarian will assist in the creation of subject oriented folders.

Networked CD-ROMS

Some interviewees were asked about the ability of the networks to support the installation and access to CD-ROM databases. There are, in fact, a number of such databases which would be of widespread use within the Department. A few interviewees stated that the present state of wiring for the network would not support the traffic that the installation of the CD-ROM databases would generate. A member of the MIS staff stated that the network could indeed support that installation of such databases, but that the real issue seemed to be one of control.

NJDOT Bulletin Board and WEB Site

Interviews were conducted with those responsible for the NJDOT Web Site and its contents and for the NJDOT Bulletin Board. The Web Site in accessible through the Internet while the Bulletin Board in reached only through dial-up access using a modem. Neither the Bulletin Board nor the Web Site is accessible by all NJDOT staff members even though they contain valuable information needed by staff members. The Bulletin Board manager spoke of improvement to be made to the Bulletin Board, but other interviewers stated that the Bulletin Board function would be transferred to the Web Site and that the Bulletin Board would be abandoned.

Internet Access

Access to the Internet is possible for Windows NT users if they have permission. Their use is monitored and use of questionable resources is noted and investigated. The Internet does contain many valuable resources that could quite legitimately be used by NJDOT staff people. One such resource would be the NJDOT Web Site itself. Other sites include the NJ State Library's catalog and Information Service. One interviewee stated that "NJDOT management fears people will misuse the Internet and access wrong stuff. They might spend 10 minutes looking for car prices." Such concerns are perhaps justified, but the concept did cause one other interviewee to state "We work down to management's expectations." Access to the Internet will become increasingly important as a source of information for the NJDOT.

Archives and NJDOT History

Several interviewees expressed concern over the loss of the "history of NJDOT." Apparently many of the important documents were discarded in the reorganization of the Department several years ago. Such a loss in unfortunate and steps should be taken to insure that it does not happen again.

NJDOT Internal Research Reports

It was reported that there is no consistent numbering system or indexing of NJDOT internal research reports. Some reports are included in the NTIS or TRB systems, but a consistent system for use inside the Department should be developed.

V. The NJDOT Research Library

Brief History

For many years there were two libraries in the NJDOT, the transportation library and the research library. The transportation library was managed by a professional librarian who left the department in the early 1980's. The library was closed and the collection was scattered within the department. The research library was managed by a non-professional librarian who left the department in 1996. The collection was placed in boxes and the card files which had provided some access to the collection were lost. The need for a library and the services of a librarian were expressed by many people in NJDOT, and in 1998 talks with the New Jersey State Library lead to a contract between NJDOT and the State Library for the operation of a branch library within the NJDOT. The Library would be staffed by a professional librarian. Carol Paszamant, the new librarian for NJDOT, began work at the NJDOT in February 1998.

Database Searching – DIALOG

In addition to the information in the collection in the NJDOT Research Library an important source of information for some years has been the DIALOG collection on online databases. The DIALOG system is the largest and most varied of the online services and contains a number of databases of potential use to the department. Other online databases are available through the Internet. Such databases include the TRIS database. Searches in the past have been conducted by an NJDOT staff person. The new librarian is fully qualified to perform database searches, and all such searches should be turned over to her. Some of the retrospective files of the important databases are available on CD-ROM's. Some thought should be given to acquiring such CD's as a means of reducing the cost of online searching. The CD's could be housed in the NJDOT Research Library and searched by the Librarian or they could be made available over the NJDOT network for direct use by staff members.

Online Catalog – State Library DYNIX System

One of the initial thrusts for this study of information needs at the NJDOT was the desire to provide an online catalog of the NJDOT Research Library's collection and the selection of a database to represent the catalog. The contract between the State Library and the NJDOT provides for the NJDOT Research Library collection to be included in the online catalog at the State Library. This catalog is maintained in a DYNIX library automation system from Ameritech Library Services, one of the largest library automation companies. The catalog database uses the MARC format for the storage of catalog records. This format is the standard in the industry and will serve the NJDOT Library well. The problem that remains is the construction of a database of catalog records representing the collection. Some help from the State Library will be available to accomplish this task. It will be necessary for the NJDOT to pay some of the costs for the DYNIX system (expanded license to include NJDOT) and for some terminals. It will also be necessary for NJDOT to pay for the creation of the necessary catalog records in machine readable form. The catalog will be accessible through the Internet. Not only will the NJDOT collection be available in the catalog, but the collection of the State Library as well.

Centralized Collections

It is well known within the NJDOT that there are collections of materials at various locations within the department. Such collections may have come from the original Transportation Library which was disbanded in the 1980's. Other collections have been assembled to meet localized needs within the department. It is not necessary that these collections be merged into the NJDOT Library, but the contents of the collections should be reported to the Librarian so that they may be represented in the online catalog and so that the entire department may have the ability to access and use the materials.

Reference Services

One of the primary functions of a professional is the direct provision of answers to questions posed by the clientele of the library. This function is called reference services. It is fully expected that Ms. Paszamant, the NJDOT librarian, will provide such a service. Such services may be based on reference materials located in the library itself or the answers may be sought in online databases either in DIALOG or on the Internet. It is also important to note that the State Library has a service called CYBERDESK that provides access to reference librarians at the State Library. This service is online through the Internet and no passwords for accessing the service are required. Passwords for searching the EBSCOHOST journal index and for requesting a book or photocopy will be made available to NJDOT staff members.

Vendor Data Files

Responses to the questionnaire indicated that a prime source of information for some staff members was vendor catalogs, data sheets, and specifications. A valuable addition to the collection at the NJDOT Library would be a collection of vendor documentation. Such documentation might be requested directly from the vendors or copies might by donated by NJDOT staff members. The ephemeral nature of this material indicates that it will need frequent updating and that it need not be included in the online catalog. A simple index to provide access by vendor name and product or service would be helpful.

Historical Files

The questionnaire responses indicated concern for the lack of historical records for the NJDOT. It is not suggested that the library be made into an archive for department records, but some effort should be devoted to constructing a plan for the retention of important records and documents.

Training

A developing role for librarians of all types in all types of libraries is that of training for patrons. The use of modern information resources is becoming evermore complicated, and library clients are often in need of directions in how to make use of these new resources. Some training is accomplished through newsletters or bulleting describing services available at the library. Other topics may require workshops or seminars to convey the necessary material. The librarian should be proactive in the provision of information about the library and its services. In addition the librarian may assume the task of coordinating workshops or seminars in the use of information systems. A number of responses to the questionnaire indicated that people were aware of information resources but did not know how to use them. Three topics for workshops would be:

> Information query formulation – how to translate an information need into a query statement to be used in an information system. How to focus an information need.

Internet Use – the mechanics of using the Internet.
Internet Resources – an exploration of information resources on the Internet that would be of specific use to NJDOT staff members.

VI. Internet Access

The use of the Internet by members of an organization is becoming an issue of major importance to the management of the institution. It is clear that the Internet is a rich resource of information that can be of great help and importance in meeting the objectives of the organization. On the other hand, it is quite possible for a staff member to spend hours of unproductive (as far as the organization is concerned) time "surfing" the net for material of no use to the organization. Organizations have chosen a variety of methods of dealing with this problem. Some organizations have opted to prohibit any use of the Internet, probably to the ultimate detriment of the organization. Other organizations have chosen to restrict use of the Internet to only selected "trusted" employees. This policy may control the use of the Internet for nonproductive "surfing," but the creation of employee class will not go unnoticed by those not selected. Some organizations have developed a well defined Internet policy which states how and for what purposes the system may be used. Use of the Internet is monitored and offenders are called to justify their misuse of the system. Finally, some organizations permit free and open use of the Internet and assume that periodic reviews of each individuals job performance will suffice to monitor the use of the system. The idea being that happy employees may well produce more. Those people who waste time on the Internet will suffer in their job performance. It is not the intent of this report to suggest management style for the NJDOT. However, it is clear from the results of the questionnaires that more open access to the Internet would be welcomed by many staff members. The necessity to request permission to use the Internet is demeaning to employees. A well defined policy which is made clear to all employees would be most welcome. Workshops in the use of the Internet and Internet resources are important as a means of reducing nonproductive time. Some respondents to the questionnaires indicated that access to the Internet was possible, but that they did not know how to use it. Internet access will be important for access to the NJDOT Web Page and to the online catalog housed at the State Library.

In addition to the NJDOT Web Page and the online catalog there are a number of other important resources for NJDOT staff members. There is a TRIS database which can be searched for document access. Other state departments of transportation have web sites containing valuable data and information. Federal government web sites are also important and should be studied for their use by NJDOT staff members.

VII. Information Gatekeepers

In a landmark study published in 1966, Thomas J Allen reported on the study of the management and flow of technical and scientific information.[1] His work has been validated in further studies. Allen discovered within organizational structures individuals that he called technological or information gatekeepers, who "have rather extensive outside contacts, and furthermore serve, as sources of information for their colleagues."[2] Allen goes on to state that some of the gatekeepers are more likely to be readers of technical literature than their colleagues, and that frequently serve as pointers to and interpreters of the literature. In reviewing the responses to the questionnaires it is interesting to note several relevant areas. One is the high use of colleagues, both NJDOT and non-NJDOT, as sources of information. Second is the relatively low level of readership of journal literature. Personal subscription to journals averaged 1.57, and only an average of 3.26 journals were read or scanned regularly. There was an average of 1.49 professional society memberships, and an average annual attendance at professional meetings of 1.09. However, at least one person subscribed to ten journals, someone read or scanned ten journals regularly, someone belonged to seven organizations, and someone attended four professional meetings. The high reliance on colleagues for information and the indications that some people do make use of journals and professional societies and meetings suggest that the information gatekeeper function is present at NJDOT. To quote Allen further gatekeepers "are the people to whom others turn for technical discussion and consultation and they in turn report a greater amount of contact with the professional and scientific literature or with technically trained friends outside the lab."[3] Allen adds, "Management must locate and utilize the talents of these individuals."[4] Some suggestions about the nurturing of gatekeepers and the facilitation of their roles will be made in the final section of this report.

VIII. National and State Professional Organizations

Responses to the questionnaires suggest that widespread participation in state and national professional organizations is at a low level. Significant professional activity outside of NJDOT seems to be limited to a few individuals. This is an unfortunate situation. Greater membership levels should be supported by the department, and staff members should be encouraged to actively participate in professional meetings and conventions. Such support includes both time for attendance and financial support.

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1 Allen, Thomas J. Managing the flow of scientific and technical information. PhD Dissertation. Massachusetts Institute of Technology, Cambridge, Massachusetts, 1966.
2 Ibid. p 11-17.
3 Ibid. p 11-22
4 Ibid. p12-17

IX. Summary and Recommendations

A study has been made of the information needs and information seeking behavior of some members of the NJDOT staff and administration. The study was conducted by questionnaire and interviews. The significant findings of these processes have been discussed earlier in this report. Some recommendations have been made in the body of this report, but they will be included in the following list of recommendations or suggestions for improving information access and flow within the NJDOT.

- Eliminate the disparity in the two LAN's within the department by migrating all users to the Windows NT system.

- Initiate a program to upgrade all PC's to at least Pentium II machines.

- Provide training programs in
  - Internet mechanics
  - Internet resources
  - Query formulation

- Recognize the role of information gatekeepers within NJDOT and facilitate their roles by
  - Creating a list of who knows what within the department
  - Providing access to public folders within the LAN so that individuals may post questions and receive answers

- Maintain the contract with the New Jersey State Library so that the operation of the NJDOT Library will continue. The Library and its operations fulfill one of the major suggestions specified in the questionnaire responses.

- Utilize the library automation system as offered by the State Library as the basis for an online catalog to the NJDOT Library's holdings. Support the cost of the creation of catalog records for the items in the NJDOT collections and the cost of additional site licenses for the system software for the online catalog.

- Include in the NJDOT online catalog information about items in the scattered collections within the department.

- Consider the use of CD-ROM databases as the source of information within the NJDOT library. Give thought to making these CD-ROM databases available on the NJDOT LAN.

- Provide better support for the professional activities of NJDOT staff members including professional society membership fees, journal subscriptions, and attendance at professional meetings and conferences.

- Develop a more permissive Internet access policy so that staff members will have access to the State Library online catalog, the NJDOT web site, and other DOT web sites.

- Establish a collection of vendor documentation within the NJDOT Library and provide a minimal level of indexing to the collection. The collection would need to be constantly weeded and upgraded.

- The NJDOT Library should adopt a proactive position in the provision of information services by releasing periodic announcements about its services and by direct participation in major projects.

- A mechanism for the preservation of the NJDOT history should be developed.

- NJDOT research reports are a significant source of information. A better method of organizing and indexing them should be developed.

- Management's role in the provision of information services needs to be recognized. The importance of information in the achieving of the Department's goals and objectives should be publicly recognized. It must also be recognized that the public statement of an information need or a request for assistance in finding information is not a sign of weakness but is simply a step along the path to the solution of a problem. Management should also be supportive of the gatekeepers within the organization. Clearly at the present time many staff members look upon management as impediments to information access.

- A periodic review of information needs and resources within the department should be conducted. Technological advances in the provision of information services are certain to continue.

This researcher was driving on a major New Jersey highway last summer. Fortunately the road was familiar and the turnoff necessary to reach the destination was known. As the turn was about to be made it was noted that a sign indicating the turn was covered by the growth of underbrush. The information was there but access to it was obscured. It seemed that the situation was a metaphor for the situation within the Department. In many cases the information is there, but access to it is obscured.

Donald R. King

February 1999

REFERENCE

Allen, Thomas J. Managing the flow of scientific and technical information. PhD Dissertation. Massachusetts Institute of Technology, Cambridge, Massachusetts, 1966.

APPENDIX A

THE QUESTIONNAIRE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
ONLINE RESEARCH LIBRARY RESOURCE MANAGEMENT STUDY
SURVEY OF INFORMATION NEEDS AND RESOURCES

Information needs may be categorized in two ways: specific project oriented needs and on-going or "keeping-up-to-date" needs. This survey will explore both types of information need. In answering the questions please answer with respect to your own personal needs not what you think might be the needs of other people. They will answer for themselves. There are no right or wrong answers, and your responses will not be identified with you in any report that results from the survey. In answering, be as specific as possible.

I. **Personal Information**

Name: _____ Extension: _____

Unit: _____

A. Do you have (check one):

____ Your own PC

____ A shared PC

____ No regular PC access.

B. If you have PC access, what model is it? _____
(e.g. Gateway 2000, 486)

C. If you have a PC is it connected to the NJDOT network? _____

D. If you have access to the NJDOT network what are the three uses of the network that are most useful to you?

1. _____

2. _____

3. _____

E. Do you have access to the INTERNET? _____

F. If you have access to the INTERNET what are the three most useful INTERNET resources for you?

1. _____

2. _____

3. _____

G. List five keywords or phrases which describe your work or professional interests. These may be short term or long term interests. Be as specific as possible.

1. _____

2. _____

3. _____

4. _____

5. _____

H. On a scale of 1 (low) to 5(high) how would you rate the importance of information access to success in our work at NJDOT? _____

II. Specific or Project Information Needs

In responding to the following questions think of current or recent research, design, or development projects in which you were involved. Think of your personal involvement in the projects and try to recall your information needs with respect to the project. An information need is a situation in which you had to consult some resource for the answer to the question or problem, i.e., you didn't know the answer.

A. List up to five specific information needs from recent projects>

1. _____

2. _____

3. _____

4. _____

5. _____

B. For each of the information needs just identified list the information resource from which you got the answer.

1. _____

2. _____

3. _____

4. _____

5. _____

C. Information is packaged and presented in many forms. With A indicating very important as a resource for specific project related information, B for moderate importance, and C for not important, rank the following potential resources of information. You may, of course, use each rank indicator more than once. Try to answer in terms of what could or should be available, not what is available now.

1. Journal articles ____

2. Research papers ____

3. Product literature ____

4. Local databases ____

5. Handbooks ____

6. NJDOT colleague ____

7. Non-NJDOT colleague ____

8. Remote database ____

9. Books ____

10. Industry trade magazines ____

11.Other ____ Specify _____

D. Finding specific information can be difficult. How do you discover, for example, that a specific issue of a journal has an article of interest to you? This process is often called intellectual access to information as opposed to physical access which refers to getting access to a copy of the article. What tools do you use to get intellectual access to information? List up to five tools listing them in order from most important.

1. _____

2. _____

3. _____

4. _____

5. _____

H. Having located a source for information, how do you get your hands (or eyes) on the information itself. List up to five ways in the order you find them most helpful.

1. _____

2. _____

3. _____

4. _____

5. _____

III. On-Going Information Needs

In responding to the following questions think not of specific, project related needs but of long-term information needs related to your job and/or your own professional growth and development.

A. People keep abreast of developments in their profession in a variety of ways. Below are listed some of the more common ways for doing so. With A indicating very important to you for keeping up-to-date, B for moderate importance, and C for not important rank the following potential sources of information. You may, of course, use each rank indicator more than once.

1. Conventions _____

2. Journals _____

3. Research reports _____

4. Product literature _____

5. Vendor representatives _____

6. Professional organization(s) _____

7. NJDOT colleagues _____

8. Non-NJDOT colleagues _____

9. Continuing education _____

10. Other _____ Specify _____

B. On a scale of 1 (low) to 5 (high) how important is keeping up-to-date to you? _____

C. On the average, how many hours a week do you devote to keeping up-to-date? _____

D. To how many journals do you personally subscribe? _____

E. How many journals do you actually read or scan on a regular basis? _____

F. To how many professional organizations do you belong? _____

G. How many professional organizational meetings or conferences did you attend last year? _____

H. Does NJDOT subsidize professional organizational membership or attendance at professional meetings for you? _____

I. Does NJDOT provide tuition assistance for continuing education for you? _____

IV. General Questions

A. Having thought about information needs and resources list, if you can, up to five factors (things, people, services) which facilitate your access to information.

1. _____

2. _____

3. _____

4. _____

5. _____

B. List up to five factors (things, people, services, or lack thereof) which impede your access to information.

1. _____

2. _____

3. _____

4. _____

5. _____

C. List up to five specific information resources or services that would be helpful to you but which are not now available.

1. _____

2. _____

3. _____

4. _____

5. _____

D. Please give us your comments or suggestions regarding information access and resources at NJDOT.

Thank you very much for your help. We do hope that the project will improve your access to information.

Please return the completed forms to Mike Roberts within one week after your interview. If you have any questions ask Mike Roberts or call Don King at 732-828-2752. Leave a message if he is not there.

APPENDIX B

NJDOT RESEARCH LIBRARY

WORKPLAN FOR 1998

April 24, 1998

MISSION: The New Jersey Department of Transportation Research Library exists to support the staff of the NJDOT in their effort to fulfill the mission of the Department to "deliver a safe, reliable and affordable transportation system that is considered to be the best . . . by those who live, work, play and invest in New Jersey." In support of this endeavor, the Research Library will, with the cooperation of NJDOT staff, anticipate information needs, acquire or provide access to research materials, databases, and documents which may be held in or out of the Library itself, and assist researchers with requests for information.

GOALS: The Research Library staff (Librarian), with NJDOT and/or State Library staff, will establish long- and short-term goals to realize the Library's mission within the context of the Department. Some of these will be ongoing; others will change over time as goals are achieved, redirected, or dropped. In pursuit of these goals, the Librarian and advisors from the Department and/or the State Library may determine sub-goals, or objectives, to break the goals into manageable parts.

As of now, some of these goals would be to:

1) Organize and inventory the collection.

2) Anticipate information requirements of Department staff for current and upcoming projects.

3) Acquire needed materials or access to them.

4) Implement a system to log in and store materials for retrieval.

5) Disseminate timely and appropriate information and make referrals as needed.

6) Establish a system of notification for researchers in regard to new and existing materials.

7) Exchange information with other agencies to keep up with new trends and resources.

8) Review services and modify plans as necessary.

In order to best achieve these goals, the Library staff will have to incorporate technology and automation which are basic tools in a modern facility. Systems especially for libraries do exist and provide various types and combinations of features. Central to the functioning of a library is its catalog, so any system must have bibliographic functionality and, it is hoped, capability of Machine-Readable Cataloging (MARC) Format.

Several of these goals are applicable on a continuous basis and, in the short-term, some may be realized only to the extent that available technology and staffing permit. The State Library will be providing some technical assistance. A breakdown of these goals follows:

Goal 1) Organize and inventory the collection.

Right now a good part of the collection is still in boxes from its move from the basement of the F&A Building to the Fifth Floor of E&O. As of this date, there are 82 unopened boxes (down from approximately 175?) of uncataloged materials, unopened mail, supplies, etc.

The Research Unit staff and others worked hard to move the collection and to remove unnecessary materials. By one person's account, 75% was tossed; still, much remains and new materials arrive daily. None of the holdings are automated, and the previously used classification scheme is not self-evident. The old card catalog never made its way up to the new space, and would not have been helpful for any materials received in the past two years anyway. Clearly, an inventory of the exiting collection needs to be done, including a list of journal holdings and current subscriptions. This latter may be less straightforward than expected, as journal issues are sometimes received from individual NJDOT staff who are members of particular organizations, so that the Library does not have a direct subscription.

The collection needs to be reorganized. Right now the shelf order of documents roughly follows the agency from which it was received. Some series are in numerical/date order, and some are not. The reorganization will require quite a bit of time and physical labor and may take several months, depending how much concentrated time can be devoted to it. Once the collection is rearranged, an inventory would be in order. Ideally, the collection could be cataloged directly into the OCLC database and Dynix catalog of the New Jersey State Library. This would eliminate duplication of effort and problems of software compatibility down the road. Bob Bland from the State Library has indicated that someone may be available part-time to help with this effort. Journal holdings would be entered into this same database, with perhaps a separate module to keep track of individual issues.

Goal 2) Anticipate information requirements for current and upcoming projects.

The best way to keep up with this goal is to obtain lists from the many units of their projects and research needs. It is hoped that an ongoing dialogue will take place so that Library staff will know in what directions the Department is headed, and what topics and subject areas are or will be of interest. A Department-wide database needs to be set up that combines the aspects

currently found in three separate places: the online email address book, the printed telephone directory which provides address and phone only, and *Checkpoints*, which provides access by function to a telephone number but not to staff. The organizational charts in the front of the *Telephone Directory* and *Checkpoints*, while helpful, require visual scanning to find a particular function or name, and do not go, I believe, below the level of Bureau Chief. To find out what a particular person does necessitates scanning the charts for the name, if it appears at all, or calling the person and asking them. For a newcomer, and also for a Department where personnel are continually shifting around, the need for a constantly updated database of who is doing what is evident. Whether this function should be done by the Library or one of the other units involved with the partial databases needs to be determined.

Once such a database exists, it will be possible to know, at least to a basic extent, who is working on what, and consequently who might be interested in particular materials or information. This type of data provides a basis for a profile of researchers' information needs. Depending upon who is working on the Department-wide database and the priority it is given, this goal would probably take four to twelve months to get a full and ongoing picture of the research needs of the Department. Working on a piecemeal, word-of-mouth basis, some work of this type can be done, but it would not be comprehensive by any means.

Goal 3) Acquire needed materials or access to them.

Anyone may submit requests for purchase of materials to the Research Library; whether all such items should be purchased is another story. I would like to see an advisory committee set up to review purchase decisions and make recommendations, especially if funds are running low or if the usefulness of an item to the Department is not readily apparent.

For this year, $10,000 has been allotted to purchase of library materials and $7,000 for database searches. The State Library is setting up an account against which NJDOT Research Library purchases can be made. Once goals (1) and (2) are met, goal (3) will be much easier to approach in an orderly and informed manner. In the meantime, I will be purchasing items upon request as long as they seem reasonable and seem to meet the needs of the Department. Setting up an advisory committee may take several months as it is unclear at this time who should be on it.

Goal 4) Implement a system to log in and store materials for retrieval.

This goal is directly linked to Goal (1). As new materials arrive, there needs to be some system in place to account for their existence and location within the Library. Optimally, this system would be linked to the New Jersey State Library Dynix catalog and OCLC, if not these systems directly. This is obviously an ongoing and basic library function, and the more functionality the system has, the better. Acquisitions, cataloging, serials check-in, online public access catalog (OPAC), circulation, interlibrary loan, and report generation are some of the features an integrated system would offer. The State Library's Dynix system has these modules available.

Goal 5) Disseminate timely and appropriate information and make referrals as needed. Another ongoing and basic function, goal (5) depends on staffing and resources, both in and out of the Library. No library can have everything, and no one can know everything, so when an answer cannot be given from the resources at hand, it is time to turn elsewhere. This is routine in most libraries, and the telephone (and now email as well) is still one of the most important tools around.

While waiting for an answer or document, a requestor is entitled to know the status of his/her request, and how long it might take. Depending upon the nature of the question and any deadlines, a day or two would be a reasonable length of time to get back to someone with at least a preliminary reply.

Goal 6) Establish a system of notification for researchers in regard to new and existing materials.

This may require a multimedia approach. Since not everyone is familiar with, or has access to, PC's or particular applications, I will try to make a recent acquisitions list available in several formats, one being print. If MIS allows, a public folder might provide a good forum, as would the Intranet and/or the NJDOT homepage on the World Wide Web. I have begun to collect bibliographic citations of new materials we are receiving, but some retrospective list back to mid-1996 (when Marie Emma left) would be in order. This list will be arranged by subject for the most part, and will be distributed periodically (monthly or bimonthly?) depending on the volume of material received.

Goal 7) Exchange information with other agencies to keep up with new trends and resources.

It is vital that the Research Library have connection to the outside world for exchange of information, resources, ideas, and experiences. Professional relationships can lead to ongoing alliances that benefit all involved. Various professional organizations exist for these purposes, and I am currently a member of about five of them including the American Library Association (ALA), Special Libraries Association (SLA), New Jersey Library Association (NJLA), Documents Association of New Jersey (DANJ), and the Rutgers School of Communication, Information and Library Studies (SCILS) Alumni Association. Active membership in these organizations involves attending meetings and/or conferences, subscribing to listservs, receiving professional literature, serving on committees or perhaps running for elected office.

While it would be impossible to be active in every organization, it is true that "the more you put in, the more you get out of it." Since SLA has a Transportation Division, I will be concentrating my efforts with that organization and will be attending their annual conference in Indianapolis in June. In addition there are local consortia that the Research Library will be joining -- the New Jersey State Library Network and its Central Jersey Region -- to enhance access to materials and reference services. As a New Jersey State Library employee, I will certainly be attending staff meetings held there to keep up with policies, information resources, etc.

Goal 8) Review services and modify plans as necessary.

Periodic review would be a good idea to make sure that the Library is on track and responding to user needs. In addition to the collection of comments and suggestions on a continuous basis, a more formal survey may be in order at some point similar to the one that led to the reinstatement of the Library in the first place.

Summary and timelines:

It is difficult to say how ongoing services will impinge on the amount of time that can be devoted to each task. Some of these other projects, while important and central to the operation of the Library, do not have the immediacy of someone waiting for an answer or document. Due to the collaborative nature of many of the tasks, they may not be completed as quickly as one would wish. Thus, these completion dates are referred to as "anticipated."

Task:	Anticipated completion date:
Finish unpacking boxes (Goal 1)	July 15, 1998
Reorganize collection (Goal 1)	August 31, 1998
Inventory/catalog collection (Goals 1 and 4)	December 1, 1998
Anticipate information requirements . . . (Goal 2)	ongoing
Coordinate creation of Department-wide database (Goal 2)	June 30, 1998
Organize advisory committee to determine purchases (Goal 3)	May 31, 1998
Review materials for purchase (Goal 3)	ongoing
Implement system to log in and store materials (Goal 4)	December 1, 1998
Disseminate information and make referrals (Goal 5)	ongoing
Establish system of notification of new materials (Goal 6)	May 15, 1998
Exchange information with other agencies . . . (Goal 7)	ongoing
Review services and modify plans (Goal 8)	ongoing/December

APPENDIX C

NJDOT RESEARCH LIBRARY
PROPOSED SHELF ORDER
9/8/98

United States
- (Dept. of) **Agriculture**
- (Dept. of the) **Army**
  - **Army Corps of Engineers**
- (Dept. of) **Commerce**
  - **Census Bureau**
- **Congress**
- (Dept. of) **Defense**
- (Dept. of) **Energy**
- **Environmental Protection Agency (EPA)**
- **General Accounting Office (GAO)**
- (Dept. of the) **Interior**
  - **Geological Survey**
- (Dept. of) **Health and Human Services (HHS)**, formerly **HEW**
- (Dept. of) **Housing and Urban Development (HUD)**
- **Judiciary**
- (Dept. of) **Justice**
- (Dept. of) **Labor**
- **Presidential**
- (Dept. of) **Transportation**
  - **Bureau of Transportation Statistics (BTS)**
  - (US) **Coast Guard**
  - **Federal Aviation Administration (FAA)**
  - **FHTSA** [same as NHTSA?]
  - **Federal Highway Administration (FHWA)**
    - (National) **Highway Institute (FHWA-HI)**
    - (National) **Highway Safety** Bureau **(FHWA-HS)**
    - (Bureau of) **Motor Carrier Safety**
  - **Federal Railroad Administration (FRA)**
  - **Federal Transit Administration (FTA)**
  - National Highway Institute (NHI), see: (National) **Highway Institute (FHWA-HI)**
  - **National Highway Traffic Safety Administration (NHTSA)**
  - **National Transportation Safety Board (NTSB)**
  - **Surface Transportation Board**
  - **Transportation Systems Center (TSC)**
  - **Urban Mass Transit Administration (UMTA)**

National Academy of Sciences (NAS), National Research Council (NRC)
- **Transportation Research Board (TRB)**, formerly **Highway Research Board (HRB)**
- **National Cooperative Highway Research Program (NCHRP)**
- **Strategic Highway Research Program (SHRP)**
- **Transit Cooperative Research Program (TCRP)**

States
- **Alabama-New Hampshire**
- **New Jersey**
  - (Dept. of) **Commerce**
  - " **Community Affairs**
  - " **Corrections**
  - " **Environmental Protection**
  - **Governor's Office** and appointed Commissions and Committees
  - (Dept. of) **Health**
  - (NJ) **Highway Authority**
  - (Dept. of) **Labor**
  - " **Law and Public Safety**
  - **Legislature**
  - **NJ Transit**
  - (Dept. of) **Personnel**
  - **South Jersey Transportation Authority**
  - (NJ) **State Library**
  - (Dept. of) **Transportation**
    - **Administration**
    - **Aeronautics**
    - **Construction**
    - **Environmental Services**
    - **Maintenance**
    - **Motor Vehicles**
    - **Planning**
    - **Research and Technology**
    - (NJ) **SHRP Implementation Committee**
    - **Traffic**
  - (Dept. of) **Treasury**
  - (NJ) **Turnpike**
  - Counties
  - Local Government
  - Universities and Colleges
- **New Mexico-Wyoming**

International
by country

Organizations, associations, agencies, etc.

Monographs
by subject

Law Section

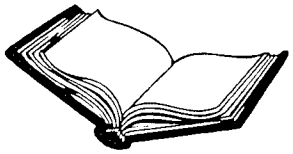
Periodicals
by title

Policies

The Research Librarian reserves the right to make recommendations and set policies as needed. These may be reviewed by the State Library and NJDOT, and we will aim for consensus. Individual needs will be accommodated when possible, unless they are against the best interests of the whole Department.

The policies currently in effect are in regard to collection development and circulation of materials. Anyone may recommend materials for purchase. These will be considered, and an advisory panel may be convened for any difficult purchase decisions. The Library will accept items, with no obligation as to their retention.

Most materials, except for reference items, are available for loan to NJDOT staff with notice given to the Librarian. Borrowed items must be returned upon request, and materials received on loan from other libraries absolutely must be returned on time so that NJDOT's borrowing privileges are not jeopardized.



General Information

New Jersey Department of Transportation
Research Library -- E&O, 5th Floor
1035 Parkway Avenue, PO Box 600
Trenton, NJ 08625-0600
Voice: 609-530-5289
Fax: 609-530-2052
E-mail: cpaszamant@cpm.dot.state.nj.us
NJDOT website:
http://www.state.nj.us/transportation

New Jersey State Library
185 West State Street, PO Box 520
Trenton, NJ 08625-0520
Circulation: 609-292-6277
Law Library: 609-292-6230
Reference: 609-292-6220
E-mail: refdesk@njstatelib.org
NJSL CyberDesk website:
http://www.njstatelib.org/cyberdesk

cpaszamant 2/99

The State of New Jersey

DEPARTMENT OF
TRANSPORTATION

RESEARCH LIBRARY

a branch of

The New Jersey State Library
affiliated with Thomas Edison State College

APPENDIX D
NJDOT RESEARCH LIBRARY BROCHURE

Overview

The NJDOT Research Library is currently funded by the FHWA under NJDOT Research Project 7510. NJDOT has contracted with the New Jersey State Library, affiliated with Thomas Edison State College, to improve library operations and provide services for the Department.

The New Jersey State Library is operating the NJDOT Research Library as a branch library, as it does for the NJ Dept. of Environmental Protection and the NJ Dept. of Banking and Insurance. All resources of the State Library are available to NJDOT staff as they are to all State employees.

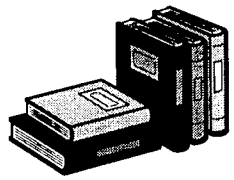
Services Provided

- Reference services by a Librarian I
- Literature searches
- Circulation of Research Library materials or in-house use for reference items
- Access to documents via purchase or interlibrary loan
- Organization and maintenance of NJDOT's collection
- Notification about newly received materials

NJDOT's Collection

The Research Library contains many documents from a variety of sources. The vast majority are research reports from the following agencies: the US Department of Transportation (USDOT) and its various subdivisions, such as the Federal Highway Administration (FHWA) and the Bureau of Transportation Statistics (BTS); the National Research Council's Transportation Research Board (TRB) including publications of the National Cooperative Highway Research Program (NCHRP), the Transit Cooperative Research Program (TCRP) and the Strategic Highway Research Program (SHRP); and other national, state, and international organizations.

A significant part of the collection comprises the publications of the NJDOT itself, particularly the Research Unit. A small number of monographs span subjects ranging from management to quality to structural materials. In addition, the Research Library receives a number of periodicals and newsletters. Some items are in non-print formats such as CD-ROM, video, or audiotape.



Research Library Access

Library services are available to any NJDOT staff person, and to a lesser extent, to others outside of the Department. The Library is located on the 5th Floor of the Engineering & Operations building and is usually staffed Monday through Friday from 9 AM to 5 PM. Since there is only one staff person at present, there cannot be continuous coverage during these hours, so if a consultation is needed, a telephone call or e-mail ahead of time would be prudent.

The Librarian, Carol Paszamant, may be reached via:

Telephone: 609-530-5289
Fax: 609-530-2052
E-mail: cpaszamant@cpm.dot.state.nj.us

Most materials may be taken out as long as notification is provided as to the borrower's name, unit, telephone number, and identifying bibliographic information about the item(s) being borrowed such as title and report number. Some directories and other heavily used reference materials should be used only in the Library. It is in everyone's interest that the circulation of material be coordinated so that if anyone needs something that is out, the item can be recalled.

(Continued)

APPENDIX E

NJ DEPARTMENT OF TRANSPORTATION

RESEARCH LIBRARY

SELECTED RECENT ACQUISITIONS

November/December 1998

Topics represented in this issue: Planning and Administration, Aviation, Bridges and Structures, Communications, Construction, Energy and Environment, Freight, Geotechnical, GIS/GPS, Highway Design, Landscape and Urban Design, Marine, Materials, Operations and Maintenance, Pavements, Right-of-Way, Research, Safety and Human Performance, State Specifications, Technology Transfer, Traffic, Transit, and Reference.

Planning and Administration

1997 Status of the Nation's Surface Transportation System: Condition & Performance - A Summary / FHWA, [1998?] (FHWA-PL-98-027)

Albemarle County / City of Charlottesville Transportation Planning Compact Disc / John S. Miller and Michael J Demetsky -- Charlottesville, VA : Virginia Transportation Research Council ; Richmond, VA : Virginia Dept. of Transportation, June 1998 (VTRC 98-R33)

BTS: The ISTEA Years 1991-1997 [CD-ROM] / US DOT, Bureau of Transportation Statistics -- preliminary edition -- Wash., DC : BTS, January 1998

The ***Costs of Sprawl--Revisited*** / Robert W. Burchell et al. -- Wash., DC : National Academy Pr., 1998 (TCRP Report 39)

Data and Information Required in Feasibility Studies for Private Toll Road Projects by States and Private Entities Involved in the Evaluation, Approval or Financing of Private Toll Road Projects / Thomas L. Glenn -- College Station, TX : Texas Transportation Institute ; Austin, TX : Texas Dept. of Transportation, June 1997 (Research Report 1756-1)

Feasibility of Priority Lane Pricing on the Katy HOV Lane: Feasibility Assessment / William R. Stockton et al. -- College Station, TX : Texas Transportation Institute ; Austin, TX : Texas Dept. of Transportation, June 1997 (Research Report 2701-1F)

Financing the Highway System / TRB, September-October 1998 (*TR News* No. 198)

Land Use and Transportation Planning and Programming Applications / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1617)

Office of Highway Information Management [CD-ROM] / USDOT, Federal Highway Administration, 1998 [current and updated information available via]

Procedures and Criteria Used to Evaluate the Financial Viability of Private Toll Road Projects by States and Private Entities Involved in the Approval, Financing and/or Evaluation of Private Toll Road Projects / Thomas L. Glenn -- College Station, TX : Texas Transportation Institute ; Austin, TX : Texas Dept. of Transportation, June 1997 (Research Report 1756-2)

State Planning and Research Program, and Unified Transportation Planning Work Program: State Fiscal Year 1999 / Ohio Dept. of Transportation -- Columbus, OH : The Department, 1998

Summary of Economic Development Research Projects / NCHRP, August 1998 (Research Results Digest No. 233)

Travel Estimation Techniques for Urban Planning / William A. Martin and Nancy A. McGuckin -- Wash., DC : National Academy Pr., 1998 (NCHRP Report 365)

Using Historical Data to Measure Transportation Infrastructure Constraints on Land Use / John S. Miller and Michael J Demetsky -- Virginia Transportation Research Council, June 1998 (VTRC 98-R32)

What are the "Best Practices" of Rural Subarea Planning? / David King -- Phoenix, AZ : Arizona Dept. of Transportation, October 1998 (FHWA-AZ-98-469)

Aviation

Evaluating Improvements in Landside Access for Airports / Lester A. Hoel and Heather Wishart Shriner -- Charlottesville, VA : Virginia Transportation Research Council, October 1998 (VTRC 99-R7)

Measurement of Aviation-Related Tax Revenue in Kansas / Michael W. Babcock -- Manhattan, KS : Kansas State Univ. ; Topeka, KS : Kansas Dept. of Transportation, August 1998 (KTRAN: KSU-98-5)

Bridges and Structures

Dynamic Impact Factors for Bridges / David I. McLean and M. Lee Marsh -- Wash., DC : National Academy Pr., 1998 (NCHRP Synthesis of Highway Practice; 266)

Evaluation Findings for Dynamic Isolation Systems, Inc. Elastomeric Bearings / Highway Innovative Technology Evaluation Center (HITEC) -- Wash., DC : Civil Engineering Research Foundation (CERF), September 1998 (CERF Report: HITEC 98-06)

Evaluation Findings for Earthquake Protection Systems, Inc. Friction Pendulum Bearings / Highway Innovative Technology Evaluation Center (HITEC) -- Wash., DC : Civil Engineering Research Foundation (CERF), September 1998 (CERF Report: HITEC 98-07)

Evaluation Findings for FIP-Energy Absorption Systems, L.C.C. Slider Bearings / Highway Innovative Technology Evaluation Center (HITEC) -- Wash., DC : Civil Engineering Research Foundation (CERF), September 1998 (CERF Report: HITEC 98-05)

Evaluation Findings for R.J. Watson, Inc. Sliding Isolation Bearings / Highway Innovative Technology Evaluation Center (HITEC) -- Wash., DC : Civil Engineering Research Foundation (CERF), September 1998 (CERF Report: HITEC 98-08)

Evaluation Findings for Scougal Rubber Corporation High Damping Rubber Bearings / Highway Innovative Technology Evaluation Center (HITEC) -- Wash., DC : Civil Engineering Research Foundation (CERF), September 1998 (CERF Report: HITEC 98-11)

Evaluation Findings for Skellerup Base Isolation Elastomeric Bearings / Highway Innovative Technology Evaluation Center (HITEC) -- Wash., DC : Civil Engineering Research Foundation (CERF), September 1998 (CERF Report: HITEC 98-12)

Evaluation Findings for Tekton Inc. Roller Bearings / Highway Innovative Technology Evaluation Center (HITEC) -- Wash., DC : Civil Engineering Research Foundation (CERF), September 1998 (CERF Report: HITEC 98-09)

Evaluation Findings for Tekton Inc. Steel Rubber Bearings / Highway Innovative Technology Evaluation Center (HITEC) -- Wash., DC : Civil Engineering Research Foundation (CERF), September 1998 (CERF Report: HITEC 98-10)

Evaluation of Bridge-Scour Data at Selected Sites in Ohio / K. Scott Jackson -- Columbus, OH : U.S. Geological Survey ; Ohio Dept. of Transportation, October 1996 (FHWA/OH-96/012; filed under U.S. Dept. of the Interior, USGS Water-Resources Investigations Report 97-4182)

Evaluation of Improved Shear Key Designs for Multi-Beam Box Girder Bridges / Arthur A. Huckelbridge, Jr. and Hassan Hussein El-Esnawi -- Cleveland, OH : Case Western Reserve University ; Columbus, OH : Ohio Dept. of Transportation, December 1997 (FHWA/OH-97/009)

Highway Infrastructure Damage Caused by the 1993 Upper Mississippi River Basin Flooding / A.C. Parola, D. Hagerty, and S. Kamojjala -- Wash., DC : National Academy Pr., 1998 (NCHRP Report 417)

Instrumentation, Proof-Testing and Monitoring of Three Reinforced Concrete Deck-on-Steel Girder Bridges Prior to, During, and After Superload / Ahmet Emin Aktan, Ahmet Turer, and Alper Levi -- Cincinnati, OH : University of Cincinnati, Dept. of Civil and Environmental Engineering ; Columbus, OH : Ohio Dept. of Transportation, October 1997 (FHWA/OH-98/015)

Manual for Bridge Rating Through Load Testing / NCHRP, November 1998 (Research Results Digest No. 234)

Nondestructive Condition Assessment of a Posted Bridge / Ahmet Emin Aktan et al. -- Cincinnati, OH : University of Cincinnati, Dept. of Civil and Environmental Engineering ; Columbus, OH : Ohio Dept. of Transportation, October 1997 (FHWA/OH-97/011)

Report on the 1997 Scanning Review of Asian Bridge Structures / NCHRP, November 1998 (Research Results Digest No. 232)

Communications

Effectiveness of Videoconferencing, Phase 1: Pre-Pilot Test Report / Zhang Jian-Xiang -- Phoenix, AZ : Arizona Dept. of Transportation, November 1998 (FHWA-AZ-98-465-1)

Construction

Construction Quality and Management / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1632)

Field Verification of Standard Installation Direct Design (SIDD) Method for Concrete Pipe / Shad M. Sargand and Glenn A. Hazen -- Athens, OH : Ohio University, Civil Engineering Dept. ; Columbus, OH : Ohio Dept. of Transportation, April 1998 (FHWA/OH-98/010)

Energy and Environment

Air Quality Impacts of Highway Construction and Scheduling / Dennis G. Perkinson -- College Station, TX : Texas Transportation Institute ; Austin, TX : Texas Dept. of Transportation, May 1998 (Research Report 1745-S)

Conceptual Feasibility Study for Centralized Treatment of Petroleum Contaminated Soil / William Librizzi and Thomas Boland -- Newark, NJ : NJIT, Center for Environmental Engineering & Science ; Trenton, NJ : NJ Dept. of Transportation, Bureau of Quality Management Services July 1997, rev. March 1998 (97-007-7060)

Constructed Wetlands for Nonpoint Source Pollution Control / Shaw L. Yu et al. -- Charlottesville, VA :Virginia Transportation Research Council, October 1998 (VTRC 99-R14)

Constructed Wetlands for Stormwater Management / Virginia Transportation Research Council -- Charlottesville, VA : VTRC, October 1998 (*Research Brief*; VTRC 98-R35RB)

Constructed Wetlands for Stormwater Management / Shaw L. Yu, G. Michael Fitch, and T. Andrew Earles -- Charlottesville, VA : Virginia Transportation Research Council, July 1998 (VTRC 98-R35)

Effective Control Strategies for Highway Nonpoint Pollution / John J. Sansalone and Steven G. Buchberger -- Cincinnati, OH : University of Cincinnati, Dept. of Civil and Environmental Engineering ; Columbus, OH : Ohio Dept. of Transportation, October 1997 (FHWA/OH-98/002)

Energy, Air Quality, and Fuels 1998 / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1641)

Hydrologic Budget for a Wetland System / Shaw L. Yu and Elizabeth A. Fassman -- Charlottesville, VA : Virginia Transportation Research Council, October 1998 (VTRC 99-R9)

Information Sources for Innovative Remediation and Site Characterization Technologies [CD-ROM] / US EPA, Office of Solid Waste and Emergency Response, Technology Innovation Office -- Cincinnati, OH : US EPA, National Center for Environmental Publications and Information, 1998 (EPA 542-C-98-003)

Review of Travel Assumptions Employed in Emission Factor Models / NCHRP, August 1998 (Research Results Digest No. 230)

Freight

Developing Measures of Effectiveness for Truck Weight Enforcement Activities / NCHRP, August 1998 (Research Results Digest No. 229)

Freight Transportation: Planning, Motor Carrier Size and Weight Issues, International Trade, and Hazardous Materials Transport / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1613)

States' Successful Practices Weigh-In-Motion Handbook / Bill McCall and Walter C. Vodrazka, Jr. -- Ames, IA : Iowa State University, Center for Transportation Research & Education ; Wash., D.C. : FHWA, Travel Monitoring Division, December 15, 1997 (Iowa -- CTRE)

Geotechnical

49th Highway Geology Symposium: Proceedings & Field Trip Guide (Prescott, AZ : September 10-14, 1998) / Nicholas M. Priznar, compiler -- Arizona Dept. of Transportation ; Arizona Geological Survey ; Northern Arizona University, 1998 [to be held in Geotechnical Engineering]

Detection of Underground Voids in Ohio by Use of Geophysical Methods / Jens Munk and Rodney A. Sheets -- Columbus, OH : U.S. Geological Survey ; Ohio Dept. of Transportation, November 1997 (FHWA/OH-97/010) (USGS Water-Resources Investigations Report (WRIR) 97-4221)

Evaluation of the Tensile Properties of Tenax Geogrid / Hadi Shirazi -- Baton Rouge, LA : Louisiana Transportation Research Center ; Louisiana Dept. of Transportation & Development, December 1998 (Technical Assistance Report No. 14)

Geotechnical Investigation of the Potential Use of Shredded Scrap Tires in Soil Stabilization: Final Report / Abdul Shakoor and Chien-Jen Chu -- Kent, OH : Kent State University ; Columbus, OH : Ohio Dept. of Transportation, December 1997 (FHWA/OH-98/004)

Stabilization and Geosynthetics / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1611)

Summary Report of Research on Permanent Ground Anchor Walls, Volume IV: Conclusions and Recommendations / D.E. Weatherby -- Sterling, VA : Schnabel Foundation Company ; McLean, VA : USDOT, FHWA, Research and Development, September 1998 (FHWA-RD-98-068)

Testing of Conventional and Unconventional Aggregates and Soils / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1619)

GIS/GPS

Continuous Aircraft Positioning Using GPS Aided by INS: Executive Summary / Christopher Jekeli -- Columbus, OH : Ohio State University, January 1998 (ODOT State Job No. 14643(0))

Development of Aerial Photogrammetric Navigation by GPS: Executive Summary Report / Dean C. Merchant -- Columbus, OH : Ohio Dept. of Transportation, October 1997 (FHWA/OH-98/001)

Geographic Information System for Hydrologic Data Development for Design of Highway Drainage Facilities / Francisco Olivera, Juling Bao, and David R. Maidment -- Austin, TX : University of Texas at Austin, Center for Transportation Research ; Texas Dept. of Transportation, August 1997 (Research Report 1738-3)

Investigation and Development of a Residency-Level Geographic Information System to Support Priority Applications / Stephen C. Brich and G. Michael Fitch -- Charlottesville, VA : Virginia Transportation Research Council, October 1998 (VTRC 99-R5)

Highway Design

Highway Geometric Design Issues / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1612)

Hydraulic Performance of Set-Back Curb Inlets / Bruce M. McEnroe and Reuben P. Wade -- Lawrence, KS : University of Kansas ; Topeka, KS : Kansas Dept. of Transportation, June 1998 (KTRAN: KU-98-3)

Landscape and Urban Design

Insects That Feed on Trees and Shrubs / Warren T. Johnson and Howard H. Lyon -- 2nd ed., rev., 2nd printing with corrections -- Ithaca : Cornell University Press, 1994, c1991 [***to be held in Landscape and Urban Design/Vincent Nichnadowicz***]

Marine

Navigation Data Center Publications and U.S. Waterway Data CD: Volume 3 [CD-ROM] / U.S. Army Corps of Engineers, Water Resources Support Center , March 1997

Ports/Waterways Marine Transportation / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1620)

Project Summary: The Value of Texas Ports / Zane A. Goff et al. -- College Station, TX : Texas Transportation Institute ; San Antonio, TX : Univ. of Texas at San Antonio ; Austin, TX : Texas Dept. of Transportation, April 1997 (Research Report 2992-2F)

Materials

Creep and Shrinkage of High Performance Concrete / Erik W. Farrington, Ned H. Burns, and R. L. Carrasquillo -- Austin, TX : University of Texas at Austin, Center for Transportation Research ; Texas Dept. of Transportation, February 1996 (Research Report 580-5)

Evaluation of the Benefits of Adding Waste Fiberglass Roofing Shingles to Hot-Mix Asphalt / Osama Abdulshafi et al. -- Columbus, OH : CTL Engineering, Inc. ; Ohio Dept. of Transportation, April 1997 (FHWA/OH-97/006)

Fabricating and Testing Low-Permeability Concrete for Transportation Structures / Celik Ozyildirim -- Charlottesville, Va : Virginia Transportation Research Council ; Richmond, VA : Virginia Dept. of Transportation, August 1998 (VTRC 99-R6)

Impact of Various Compaction Equipment on Hot-Mix Asphalt (HNA) Design in Ohio / Osama Abdulshafi and Bozena Kedzierski -- Columbus, OH : Ohio State University, Civil & Environmental Engineering & Geodetic Science ; Ohio Dept. of Transportation, September 1998 (FHWA/OH-98/013)

Operations and Maintenance

The ***Division of Fleet Management: 1997 Benchmark Report*** / Robert A. Hanson and V. Mark Covington -- Charlottesville, VA : Virginia Transportation Research Council, October 1998 (VTRC 99-TAR2)

Pavement and Winter Maintenance / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1627)

Highway Operations Volume, Traffic Operations Manual / Texas Transportation Institute -- Austin, TX : Texas Dept. of Transportation, August 1998 (Research Report 1467-6F)

User Cost Models for Pavement Maintenance and Rehabilitation Alternatives in Highway Work Zones / Rajagopal Arudi, Issam Minkarah, and Prahlad Pant -- Cincinnati, OH : University of Cincinnati ; Columbus, OH : Ohio Dept. of Transportation, August 1997 (FHWA/OH-97/006)

Pavements

Basic Concepts, Current Practices, and Available Resources for Forensic Investigations on Pavements / Tracy A. Victorine et al. -- Austin, TX : University of Texas at Austin, Center for Transportation Research ; Texas Dept. of Transportation, September 1997 (Research Report 1731-1)

Design and Construction of PCC Pavements -- Volume II: Design Features and Practices That Influence Performance of Pavements / L. Titus-Glover et al. -- Champaign, IL : ERES Consultants,

Inc. ; McLean, VA : FHWA Office of Engineering Research & Development, October 1998 (FHWA-RD-98-127)

Final Research Findings on Traffic-Load Forecasting Using Weigh-in-Motion Data / Clyde E. Lee and Nabil Souny-Slitine -- Austin, TX : University of Texas at Austin, Center for Transportation Research ; Texas Dept. of Transportation, September 1998 (Research Report 987-7)

First Year Summary of Results of 1997 Field & Laboratory Evaluations of Pavement Marking Materials / Alabama Department of Transportation et al. -- Wash., DC : AASHTO, November 1998 (National Transportation Product Evaluation Program(NTPEP); Report 98 NTPEP 140)

Guidelines for Evaluating Superheavy Load Routes / Emmanuel G. Fernando -- College Station, TX : Texas Transportation Institute ; Austin, TX : Texas Dept. of Transportation, October 1997 (Research Report 3923-S)

Implementation of the ProScan System in Oklahoma / Gary Williams -- Oklahoma City, OK : Oklahoma Dept. of Transportation; US DOT, FHWA, July 1998 (FHWA/OK 98(03)

Life-Cycle Cost Analysis in Pavement Design: Interim Technical Bulletin / James Walls III and Michael R. Smith -- Wash., D.C. : Federal Highway Admin., September 1998 (FHWA-SA-98-079)

Long-Term Monitoring of Pavement Maintenance Materials Test Sites / Thomas Wilson -- Champaign, IL : ERES Consultants, Inc. ; McLean, VA : FHWA Office of Engineering Research & Development, June 1998 (FHWA-RD-98-073)

Pavement Distress Identification - Instructors's Guide, and ***Distress Identification Manual for the Long-Term Pavement Performance Project*** [CD-ROM] / US DOT and the National Highway Institute, July 1997 (SHRP-P-338)

Seasonal Instrumentation of SHRP Pavements - the Ohio State University: Final Report / William E. Worfe, Osama Abdulshafi, and T.H. Wu -- Columbus, OH : Ohio State University, Dept. of Civil Engineering ; Ohio Dept. of Transportation, June 1998 (FHWA/OH-98/014)

Research

Proceedings, 1998 National Meeting - American Association of Highway and Transportation Officials, Research Advisory Committee (Nashville, Tennessee, August 3-5, 1998) / AASHTO RAC, 1998

Summary of Joint Highway Research Projects June 1, 1997 - May 31, 1998 / Connecticut Transportation Institute, University of Connecticut -- Storrs, CT : University of Connecticut, Joint Highway Research Advisory Council ; Newington, CT : Connecticut Dept. of Transportation, October, 1998 (JHR 98-265)

University Research Center Phase 1: Final Report / Vicki Walker -- Phoenix, AZ : Arizona Dept. of Transportation, July 1998 (FHWA-AZ-98-472(1))

Right-of-Way

Review of Partial Acquisitions of Right of Way in New Jersey -- Volume 1: Final Report / Gene Reilly, Louis J. Pignataro, and Wu Sun -- Newark, NJ : NJIT Institute for Transportation ; New York : University Transportation Center Region II, October 1998

Review of Partial Acquisitions of Right of Way in New Jersey -- Volume 2: Data Forms for Property Parcels / Gene Reilly, Louis J. Pignataro, and Wu Sun -- Newark, NJ : NJIT Institute for Transportation ; New York : University Transportation Center Region II, October 1998

Safety & Human Performance

Evaluation of Roadway Lighting Systems Designed by STV Methods: A Review . . . / Douglas D Gransberg et al. -- Lubbock, TX : Texas Tech University ; Austin, TX : Texas Dept. of Transportation, June 1997 (Research Report 1704-3R)

Feasibility Study of an Automated Motor Vehicle Accident Reporting System for the State / Robert W. Stokes and Eugene R. Russell -- Manhattan, KS : Kansas State Univ. ; Topeka, KS : Kansas Dept. of Transportation, April 1998 (KTRAN: KSU-97-2)

Fuzzy Variable Speed Limit Device Project / John Placer and Assim Sagahyroon -- Phoenix, AZ : Arizona Dept. of Transportation, August 1998 (FHWA-AZ-98-466)

Human Performance, User Information, and Highway Design / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1628)

Intelligent Transportation Systems: Advanced Traveler Information Systems and Safety Research / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1621)

Passenger Transportation Safety Handbook / California Highway Patrol -- Sacramento : The Department, revised July 1997

State Specifications

Supplemental Specifications and Recurring Special Provisions, Adopted January 1, 1999 / Illinois Department of Transportation, March 16, 1998 (Departmental Policy BDE-16)

Technology Transfer

Applications of Emerging Technologies in Transportation / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1615)

Technology Transfer and Training / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1637)

Transportation Librarians: Partners in Technology Transfer [videocassette] / Minnesota Dept. of Transportation, September 1998 (10:30)

Traffic

Automated Route Evaluation of Overweight/Oversize Vehicles / R.A. Osegueda et al. -- El Paso, TX : Univ. of Texas, Center for Highway Materials Research, October 1998 (Research Report 1482-2F)

Congestion Management Systems: Interactive [CD-ROM] / USDOT, Federal Highway Administration -- Wash., DC : FHWA, 1998 (FHWA-SA-98-087)

Department of Transportation's Intelligent Transportation Systems (ITS) Projects Book / U.S. DOT Intelligent Transportation Systems (ITS) Joint Program Office et al. -- Wash, D.C. : U.S. DOT, January 1998 (FHWA-JPO-98-012)

Design and Implementation of Automatic Vehicle Identification Technologies for Traffic Monitoring in Houston, Texas: Phase 2 Final Report / Dennis G. Smalley and William R. McCasland / -- College Station, TX : Texas Transportation Institute ; Austin, TX : Texas Dept. of Transportation, May 1997 (Research Report 1469-2)

Development of Decision Support Systems for Real-Time Freeway Traffic Routing: Volume II / Adel W. Sadek et al. -- Charlottesville, VA : Virginia Transportation Research Council ; Richmond, VA : Virginia Dept. of Transportation, October 1998 (VTRC 99-R10)

Enhanced Traffic Control Devices and Railroad Operations for Highway-Railroad Grade Crossings: Second-Year Activities / Daniel B. Fambro et al. -- College Station, TX : Texas Transportation Institute ; Austin, TX : Texas Dept. of Transportation, September 1997 (Research Report 1469-2)

Managing Speed: Review of Current Practice for Setting and Enforcing Speed Limits / [TRB] Committee for Guidance on Setting and Enforcing Speed Limits -- Wash., DC : National Academy Pr., 1998 (Special Report 254)

The National Architecture for ITS: A Framework for Integrated Transportation into the 21st Century / US DOT [also available online via either www.itsa.org/public/archdocs/national.html or www.rockwell.com/itsarch/]

Preliminary Report on a Remote Automatic Monitoring and Public Information System for Hazardous Conditions / Jose Weissmann et al. -- Austin, TX : University of Texas at Austin, Center for Transportation Research ; Texas Dept. of Transportation, July 1996 (Research Report 1380-1)

Traffic Characteristics on Illinois Highways, 1997 / Illinois Dept. of Transportation, Office of Planning and Programming, 1998?

TransLink Information Database Requirements / Tom L. Stout et al. -- College Station, TX : Texas Transportation Institute ; Austin, TX : Texas Dept. of Transportation, October 1996 (Research Report 2988-2F)

Transit

International Transit Studies Program, Report on the Fall 1997 Mission: Applications of Intelligent Transportation Systems to Public Transit in Europe / TCRP, October 1998 (Research Results Digest No. 31)

Transit: Bus, Paratransit, Rural, Intermodal, Rail, Commuter and Intercity Rail, Light Rail / TRB -- Wash., DC : National Academy Pr., 1998 (Transportation Research Record No. 1623)

Reference

1998 Directory / Transportation Research Board -- Wash., DC : TRB, 1998

AASHTO Publications Catalog - 1999 / American Association of State Highway and Transportation Officials -- Wash., DC : AASHTO, 1998

ASCE "CEO Forum" (Boston, MA : October 20, 1998) [2 videocassettes] / American Society of Civil Engineers, 1998

APPENDIX F

RESEARCH LIBRARY MONTHLY REPORT

JANUARY 1999

Significant Accomplishments

7510 - Research Library Operations

The Research Library responded to 46 requests for information in January 1999. Forty (40) of these, or 87%, were initiated by NJDOT staff; one was from NJIT, one from CALTRANS, and four from private NJ companies. Nineteen (19) of the requests were made in person, 13 were received via telephone, and 14 by email. Thirty (30) of the requests, or about 65% of the total, were for documents; 10 were for general reference information, and 6 for literature searches. Most of the questions were answered or documents located, and two requests were referred. Output consisted of 16 verbal or written replies, provision of 2 documents, 16 loans, 5 photocopies, and 7 printouts.

The 78th Transportation Research Board Annual meeting took place from the 10th-14th in Washington, DC and while the Librarian did not attend, Mike Roberts did take advantage of a guest pass to go on a library tour and spoke with TRB personnel about RIPS uploading. He brought back lots of good information, not the least of which is a CD-ROM of the 1999 preprints of papers presented at the conference. Apparently, many other states are also still having difficulty with the RIPS uploading, and as previously decided, we will provide TRB with print or a diskette of information when we gather the data from the project managers.

Due to the State Library's acquisition of new microform reader/printers, the NJDOT Research Library now has a microfiche reader/printer and a microfilm reader/printer, both tried and tested by the State Library. These are available for NJDOT staff use in the Research Library.

Other Activities

On January 22nd, the Librarian attended an intro HTML class at the Central Jersey Regional Library Cooperative in order to get a jumpstart on the Research Library website. The class was extremely helpful as an overview and to begin the coding.

On January 28th, the Librarian attended a seminar sponsored by the New Jersey Library Association (NJLA) on internet security and privacy issues. Given by Nancy John, Assistant University Librarian at the University of Illinois at Chicago, the presentation provided a good look at the kinds of data that network administrators have access to and collect, and gave reasons for and limitations on this type of information gathering.

c: Beverly Railsback

cp:99jandot