

# MnDOT Library Strategic Plan

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#### **MnDOT Library Strategic Plan Report**

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#### **TABLE OF CONTENTS**

**APPENDIX F: Bibliography** 

CHAPTER 1: Introduction
CHAPTER 2: MnDOT Library Overview
CHAPTER 3: Strategic Planning Process: Staff SWOT Analysis and Task Team Accomplishments5
CHAPTER 4: Environmental Scan: Literature review, Interviews, Focus Group, and User/Nonuser  Survey
CHAPTER 5: Overall Findings and Recommendations
REFERENCES
APPENDIX A: MnDOT Library Overview and History
APPENDIX B: SWOT Analysis
APPENDIX C: Environmental Scan
APPENDIX D: Summary of Interviews of Upper Management, City/County Engineers and the Focus Group of Millennials
APPENDIX E: MAD Survey of Library Users and Nonusers

#### **EXECUTIVE SUMMARY**

Research Libraries of the 21<sup>st</sup> century are at a critical crossroads. For years, the information industry and libraries have been working to keep pace with rapidly changing technologies, evolving customers and their needs, and the transition to digital materials.

The library environment is one of continuous and transformative change in publishing, information technology, and learning – all brought about by the transition from a print-based world to an increasingly digital and highly-networked world. The challenge for libraries is to provide physical materials, library space, and digital access services that accommodates user needs. Librarian skill sets are changing to provide expert advice in navigating the information environment and providing connections to larger networks. All users want unencumbered access to information at any time, from any place, on any device.

According to the latest US Census estimates, millennials now outnumber baby boomers. By 2020, millennials will constitute 50% of the workforce, followed by even younger workers starting to enter the workplace. The impact of millennials is being felt as they move into management positions of real influence.

These changes require libraries to proactively plan out how they transition from where they are today to the library of the future.

Mission: MnDOT Library advances your knowledge with timely, direct, and cost-effective connections to the information you need to provide the highest quality transportation system.

MnDOT's senior leadership asked MnDOT Library to develop a Strategic Plan that identifies issues facing the Library over the next five years in order to better address the evolving needs of the department and users.

The strategic plan is intended to provide guidance on creating the library of the future for MnDOT by adapting to emerging technologies, responding to changing user needs, and transitioning resources to a digital and networked work environment.

This plan was developed based on a comprehensive customer survey of both library users and non-users, interviews with key stakeholders, a focus group of next generation workforce employees, an internal SWOT analysis, and an extensive environmental scan. The Technical Advisory Panel for this project provided input and guidance throughout the strategic planning process.

Management Analysis and Budget (MAD) conducted the library customer survey. MAD used MnDOT's Human Resources data to connect responses with the respondent's age, years of service, job classification, geographic location, and division within the department. The survey was sent to all MnDOT employees except those whose job classifications typically don't match the library user profile. 2,637 employees received the survey, and 913 responded, with a response rate of 35%. The majority of

respondents (73.2%) were located in the Twin Cities. The following themes emerged from the survey results:

- Different people find value in different parts of the library.
- Many aren't aware of what MnDOT Library offers.
- Staff have varying opinions on how the library might be more useful.
- Digitized material is important.
- Most respondents want to receive communication from MnDOT Library.
- Respondents see value in the continued services of the MnDOT Library, but differ in the desired offerings it should provide in the future.
- As to future needs and trends, respondents most commonly reported the need for access to technology and online or digital materials and information specific to their work.

Six key strategic goals were identified through a synthesis of the various inputs. The operational work plans will lay out how each of these goals can be achieved along with identifying the required resources (budget, staff, materials, schedule, etc.). The italic text under each strategic goal is excerpted from the survey.

#### Strategic Goal #1 – Digitization: Expand availability of digital materials.

Develop a digitization and preservation plan based on survey and interview findings. The plan will systematically assess the existing collection and determine the viability and benefits associated with moving to digital format. It will lay out a structured and phased approach to digitizing materials based on many factors (e.g., usage, internal digitization vs. outsourcing, costs, etc.).

Over half of respondents also said digitized formats were moderately or very important for photos, historical materials, and technical reports, while nearly half (48 percent) said digitized environmental impact statements were moderately or very important.

#### Strategic Goal #2 – Technology: Overcome technical barriers.

Develop a technology plan that provides a "digital workspace" for employees. The plan will address Wi-Fi access issues, blocked websites that are legitimate, user interfaces applications, digital storage, portal ownership, electronic books (eBooks), federated search capabilities, and library catalog upgrades.

Make the library more accessible from anywhere and while using different devices.

Strategic Goal #3 – Marketing and Communications: Develop a marketing plan to raise awareness of library services and resources.

This plan will develop marketing strategies that will define and prioritize key stakeholders, clarify customer needs, identify opportunities, and develop tactical plans that target specific audiences (e.g., outstate districts, generational users, technical groups, etc.)

Nonusers were overwhelmingly unaware of specific library services and space offerings, and one-fifth of nonusers did not know the library existed. One fifth of MnDOT employees who used the library were also unaware of a particular service or space offering.

#### Strategic Goal #4 – Collection: Refocus the Library Collection.

The collection will be analyzed and scaled appropriately to meet departmental needs based on user input as the library moves to a more digital format. The survey indicated that respondents wanted eBooks in a wide range of topics.

Fifty percent of the employees' responses described how the library's resources (books, journals, technical information, leadership resources, reports, etc.) have been valuable for them to do research, stay current on industry trends, and complete projects. Others commented on the leadership books that have been helpful to their professional development. Many people said that the library has access to documents and resources that are not found online or in other libraries, which is extremely valuable to them.

#### Strategic Goal #5 - Services & Staffing: Align services and staffing to support library functions.

Assess library core services, priorities, and customers and identify the resources needed to deliver this program. Current staffing levels and future employee skills will be evaluated to identify gaps in training and professional development needs. User inputs will help determine new service priorities and the skills necessary to support these new initiatives.

Overall, though many services are not used often, one-third to half of users find each service either moderately important or very important.

One-fourth of the comments mentioned how the library staff has added value to their work by assisting them with locating information, reports, and videos, conducting literature reviews, and doing research for projects or responding to questions.

#### Strategic Goal #6 – Physical Space: Repurpose Library space to meet customers' needs.

Develop a library space plan that will be flexible over the next five years in adapting to customer and agency needs. The survey indicated a need for more collaborative space, quiet work/reading areas, and remote office/work space for MnDOT staff. There was also interest in the library hosting open houses, speaking venues, research webinars, book clubs, and other special events (e.g., Employee Resources Groups, Black History Month, etc.)

Most of the comments in this topic area related to how the library space has added value to employees' work. For example, employees said the library provides a quiet space to read, recharge, or take a break, and workstations and conference rooms to work productively.

The library has already undertaken several initiatives identified in this strategic plan. These include digitizing newsletters, historical biennial reports, and highway maps, switching many periodicals from print to digital format, removing outdated and no longer relevant collection materials, and implementing the ASTM DOT Compass Portal.

#### **CHAPTER 1: INTRODUCTION**

Purpose of the Strategic Plan: Towards 2022

MnDOT's Senior Leadership requested MnDOT Library to develop a Strategic Plan that identifies and reviews the challenges facing the Library over the next five years to better address the evolving needs of the department and users. The strategic plan is intended to provide guidance to create the library of the future for MnDOT, by adapting emerging technologies, responding to changing user needs, and transitioning resources to a digital and networked work environment.

"This is an opportunity to proactively create the information resources and knowledge services MnDOT staff require as they plan, build, operate, and maintain the state's multimodal transportation system and respond to the public's concerns" -- Sheila Hatchell, MnDOT Library Director.

Mission: The MnDOT Library advances your knowledge with timely, direct, and cost-effective connections to the information you need to provide the highest quality transportation system.

#### **CHAPTER 2: MNDOT LIBRARY OVERVIEW**

(Refer to Appendix A for additional MnDOT Library information including history, statistics, budget and service details.)

MnDOT Library is located on the first floor of the MnDOT Central Office (CO) building in St. Paul. It is open during normal business hours from 8:00 a.m. to 4:30 p.m., Monday through Friday, and is always staffed. The library service desk is a public service counter, where library staff provide facts, data or other transportation-related information for MnDOT's nearly 5,000 employees, city/county transportation officials throughout Minnesota, university researchers, and consultants under contract to MnDOT and cities and counties. As time permits, the library staff also provide assistance on transportation topics to other transportation-related organizations and the general public.

The library is staffed with four full-time librarians (each with a Master of Library and Information Science degree), one full-time library technician, a part-time Student Worker Para Professional (SWPP), who works 14 hours per week and is working on her Master of Library and Information Science degree, and one 20 hours per week contract librarian that is a shared position with the University of Minnesota Center for Transportation Studies. The library director is a nationally recognized expert in library innovation, management, leadership, and ROI.

The library staff provide research assistance, literature searches, document delivery/interlibrary loan, periodical routing, online catalog access, and New Library Materials, a monthly list of new titles added to the collection. The *Ask a Librarian* service provides a simple online form that allows users to request research assistance or materials.

MnDOT Library adds value to its services by connecting with partners/collaborators/networks and sharing information resources and linking experts. (Refer to Appendix A for the list of organizations.)

In 2010, MnDOT Library had a major physical remodel, based on results of a survey and focus group.







The library provides conference rooms and various options for working in the library either individually or with colleagues. Computer access is provided for the public and MnDOT employees. The library has Wi-Fi and provides approximately 200 individualized free wireless internet usernames and passwords to customers each month.



The library provides a Document/Business Center that has a copier, printer, scanner, fax machine and workspace, and tools available for document assembly. A survey of MnDOT users and nonusers indicated that this area is among the most-used and valued space in the library, along with networked computers and conference rooms.



Following the completion of a marketing and communications plan in 2010, MnDOT Library worked with a consultant to create new and rebranded marketing materials. In recognition of these efforts, along with the major remodel of the physical space, MnDOT Library received the 2012 American Library Association's highest degree: the nationally-recognized John Cotton Dana Award for Library Public Relations.



The library struggled throughout the years with communicating the value of its services and staff to the department. As a solution, MnDOT Library researched and published the 2013 MnDOT Library Valuation/Return On Investment (ROI) Study Findings. The ROI was determined to be a conservative 2 to 1 ratio; for every dollar invested in library materials and staff, \$2 in benefits were returned to MnDOT. As a result of this study, MnDOT Library received national and local Innovation Awards from the Special Libraries Association in 2014.



# CHAPTER 3: STRATEGIC PLANNING PROCESS: STAFF SWOT ANALYSIS AND TASK TEAM ACCOMPLISHMENTS

The process began with a review of MnDOT's vision and goals as well as the library's mission statement. In gathering input for the strategic plan, there was a great effort to include all those that would be impacted by the plan over the next five years. This input included a comprehensive survey of library users and nonusers, interviews with key stakeholders, a focus group of next generation workforce employees, an internal library staff SWOT analysis, and a comprehensive environmental scan. The Technical Advisory Panel for this project provided input and guidance throughout the strategic planning process.

The strategic planning process began with MnDOT Library staff's review of the library's role and activities. Library staff responded to detailed questions on collection evaluation, staffing, products and services, physical space, marketing and communications, technology, and digitization. Detailed meeting notes and lists of recommendations and tasks were compiled for future work planning in each area.

#### **Staff SWOT Analysis**

All seven members of the library staff participated in the library's SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis. This included a staff brainstorming session and used a business metrics worksheet. (See Appendix B for SWOT Analysis Summary.)

#### **SWOT** ANALYSIS



After completing the SWOT Analysis, and concurrent with the development of the strategic plan, library staff formed teams to begin working on tasks. The following have been completed or are in progress.

Collection evaluation is in progress. Decisions have been made on what can be removed from the shelves. The library's goal was to reduce the physical footprint of the collection by a third, in order to free up space to meet changing user needs.

Weeding is a work in progress. By March, 2017, library staff had discarded nearly 4,000 items and 41,500 microfiche titles. The library went to digital notification of content for ASCE periodicals and 5,489 individual copies were removed from the collection. Five years of 50 periodical titles were discarded. These titles had either ceased publication, were cancelled, or the library now routes their digital content.

The library saved \$27,000 in 2016 by eliminating no longer relevant periodical subscriptions and online databases. The library did a detailed review of periodical titles, checking with customers to ensure that needed information would still be available. The library decided to reduce subscriptions by canceling or moving periodicals to digital format.

The library receives many questions from the public on local land and bridge history. In order to free up reference staff for other research, the library has contracted with a consultant to produce LibGuides, a web resource tool that will assist the public in finding the information they want. (See Appendix A for LibGuide example.)

Preliminary digitization planning for the collection has begun with a draft report that identifies prospective vendors and pricing. The library has to follow-up with vendors and make a choice as to how to proceed with the digitization project. The library needs a permanent, dependable storage/retrieval system for documents, photos, and videos. The library is looking at vendor solutions in addition to MnDOT's eDocs program for this digital asset management.

Library staff understand that users want easy access to information at any time, from any place, on any device, so staff continue to improve user access and resources. Additional technology tasks include creating a responsive web design version of the library catalog that supports use of the catalog on any device, and developing a library mobile app. The library added a new statistics tracking software, RefTracker, in 2015. The library plans to use this software to build a knowledge base of research topics the staff has completed.

MnDOT Library's ILS (Integrated Library System) management software, MnPALS, will be upgraded to include consolidated searching in December, 2018 or January, 2019. This will allow the user to enter a single search that queries multiple resources and retrieves a single results list from all collections, with relevancy ranking across entire results. This would be a consolidated search for the catalog, databases, and magazines, and would include webscale discovery. This will create a 'Digital Workspace' for MnDOT employees, that would include the ASTM portal, eBooks, the library catalog, TRID, EBSCO, the ASCE database, legal resources, and results from the open web.

Library staff are aware that they need to do more marketing and create a stronger media presence. The SWOT Analysis showed that staff were unable to do outreach because of heavy workloads. They believe that a large percent of employees don't know they exist, or what services and products they offer. The staff has compiled an extensive list of marketing and communication ideas that they can use in their marketing work plan. Information gathered from strategic planning inputs will ensure that the staff work plan will address current and future demands of all customers.

# CHAPTER 4: ENVIRONMENTAL SCAN: LITERATURE REVIEW, INTERVIEWS, FOCUS GROUP, AND USER/NONUSER SURVEY

A comprehensive environmental scan was conducted to gather information about the external world in which MnDOT Library operates. The environmental scan included literature searches on the economy, government, laws, and demographic factors that identified external opportunities and threats as well as current and future trends in special libraries. A number of strategic plans from public and academic libraries were reviewed, but there were limited current strategic plans available that pertained specifically to special libraries. Special libraries, like MnDOT Library, provide specialized information resources on a particular subject, serve a specialized and limited customer base, and deliver special services to that group. (See Appendix C for Environmental Scan Literature Review summary.)

The biggest take-away from the literature review is the challenge for libraries to provide both print and digital materials, and physical space. Libraries must focus on meeting user needs with new kinds of services that digital media and the web are making possible. Librarians will continue to provide expert advice in navigating the information environment and providing connections to larger networks. Now, because of the rapid growth in demand for electronic resources, they will need to develop additional skills as they manage all the details required for successful digitization and preservation projects.

In 2006, MnDOT Library was the first state agency library to contribute to the Minnesota Digital Library (MDL) with the submission of the manuscript, *Registered Minnesota Auto Trails*, 1917-1931. MnDOT Library digitized and also added *Minnesota State Highway Maps* covering 1919-2010.

According to John Palfrey, author of *BiblioTech: Why Libraries Matter More Than Ever in the Age of Google*, the most important new skill sets for librarians include designing, creating and reusing new technologies, sorting credible from less credible information in a complex online environment, and partnering with others to co-produce information and new knowledge in digital format.

Librarians will remain a guide to the best resources. But as information management integrates more data over the next five to ten years, librarians must develop skills to understand that data including data analytics and visualization. There will be a need for 'data scientists'. As the information industry changes, librarians will be expected to negotiate complex digital license agreements with publishers. Librarians and publishers will have to work together to create policies and agreements that will ensure access at a reasonable price.

**Focus Group and Interviews: Upper Management, Millennials, City/County Engineers** (Refer to Appendix D.)

In developing the strategic plan, it was important to include input from key stakeholders. All upper managers were invited to participate. A list of millennials was provided by the library staff based on services that they had provided to this next generation of users. Research Services provided names of city and county engineers. Preceding the interviews, separate questions for each group were drafted and presented to the TAP for review. Phone interviews were conducted with eight upper managers. A

focus group of four millennials was held, with phone interviews of another four who were unable to attend in person. Phone interviews also included nine Minnesota city and county engineers. All interviewees were very positive about the library and its services. They were very responsive and had many recommendations for improving the library's marketing and communications, use of the library physical space, and additional services specific to their work areas. (See Appendix D for summaries of group responses.)

#### MnDOT Library Survey of Users and Nonusers (Refer to Appendix E.)

MnDOT Research Services requested that an independent consultant from Management Analysis & Development (MAD) conduct a survey of MnDOT Library Users and Nonusers. MAD worked with MnDOT Library and Law Library Consultants to draft the survey questions. The survey asked questions about use and importance of library services and space, importance of digitized materials, communication preferences, and the respondent's vision for MnDOT Library. MAD used MnDOT Human Resources data to connect responses with the respondent's age, number of years in State service, job classification, Twin Cities or district affiliation, and division within MnDOT. The survey was sent to all MnDOT employees except those whose jobs would not typically involve the use of a library. 2,637 employees received the survey and 913 responded, for a response rate of 35%. The majority of respondents (73.2%) were located in the Twin Cities.

The survey provided detailed information on who uses the library and how much, which services are used and valued, and demographics such as age group and position in the department. Detailed responses addressed digitization preferences, and produced a long list of book topics that included leadership development books, PE exam materials, and diversity and inclusion resources. 53% of respondents would find it useful to have online videos on how to use library services. This survey of a cross-section of MnDOT employees is a significant element of the environmental scan, providing useful data to support the formulation of MnDOT Library's strategic direction. Refer to Figure 3: Percent of respondents that use MnDOT Library, by MnDOT division, on page 8 of the MAD Survey to see how far reaching library services are throughout the department. "Library use varies by division with respondents from the Chief of Staff, Chief Counsel, Modal Planning and Program Management, and Engineering Services reporting the highest use (100 percent, 79 percent, 78 percent and 78 percent, respectively). Library use also varies by job function with officials and administrators as well as professionals reporting the highest use (85 percent, and 71 percent, respectively)."

#### **CHAPTER 5: OVERALL FINDINGS AND RECOMMENDATIONS**

MnDOT Library is ahead of the game in planning for the future. They have already begun initiatives to prepare for the changes and challenges that lie ahead. A synthesis of the information gathered through the various inputs identified six key strategic goals. The operational work plans will lay out how each of these goals can be achieved, along with identifying the required resources (budget, staff, materials, schedule, etc.)

#### Strategic Goal #1 Digitization: Expand availability of digital materials.

Develop a digitization and preservation plan based on survey and interview findings. The plan will assess the existing collection and identify candidates for digitization based on usage and condition, and present costs for internal vs. outsourced digitization.

#### Strategic Goal #2 Technology.

Develop a technology plan that provides a 'digital workspace' for employees that will include the ASTM portal, eBooks, the library catalog, TRID, EBSCO, the ASCE database, legal resources and results from the open web. The plan will address Wi-Fi access issues, the blocking of legitimate websites, user interface applications, digital storage, portal ownership, electronic books (eBooks), consolidated search capabilities, and library catalog upgrades.

## Strategic Goal #3 Marketing and Communications: Develop a marketing plan to raise awareness of library services and resources.

This plan will develop marketing strategies to define and prioritize key stakeholders, clarify customer needs, identify opportunities, and develop tactical plans that target specific audiences (e.g., outstate districts, generational users, technical groups, etc.)

#### Strategic Goal #4 Collection: Refocus the library collection.

The collection will continue to be analyzed and scaled appropriately to meet departmental needs based on user input as the library moves to a more digital format. The survey indicated that respondents want eBooks encompassing a wide range of topics.

#### Strategic Goal #5 Services & Staffing: Align services and staffing to support library functions.

Assess library core services, priorities, and customers and identify the resources needed to deliver this program. Current staffing levels and future employee skills will be evaluated to identify gaps in training and professional development needs. User inputs will help determine new service priorities and the skills necessary to support these new initiatives. MnDOT staff interviewees emphasized the need for customization of products and services and the need for a librarian onsite to interact with their work groups (also referred to as embedded librarians).

#### Strategic Goal #6 Physical Space: Repurpose Library space to meet customer needs.

Develop a library space plan that will be flexible over the next five years in adapting to customer and agency needs. The survey indicated a need for more collaborative space, quiet work/reading areas, and remote office/work space for MnDOT staff. The survey respondents as well as interviewees expressed interest in the library hosting open houses, speaker venues, research webinars, book clubs and other special events (e.g., Employee Resource Groups, Black History Month, etc.). Library staff work space will be needed for digitization and other projects.

Goals and timelines of the strategic plan and operational work plans should be tied to staff performance reviews. Additional staff training or support may be needed during implementation. The library director will have the data to monitor staff progress and make adjustments to ensure the plan's success.

As higher level skills and demands are made of MnDOT's librarians, the position descriptions should be updated and strategically aligned to reflect these new skills and job requirements with corresponding titles and compensation.

With this strategic plan in place, the Library has a clear roadmap to create MnDOT's library of the future that will support MnDOT staff as they plan, build, operate, and maintain Minnesota's multimodal transportation system.

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# APPENDIX A: MNDOT LIBRARY OVERVIEW AND HISTORY

#### **Library Staff**

- 7 total employees
- 4 FTE librarians (Masters degree)
- 1 FTE library technician
- 1 part-time Student Worker Para Professional (SWPP) 14 hrs./wk Masters degree in Library Science in progress
- 1 contract librarian 20 hrs./wk., a position shared with the Center for Transportation Studies (CTS)

Of these staff, one specializes in cataloging, one in electronic resources management, one in marketing and outreach, one library director, and one periodicals/acquisitions technician. The student worker performs interlibrary loans and processes donations. The contract librarian works on special projects such as database management and website updates.

#### Library Service Desk (LSD)

The library service desk is staffed continuously during business hours – 8:00 a.m. - 4:30 p.m., Monday through Friday. All staff assist with desk coverage and reference assistance. Each full time staff member typically works one 2-hour shift per day. The contract librarian typically works 1.5 hour shifts over 3 days. The schedule changes quite a bit as vacations, sick days, appointments and meetings must be taken into consideration.

#### **Library Customers**

Staff provide requested facts, data, or other transportation-related information for MnDOT employees, city/county transportation officials throughout Minnesota, university researchers, and consultants under contract to MnDOT and cities and counties. As time permits, the library also provides assistance on transportation topics to other transportation-related organizations and the general public. Current patron count: 740

#### **Added Value of Library Space**

Wi-Fi was added as a library service in 2010. The library provides approximately 200 individualized free wireless internet usernames and passwords to customers each month.

Document/Business Center – A copier, printer, scanner, fax machine and workspace are available to customers for document assembly. This also includes a hole puncher, comb binder, paper cutter, and oversize document stapler.

Workspace - The library provides various options for working in the library either alone or with colleagues. Two computer workstations are dedicated to MnDOT staff and are connected to the MnDOT LAN network. These are especially beneficial to Metro, Bridge, and District employees who visit the Transportation Building for meetings and events.

Two computer workstations are available for guests as well as employees. They are not connected to MnDOT's network, operate under a different firewall, and provide access to some of the legitimate resources that are blocked by the MnDOT network firewall.

#### Library Services/Products (see attached one-pager)

#### Library Collection Statistics (2017, compiled from the MnPALS catalog system)

Journals (208 active titles)

Books/Technical reports (16,500 titles)

eBooks (800 electronic resources)

CD ROMs (80 titles)

DVDs (90 titles)

Audiorecordings (12 books on CD)

Videotapes (750 VHS tapes)

#### Library Statistics (2016, compiled from RefTracker, OCLC, Minitex, and manual statistics)

Circulation - 15,055

Reference questions - 1062

Literature searches - 673

Interlibrary Loans – 381

Library space use – 600 visitors/month

Awards – 4 national awards since 2012

#### **Library Operating Budget (FY2016)**

#### **Salaries**

\$472,510	Total
\$33,548	Contract librarian
\$11,156	Part-time Student Worker
\$427,806	Permanent Staff

#### **Materials**

\$53,979	WT Cox (periodicals subscriptions)
\$3,303	OCLC (cataloging and non-local interlibrary loans)
\$120	Minitex (training and supplies)
\$13,661	MnPALS (online catalog, local interlibrary loans, circulation system)
\$5,052	Transport Database (literature searches)
\$4,750	RefTracker (reference tracking system)
\$3,030	Transportation Law 360
\$1,925	Environmental Law Reporter
\$8,100	Publications, supplies, open house, memberships, and reimbursements
\$85,820	Total
\$558,330	Total Library Operating Budget

**Note:** For FY18, funding for the ASTM DOT AASHTO Compass Portal was added to the library budget in the amount of \$47,840.

#### Partners/Networks

MnDOT Library is able to complete its work serving customers, due, in part, to the extensive network of partners, which include:

- Special Libraries Association, Transportation Division
- Midwest Transportation Knowledge Network
- Minnesota Transportation Libraries
- National Transportation Library
- Special Libraries Association Minnesota Chapter
- Capitol Area Library Consortium
- Vendor partners:
  - o Minitex
  - o OCLC
  - o MnPALS (Project for Automated Library Systems)

#### **Historical Chronology**

1957 – The Highway Department's General Library opened in October, following six months of organization and planning.

1973 – Capitol Area Library Consortium is co-founded by the library. The purpose of the consortium was to develop a strong network of state government libraries and information centers. This has since expanded to include associate members outside of state government.

- 1974 Online database searching became available to the department.
- 1976 MnDOT was formed.
- 1977 Email was first used to communicate with other libraries.
- 1981 Library staff began contributing catalog records to Online Computer Library Center (OCLC).
- 1983 First PC was acquired by the library and automated circulation tracking began.
- 1995 - The library barcoded its collection.
- 1995 The library website was unveiled.
- 1996 The library began a partnership with the University of Minnesota's Center for Transportation Studies (CTS) and the Minnesota Local Road Research Board (LRRB) in the Minnesota Transportation Libraries (MTL) program extending services to city and county transportation staff.

1996 – Library renamed MnDOT Library.

1998 – The library is relocated from Basement Level to First Floor to provide easier access and findability by staff and the public.

2006 – MnDOT Library is the first state agency library to contribute to the Minnesota Digital Library (MDL) with the submission of the manuscript, "Registered Minnesota Auto Trails, 1917-1931".

2006 – Minnesota State Highway Maps from 1919-1949 are digitized and added to the MN Digital Library.

2009 – MnDOT's library card catalog is retired.

2009 – Minnesota State Highway Maps from 1950-2010 are digitized and added to the MN Digital Library.

2010 – The library serves as a pilot launch site for MnDOT's social media access.

2010 – MnDOT Library undergoes a major physical remodel following results and feedback of a survey and focus group.

2010 – Following the completion of a marketing and communications plan, MnDOT Library works with a consultant to create new and rebranded marketing materials.

2012 – MnDOT Library receives the American Library Association's highest degree: the nationally-recognized John Cotton Dana Award for Library Public Relations.

2013 – MnDOT Library receives state and national awards for its "MnDOT Library Valuation/Return On Investment Study."

2013 – MnDOT contributes additional items to the Minnesota Digital Library- including the digitization of the Highway Department's first employee newsletter, "Minnesota Highways".

2015 - Implemented a reference and statistic tracking software: RefTracker.

2016-2017 - Library Strategic Plan created.

2017 – The remainder of the Department's employee newsletters are digitized, and added to the Minnesota Digital Library.

2017 – Funding for the ASTM DOT AASHTO portal was added to the library budget.

2017 - Library's 60th Anniversary.

## **MnDOT Library**

## movingknowledge







## Fast, Relevant, and Cost-Effective Answers to Your Transportation Questions

MnDOT Library has been recognized throughout the transportation community as a leader in using innovative techniques and technologies to improve access to transportation information for over 50 years. We remain committed to meeting the information needs of our users by providing high-quality resources and services in partnership with knowledge centers, networks, database providers, and libraries worldwide.

#### **Research Assistance**

We find and provide requested facts, data, or other information.

#### Literature Searches

Librarians provide an up-to-date list of published books, reports, articles, web or electronic resources and other materials on any specified topic or on the best practices in a particular field.

#### **Document Delivery/InterLibrary Loan**

Library staff lend and borrow needed resources from other libraries worldwide as a service to our primary users.

#### **Periodicals**

The library subscribes to essential transportation-related magazines and journals. Specific titles are loaned as requested by our primary users.

#### **Online Catalog Access**

The library website features a current and searchable online database of all titles available in the library.

#### **New Library Materials**

Library staff publish a monthly list of new titles added to the collection. Users may select items from this list to borrow.

#### **Ask a Librarian**

We provide a simple online form that allows users to request research assistance or materials. MnDOT librarians are experts with extensive experience locating transportation information in areas such as:

- Engineering
- Construction
- Materials
- Statistics
- Management
- Planning
- Finance
- Standards
- Leadership
- Innovation
- HR/Training

## "Wow, that was fast. I wanted to tell

**What Library Users** 

Are Saying:

you and the rest of the staff 'thank you' for being so prompt. The services really help me do my job and are appreciated."

—Office of Traffic Safety **Employee** 

"Thank you so much. I look forward to reviewing this information on Monday. Really, really appreciate all the aood work!"

—Consultant working on LRRB research project

"I brought this [literature search] to the group working on the consumer guide to recreational bicycling in MN and it was helpful. Thanks again... this was really great."

—Transit Office employee

"I really appreciate all that you do in getting articles and reports to me so quickly... it makes it possible for me to do my job more efficiently and I hope improve the quality of work that MnDOT does."

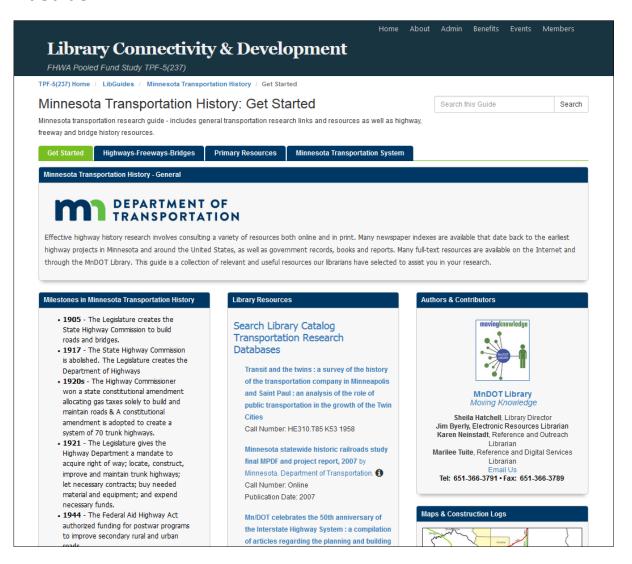
-Bridge Office Employee

## MnDOT Library

www.dot.state.mn.us/library library.dot@state.mn.us 651,366,3791

395 John Ireland Boulevard, MS-155, Room 175 St. Paul, MN 55155

#### LibGuide



Available at: www.mndot.gov/library/libguides.html

### APPENDIX B: SWOT ANALYSIS

The following is a summary of the MnDOT Library staff's SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis. All seven staff members participated in the analysis and brainstorming session which included using a business metrics worksheet.

#### **SWOT** ANALYSIS



#### Strengths (Internal)

Staff are friendly and highly motivated in providing expert services to its customers. They customize reference and services to personalize interactions. They provide technology expertise for documents and equipment. The Reference Desk is always staffed.

#### Weaknesses (Internal)

Staff have lack of time due to heavy reference demand. The other issue is marketing and communications. Staff know they need to do more marketing and have a social media presence. They need a more visual presence (displays, bulletin board) for visitors. They believe that a large percent of employees don't know they exist and what services and products they offer. They would also like to include federated searching for the library catalog and databases as valuable enhancements to customer searches. Because of their heavy workload, they have been unable to implement marketing and communication outreach.

#### **Opportunities (External)**

Staff have a long list of opportunities from portal training, to adding new databases and digital publications, launching LibGuides, developing a RefTracker knowledge base, periodical and table

of contents routing, resolving the issue of digital asset management, and starting a digitization project. They see an embedded librarian, perhaps in the districts, as another opportunity. They recommended a changeable message display sign as well a bulletin board on one wall of the conference room near the library entrance, to alert visitors to services.

#### Threats (External)

Staff feels disconnected from upper management. They are dealing with a new Administration. They feel budget constraints and the impact of loss of staff (present and future), and the constant scrutiny by management and co-workers regarding their work and space.

The library space belongs to customers, but the staff needs space for their work, including future digitization projects. Staff need training and professional development opportunities, as the publishing industry moves to more complex and restrictive licensing agreements.

# APPENDIX C: ENVIRONMENTAL SCAN

Environmental scanning is the process used to systematically gather data about the organization and the external world, including opportunities and threats. It includes scientific, technical, economic, social and political events important to the organization and identifies trends and interdependence of various sectors. The internal analysis describes where the organization is now and where it will be in five or more years. Based on this data, the organization can adjust its strategies and planning.

The purpose of the MnDOT Library environmental scan was to identify current and future trends in libraries, and to identify and evaluate external and internal factors that affect the information and service needs of the organization. This process included an extensive literature search, interviews of key stakeholders including MnDOT upper management and millennials, and Minnesota City/County engineers, and a library staff SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis. An outside consultant conducted a library user and nonuser survey that provided important findings that can be used in library planning for the future. (See Appendix E for the complete survey report.)

The following overview of research libraries and their many challenges today is modelled after John Palfrey's book, *BiblioTech: why libraries matter more than ever in the age of Google.* Mr. Palfrey is an educator and technology expert. He is the founding chairman of the Digital Public Library of America. His keen insight into the changing dynamics of today's libraries provides an outline of the complex environment and challenges that the MnDOT Library must deal with as it moves forward.

Research libraries today are described as being on the cusp of fundamental change. At the same time, there is a momentum of irreversible transformations affecting the information industry. It is a critical time to assess the library environment, the job of librarians, and the goals of the library in serving customers.

The library environment is one of rapid and transformative change in publishing, information technology, and learning—all brought about by the transition from a print-based world to an increasingly digital and highly-networked world.

The challenge for libraries is to provide both physical materials and space as well as leading digital access services. People's view of the library is often grounded in the past. If most knowledge is in digital format, and available on mobile devices, why have a library with print books and journals? If the Internet is the primary source for this information, what is the reason for having physical spaces? Who are librarians serving and how?

The answer is that the Internet and digital media are enabling new kinds of services. The focus for librarians is on what digital media and the Internet make possible, finding ways that digital and analog come together, reinforcing each other. User feedback indicates that libraries need to provide both print and digital. It is important to note that not everything is digitized and what is available is oriented toward research and academic purposes. MnDOT employees are more pragmatic, and as a result, need resources demonstrating practical applications.

#### **Library as Platform**

Libraries are no longer storehouses, but platforms that provide connections to larger networks. Libraries share access to commonly held digital materials and in the future, they will be leasing access to materials rather than owning copies to lend out. This network of platforms shares knowledge, creates displays and discusses work, and captures and preserves community knowledge.

#### **Networks**

Librarianship needs to evolve at every state of professional life to meet the needs of library users today. In this digital era, those librarians who have found a way to operate as a node on a network of libraries and librarians are most successful in actively creating the future and becoming agents of change. They actively create the future, instead of reacting to or resisting change.

#### **Seamless Access**

Users want unencumbered access to information at any time, from any place, on any device. Libraries need to remove obstacles to access such as requiring passwords to log on. They need to provide consolidated searching of multiple data bases and employ efficient discovery systems, while maintaining network security.

#### **Storage of Information**

The storage of information will be the biggest structural change over the next 10 years. This is due to the high percentage of users accessing eBooks and digital rather than print, along with the benefits of cloud computing.

#### **Millennials**

According to the latest U.S. Census estimates, millennials now outnumber baby boomers. By 2020, millennials will be 50% of the workforce. As knowledge workers, they work with extreme agility and social collaboration. Their impact will be felt in the next three to five years when they move into management positions of real influence. The knowledge industry is designing solutions for millennials that will bring sweeping changes to accommodate this group's information use and decision-making behaviors. This will include gathering data on millennial preferences, time spent on social networks and mobile devices, and how they discover, use and share information. They are mobile dependent and want easy, seamless access.

Their trusted sources for research are Google, various professional sites, their organization's intranet, checking with colleagues, and print material. Even though specialty-licensed content sources would better meet their information needs, they avoid these as being too complicated to search and a hassle to sign on. Almost 50% of millennials either strongly or somewhat agree that it's OK to share content purchased by their company with others outside of their organization. They are unclear about copyright law and license agreements.

The library needs to plan for services for millennials and other digital natives by providing easy access and removing password requirements, while providing training for specialized databases that would support them in their work. They need to educate millennials on copyright restrictions for distributing licensed content.

E-lending poses another problem. The librarian is no longer the intermediary between people and information. Now the for-profit publisher is the intermediary and may not share the same value of reader privacy. Millennials, in particular, are very protective of their personal information and how it's used on social network apps and sites. They are uncomfortable/very uncomfortable with many features that are commonly used:

- Collecting/storing personal information
- Using information to target ads to you
- Selling your information to data brokers
- Providing your information and usage habits to the government

#### **Library Collections**

Libraries are expected to provide more services and more formats, with fewer operating resources. Library staff and budgets are being squeezed. Libraries must choose which formats are best for their users. And they must deal with the fact that digital subscriptions are more expensive.

To complicate the situation, libraries and the publishing industry are inextricably linked. With the shift from print to digital, publishers were forced to adapt to new media, along with legal guidelines as to how they make their products available. Since digital works are typically licensed, not sold, libraries are restricted in how they are able to allow access to their users.

Librarians must administer these complex digital licensing agreements with publishers. These may include restrictions such as copying works for archival or preservation purposes, participation in interlibrary loan, or limits on circulation of eBook subscriptions, requiring the library to repurchase an expensive license.

Copyright is long overdue for changes that would address many issues in this digital world, but there is nothing that will change in the immediate future. Until that time, librarians and publishers must work together to create policies and agreements that will ensure access at a reasonable price.

#### Preservation

Another challenge for libraries is to preserve knowledge in the form of published materials: books, maps, photos, images, videos, sound recordings. During this time of transition between print and digital materials, preservation deserves more investment.

In the digital world, access to information is anywhere, anytime and at low cost or free on the web, by using mobile devices, personal computers and powerful search engines. There is a challenge to successfully preserving digital information, which may also be more expensive to preserve than its analog form. Although some information will live a long time, other data will not, e.g. data rot.

Another problem is how to preserve digital information in a complex, networked environment where any book could be a "living book", subject to change at any time.

#### **Physical Space**

Librarians have been most effective when they are embedded in physical spaces, connected to ideas and the process of knowledge transfer. Libraries fulfill a wide variety of roles: as interfaces to knowledge access, as collaborative workspaces, and as quiet reading areas. Libraries are re-envisioning the use of space as they stay flexible in adapting to changes in diverse functions and user needs.

#### Librarian Skills

Many skills and experiences that have served librarians well in the past, are still relevant today. These include helping users find information, anticipating other resources that would be helpful, and organizing search results for easy access and review. The most important new skills for librarians include designing, creating and reusing new technologies, sorting credible from less credible information in a complex online environment, and partnering with others to co-produce information and new knowledge in digital format.

#### **Role of Librarians**

Reference librarians can be more useful in a digital age than they were in the analog past. In a world exploding with potential sources of information, all with varying quality and applicability, librarians as guides to the best resource can be invaluable. Physical interaction will remain a key demand of users. The mentoring expertise of librarians will become more crucial in supporting research, education and well-informed decision making. Having skilled professionals with the knowledge of when and how these resources and tools are best deployed provides more complete and effective outcomes.

The role of librarians is also evolving. In the next 5 to 10 years, information management will include more opportunities with data. Librarians must understand and apply data, analytics, and emerging technologies. There will be a need for "data scientists", who have a certain mindset. There will be more usage of data visualization software. Librarians must facilitate learning and adapt quickly in cross-disciplines, collaborate, and deliver strategic outcomes and value. They must be proficient marketers and brand advocates. For current staff, this will take time to develop.

#### **Information Overload**

Immense amounts of data can be overwhelming for human decision-making and productivity. Because of this, the librarian's research, management, and curation skills will grow in importance to facilitate user information accessibility and comprehension.

Future information management opportunities include:

- Collecting the right data and linking, managing and securing data, designing for easy flow and access, and interpreting and visualizing data.
- Providing data visualization of usage statistics.

- Enhancing information literacy so users can understand and better utilize those resources that are not free.
- Providing copyright education so users understand what can and cannot be shared.

# **Librarian Training**

The fast pace of technological advances is challenging the training and skills of the librarian. Librarian education is necessary in emerging areas: data analytics, technological expertise, collaboration, marketing, and project management.

The future of libraries is exciting, full of challenges and opportunities. With support from management, the MnDOT Library can continue to shine as the gold standard for transportation libraries well into the future.

For additional environmental scan resources, please refer to References and Appendix F: Bibliography.

# APPENDIX D: SUMMARY OF INTERVIEWS OF UPPER MANAGEMENT, CITY/COUNTY ENGINEERS AND THE FOCUS GROUP OF MILLENNIALS

Sample sizes for groups:

Millennials: (1980-2000) Focus group (4); Follow-up phone interviews: (4)

Upper Management: 8 phone interviews City/County Engineers: 9 phone interviews

### Millennials Represent the Growing Base of MnDOT Employees

Summary: Millennials want fast, easy access to resources and prefer succinct responses from library staff. They want maps, the AASHTO Green Book, and other resources converted to digital. They want more books on business skills. They would like a customized library newsletter that highlights common reference/research questions that are categorized by work groups (not library service). They want the library to build a partnership with each work group by sitting down and talking with members. They want a library personal contact for the group.

The information they seek is everything from conflict resolution, to literature searches (for trends, social sciences, where MN stands in diversity employment, all types of pedestrian information including safety, fatalities, and engineering and technical information and studies), legislative histories. They appreciate the library's professionals who provide a concise summary and provide trend information in different areas.

Some millennials believe that there is a barrier in using different databases for searching. They think that they are not as easy as Google and YouTube and there is a learning curve; they do not want to invest the time to learn. They check the website of professional organizations (AASHTO, TRB research center, MnDOT Road Design and local partners).

Millennials check technical blogs to find best practices for dispute resolution, including most current books, articles and syllabi of professional organizations. They follow forums, blogs (Engineering Toolbox), as well as partner websites and professional associations, and they check with colleagues.

Millennials used all of the library services; no one used audiobooks.

Millennials value the knowledgeable reference staff as being very thorough and their quick response as being helpful. Other valued services included routing, the ability to borrow books, and access to journals. They also value online search tools like Ask a Librarian. There is a push to have faster and easier access to information.

They appreciate the library as a quiet place, and request that the Wi-Fi be passwordless.

#### **Upper Management**

Summary: Information needs can vary widely. Most don't contact the library directly. They ask someone on their team to get the information, and oftentimes, they don't know where the information comes from. They also contact other offices directly for information and use their own information network of key individuals to address their specific management questions. Other comments include:

- Most of their time is taken up in meetings and strategic planning for the agency.
- Upper management is familiar with all of the library services.
- Upper Management outline what they think is essential: the library should broaden its scope to include thoughts, best practices, and become more knowledgeable about topics like WIG 2.0. (Note: some managers are not aware that the library is on top of WIG 2.0.)
- The library should customize its products and services to support the management group so that the library is a source for whatever management decides for MnDOT. This means a more active engagement with management, including a library point person that could sit in on upper management meetings, providing information before management asks.
- Managers want to access all materials in digital format, including shorter articles. (They read from tablets and iPhones in between meetings.)
- Managers realize that there is an obligation to preserve some things.
- Managers like NLM (New Library Materials) and would appreciate knowing about what the library can provide and what others in the organization have found.
- Looking out five years, managers envision the collection, services, and technology becoming more digital. They emphasize that the library needs to be more mobile friendly, including developing a smart phone app and migrating to a digital platform and media.

Managers view the library space in different ways. Some comments are that the library should be a public space - similar to the McKnight Foundation - that is open and inviting for visitors and can be used as a meeting place. Such a space would include multiple uses and would get ahead of the curve. The library should market what they have available on space and find other advantages: events, commissioner's reading corner. The library space is bigger: brings people to the organization (more like marketing for MnDOT). CO is challenged in finding conference rooms. Other managers were lukewarm to the concept of public space. MnDOT is a state agency focused on Transportation. One enjoys the quiet work and reading areas.

Managers expressed interest in a service that would email articles on leadership, management, how to develop business plans, interacting with different types of people, etc. (topics that Harvard Business Review covers), so they can read articles on a tablet.

Managers have a long list of recommendations for marketing and communications. (See detailed breakout.) Managers recommended that the library should have "fun" events. These are effective and could include hosting book clubs, hosting brown bag lunches with speakers for leaders, having an open house once a quarter as a great way to introduce people to the space, hosting a webinar on a really

good topic. They pointed out the need for the library to condition people to get in the habit of using the library space and services.

Comments included having to invest in marketing to be successful: ROI would be two or threefold if the right technique is used. The recommendation was to go bigger. What is a reasonable cost beyond what is currently spent on marketing? Really have to invest in marketing to be successful.

Does the library need a liaison position to provide marketing and a connection to all offices and districts?

# **City/County Engineers**

Summary: City and County engineers include Public Works Directors/Highway Engineers, maintenance/construction engineering/management. Information needed covers a broad spectrum. They need standards, federal and state statutes and regulations. They are interested in technology topics (infrastructure, pavement, materials, highway design), and they need information on best practices, policies, procedures, guidelines of other agencies that may have information related on a topic like jurisdictional transfers. Some deal with big picture issues and trends like the change with industry issues, new technology and how to operate overall and innovate. Every issue they handle is different, so they go to the best source (web using Google, professional associations, colleagues from other regions, experts and consultants as well as MnDOT specialists.

Overall Responses and Recommendations of City/County Engineers

Reference/Research/Literature Searches

Many do not use these service; other find online searches and literature searches extremely important. Others will access the library website and search there; they will use the Ask a Librarian feature. One noted that the library site search engine was pretty good and that there were a lot of resources, but no one uses them. Library has staff to filter through and ask questions to refine searches. Staff are very resourceful and thorough in retrieving information: scan networks.

#### **Collection and Services**

Engineers would like large design manuals available to agencies as well as an electronic manual with different regulations at different agencies.

They recommend that the library be the clearing house for all that kind of stuff, viz. water issues around the state. (Wetlands involve MN Pollution Control Agency, Board of Water and Soil Resources, and the Army Corps of Engineers.) The library should make electronic data available to the public, since it is able to exist for a very long time.

One engineer wanted the library to know what information he needs (new truck law, wetlands), so that he can be in the loop on new products. The library could produce videos and pop-up presentations.

### Library Space

With the amount of space the library has, they should do even more to make it a destination. Have coffee there: sit, read and learn.

# Marketing & Communications Recommendations

Three engineers responded with marketing ideas for the library that included:

- Going to city/county meetings,
- Reaching out to LRRB to implement what they are doing in the library,
- Tailoring services to customer needs and covering issue areas (like transit and transit research) monthly.
- One recommended that the library have a marketing campaign with an advisory committee (an office or division) that could help the library in being more proactive.
- Library should use LinkedIn, Facebook as a conduit.
- Library should send regular quarterly email to MN city and county engineer associations and get an endorsement from LRRB.
- Library should have a newsletter: "Here's 25 things you might be interested in." Tailor content to group: storm water, plowing), list tough questions.
- Have one page description or video of library services. ("Let your fingers do the walking.")
- The library should have publications for dummies, with bullets, viz. a one-stop for permit data.
- One interviewee referred to Thomson/Reuters as an example of a user membership: when someone is required to pay, they value the service more. How do you elevate the role of the library in people's work?

### Looking out five years, engineers want:

- Everything mobile
- State of the art technology
- Online delivery so they can instantly access the [PDF] document.
- Library to scan documents and make them more accessible as soon as they are produced.

# APPENDIX E: MAD SURVEY OF LIBRARY USERS AND NONUSERS



# Minnesota Department of Transportation—Modal Planning & Program Management Division

# MnDOT Library Use Survey Report

January, 2017

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# Management Analysis and Development

Management Analysis and Development is Minnesota government's in-house fee-for-service management consulting group. We have over 30 years of experience helping public managers increase their organization's effectiveness and efficiency. We provide quality management consultation services to local, regional, state and federal government agencies and public institutions.

### **Alternative Formats**

Upon request, this document can be made available in alternative formats by calling (651) 259-3800.

# **Table of Contents**

Introduction	2
Methods	2
Results	3
Key Findings	7
Different people find value in different parts of the library	7
Many staff aren't aware of what MnDOT Library offers	
Staff have varying opinions on how the library might be more useful	7
Digitized material is important	7
Most respondents want to receive communication from MnDOT Library	8
Respondents want MnDOT Library to stay but differ in what capacity it should stay	8
Detailed Findings	8
Library users	9
Nonusers	20
Library space suggestions (users and nonusers)	28
Barriers or challenges to accessing MnDOT Library services	31
Book format preferences	33
Digitized materials	36
Communication	39
MnDOT Library future	44
Recommendations	50
Appendix A: Survey Tool	52
Appendix B: Job Classifications by Category (EEO4 Function)	67
Appendix C: List of Suggested Book Topics	71

# Introduction

As part of Minnesota Department of Transportation (MnDOT) Library's strategic planning process, MnDOT and Law Library Consultants are collecting data on various customer perspectives of the library. MnDOT asked Management Analysis and Development (MAD) to contribute to its research by surveying MnDOT staff on their library use and perspectives.

# **Methods**

MAD worked with MnDOT and Law Library Consultants to draft a survey for library users, using questions from an existing survey and a parallel survey for MnDOT agency staff who do not use the library. The survey asked questions about the use and importance of library services and space, the importance of digitized materials, communication preferences, and the respondent's vision for MnDOT Library.

MAD used MnDOT Human Resources data to connect responses with the respondent's age, number of years in state service, job classification, geographic location, and division within MnDOT.

MAD sent the survey to all MnDOT staff except those whose jobs would not typically involve the use of a library. Staff with the following job classifications did not receive the survey:

- Heavy Equipment Mechanics
- Laborer General
- Transportation Generalist
- Transportation Generalist Senior
- Transportation Specialist

MAD sent an email to all supervisors with staff in the above classifications and asked them to notify MAD if they felt those employees should receive the survey. None of the supervisors responded to the email.

Ultimately, 2,637 MnDOT staff received the survey. The survey was open from October 11 to October 31, 2016. In all, 913 MnDOT employees responded to the survey, for a response rate of 35 percent.

This report is a summary of aggregated survey responses. Individual responses are private. MAD does not report findings on groups with less than 10 respondents.

# **Results**

High numbers are highlighted in turquoise; low numbers are highlighted in orange.

Table 1 illustrates whether respondents were located in the Twin Cities or Greater Minnesota. Nearly three-quarters of respondents worked in the Twin Cities. Response rates among locations were generally similar, but there was a proportionally high response from District 4 and a proportionally low response from District 8.

Table 1: Respondents by location<sup>1</sup>

Twin Cities/ Greater MN	Number of respondents	Percent of respondents	Number of employees surveyed	Percent of all employees surveyed
Twin Cities*	668	73.2%	1878	35.6%
District 1	45	4.9%	148	30.4%
District 2	32	3.5%	87	36.8%
District 3	38	4.2%	115	33%
District 4	36	3.9%	80	45%
District 6	40	4.4%	128	31.3%
District 7	37	4.1%	120	30.8%
District 8	17	1.9%	81	19.5%

-

 $<sup>^{1}</sup>$  MnDOT Human Resources data did not distinguish between Central Office and Metro District at this level. They are collectively referred to as "Twin Cities."

Table 2 illustrates that over half of respondents were in professional positions, which is consistent with the overall proportion of MnDOT employees. The lowest response rate occurred among paraprofessionals. Library use varies by job function with officials and administrators as well as professionals reporting the highest use (85 percent and 71 percent, respectively).

Table 2: Respondents by position (classification)<sup>2</sup>

			Number of all	
Employee position	Number of respondents	Percent of respondents	employees surveyed	Percent of all employees
Office/Clerical	65	7.1%	191	34%
Officials and Administrators	59	6.5%	168	35.1%
Paraprofessionals	26	2.8%	104	25%
Professionals	469	51.4%	1245	37.7%
Service Maintenance	108	11.8%	353	30.6%
Skilled Craft	23	2.5%	76	30.6%
Technicians	163	17.9%	500	32.6%

\_

<sup>&</sup>lt;sup>2</sup> For a list of job descriptions for each classification, see Appendix B.

Table 3 illustrates the response rate by division. Chief Counsel, Chief of Staff, and Corporate Services had the highest response rates. Among the divisions with the lowest response rates were Commissioner Staff and Operations.

Table 3: Respondents by MnDOT division<sup>3</sup>

Division	Number of respondents	Percent of respondents	Number of employees surveyed	Percent of all employees
Audit	Less than 10	-	17	-
Chief Counsel	24	2.6%	49	49%
Chief of Staff	16	1.8%	30	53.3%
Commissioner Staff	Less than 10	-	22	-
Corporate Services	97	10.6%	217	44.7%
Engineering Services	154	16.9%	427	36.1%
Modal Planning and Program Management	100	11.0%	251	39.8%
Operations	471	51.6%	1515	31.1%
State Aid	38	4.2%	109	34.9%

\_

<sup>&</sup>lt;sup>3</sup> Data for Audit and Commissioner's staff are not reported because there were fewer than ten respondents.

Table 4 illustrates the distribution of respondents by generation. Due to the low number of Traditionalists, their responses will be combined with those of the Baby Boomers.

**Table 4: Respondents by generation** 

Generation (birth year)	Number of respondents	Percent of respondents	Number of employees surveyed	Percent of all employees
Traditionalist (1900-1945)	Less than 10	-	16	-
Baby Boomer (1946-1964)	449	49.2%	1206	37.2%
Generation X (1965-1980)	296	32.4%	909	32.6%
Millennial (1981-2000)	164	18.0%	506	32.4%

Table 5 illustrates that the highest responses were among people who had worked for MnDOT for six to 20 years, while the lowest response rates were among those who had worked for MnDOT for five years or less.

Table 5: Respondents by years of service

Years of service	Number of respondents	Percent of respondents	Number of employees surveyed	Percent of all employees
2 or less	146	16.0%	439	23.7%
3 to 5	101	11.1%	296	23%
6 to 10	149	16.3%	385	50.3%
11 to 20	215	23.5%	616	55.8%
More than 20	302	33.1%	901	33.5%

# **Key Findings**

# Different people find value in different parts of the library

MnDOT employees who use the library said it adds value to their work as an overall resource, providing access to materials not available elsewhere, and that library staff have assisted them in meaningful ways. Among library users, use of services and space varied by office and position. Those who do not use the library cited lack of time, need, or knowledge of the library's resources.

# Many staff aren't aware of what MnDOT Library offers

Nonusers were overwhelmingly unaware of specific library services and space offerings, and one-fifth of nonusers did not know the library existed. One fifth of MnDOT employees who used the library were also unaware of a particular service or space offering. When asked to suggest topics for online instructional videos, more than two-thirds suggested an overview of the library, its services, and how to access it. Videos that provided introductory information about the library was the most common response from those who said that online instructional videos would *maybe* be helpful. Responses to other survey questions also suggested a desire exists for more introductory information about the library and how it can help people do their work.

# Staff have varying opinions on how the library might be more useful

When asked what services would be useful, nonusers listed a variety of materials, from digital subscriptions to remote access. Most content that nonusers requested was specific to their work.

The majority of suggestions from both users and nonusers for use of library space included some type of group activity (e.g., discussion groups, presentations, tours, open houses). Space related suggestions ranged from modifications to increase collaborations, such as tables for small groups and conference rooms, to modifications for individual work, including cubicles and quiet reading areas. Some respondents suggested the library become completely digital, while others requested a lounge area, perhaps with coffee or snacks.

# Digitized material is important

Respondents' overall preference for book format depended on the preferred topic, though respondents were nearly evenly split between preferences for e-book or print books on each topic. Over half of respondents also said digitized formats were moderately or very important for photos, historical materials, and technical reports, while nearly half (48 percent) said digitized environmental impact statements were moderately or very important. When asked what other materials should be digitized "all materials/documents" was tied for the most common response. Other responses included specific content, maps and photos, standards and specifications, reports and plans, and legal documents and

contracts. Employees from Greater Minnesota and Generation X and Millennials requested digital materials more frequently than those from the Twin Cities and other generations. Baby Boomers favored print materials.

# Most respondents want to receive communication from MnDOT Library

When asked how often respondents would like to receive communication from MnDOT Library, 42 percent chose "monthly," while only 13 percent chose "never." Over three-quarters of respondents (not including those who chose "never") said they would like e-mail communication, and half of respondents would like to receive communication via Newsline.

# Respondents want MnDOT Library to stay but differ in what capacity it should stay

When asked how employees saw the library in the next five years, about 60 percent of responses said it should still be in existence, accessible to everyone, or widely known about or used. However, some respondents said the library should digitize all materials, while others want the library to expand in its current location or across MnDOT districts. Opinions on future space use differed in the same capacity as current space use, with some requesting collaborative space and others wanting more private areas. When it comes to future needs and trends respondents most commonly reported the need for access to technology and online or digital materials and the need for information specific to their work.

# **Detailed Findings**

To enhance understanding of survey findings, MAD adopted the following conventions:

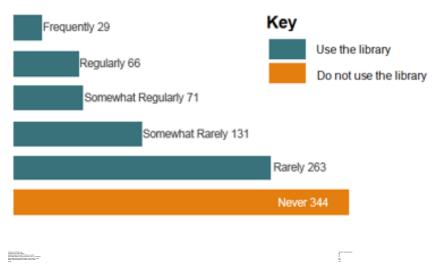
- MAD included only detailed findings (by generation, division, etc.) that were contrary to overall findings. If details on a given group are not present, the reader can assume they were similar to overall findings.
- For open-ended questions, responses can often say more than one thing. To capture the entire
  meaning of the response, MAD often counted comments more than once, which means some
  figures may not reflect the number of responses, but the number of ideas expressed in
  responses.
- While striving to preserve original quotes whenever possible, MAD edited quotes to remove
  potentially identifying information and spelling or grammar errors that detracted from the
  meaning of the response.

Almost two-thirds of respondents reported that they use MnDOT Library (see Table 6). Among them, most respondents use the library rarely or somewhat rarely, while 17 percent of people who use the library use it regularly or frequently.

Figure 1 illustrates the frequency with which respondents use the library. The survey asked respondents to indicate their use of the library using the key below:

- Frequently (at least weekly)
- Regularly (approximately 1-2 times a month)
- Somewhat Regularly (approximately every 1-2 months)
- Somewhat Rarely (approximately 3-5 times per year)
- Rarely (approximately 1-2 times a year or less)
- Never

Figure 1: Overall, which of the following best describes how often you use MnDOT Library resources? (n=904)



Though those who have never used the library ("nonusers") account for the largest individual group, nearly two-thirds of respondents use the library ("users").

Table 6 illustrates the distribution of users and nonusers.

Table 6: MnDOT Library users and nonusers (n=904)

Library users/nonusers	Number of respondents	Percent of respondents
User	560	61.9%
Nonusers	344	38.1%

# Library users

MAD identified survey respondents as users if they responded that they used MnDOT Library frequently, regularly, somewhat regularly, somewhat rarely, or rarely. MAD identified those who said they never use MnDOT Library as nonusers.

Figure 2 illustrates that respondents who said they do research more often are also more often library users. However, the largest group of respondents that said they used the library were those who conduct research every one to two months.

Figure 2: Percent of respondents that use MnDOT Library by how often they do research

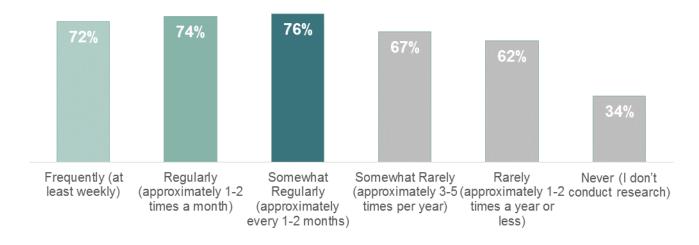
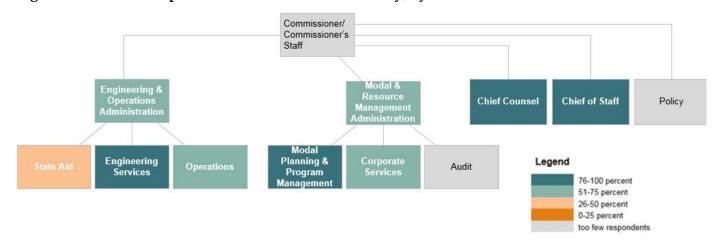


Figure 3 illustrates that respondents in all divisions use MnDOT Library, and use is relatively evenly disbursed among divisions.

Figure 3: Percent of respondents that use MnDOT Library, by MnDOT division



Library use varies by division with respondents from the Chief of Staff, Chief Counsel, Modal Planning and Program Management, and Engineering Services reporting the highest use (100 percent, 79 percent, 78 percent, and 78 percent, respectively).

Library use also varies by job function with officials and administrators as well as professionals reporting the highest use (85 percent and 71 percent, respectively).

# Library services and space used

The following figures illustrate feedback from library users on the services they use and find important. Overall, though many services are not used often, one-third to half of users find each service either moderately important or very important. For example, less than one-quarter of respondents said they contact the library to get an item either frequently or occasionally, but over half found that service moderately important or very important. The same is not true for library space. When it comes to space, use and importance are much more aligned. Among the most used and most important spaces are copier/scanner/fax machines, networked computers, and conference rooms.

# **Use and importance of MnDOT Library services**

Figure 4 illustrates that respondents use MnDOT Library most frequently to search for electronic resources/access electronic resources on the MnDOT Library website and receive professional journals or magazines. Respondents contact the library with a research question and borrow materials from other libraries less frequently.

Figure 4: How often respondents use MnDOT Library services

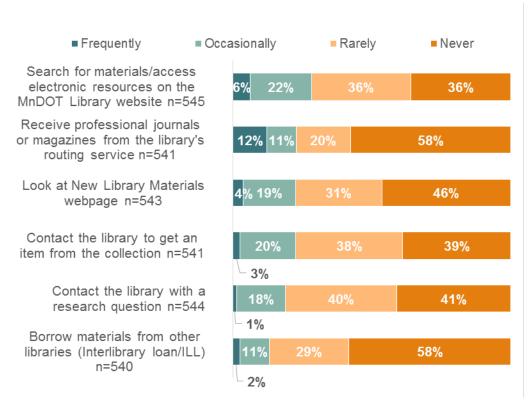


Table 7 illustrates use of MnDOT Library services across divisions. In most cases, Chief Counsel and Chief of Staff respondents used library services more than respondents in other divisions. Though respondents generally borrow materials from other libraries less frequently than they use other services, nearly one-third of Chief of Counsel and one-quarter of Chief of Staff respondents do so.

# Table 7: Percent of respondents that use MnDOT Library, by division

Note: The column charts in the "Compare" column allow for quick comparison of the proportion of respondents in each division that use the library.

Key: Darker shading represents the highest value in the comparison group. (Values may be equal.)

	Chief Counsel (n=24)	Chief of Staff (n=16)		Engineering Services (n=154)	Planning and Program Management (n=100)	Operations (n=471)	State Aid (n=38)	Compare
Contact the library with a research question	37%	44%	12%	18%	28%	14%	25%	11
Contact the library to get an item from the collection	63%	44%	21%	19%	23%	19%	25%	l
Recommend resources to add to library collection	42%	19%	7%	11%	13%	3%	0%	I
Borrow materials from other libraries (ILL)	26%	29%	7%	21%	9%	11%	6%	11.0
Receive professional journals or magazines	58%	69%	25%	24%	30%	14%	20%	11
Look at New Library Materials webpage	37%	25%	26%	26%	25%	19%	7%	Inn.
Seach for materials/access electoric resources on the MnDOT library website	21%	38%	25%	34%	28%	28%	13%	delle.

By location, Twin Cities respondents borrowed materials from other libraries more frequently than respondents in other parts of the state (15 percent versus 6 percent in Greater Minnesota).

# Reasons MnDOT Library users may not use certain services

Table 8 illustrates responses from staff who indicated they used the library but also said they did not use a particular service. The most common factors include not having a need, not knowing about the library, and using other sources.

Percent of

Table 8: Reasons library users do not use particular services (n=170, 188 comments)

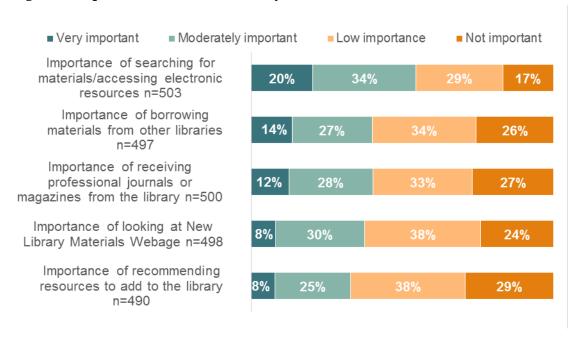
Topic area	comments
Have not had the need to use the library or its services	26%
Didn't know the library or the services existed	20%
Use other sources and online searches	20%
Not applicable to job	15%
Other	10%
Not enough time	5%
Location	4%
Total	100%

# Examples of comments include:

- I do not see a lot of value in professional journals. My current workload, as a supervisor, does not allow me time to make it to the library. I think the library has value but thought needs to be given for how practicing transportation professionals can use and apply all the useful information in the library. It's difficult when work time is stretched to where staff doesn't have time visit and search. It also seems as though a good majority of the MnDOT day-to-day functions do not involve research and it's difficult to make connections between the two.
- Most of the cutting-edge, in-progress things that I work with are available on the internet without going through the Library. By the time information is published in more formal venues (Journals, Books, even University sites) it is generally old news.
- All services I look for are at my fingertips these days through the internet. The Library tends to be a service that takes me longer to use then to just quickly pull what I need off the internet.
- I am so busy and I am on a tight schedule, so I do not have the time to wait for inter office mail. Alternatively, the material is not necessary for me to do my job.

Figure 5 the importance users placed on library services. While 13 to 28 percent of respondents said they use a given service frequently or occasionally, 33 to 54 percent rated each service moderately or very important.

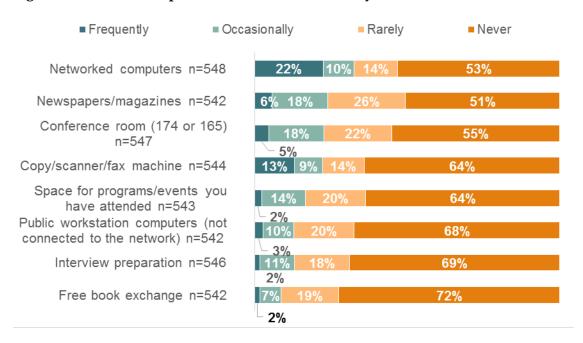
Figure 5: Importance of MnDOT Library services



# **Use and importance of MnDOT Library space**

Figure 6 illustrates how frequently respondents said they use library space. Most often used were networked computers, newspapers/magazines, and conference rooms. Free book exchange, interview preparation, and public workstations were among the least used.<sup>4</sup>

Figure 6: How often respondents use MnDOT Library services



Generally, respondents of all divisions, classifications, ages, locations, and years of service followed the same themes as in Figure 6.

# Exceptions included:

- Chief Counsel and Modal Planning and Program Development use MnDOT Library for interview preparation more frequently/occasionally (21 percent and 25 percent, respectively).
- Office/Clerical use MnDOT Library for interview preparation more frequently (35 percent).
- Twin Cities respondents use MnDOT Library more frequently for interview preparation (15 percent versus 6.5 percent for Greater Minnesota) and free book exchange.

<sup>&</sup>lt;sup>4</sup> Note: The public are the intended users of public workstations. This survey did not capture their perspectives.

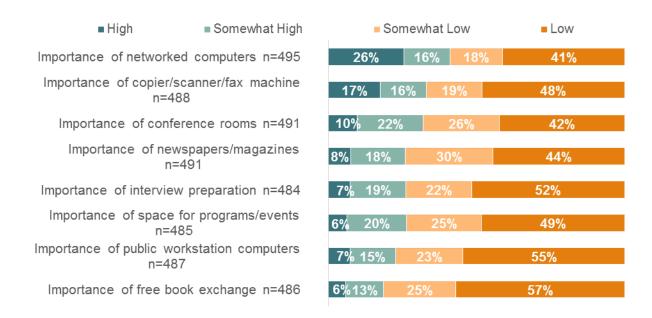
Table 9 illustrates MnDOT Library space use by job classification. In general, skilled craft and service maintenance staff use MnDOT Library space more than respondents from other classifications. Respondents who are officials and administrators use library space the least.

Table 9: Percent of respondents that use MnDOT Library space, by job classification

	Office/ Clerical	Officials and Administrators	Professionals
Networked computers	48%	22%	39%
Newspapers/magazines	35%	17%	29%
Conference rooms	36%	35%	37%
Copier/scanner/fax machine	36%	22%	29%
Space for programs/events	29%	13%	33%
Public workstation computers	24%	17%	22%
Interview preparation	48%	24%	27%
Free book exchange	33%	11%	22%

Figure 7 illustrates how important respondents see MnDOT Library space. Use and importance of library space generally follows the same trend as library services, more respondents found the space important than said they use the space.

Figure 7: Importance of MnDOT Library space



Respondents in service maintenance and skilled craft classifications rated networked computers and copiers/scanners/fax machines as more important than respondents in other classifications.

Library collections such as newspapers/magazines and the free book exchange are most valued by office/clerical staff, and professionals rated them as highly important, compared to other classifications.

# How MnDOT Library adds value to users' work

Table 10 illustrates ways respondents said MnDOT Library has added value to their work. The most common ways include serving as an overall resource, help from library staff, and use of library space.

Table 10: Ways MnDOT Library has added value (n=152, 182 comments)

Topic area	Number of comments	Percent of total comments
Overall resource: Periodicals, books, magazines, ILL, journals, etc.	91	50%
Staff help with research, literature reviews and finding materials	43	24%
Space: workstations, networked PCs, quiet reading space	21	12%
Staff knowledgeable, responsive and helpful	15	8%
Other	12	7%
Total	182	101%*

<sup>\*</sup>Does not equal 100 due to rounding.

# **Examples of MnDOT Library as an overall resource**

Fifty percent of the employees' responses described how the library's resources (books, journals, technical information, leadership resources, reports, etc.) have been valuable for them to do research, stay current on industry trends, and complete projects. Others commented on the leadership books that have been helpful to their professional development. Many people said that the library has access to documents and resources that are not found online or in other libraries, which is extremely valuable to them.

### Respondent comments include:

- MnDOT [Library] is a great resource to me. It has the technical publications that I need to complete projects. It has done research into topics that I have requested and provided valuable materials that have saved the state money and increased the performance of the transportation system.
- I use the TRB [Transportation Research Board] legal research digests fairly frequently those greatly help in my work, because I don't have to replicate the research that went into those digests.
- Having the ability to access the online AASHTO [American Association of State Highway and Transportation Officials] publications and standards has been very helpful and improved work efficiency.
- The Federal and State periodic research is not to be had anywhere else. I don't know if I could have solved several problems (some involving public) without their help.
- The MnDOT library supplied me with many resources while studying for the PE [Professional Engineering] exam. It really made the process as easy as possible with a large number of reference materials and extended checkout times.
- Has provided information not accessible online but obtainable through either library materials, loan, or purchase.

# Examples of staff conducting research and literature reviews

One-fourth of the comments mentioned how the library staff has added value to their work by assisting them with locating information, reports, and videos, conducting literature reviews, and doing research for projects or responding to questions.

# Respondent comments include:

- The MnDOT Library has researched transportation topics that did not yield results via simple internet searches.
- When I have needed information for a fiscal note or research in general, I have always received prompt, efficient service. The staff is wonderful in what they provide and customer friendly. My job has changed in the last few years and I haven't needed the services as much as I used to, but they are stellar in what they do. From finding a quote that would be appropriate for a presentation to getting statistics for a fiscal note or researching telecommuting, top notch.
- The library has gone out of their way to secure a book for work-related reading and is willing to help with literature review questions.
- Literature searches conducted by library staff and the availability of MnDOT workstations has added immeasurably to my productivity.
- Has added info to my research so that my information is relied upon "with Integrity."
- Help with searches for hard copies of environmental documents. Often times for older documents this is the only location we find the larger older documents that this is very valuable.
- The library has been very helpful in locating books and videos held by another library that we wished to see or use. If this service and the research service were not available we would really miss it.

### **Examples of space/workstations**

Most of the comments in this topic area related to how the library space has added value to employees' work. For example, employees said the library provides quiet space to read, recharge, or take a break, and workstations and conference rooms to work productively.

# Respondent comments include:

- I work out of another building and really appreciate the work stations and conference rooms when I need them while I'm at CO [Central Office].
- Access to books and a comfortable place to read books over lunch.
- Visually stunning setting for a library, makes for a wonderful environment as a place to meet, research and get away from the office for a moment.
- The Library provides space to work when I am in CO and waiting for a meeting or to end my day before going home from meeting in CO.

# Examples of staff being professional, knowledgeable, and responsive

Respondent comments include:

- I haven't engaged with it as much as I would have liked to, but it's been a great resource whenever I've stopped by, and the librarians are always extremely customer service oriented.
- They answer questions and help me get reference materials. Great staff. Wonderful librarians.

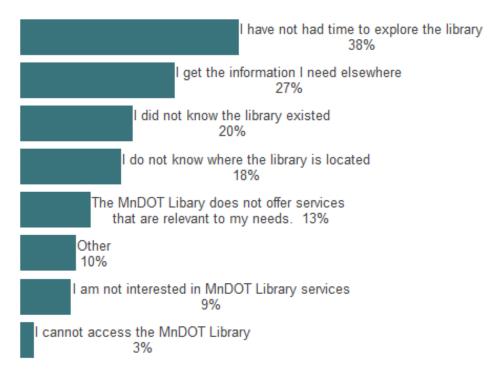
- I can always rely on any staff member being very professional and responsive to my requests.
- Staff know existing resources well and make helpful suggestions.

# **Nonusers**

The following information is from respondents who said they have never used the library.

Figure 8 illustrates reasons why respondents have not used the library. The survey asked respondents to check all of the reasons that applied to them. Among the most common reasons for not using the library were that the respondent did not have time and that the respondent got the information they needed elsewhere. One-fifth of respondents did not know the library existed.

Figure 8: Reasons nonusers have not used MnDOT Library's services (n=342)<sup>5</sup>



All seven respondents who identified barriers to accessing MnDOT Library said they do not work in Central Office, so location is the barrier.

Reasons why respondents are not interested in MnDOT Library services included (n = 16, 21 comments):

- No need for the services
- Location
- Time
- Get resources elsewhere

<sup>&</sup>lt;sup>5</sup> Figures will not add up to 100 percent because respondents could check more than one response.

- Don't know what library offers
- Library is waste of money

Table 11 illustrates sources of information for respondents who said they get their information elsewhere. The most common sources are online searches, followed by inter-office communication and manuals and publications.

Table 11: Sources of information among nonusers (n=72, 89 comments)

Topic area	Number of comments	Percent of total comments
Google, online, websites, MnDOT website*	47	53%
Other offices, co-workers, supervisor	17	19%
Specific manuals and publications	10	11%
iHub	8	9%
Other	7	8%
Total	89	100%

<sup>\*</sup>Note: MnDOT website mentioned five times.

### Other offices include:

- SWIFT Helpdesk
- Industry organizations, other agencies
- US Department of Transportation
- District offices/headquarters
- City of St. Paul
- Chief Surveyor and county surveyors

### Specific manuals and publications include:

- Spec book
- AASHTO manual
- MnDOT manuals
- Technical/service manuals

Respondents who said MnDOT Library does not offer services relevant to their needs suggested the following additional services:

- I have not discovered any that fit into the procurement categories that I have needed. A procurement section on commodities and contracts would be helpful. Lack of communication on what services are available would also be helpful. Maybe I would find some that do pertain to me.
- I am MNIT IT staff, the library offers me nothing job specific that I can't find from my desk already.
- *I work in the field most days.*
- Proof-reading and spelling courses, for those that can't spell "that". See above.

Table 12 illustrates any other reasons respondents gave for why they did not use MnDOT Library.

Table 12: Other reasons (n=30, 33 comments)

Topic area	Number of comments	Percent of total comments
Don't know what the library has to offer	11	33%
Location not convenient	8	24%
No need to use the library or its services	8	24%
Other	3	9%
Don't know how to get information from the library (or difficult)	3	9%
Total	33	99%*

<sup>\*</sup>Note: Does not equal 100 percent due to rounding.

# Examples of comments include:

- I am not certain what resources the MnDOT library offers that I cannot find elsewhere. That is, while I'm sure it does offer services and information that are relevant, I am unaware of what additional value it has for my position/needs... it looks like the next question addresses my own lack of awareness.
- I do not know what the library is or if it has anything related to my work.
- I go to online A-Z and I can search but there is poor or unclear info on how to get a card number or check items out.

# Nonuser awareness of MnDOT Library services and space

Figure 9 illustrates nonusers' awareness and use of library services. For each of the services, at least half of the nonusers were not aware of the service, a few people had used the service, and the rest were aware of the service but had not used it.

Figure 9: Nonuser awareness of MnDOT Library services

- I have used this service.
- I am aware MnDOT Library offers this service, but I have not used it.
- I was not aware MnDOT Library offers this service.

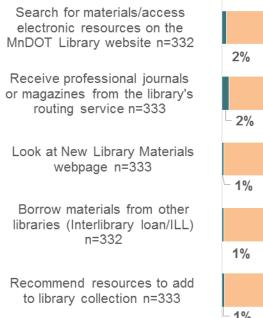




Figure 10 illustrates nonusers' awareness and use of library space. Respondents were less aware of the availability of library space than they were of library services. For example, three-quarters of respondents were not aware of library space for interview preparation, special events, or conference rooms. Of those who were aware of library space, slightly more respondents used library space than used library services.

Figure 10: Nonuser awareness of MnDOT Library space

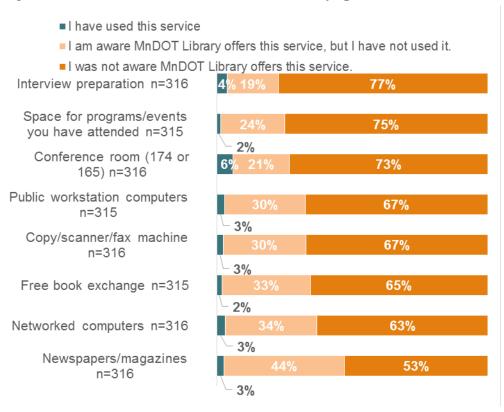


Figure 11 illustrates that respondents identified as Millennials were slightly less aware of the library than respondents in other generations.

Figure 11: Respondents that said they were not aware of library services by generation

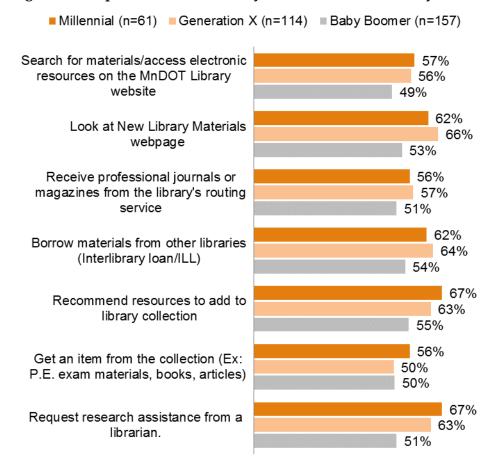


Figure 12 illustrates that respondents who had worked for MnDOT less than five years or 10 to 15 years more often reported they were not aware of MnDOT Library services.

Figure 12: Respondents that said they were not aware of library services by years of service

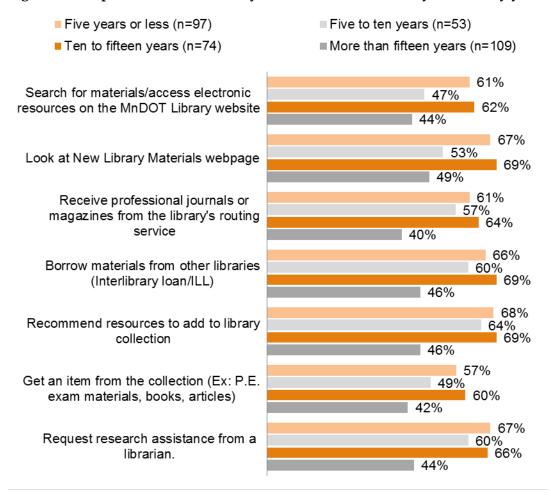


Figure 13 illustrates that, rather than Millennials, respondents from Generation X were the least likely to be aware of MnDOT Library space. There were no trends for library space awareness by years of service.

### Millennial (n=56) | Generation X (n=108) | Baby Boomer (n=151) |

| Copy/scanner/fax machine | 64% | 75% | 62% | 73% | 82% | 67% | 82% | 85% | 68% | 85% | 85% | 68% | 71% | 60% | 71% | 60% | 71% | 60% | 60% | 71% | 60% | 60% | 71% | 60% | 63% | 71% | 60% | 63% | 71% | 60% | 60% | 63% | 71% | 60% | 60% | 63% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60%

Figure 13: Respondents that said they were not aware of library space by generation

#### Requested services

Nonusers were asked to list any databases, subscriptions, and resources they would like the library to consider purchasing. Below are the responses (n=14).

- Digital subscriptions to periodicals about sustainable practices in all areas of life if the subscription can be accessed by everyone in the state. If I have to go to CO to view it, probably isn't happening.
- Access on my desktop with excellent search capabilities.
- *Digital is helpful, don't have to wait for the library to send a copy or worry about return deadlines.*
- PE [Professional Engineering] and FE [Fundamentals of Engineering] review materials.
- Audio books.
- MnDOT mechanics have a great need for repair and service manuals to be stored online and easy to search finding what they need. Metro Mechanics have a shared file system but it is not available to outstate mechanics it is easy to use and they do not get any extra items when they search only the manuals for what they are searching for lessening the possibility of retrieving the wrong information.
- Fire code, building code, electrical code. Any code or regulation book that is needed to properly run a facility.

- Project management and developing your plan and document and track. The best ways to do this.
- Being in real estate, I would be interested in real estate publications from the following; Appraisal Institute, IRWA [International Right of Way Association], tree valuation guides, etc.
- *I have adequate access to data and research online.*
- ASTM [American Society for Testing and Materials] Compass was an amazing subscription upgrade!
- Reference USA.
- Provide online training materials.
- Amazon Prime has a lot of rental and audio.

## Library space suggestions (users and nonusers)

Table 13 illustrates respondent suggestions for the use of MnDOT Library space. The most common suggestions were for discussion groups/presentations, open houses, and tours.

Table 13: Proposed activities for MnDOT Library (n=136, 161 comments)

Topic area	Number of comments	Percent of total comments	
Discussion groups, presentations on research, Employee Resource Group (ERG), book club	48	30%	
Open house or event	34	21%	
Tour of library/overview of resources available and how to use them	28	17%	
Not in metro area/CO; have not used library	26	16%	
Other	10	6%	
Training or continuing education	9	6%	
Nothing (keep as quiet space) or status quo	6	4%	
Total	161	100%	

#### **Examples of discussion groups/presentations**

Thirty percent of the responses were requests for the library to host discussion groups (book clubs, Employee Resource Group [ERG], brown bag lunch series), research presentations or webinars on technical topics or relevant history, and authors or speakers on transportation issues (autonomous cars, safety, etc.).

#### Respondent comments included:

- I'd like to see the library make more use of internet-based technologies to host expert Lync forums/chats, YouTube "Abstracts" for various research and technical topics with links to more in-depth information.
- I would like to plan some more Employee Resource Group events in the Library. It is a perfect spot for discussion panels for all employee.
- I liked the old Reading Corner events under Sorel. That's what brought me into the library and made me think more of the resources available.

- Brown bag roundtable conversations on timely topics.
- Discussions on the future of transportation in America: autonomous vehicles, crumbling infrastructure, congestion, etc.
- Some of the events like the ERG [Employee Resource Group] brown bags might be a nice complement to the Library offerings if the Library had a space of that size. Maybe the Library could partner with the Training Office and initiate some webinar sessions on various topics like diversity or leadership, etc.

#### **Examples of open houses/events**

Twenty-one percent of the responses were suggestions for the library to host open houses, events, or social/networking gatherings. Ideas such as hosting educational and cultural events, award celebrations, and meet-and-greets and displaying or showcasing photography, art pieces, and maps were shared by employees.

#### Respondent comments included:

- I appreciate that the library has hosted different events. I have not yet been able to attend, primarily because I do not work in the transportation building.
- Perhaps on a rotating basis host a Toastmasters meeting or another MnDOT connected activity that could benefit as much as the library from the added positive exposure. For a period of time display award winning art or photography, the Aeronautics annual poster contest winners for example.
- The library could borrow art pieces from the American Indian Movement library (on Franklin Ave. in Minneapolis) for and ERG event.

#### Examples of overview of library resources available

Seventeen percent of the comments were from employees who said they would like the library to host events, tours, and informational sessions to provide an overview of the library's service, data resources, and information so employees can learn what the library has to offer and how it could benefit them.

#### Respondent comments included:

- Possibly a quarterly live tour through the library of what is offered and how to navigate around the place.
- Host a scavenger hunt to let people see what is all available. It would be great if you could highlight areas in the library that are pertinent to each unit within every office of CO [Central Office]. Show us how you could help us do our jobs more efficiently with library resources....
- Demonstration of what is available and how to use it (tours, welcome parties).
- I had no idea activities or events are held in the library space. If I wanted to have an event, where would I find out about the options?

#### **Examples of training or continuing education classes**

Some employees would like to see the library host training or educational classes. Examples of the trainings mentioned include construction practices seminar, PE/FE (Professional Engineering/Fundamentals of Engineering) exam preparation class, and computer/software training.

#### Respondent comments included:

• I would like to see more trainings/brown bags/discussions on finding and using sources of data that are either publicly available or that MnDOT has subscription access to. Census data is the low hanging fruit,

but there are others. And as part of that, methods for examining the providence of data. i.e. having to use 3-year samples in some cases, where a 1-year sample would be valid in another due to population density.

Table 14 illustrates other respondent suggestions for MnDOT Library. The most common suggestions were space-related.

Table 14: Additional changes or improvements for MnDOT Library (n=111, 119 comments)

Topic area	Number of comments	Percent of total comments	
Space-related suggestions: conference room, quiet space, tables for small group work, work stations, etc.		24%	
Do not work in metro area/CO; have not used library to comment	18	15%	
No suggestions or keep "as is"	16	13%	
Equipment or furniture suggestions	11	9%	
Offer specific content/information	11	9%	
Other	10	8%	
Easier access, including digital/electronic	9	8%	
WIFI available to all employees (free)	8	7%	
Advertise resources available	8	7%	
Total	119	100%	

#### **Examples of space-related suggestions/comments**

- Tables set up to encourage small working group meetings
- More collaborative work space
- Add cubicle or hotel space options
- Create lounge area for reading
- There is a lot of unused space
- More quiet reading areas
- Larger conference rooms
- More conference rooms overall
- Offer off-site training classes in library or conference room
- Webinar/video conferencing equipped rooms

#### Respondent comments included:

- Make MnDOT Library TOTALLY digital. No need to have the physical space for physical resources. Convert existing library space to a "hoteling" space where state employees can come to have informal employee meetings, and can plug in and work remotely.
- I don't know very much about the facility space limitations, or if this is in the library's mission, but we really need a moderately sized computer lab here at CO. Setting up trainings at Shoreview is really

- onerous, especially if it's just a work team vs. a formal training that folks sign-up for. Such a space could be used for trainings led by reference librarians on using public sources of data.
- The Library should move to a research service and provided electronically. All information in the library could be moved to another place like U of M CTS [University of Minnesota Center for Transportation Studies] etc. and space used to better provide services by MnDOT. Space is tight throughout the central office and the library space seems to be used sparingly for actual library services.

#### **Examples of equipment or furniture**

Most of these comments suggested that the library replace the chairs in the conference rooms for better and more comfortable chairs. A few people said they would like specific equipment available in the library: projector and smartboard in conference rooms, and more Kindles to check out.

• Not sure; I want to use it more often and intend to. Perhaps others will too, as a result of this survey reminding us of the great resource available. In that vein, I suggest plenty of comfortable "reading chairs" if not present already. This would be a great space to get away and do some work-related reading that's hard to accomplish in office or where Kindle, periodicals, etc. can be useful. Appreciate this survey!

# Barriers or challenges to accessing MnDOT Library services

Table 15 illustrates barriers or challenges to accessing MnDOT Library. The most common barriers or challenges were location, lack of awareness, and time.

Table 15: Barriers or challenges to accessing MnDOT Library (n=245, 255 comments)

Topic area	Number of comments	Percent of total comments	
Location	Location 78		
No barriers	68	27%	
Lack awareness of services/resources available at library	37	15%	
No time	31	12%	
Other	20	8%	
Never used library/no need for it	8	3%	
Online search function	7	3%	
Parking	6	2%	
Total	255	101%	

<sup>\*</sup>Does not equal 100 due to rounding.

#### **Examples of location**

Nearly one-third (31 percent) of the responses were from employees who do not work at Central Office (CO), so the location of the library is the biggest barrier to accessing its services. Some employees noted that inter-office mail is slow or inconvenient as well—especially when materials are due shortly after receiving them.

#### Respondent comments include:

- It is located at CO so the lack of parking, accessibility, etc. is a major issue. IF there were satellite library locations in other buildings (Metro for example) maybe it would make more sense to use this service and/or the items the Library has to offer.
- They are in CO and sometimes interoffice mail service to my work area is a challenge.
- I am part of CO but work in Oakdale so there would have to be a great need and benefit for me to physically go to the library.

#### **Examples of no barriers**

Over one-fourth (27 percent) of the responses were from employees who said there were no barriers to accessing the library.

#### **Examples of lack awareness of services/resources**

Several employees said the main challenge or barrier they have experienced in accessing the MnDOT Library is simply not knowing about the library or the services/resources it offers.

#### Respondent comments include:

- I actually forgot about the MnDOT Library since I do not work in the Central Office. Advertising their services might turn on a "light bulb" to those that are not in the building to use their services more frequently. I'm sure they have a lot of information that I could make use of.
- Did not know you had all these options!
- As a newer employee (~11months) no one has explained to me what types of services the library offers. It would be beneficial to have all new MnDOT employees do a 15-min info session conducted by Library Services.
- As a temporary employee over the summer I did not know there is a MnDOT Library. I might have accessed articles and information online pertinent to my position and interests if I had known.

#### **Examples of no time**

Many people said the biggest barrier to them accessing the library is the lack of time—either to get to the library or do research that takes more time than a quick internet search.

#### Respondent comments include:

- Time to allocate towards more research. Job duties require more time at desk.
- I think my biggest barrier is not having enough time to digest the information that I know the Library can provide. If I can't find an answer in a few minutes on the internet, I have to move on without the information.
- *Just taking time out of the day to get there, parking is a nightmare at CO, just not convenient enough.*
- Just not enough hours to go in and look at information. Need to do project work and we don't have enough resources that we have extra time available.
- I'm way over my head in responsibilities and just can't find time to use the resources!

#### **Example of online search function**

A few employees mentioned that the online library catalog does not work very well or they are not familiar with how to use the online catalog, and there is generally limited access to locate materials online.

#### Respondent comments include:

- I don't know how to get into the catalog of materials to search for documents myself; still not really familiar with how best to utilize the collections or what is in all of them.
- ... Even if I think I have the correct wording the search engine cannot seem to find the library resources.
- ...It is far harder to navigate the electronic copy and find articles of interest, to the point that I am ready to quit trying.

#### **Examples of other**

The comments in this category were mentioned only once or twice, or were not clear. Below are a few selected quotes regarding research timeliness, library hours, and the checkout timeframe.

#### Respondent comments include:

- It would be nice if we could borrow the routed professional journals, magazines, etc. for a longer period of time. I mostly don't read them because of the short turn around period.
- It would be nice if research could be conducted quicker than it currently is done, for rank-and-file employees.
- Work hours sometimes prevent me from visiting before/after my shift starts to drop items off or request assistance in person.

## **Book format preferences**

Over half of respondents (57 percent) said they prefer print books, while one-third (33 percent) said they preferred e-books. Only eight percent said they preferred audio books, and two percent preferred other formats. Other formats included "all of the above," "internet access," "both print books and online depending on information," and "none."

While over half of respondents in all generations preferred print books, 41 percent of Millennials said they prefer e-books. This figure was 36 percent and 29 percent for Generation X and Baby Boomers, respectively.

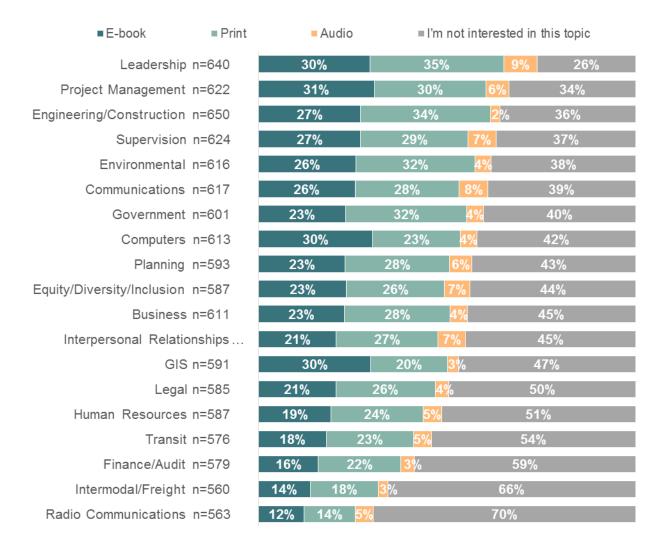
Similarly, 46 percent of paraprofessionals preferred e-books, while about one-fifth of service maintenance skilled craft staff preferred audio books (18 percent and 21 percent, respectively).

In general, Twin Cities respondents said they prefer print books to e-books (60 percent versus 46 percent), while Greater Minnesota respondents collectively preferred e-books to print books (37 percent versus 32 percent).

Figure 14 illustrates common book topics and respondents' preferred format (e-book, print, or audio). Topics of the most interest to respondents included engineering/construction, leadership, project

management, supervision, and communications. In most cases, print was the preferred format, with a large minority preferring e-books. Respondents preferred e-books for computers and GIS and narrowly for project management.

Figure 14: Preferred book topic by format



Overall, Baby Boomers responded with "I'm not interested in this topic" more often than any other group.

#### Other book topics

Respondents were also asked to suggest topics of interest that were not already listed.<sup>6</sup> Many of them fell into already existing categories.

Table 16 illustrates the suggested topics that corresponded with existing categories.

Table 16: Specific suggestions within topic areas (n=39)

Topic area Suggested topic **Asset Management** Current trends in business **Business** Federal & State Contract Program **Government Purchasing** Marketing Communication Broadband public safety communications **Building utilties** Concrete repair **Electrical Construction** Engineer/Construction Engineering Geology and Transportation **Engineering Research** Geotechnical Engineering Horticulture/Landscape Hydraulics Innovative Materials Engineering/construction International engineering/construction practices (especially UK and EU) Maintenance and Preservation of Roadways/Airport Pavements Materials engineering Networking: routers, switches, building and troubleshooting networks. Pavement design Structural Engineering Structures/Bridge Design Traffic Signal Systems Air Quality Environmental Climate Equity/diversity/inclusion Civil Rights Finance/audit Swift and finances Agency history (all state agencies) and Government how they interact throughout history and present Conflict Resolution Interpersonal relationships The complex issues between women and

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men in the workplace.

<sup>&</sup>lt;sup>6</sup> For a full list of suggested book topics, see Appendix C.

Topic area	Suggested topic
Legal	Legal descriptions
Legal	<ul> <li>Legal Research and Writing</li> </ul>
	<ul> <li>Park and Recreation planning</li> </ul>
	<ul> <li>Parking as part of the transportation</li> </ul>
Planning	system
	<ul> <li>Transportation planning</li> </ul>
	Zoning

Table 17 illustrates the remaining suggested topics, which fell into one of eleven categories.

Table 17: Other topics suggested by respondents

Other topics	Number of times suggested
Aeronautics/aviation	5
Architecture	2
Economic	5
Employee resources	8
Equipment	3
IT/software	7
Miscellaneous	18
Other (listed below)	44
Other commuting (bikes, pedestrian, autonomous vehicles)	9
Other math/science (statistics, chemistry, physics, social science)	16
Rules/standards	5
Transportation history and trends	10

<sup>&</sup>quot;Miscellaneous" refers to suggestions that did not seem directly related to MnDOT work, such as fiction, comics, crimes, health, music, outdoor recreation, photography, quality of life, and sports.

### **Digitized materials**

Figure 15 illustrates respondents' preferred formats for specific materials. Overall, photos and historical materials were the most important to digitize. Generally, respondents from Greater Minnesota rated the importance of digitized materials higher than respondents from the Twin Cities. Preference for digitized materials was highest among Millennials, followed by Generation X and then Baby Boomers.

Figure 15: Importance of digitized formats

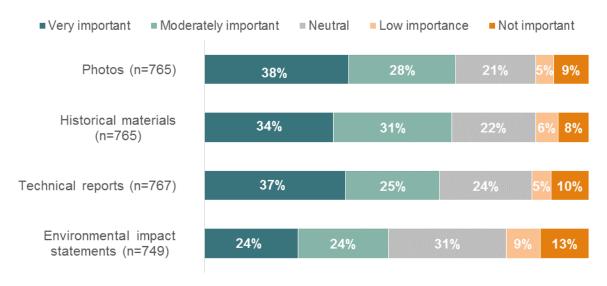


Table 18 illustrates other materials respondents suggested the library digitize. Generally, respondents requested a broad spectrum of materials digitized.

Table 18: Other materials to digitize (n=58, 58 comments)

Topic area	Number of comments	Percent of total comments
All materials/documents	10	17%
Specific content/other	10	17%
Books/manuals/journals/magazines	9	16%
Maps and photos	6	10%
Standards/specifications	6	10%
Reports/plans	5	9%
Legal documents/contracts	Legal documents/contracts 4	
None	4	7%
Test materials	2	3%
Project documents	2	3%
Total	58	99%*

<sup>\*</sup>Note: Does not equal 100 percent due to rounding.

#### **Examples of all materials comments (n=10)**

- All. Some employees and members of the public can only read materials that are in digital format.
- Everything, otherwise how can I access it from my desktop, or through Web-portal?
- Anything we can have in digital format is preferred.
- I don't know. Maybe, obviously all of it.
- It would be wonderful if all materials were digitized.

- Digital everything!
- Any other materials simply because of the convenience of a digital format.
- Any information in digital format is useful to the right person.
- Access to any document in an electronic format from my desktop is much more efficient than hardcopy.
- Nothing specific, but the flexibility of digital documents makes life easier.

#### Examples of specific topic/content or other comments (n=10)

- Field-ops.
- Engineering resources.
- Anything having to do with civil engineering.
- Engineering/construction.
- Navigating government bureaucracy fed level.
- Land surveying material.
- Historical.
- Programmatic outcomes.
- Weather.
- It's nice to have access to both digital format is nice if it is searchable, but I prefer print.

#### Examples of books/manuals/journals/magazines comments (n=9)

- Research or review books.
- MnDOT LRFD [Low Resistance Factor Design] Bridge Design Manual.
- Manuals/Journals.
- Journals.
- *Articles, books, journals, magazines.*
- *American Concrete Institute publications.*
- Local newspapers, magazines, books of any topics that could be checked out online.
- News interviews panel discussions and articles in DVD/audio format.
- ISO.

#### Examples of maps/photos comments (n=6)

- Maps.
- *Aerial photos.*
- Project maps.
- Right-of-Way maps, airport runway protection zones.
- Maps/Surveys.
- Mapping.

#### Examples of standards/specifications comments (n=6)

- ASTM, ANSI [American National Standards Institute] standards.
- Standards.
- AASHTO guides.
- ASTM.

- *Standards (ASTM, etc.).*
- Specifications.

#### Examples of reports and plans comments (n=5)

- EIS [Environmental Impact Statement] Reports.
- Research Reports.
- Reports to regulatory bodies of MnDOT such as the Legislature, MN Executive, Federal Agencies.
- Standard plans.
- Plans.

#### Examples of legal documents /contracts comments (n=4)

- Legal documents.
- Construction Contracts.
- State Law/legal information.
- Access to legal articles and resources with search capability.

#### **Examples of test materials comments (n=2)**

- It would be nice to have an audio version of PE Exam related material I could listen to on my commute.
- Test methods.

#### Examples of project documents comments (n=2)

- Easily downloadable and useable project/communications/management templates.
- Easy access to current MnDOT project updates.

#### Communication

#### Online videos

Overall, 53 percent of respondents would find online videos about how to use a library service useful, with another 28 percent saying "maybe." Groups that were most interested included skilled craft (77 percent) and service maintenance staff (61 percent), operations staff (57 percent), and respondents in Greater Minnesota (57 percent). Among the least interested were Baby Boomers (49 percent) and officials and administrators (28 percent).

Those who responded "maybe" were asked under what circumstances they would find videos useful (n=24). Their responses fell into the categories of introductory information, complex search tasks or processes/accessing databases/new program or software, none needed/circumstances uncertain, communicating, and as needed.

#### Examples of introductory information/If unable to do task on own (n=9)

- If I was unable to figure a request out on my own.
- When I don't know how to do something and need help.
- If I did need the library it would help me a lot to begin.
- When I'm not sure that items or services are available or after not having used the library network in ages.
- I have never used an online library. If it is cumbersome to use, I might appreciate an online video to unstumble.
- *Maybe when I have a common question.*
- *New employee orientation.*
- How to use or navigate websites.
- Instructional videos should be available on the library home page.

## Examples of complex search tasks or processes/accessing databases /new program or software (n =8)

- Complex search tasks sounds right.
- If search criteria entry is non-traditional or not intuitive.
- When it's a more complicated process or something people don't use much.
- For databases, would depend on how complicated the database search engine was. Usually can figure it out, but sometimes a how-to or tips would be helpful.
- If I need to access a particular database for my job. Currently, I do not have such a need.
- Any media that I was not familiar with.
- *New software or FAQ / tips and tricks.*
- If it was a new program I needed to learn.

#### Examples of none needed/or under certain circumstances (n=3)

- None. Just provide a link to good, brief, written instructions. A library user should be able to read a little.
- Only if the videos are embedded on the same page, too many places link to outside sites and it's not worth the time. Either that or put GIF style quick videos showing the major steps involved.
- Usually are not helpful unless there is step-by-step written material to go with it. E.G. if it's a 4+ step process, I probably will not retain the steps in order by watching a video. With that said the visual aid is nice to have, just not as a stand-alone product.

#### **Examples of communicating (n=2)**

- *Policy updates.*
- *New ways of communication.*

Table 19 illustrates topics respondents suggested for brief online videos. Over two-thirds of respondents requested an overview of library services

Table 19: Suggested topics for online videos (n=117, 120 comments)

Topic area	comments	comments
Overview of library, its services and how to access them		68%
Specific content / topics	26	22%
How To: conduct research studies, obtain funding, etc.	13	11%
Total	120	101%*

<sup>\*</sup>Note: Does not equal 100 percent due to rounding.

#### **Examples of overview of library and services (basics)**

- *Introduction to the library and website.*
- Virtual tour of library.
- *Purpose of the library; why it is important.*
- Content and databases available (new content, too).
- Examples of projects the library has assisted with.
- *Services offered (at CO and other locations).*
- Types of research the library can conduct (definition).
- How the library can help employees located in district office.
- Where to park.
- List of resources useful for designers, engineers, etc.
- Legal use of copyrighted material (i.e., photos, video).
- Periodical checkout/rotation program.
- Lists of what resources the state has available for public use. For example, contractors need to get DBE/TGB/WE/VET [Disadvantaged Business Enterprise/Targeted Group Business] information. What newspaper are available and how do we access? Lists of available publications.
- How to:
  - Set up an account for the first time.
  - o Request new materials, services, and data (and is there a charge?).
  - o Navigate and search database for articles, books, reports.
  - o Check out books, periodicals, publications.
  - o Use library online.
  - Access information from remote locations/Greater Minnesota districts.
  - o Access e-books, audio books, and digital resources.
  - o Use interlibrary loan (ILL).
  - o Rent materials (e.g., PE study materials).

#### Examples of how to access and/or research specific content

- Research when funding was allocated for a projects, and where those projects are located.
- Tell which journals, newsletters, briefs are worth my time to read through...maybe some sort of rating system from library staff?
- Research techniques, both using librarians and self-directed using online databases.
- Search complex topics where the key words are not quite known (the stupid phase).
- Search for ASTM references.
- Best way to find out research results for new engineering products in soils identification and soil stabilization.
- Conduct transportation research searches.
- How to get to TRB [Transportation Research Board], AASHTO, or other national publications quickly and easily.
- How to access AASHTO standards (specifically the bridge manual) online.
- How to use the ASTM and AASHTO websites.
- The research project process and request for funding.
- Locating and using historical archives.
- Basic computer training.

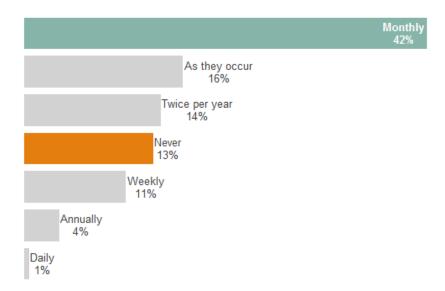
#### Specific content and topics mentioned include (no specifics given)

- Road and traffic
- Cultural competence
- GIS
- Materials testing
- Leadership material
- Electrical
- Building codes
- Human Resources
- Legal research resources
- Engineering and construction
- Archived photos and engineering plans
- MnROAD Operations and cell/study performance and findings
- Project management, leadership, supervisory duties
- Traffic signal timing and safety standards
- Classes on diversity
- Surveys
- Any information to learn more about MnDOT
- Workplace safety; safety topics
- Transportation planning topics
- Historical materials
- PE exam resources

#### **Preferred communication**

Figure 16 illustrates that most respondents would prefer monthly communication from MnDOT Library.

Figure 16: How often respondents would like communication from MnDOT Library (n=799)

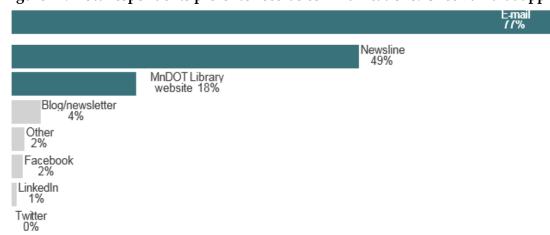


A few groups had a higher percentage of respondents indicate they never want updates, including:

- State Aid Division (29 percent)
- Skilled Craft (20 percent)
- Technicians (20 percent)
- Respondents in Greater Minnesota (18 percent)

Figure 17 illustrates that the majority of respondents prefer communication from MnDOT Library via email, followed by Newsline.

Figure 17: How respondents prefer to receive communications. Check all that apply (n=706)



### **MnDOT Library future**

Table 20 illustrates future needs and trends respondents identified in their areas of expertise. Many of them identified technology, followed by information specific to their topic.

Table 20: Future needs and trends, themes (n=146, 157 comments)

Topic area	Number of comments	Percent of total comments	
Technology; access to online or digital materials	45		
Topic-specific information	41	26%	
None, N/A, I don't know	21	13%	
MnDOT operations and processes	16	10%	
Access to standards, regulations and permitting information 8		5%	
Other	26	17%	
Total	157	100%	

#### Examples of comments related to technology or online/digital materials

- LiDAR imagery; drone usage for imagery
- Overall, materials moving online or to digital format
  - As more publications are offered digitally, having these items supported from a financial and assistance standpoint will be important as traditional means may become unavailable.
- Implementation of technological solutions
- Resources and apps available on Smartphones

#### **Examples of frequently mentioned topic-specific information**

- Driverless cars/vehicles
- GIS interactive mapping
- Drones
- Innovative designs and new materials and techniques (examples: for bridges, historic restoration, construction material enhancements, bicycle and pedestrian design)
- Impacts of climate change

#### **Examples of comments related to MnDOT operations and processes**

- More utilization of SWIFT for financial reports and analysis
- Diversity and inclusion in purchasing
- More community engagement
- Financial reporting
- Improved planning and scoping processes on large regional or statewide basis for facilities

• Digital age for procurement

#### Other findings

- Two-thirds (67 percent) of the "I don't know, N/A, or none" comments were provided by Baby Boomers
- All comments related to government regulations and standards were provided by Baby Boomers.
- Trends in the "other" category were mentioned by six or fewer employees and related to:
  - Workforce
  - o Communication
  - Education and training
  - o Diversity, equity, and inclusion

Table 21 illustrates how they would like to see the MnDOT Library in five years. Generally, respondents want to see the library as a resource that exists for and is used by everyone. The top five rows of Table 21 account for nearly 60 percent of comments.

Table 21: Respondent five-year vision for MnDOT Library, themes (n=217, 246 comments)

Topic area	Number of comments	Percent of total comments	
Accessible to all digitally, online, and electronically	47	19%	
A valuable resource that people go to for information	36	15%	
Make sure library is still in existence	25	10%	
Utilized more	18	7%	
More well-known/advertised more	17	7%	
Offering specific content (examples provided below)	16	7%	
Offering a specific service or providing specific training	14	6%	
Have specific updated technology available	13	5%	
Space be used innovatively for	11	4%	
Bigger and better	9	4%	
In more locations (districts)	7	3%	
Still offering print collection	5	2%	
Other	28	11%	
Total	246	100%	

#### Examples of comments related to access digitally, online, or electronically

Nearly 20 percent of respondents provided comments related to wanting the MnDOT Library resources to be accessible online, electronically, and/or digitally. Some people would also like the library resources available to the public. Nonusers were slightly more likely to say this than users (24 percent

of comments compared to 18 percent, respectively). Additionally, 29 percent of comments from Millennials were related to this theme, while 24 percent of comments from Baby Boomers/Traditionalists and 20 percent of comments from Generation X were part of this theme. Comments include:

- Have digital access to resources similar to college systems today.
- Given the respect and acknowledgment they [MnDOT Library] deserve as a truly valuable asset to MnDOT and thus to the State of Minnesota -more online sources of materials and info should be available throughout the state to all MnDOT people through a MnDOT cloud system.
- Be a more active hub for online accessibility and use of electronic information of various format and content types.
- Expand its digital library.
- More easily accessible from anywhere with different devices.
- Be completely electronically accessible.

#### Comments related to "a valuable resource that people go to for information"

The comments in this theme were provided by 15 percent of the respondents. Respondents said they either want the library to *continue* to be a valuable go-to resource that employees use for research help and to get information to do their work, or to become a useful resource for their work. This type of comment was provided fairly equally among generation groups and users/nonusers of the library with a range of 13 percent to 17 percent of the responses in this theme for the various groups. Comments include:

- Continue to be a resource for technical information, historic information/project reports, and also offer the unique setting for research.
- Be the first stop in my search for the information that I need to do my job.
- Being used more as a resource by its staff and others.
- Be a place that is used to meet everyone's needs in terms of digital content, printed materials, historical resources, and a meeting place for events.
- Become a very well respected source of information for the public.
- As a place where people frequently used to find information and seek for answers towards research.

#### Some employees want to make sure the library still exists in five years

Ten percent of the total comments were from employees stating they wanted the library to still exist in five years. Rather than other comments that most often assumed MnDOT Library would continue to be a resource, these respondents expressed that their vision is to ensure the library is a resource in five years.

Baby Boomers/Traditionalists and respondents from Generation X were more likely to provide this comment (17 percent of the comments Baby Boomers provided and 13 percent of comments from Generation X respondents were in this theme as opposed to only four percent of Millennials' comments.) More library users (23 people) said they would like the library to still exist in five years than nonusers (two people).

Another common theme of responses were from employees who mentioned they wanted the library to be more utilized in five years than it is now—by employees and the general public. Examples of comments include:

- As a highly utilized space. What that means can vary by perspective, but I expect that if it's to be highly utilized, its function and purpose would change significantly from what it is today.
- Used more frequently by the public so that we could use this to recruit for employment opportunities.
- Be more widely advertised and utilized by MnDOT employees.

A higher percentage of nonusers' comments related to employees wanting the library more advertised and more well-known (14 percent) compared to the only five percent of the users' comments.

## Specific content that respondents said they would like to see the MnDOT Library provide for employees and the public

- Have standardized specifications for our buildings (truck stations) and standardized blue prints for each size truck station we build.
- Have traffic safety related materials, traffic volumes, traffic-related environmental information, and long-range plans available online to the general public.
- Carry more information regarding to Engineering Geology for transportation.
- Have more information on HR related information, human capital, market share, business trends, employment trends.
- Keep pace with trending information on policy, national and state, that may impact transportation funding, planning and hiring.

Table 22 illustrates all other comments from respondents. Most of these comments can be generalized as positive or encouraging comments about MnDOT Library and its staff.

Table 22: Other comments (n=140)

Topic area	comments	comments
General positive comments	General positive comments 43	
Helpful and friendly staff	40	25%
Library is valuable resource/service	27	17%
Not familiar with library/have not used it	24	15%
Suggestions and Other	17	11%
Need to advertise and reach out more	10	6%
Total	161	101%*

<sup>\*</sup>Does not equal 100 due to rounding.

#### **Examples of positive comments**

Respondents had several positive things to say about the library in general. They either thanked the library and staff for all of their assistance, shared appreciative comments about simply having a library available at MnDOT, or said they plan to use the library more in the future. Examples of comments include:

- They are doing great work; don't try to fix what is not broken.
- Beautiful space, great service. More people should know about the research assistance available.
- I really appreciate that fact that we now have access to the ASTM standards electronically. I reference those every couple weeks. Having electronic rather than just paper makes searching the documents for the information that I need so much easier.
- Wish I could use it more, but in my day-to-day it is not part of my job.
- Thanks for all of your assistance! When I have looked at other employment opportunities, it is one consideration that I factor in I wouldn't have you any longer to help me!! P.S. (I won't be leaving!)
- Thanks for the work you do!
- Keep up the good work. I plan to use your services more often in the future.

#### **Examples of helpful and friendly staff**

One-quarter (25 percent) of the comments were very complimentary to library staff. Examples include:

- The staff is wonderful and very helpful. Thank you for all that you do.
- The library and the library staff are invaluable when the need arises to review a reference you don't have but need to finish a project.
- The staff is allows willing to help and they are very fast in their service.
- Great helpful staff, it would be a disservice to the transportation community state wide if this resource was abandoned.
- Staff has always been friendly, helpful and knowledgeable.

#### **Examples of valuable resource**

Seventeen percent of the comments referred to the library as a valuable resource for employees and the public. Examples include:

- *I don't use the library often, but it is a valuable resource.*
- *I think it is a great resource and can't wait to start utilizing them.*
- It is a great service for the employees and the general public. I personally like the opportunity it provides for one to have access to academic and professional research.
- I believe this is a valuable resource and should continue its availability as long as possible.

#### **Examples of suggestions and other**

Each of the suggestions in this section were comments made by one or two people. Suggestions include:

- Make the library more accessible from anywhere and while using different devices.
- *Give the library a facelift to make it more inviting.*

- Consider potential of VR technologies and how they might impact how individuals aquire and process information in the future.
- Show how the library is making a difference in a MnDOT project, product or service development.
- Provide free WI-FI.
- In these times of funding crises, I think that MnDOT needs to be very conscious of the types of goods and services that it offers. If this survey shows that many people do, in fact, utilize the library and its services (other than as a conference room/prep space), then that's great. However, if we are funding a library and staff that are underutilized, I sincerely hope that Senior Leadership will consider other avenues that will be more in keeping with vision and mission of the agency.
- If I could download books/materials to my Kindle or another tablet, that would be fabulous. If I had to pay a nominal fee to "own" a copy on my own Kindle or tablet, so I would not have to worry about returning the materials or seeing them expire, and could use the features of my Kindle and/or tablet to take notes, highlight etc, that would be even more fabulous!!

## Recommendations

MAD's initial scope for this project included survey development, administration, and analysis, with the expectation that MnDOT Library's strategic planning process would include identification of implications and next steps. MAD reviewed findings with MnDOT Library, and MnDOT Library requested that MAD provide recommendations based on survey results. This survey of a cross-section of MnDOT employees is one important element of MnDOT Library's environmental scan, and it provides useful perspectives to inform decisions about MnDOT Library's strategic direction.

Based on MAD's analysis of survey results, MnDOT should consider the following options as part of their strategic planning discussions:

- Develop a plan for MnDOT Library's marketing efforts, using respondent feedback on
  awareness and communications. Survey findings indicate that monthly communication via email may be an effective way to reach current and potential customers. MnDOT Library can
  explore how to incorporate suggested communication in addition to or in place of current
  efforts. MnDOT Library may use survey findings to develop strategies on tailoring messages to
  specific audiences, such as operations staff or people who work in skilled craft or service
  maintenance positions, who were more receptive to the idea of online videos. MnDOT Library
  could also develop performance measures to determine and prioritize the most effective
  strategies.
- Develop a plan for digitizing materials. Most employees expressed interest in digitized materials, and many open-ended responses included a request for digitized materials. Digitizing MnDOT Library materials is a long, complex task that will require thoughtful planning, identifying materials that employees most want digitized, and analysis of barriers. A relatively straightforward first step would be for MnDOT Library to prioritize materials with the fewest barriers, such as those that do not have copyright requirements or require relatively little time to develop and those that are already available in digital formats. MnDOT Library staff are likely familiar with several, if not all, barriers to digitization and should work with MnDOT senior leadership to discuss barriers, such as costs, and develop solutions where possible. For materials where digitization is unlikely or impossible, MnDOT Library should communicate to customers why the material is not available in a digital format and work with them to develop alternative options, such as using inter-library loan. MnDOT Library should incorporate updates about the plan and timeline for digitizing materials in its regular communications with customers and potential customers.
- Prior to making space-related decisions, articulate desired outcomes and consider a spectrum of options for use and feasibility. Respondents' suggestions for library space varied widely. MnDOT senior leadership, MnDOT Library, and possibly other stakeholders should consider many factors in making recommendations or decisions related to library space. A short list of factors to consider includes perspectives of current and potential customers, costs, how to best accommodate agency and customer needs, sustainability or flexibility of modifications, and overall demand trends for MnDOT Library services and space. MnDOT senior leadership,

MnDOT Library, and possibly other stakeholders should articulate desired outcomes for MnDOT Library and the space it occupies. Those involved should use suggestions gathered during the environmental scan from MnDOT Library users and nonusers to further develop ideas for MnDOT Library and its space.

## **Appendix A: Survey Tool**

### MnDOT Library Strategic Planning Survey

Management Analysis & Development (MAD), a division of Minnesota Management and Budget, is conducting a survey on behalf of the Minnesota Department of Transportation (MnDOT) Library on existing and future products and services to inform the library's strategic planning effort. We are asking for feedback from all MnDOT employees to help the library prioritize its efforts plan for the next five years.

You are not required to take this survey; there are no consequences to providing or not providing information, except that it affects the information MnDOT Library receives for it's strategic planning process.

If you cannot complete the survey at one time, you can exit the survey (without submitting your responses) and return to where you paused to finish. If you'd prefer a text based survey, you can use the link at the top of this page.

Any private information included in this survey is protected under the Minnesota Data Practices Act (Minnesota Statutes §13.64). To save you time in answering questions, MnDOT Human Resources has provided MAD with information on your division, location (central or district office), classification, age, and years of service at MnDOT to help us understand how perspectives may vary among different groups of people. MAD staff, and others authorized by law,\* will have access to your individual responses and aggregate them before sharing the information with MnDOT Library staff in the form of a report summary.

\*Data, by law, may be shared upon court order or provided to the state or legislative auditor, upon request, according to the Minnesota Department of Administration Information Policy Analysis Division.

If you have technical problems accessing the survey, please contact Lisa Anderson at 651-259-3824 or Lisa. Anderson@state.mn.us.

Thank you for your time!

To begin the survey, click the "Next" button below.

## MnDOT Library Services

Examples of MnDOT Library services include, but are not limited to: use of print or digital materials, librarian assistance, Wi-Fi, library space/conference rooms, Inter Library Loan, or visiting MnDOT Library webpage.

Ove	erall, which of the following best describes how often you use MnDOT Library resources?
	Frequently (at least weekly)
	Regularly (approximately 1-2 times a month)
	Somewhat Regularly (approximately every 1-2 months)
	Somewhat Rarely (approximately 3-5 times per year)
	Rarely (approximately 1-2 times a year or less)
	Never

For each of the library's services listed below, please identify how often you use the service and how important it is to your work.

		How often	do you use the f	ollowing service	es?
	Frequently	Occasionally	Rarely	Never	
Contact the library with a research question					
Contact the library to get an item from the collection (Ex: P.E. exam materials, books, articles)					
Recommend resources to add to library collection					
Borrow materials from other libraries (Interlibrary loan/ILL)					
Receive professional journals or magazines from the library's routing service					
Look at New Library Materials webpage					
Search for materials/access electronic resources on the MnDOT Library website					
Please rate the	e importance of		your work.		
	Very important	Moderately important	Low importance	Not important	
Importance of contacting library with a research question					
Importance of contacting the library to get an item from the collection					
Importance of recommending resources to add to the library					
Importance of borrowing materials from other libraries					
Importance of receiving professional journals or magazines from the library					
Importance of looking at New Library Materials Webage					
Importance of searching for materials/accessing electronic resources					
For those services you do not use, plea	ase explain why	you do not use	e them.		
The state of the s					

For each of the following MnDOT Library space-related services, please identify how often you use the service and how important it is to your work.

		How often of	do you use the fo	llowing servic	es?
	Frequently	Occasionally	Rarely	Never	
Networked computers					
Public workstation computers (not connected to the network)					
Newspapers/magazines					
Free book exchange					
Interview preparation					
Space for programs/events you have attended					
Conference room (174 or 165)					
Copy/scanner/fax machine					
Please rate th	ne importance (	of this service to y	our work.		
	High	Somewhat High	Somewhat Low	Low	
Importance of networked computers					
Importance of public workstation computers					
Importance of newspapers/magazines					
Importance of free book exchange					
Importance of interview preparation					
Importance of space for programs/events					
Importance of conference rooms					
Importance of copier/scanner/fax machine					

Which of the following represent reasons you have not used MnDOT Library's services? (Check all that
apply.)
I did not know the library existed
I do not know where the library is located
I have not had time to explore the library
I cannot access the MnDOT Library
I am not interested in MnDOT Library services
I get the information I need elsewhere
The MnDOT Libary does not offer services that are relevant to my needs.
Other
Please describe any barriers to accessing MnDOT Library
Please explain why you are not interested in MnDOT Library Services.
reads explain why you are not interested in mind of Elevary Convictor
Where do you get the information you need?
What, if any, additional services would be relevant to you?
what, if any, additional services would be relevant to you?
Please specify other reasons.

For each of the library's services listed below, please indicate your awareness of the service and whether you have used it.

	offers this service and have used it before.	offers this service, but I have not used it.	I was not aware MnDOT Library offers this service.
Request research assistance from a librarian.			
Get an item from the collection (Ex: P.E. exam materials, books, articles)			
Recommend resources to add to library collection			
Borrow materials from other libraries (Interlibrary loan/ILL)			
Receive professional journals or magazines from the library's routing service			
Look at New Library Materials webpage			
Search for materials/access electronic resources on the MnDOT Library website			
How could the library or its services			
Please list any databases, subscripti purchasing, including desired format	•		ary to consider
For each of the following MnDOT Lib space and whether you have used it		rvices, please indicate	
	offers this service, and have used it before	offers this service, but I have not used it.	I was not aware MnDOT Library offers this service.
Networked computers			
Public workstation computers (not connected to the network)			

Newspapers/magazines		
Free book exchange		
Interview preparation		

Space for programs/events you have attended			
Conference room (174 or 165)			
Copy/scanner/fax machine			
What activities or events, if any, would	you like to see hos	sted in the library spac	e?
Please list any additional changes or immeet your needs.	nprovements you v	vould suggest for the I	ibrary space to better
Please describe a way MnDOT Library h	nas added value to	your work.	
What, if any, barriers or challenges exis	st for you in access	sing MnDOT Library Se	rvices?

## Books

Overall, which book format do you pre	efer?			
E-books				
Print books				
Audio books				
Other				
Diago angoifu your professed book fo	rno ot			
Please specify your preferred book fo				
Please select the topics that you are	interested in for y	our work and y	our preferred	format.
				I'm not interested
	E-book	Print	Audio	in this topic
Business				
Communications				
Computers				
Engineering/Construction				
Environmental				
Equity/Diversity/Inclusion				
Finance/Audit				
GIS				
Government				
Human Resources				
Intermodal/Freight				
Interpersonal Relationships				
Leadership				
Legal				
Planning				
Project Management				
Radio Communications				
Supervision				
Transit	61			

Topic 1			
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Topic 3			
Please select your pre	ferred format for the topics yo		
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### **Digitizing Print Materials**

One key goal of MnDOT Library is to provide a more robust digital workspace for MnDOT employees. This includes continuing to digitize collections and make more resources available from your desktop. As a step in that direction, American Society for Testing and Materials (ASTM) and American Association of State Highway and Transportation Officials (AASHTO) standards became available online during August 2016.

How important is having the following	ng materials av	ailable in a	digital forma	t?	
		Moderately		Low	
	Very important	important	Neutral	importance	Not important
Technical reports					
Environmental impact statements					
Photos					
Historical materials					
Other					
Please specify what other materials	are important	to have in a	digital forma	at.	
Would brief online videos about how Videos would be recorded demonst  Yes  No  Maybe	w to use a libra	ry service or			
Under what circumstances would in	structional onli	ne videos be	e available?		
Please suggest any specific topics y	ou would like a	available as	a brief online	e video.	

HO	w often would you like to receive news/updates from the library?
	Daily
	Weekly
	Monthly
	Twice per year
	Annually
	As they occur
	Never
Hov	w do you prefer to receive news/updates from the library? (Check all that apply.)
	Newsline
	E-mail
$\vdash$	Twitter
T	Facebook
T	LinkedIn
T	Blog/newsletter
	MnDOT Library website
	Other
Ple	ase specify how you would prefer to receive news/updates.
To	what extent does your work require you to conduct research or seek outside information?
	Frequently (at least weekly)
H	Regularly (approximately 1-2 times a month)
H	Somewhat Regularly (approximately every 1-2 months)
H	Somewhat Rarely (approximately 3-5 times per year)
$\vdash$	Rarely (approximately 1-2 times a year or less)
$\vdash$	Never (I don't conduct research)

## Final Questions

What future information needs and trends do you see in happening in your area of expertise?				
Please finish the following sentence, "In five years, I would like to see the MnDOT Library"				
Is there anything else you would like to say about the MnDOT Library?				
If you would like to receive follow-up from the MnDOT Library, please include your question and preferred contact information in the space below.				
Note: The information you provide to in the space below will be shared verbatim with MnDOT Library along with your email address in the form of an automated email. MnDOT Library will not be able to view any other information you've provided before this point. If you do not wish to recieve follow-up from MnDOT Library, please leave the space below blank.				

## Thank you!

Thank you for participating in the survey. If you would like further information about MnDOT Library's current services, please visit MnDOT Library's website at www.mndot.gov/library or call us at 651-366-3791.

# Appendix B: Job Classifications by Category (EEO4 Function)

#### Office/Clerical

- Account Clerk
- Account Clerk Senior
- Admin Secretary Supv
- Central Svcs Admin Spec Inter
- Central Svcs Admin Spec Senior
- Customer Svcs Specialist
- Customer Svcs Specialist Int
- Customer Svcs Specialist Princ
- Customer Svcs Specialist Sr
- Electronic Publishing Coord
- Exec 2
- Information Officer 2
- Office & Admin Specialist
- Office & Admin Specialist Int
- Office & Admin Specialist Prin
- Office & Admin Specialist Sr
- Office Services Supervisor 1
- Office Services Supervisor 2
- Office Services Supervisor 3
- Office Specialist
- State Prog Admin Sr
- Student Worker Clerical
- Training & Development Spec 2
- Transp Materials Supv
- Transp Prog Specialist 1
- Transp Prog Specialist 2
- Transp Prog Specialist 3

#### Officials and Administrators

- Admin Mgmt Director 2
- Admin Mgmt Services Dir
- Admin Svcs Dir
- Agency Affirmative Action Mgr
- Asst Commr Transportation
- Civil Rights Director
- Commissioner-Transportation
- Deputy Commr Transportation
- Electronic Commun Asst Directo

- Engineer Administrative Mgt
- Engineer Princ Admin Transp
- Engineer Senior Administrative
- Exec Aide
- Financial Mgt Director
- Fiscal & Admin Serv Manager
- Human Resources Director 2
- Human Resources Director 3
- Human Resources Director 4
- Land Surveyor Admin Mgmt
- Land Surveyor Senior Admin
- Proj Manager
- Senior Admin Officer
- State Prog Admin Manager
- State Prog Admin Manager Prin
- State Prog Admin Manager Sr
- Training & Development Mgr 2
- Transp Asst Div Dir
- Transp Audit Director
- Transp Chief Admin Officer
- Transp Dir Comm & Media Rel
- Transp Division Engineer
- Transp Environmental Svcs Dir
- Transp Finance Mgmt Director
- Transp Finance Mgr
- Transp Gov & Comm Rel Dir
- Transp Metro Right of Way Mgr
- Transp Off CPPM Director
- Transp Operations Manager
- Transp Planning Dir
- Transp Prog Director
- Transp Prog Financial/Plng Dir
- Transp Support Svcs Dir

#### **Paraprofessionals**

- Human Resources Technician 1
- Human Resources Technician 2
- Library Technician
- Paralegal

- Student Worker Para Prof
- Student Worker Para Prof Sr

#### **Professionals**

- Accounting Director
- Accounting Officer
- Accounting Officer Inter
- Accounting Officer Principal
- Accounting Officer Senior
- Accounting Supervisor Princ
- Accounting Supervisor Senior
- Affirmative Action Off 3
- Agency Policy Specialist
- Architect 2
- Architectural Supervisor
- Attorney 1
- Attorney 3
- Auditor
- Auditor Principal
- Auditor Principal Supervisor
- Auditor Senior
- Auditor Senior Supervisor
- Aviation Representative
- Business Manager 1
- Buyer 1
- Buyer 2
- Chemist 2
- Chemist Supervisor 1
- Chemistry Laboratory Director
- Economic Policy Analyst
- Engineer 2 Graduate
- Engineer Administrative
- Engineer Princ
- Engineer Senior
- Engineer Senior Administrative
- Grants Specialist
- Human Resources Consultant 1
- Human Resources Consultant 2
- Human Resources Director 1
- Human Resources Specialist 1
- Human Resources Specialist 2
- Human Resources Specialist 3
- Human Resources Supervisor 2

- Human Resources Supervisor 3
- Human Resources Supervisor 4
- Hydrologist 1
- Hydrologist 2
- Hydrologist 3
- Hydrologist 4
- Industrial Hygienist 3
- Information Officer 2
- Information Officer 3
- Labor Relations Consultant 2
- Land Surveyor Admin Prof
- Land Surveyor In Training
- Land Surveyor Principal
- Land Surveyor Senior
- Landscape Architect Princ Supv
- Landscape Architect Senior
- Landscape Design Specialist
- Library/Info Res Serv Prog Dir
- Library/Info Res Serv Spec Sr
- Management Analyst 1
- Management Analyst 2
- Management Analyst 3
- Management Analyst Staff Spec
- Management Analyst Supv 3
- NR Forestry Program Coord
- NR Prog Coordinator
- Physical Plant Director
- Pilot
- Pilot Chief
- Planner
- Planner Intermediate
- Planner Principal State
- Planner Principal Transp
- Planner Senior State
- Planner Senior Trans
- Planning Dir State
- Planning Dir Transportation
- Planning Program Coord Transp
- Planning Supv Transportation
- Proj Analyst
- Proj Consultant Sr
- Proj Manager
- Proj Supervisor

- Radio Engineer 2
- Real Estate Associate
- Real Estate Representative
- Real Estate Representative Sr
- Real Estate Specialist
- Real Estate Specialist Supv
- Research Analysis Spec
- Research Analysis Spec Sr
- Research Analyst
- Research Analyst Intermediate
- Research Analyst Supervisor Sr
- Research Scientist 3
- Safety Administrator
- State Prog Admin
- State Prog Admin Coordinator
- State Prog Admin Director
- State Prog Admin Intermediate
- State Prog Admin Manager
- State Prog Admin Prin
- State Prog Admin Sr
- State Prog Admin Supervisor
- State Prog Admin Supervisor Sr
- State Prog Admin Supv Prin
- Traffic Mgmt Sys Integrator Sp
- Trainee-Graduate Engineer
- Training & Development Spec 1
- Training & Development Spec 2
- Training & Development Spec 3
- Training & Development Supv 2
- Transp Acquisition Specialist
- Transp Cultural Resource Supv
- Transp Data Coord Supv
- Transp Market Researcher
- Transp Operations Supv 2
- Transp Planning Dir
- Transp Prog Director
- Transp Prog Spec (Hazard Mtls)
- Transp Prog Specialist 1
- Transp Prog Specialist 2
- Transp Prog Specialist 3
- Transp Prog Specialist 4
- Transp Prog Supervisor
- Transp Prog Supervisor Sr

Transp Prog Team Leader

#### **Service Maintenance**

- Automobile Service Attendant
- Building Svcs Lead
- Delivery Van Driver
- General Maintenance Wrkr
- General Repair Worker
- Highway Helper
- Highway Helper Sr
- Highway Helper Supv
- Laborer General
- Laborer Trades & Equipment
- Plant Mntc Engineer Helper
- Reprographic Specialist
- Student Worker Custodial/Maint
- Transp Associate
- Transp Operations Supv 1
- Transp Operations Supv 2
- Transp Operations Supv 3
- Transp Operations Supv 4

#### **Skilled Craft**

- Building Maintenance Coord
- Building Maintenance Foreman
- Building Maintenance Lead Wrkr
- Building Utilities Mechanic
- Carpenter
- Electrician
- Electrician Lead
- Electrician Master Record
- Electrician Supervisor
- General Repair Worker
- Highway Signal Technician
- Plant Mntc Engineer
- Plumber Master In Charge
- Refrigeration Mechanic
- Traffic Maintenance Supt
- Welder

#### **Technicians**

- Accounting Technician
- Architectural Drafting Tech 2
- Architectural Drafting Tech 3

- Central Svcs Admin Spec
- Electronic Maintenance Supv
- Electronic Technician Senior
- Engineering Specialist
- Engineering Specialist Senior
- Graphic Arts Specialist
- Land Surveyor In Training
- Photographer
- Radio Engineer 1
- Radio Maintenance Supervisor
- Radio Technician 1

- Radio Technician 2
- Radio Technician 3
- Radio Tower Technician Senior
- State Prog Admin Tech Spec
- Structural Fabrication Insp
- Traffic Mgmt Sys Integrator
- Traffic Mgmt Sys Integrator Sr
- Trainee-Graduate Land Srvyr
- Transp Communications Operator
- Transp Materials Technician
- Transp Photogrammetric Tech Sp

# Appendix C: List of Suggested Book Topics

This is a comprehensive, verbatim list of book topics suggested by respondents.

- "IT for dummies" training.
- Aeronautics
- Agency history (all state agencies) and how they interact throughout history and present
- Air Quality
- Alternative health articles
- American Society of Safety Engineers
- Architecture
- Architecture
- Art
- Art
- Asset Management
- ASTM standards
- ASTM standards
- Autonomous vehicles
- Autonomous Vehicles
- Aviation
- Aviation History
- Aviation Planning
- Aviation trends
- Bikes and Pedestrians
- Bikeways
- Broadband public safety communications
- Building utilities
- CAD
- Charity
- Civil rights
- Classic literature
- Climate
- Code of Federal Regulations, United States Code
- Comics
- Commuting
- Computer Programming
- Concrete repair

- Conflict Resolution
- Construction & Maintenance Equipment
- Corridor Modeling for Microstation
- County State Aid Highways
- Crimes
- Current trends in business
- Current trends in transportation
- Customer Relations
- Data Analysis and Management
- Economic development
- Economic Development & Competitiveness
- Economic Value of DOT work and to efficient movement of goods and people
- Economics
- E-learning topics such as how to use the new resume system.
- Electrical Construction
- Electronics and electrical codes
- Engineer/Construction
- Engineering Geology and Transportation
- Engineering Research
- Equipment
- Exam preparation books such as PE, FE and PMP
- Facilities. Doesn't look like you have anything listed above really for facilities.
- Federal & State Contract Program
- Federal & State Traffic Regulations
- Fictions
- Fleet Equipment
- Foreign bestsellers
- Future and History of Transportation
- Geologic Hazards in Transportation Industry
- Geotechnical Engineering

- Government Purchasing
- Graphic Design
- Graphics
- Hazardous Material
- Health Magazines
- Highway Bridges
- History
- History
- History of Surveying
- History of the Department of Transportation and its processes.
- Horticulture/Landscape
- How do you get promoted within MnDOT
- HTML
- Hydraulics
- Hydraulics
- Hydrology
- Innovative Materials
- Interior design
- International engineering/construction practices (especially UK and EU)
- Interviewing preparation
- Labor Issues and the ongoing changes.
- Land Management, Mapping & Surveying
- Landscape Architecture Registration Exams Study Materials
- Legal descriptions
- Legal Research and Writing
- LID (Low Impact Development) in transportation
- Lynda.com subscription
- Maintenance and Preservation of Roadways/Airport Pavements
- Marketing
- Materials engineering
- Materials Management
- Math
- Math
- Maybe, something fun to do or read that I could access during lunch or breaks.
- Minnesota Tribal Nations History

- More books/resources on Computer Software and Internet services
- Music
- Networking: routers, switches, building and troubleshooting networks.
- New bestsellers
- Non-fiction social science topics (such as Malcolm Gladwell) and local history (MN, St. Paul, etc.)
- Outdoor recreation
- Park and Recreation planning
- Parking as part of the transportation system
- PASSENGER RAIL—MnDOT has a passenger rail office and we should be more integrated into national information
- Pavement design
- PE exam materials
- Performance Measures
- Permit issues
- Personal Development and styles
- Photography
- Photography
- Physics & vehicle operations, mechanical systems
- Politics
- Popular/New Books about Transportation in the United States in general (e.g., "Move")
- Probability and statistics
- Professional Development (e.g., Time Management).
- Psychology why people drive like they do, how they'll react to roadways, traffic & weather
- Public Outreach
- Quality of Life
- Real Estate and Land Valuations
- Real Estate Valuation/Appraisal
- Research
- Risk Analysis
- Road maintenance manuals

- Roadside Safety
- Safety/Occupational Health
- Science
- Science
- Science -Chemistry/Physics
- Shared Economy and Autonomous Vehicles
- Space
- Sports
- State transportation history
- Storm water
- Storm water treatment bmps
- Strategic Planning
- Structural Engineering
- Structures/Bridge Design
- Surveying
- Surveying
- Surveys
- Sustainability
- Swift and finances
- Technical Report Writing
- Testing technology for construction industry
- The complex issues between women and men in the workplace.
- The Historic Highway
- The interface (differences) between MnDOT Highway-side & Building-side projects. Better interaction
- Things to know as a supervisor/manager in government
- Traffic Noise
- Traffic Safety
- Traffic Signal Systems
- Training and Development
- Transit-oriented development
- Transportation Corridors
- Transportation History
- Transportation History
- Transportation planning
- Transportation Statistical History
- Transportation technologies

- Transportation Tourism Return on Investment/Economic Impact
- Tribal
- Typography
- Walking and Bicycling (legitimate modes of transportation and also what books they didn't have)
- Water quality BMP (best management practices) Science
- Web
- Workers' Compensation
- Zoning

### APPENDIX F: BIBLIOGRAPHY

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