



Billings Public Library

UX Final Report & Deliverables

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TABLE OF CONTENTS

Introduction & background	3
Summary of UX research	4
Personas	5
Task priority matrix	7
Classification schemes	8
Final sitemap	9
Sketches	10
Final wireframes	12

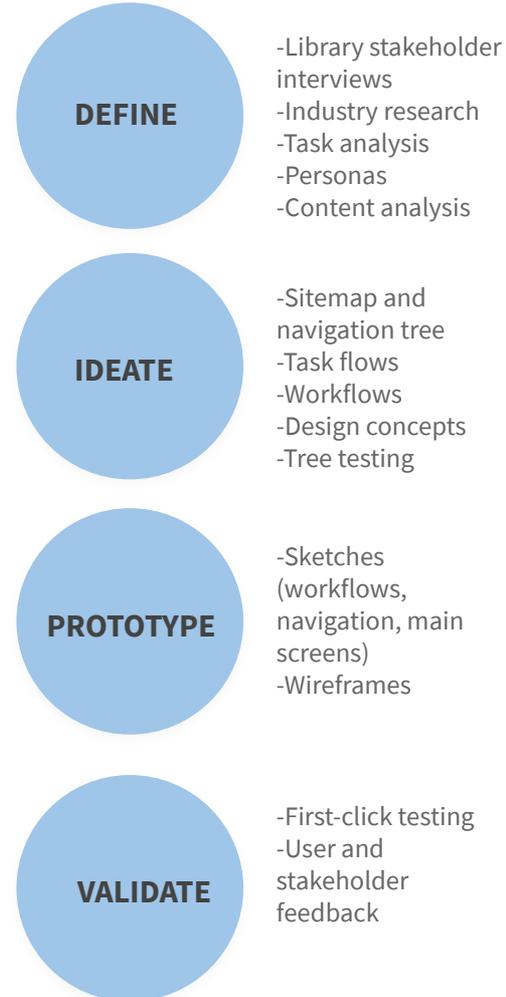
INTRODUCTION & BACKGROUND

This document outlines the research and design activities that were performed for the Billings Public Library. It also serves as a final design direction and blueprint for enhancements to the site's information architecture.

Research is paramount to designing a website that works for users. User research identifies user patterns and behaviors that help to refine and enhance the information architecture (IA) of a website. In simple terms, information architecture encompasses how users interact with content and find relevant information on the site.

As it was understood, the current Billings site had grown over the years and information became increasingly difficult to find. The site's organization schemes and structures didn't appear to be working and wasn't supporting users' key tasks. With focused research, iterative design and clear communication, we've developed research and design artifacts that will help improve the site and focus it more on users' main goals.

OUR UX PROCESS



UX RESEARCH



Research approach

Conversations were held with two librarians at the downtown branch of the Washington, D.C. Public Library. User interviews helped determine target users and their behaviors, patterns, and goals.

Our research goals were to:

- Identify target users
- Learn about users goals and top tasks on library websites
- Understand user challenges or limitations
- Identify any content holes or enhancements to the site

In addition to interviews, we conducted research into other library websites, industry research around best practices and common uses, and UX case studies on library website projects.

What we learned about users

Library websites are used by a variety of audiences, and our four personas describe likely library site users. (see detailed personas on the next page)

- **Isabella the mother** who leads a busy life but enjoys reading and listening to audiobooks.
- **Wayne the retiree** who uses the library as a community meeting space.
- **Lisa the student** who likes to read and use library computers to do homework.
- **Martin the new resident** that wants to learn about the local library.

What users want to do

Based on our research, users top priority tasks are to:

- Browse or find a book
- Place a hold on a book
- Find an ebook or audiobook

Following the primary tasks, the site needs to easily support users that want to:

- Reserve a conference room
- Find out when the library is open
- Find out how to get a library card
- Find out about events
- Look up a specific class offering
- Find out information about volunteering

PERSONAS



Isabella

Age 43

Degree in economics

Works at an insurance company

Goals & Tasks

- Regularly browses and checks out books
- Uses ebooks and audiobooks provided through the library
- Wants to find out about library events for children so she can take her daughter to educational events
- She's often on the go and uses a mobile phone; needs the ability to check if a book is available on mobile

Isabella has worked in a number of jobs since college, but has most recently been at her current job as an insurance salesperson for three years. She often is on the road for work and has access to her laptop or smartphone, which helps keep her connected to the office.

She is often reading several books at a time and enjoys using the library services for ebooks and audiobooks, especially since she's on the road a lot. She also enjoys visiting the library and taking her elementary-aged daughter to events in the evenings. She's comfortable using computers and phones.



Wayne

Age 72

Degree in education

Retired public high school teacher

Goals & Tasks

- Visits library twice a week
- Browses for fiction books
- Reserves a room once a month to host a retired teachers meeting
- Volunteers once a month helping re-shelf books

Wayne worked 35 years as a high school teacher. Wayne reads physical books a lot, has tried to use the place a hold feature on the website with mixed success, and often visits the library twice a week.

Wayne also organizes a retired teachers group which supports scholarships for low-income students. The groups meets monthly in the library conference space. He's only reserved the room once online with the help of his son.

Wayne also has started to volunteer at the library and is interested in attending more events but can't find good information about when things are happening. Wayne also likes to listen to the radio and has heard the library offers audiobooks, which he's interested in learning more about.

PERSONAS



Lisa

Age 17

High school
Student

Goals & Tasks

- Uses the computer lab at the library to conduct research and do homework for school
- Reserves rooms to meet with group members at the library
- Takes a coding class at the library (once a week)
- Uses her library card to access ebooks on her iPad

Lisa is in 11th grade and frequently visits the library, which is only a few blocks from her house. Since the library changes its hours based on the season, she often checks the website to make sure the library is open after school and on the weekend.

Her family only has one computer at home and it can be hard to concentrate so she often uses the library's computers to do homework and research for school projects. She likes meeting at the library and being able to reserve a room all on her own.

She recently has started reading ebooks on her iPad, which is provided by her school. Since she's been using the iPad she's become more interested in technology and takes a coding class once a week offered at the library free of charge.



Martin

Age 28

B.S. Computer Science
Systems Analyst - U.S. Army

Goals & Tasks

- Find out how to get a library card
- Lookup the hours of operation
- Find if the library can provide free audiobooks for him to listen to on his commute
- Find computer science books that he can read as ebooks

Martín moves around nearly every four years since he's in the military. Each time he moves he has to re-orient himself to his new community. In this case, Martín needs to find out basic information about how the local library works. Martín is an avid reader and enjoys listening to audiobooks when commuting.

He often doesn't visit the actual location of the library, but instead uses his library card to access digital services like audiobooks.

TASK PRIORITY - BY USER PERSONA



Task priority: by primary and secondary personas

	Isabella (P)	Wayne (P)	Lisa (S)	Martín (S)
High Priority Tasks				
Browse or find a book	Yes	Yes	Yes	
Place a hold on a book	Yes	Yes		
Find an ebook or audiobook	Yes	Yes	Yes	Yes
Medium Priority				
Reserve a conference room		Yes	Yes	
Find out when the library is open	Yes		Yes	Yes
Find out how to get a library card			Yes	Yes
Find out about events	Yes		Yes	
Low Priority				
Look up a specific class offering			Yes	
Find out information about volunteering		Yes		

CLASSIFICATION SCHEMES



There are a number of ways to organize and classify information on a website. In the case of the Billings Library, using an ambiguous organizational scheme with both **audience** and **topical** schemes will support users in finding key information and offer a simple way to navigate through the website.

Considering the current site uses an audience scheme to segment certain content for seniors, adults, teens, and children, continuing an audience based scheme works because content is very audience specific. However, we'll combine Teens & Children and Adults & Seniors into two groups.

The rest of the information on the site fits nicely into a topic-based scheme, based on several key categories.

The proposed main categories for the Billings Public Library navigation:

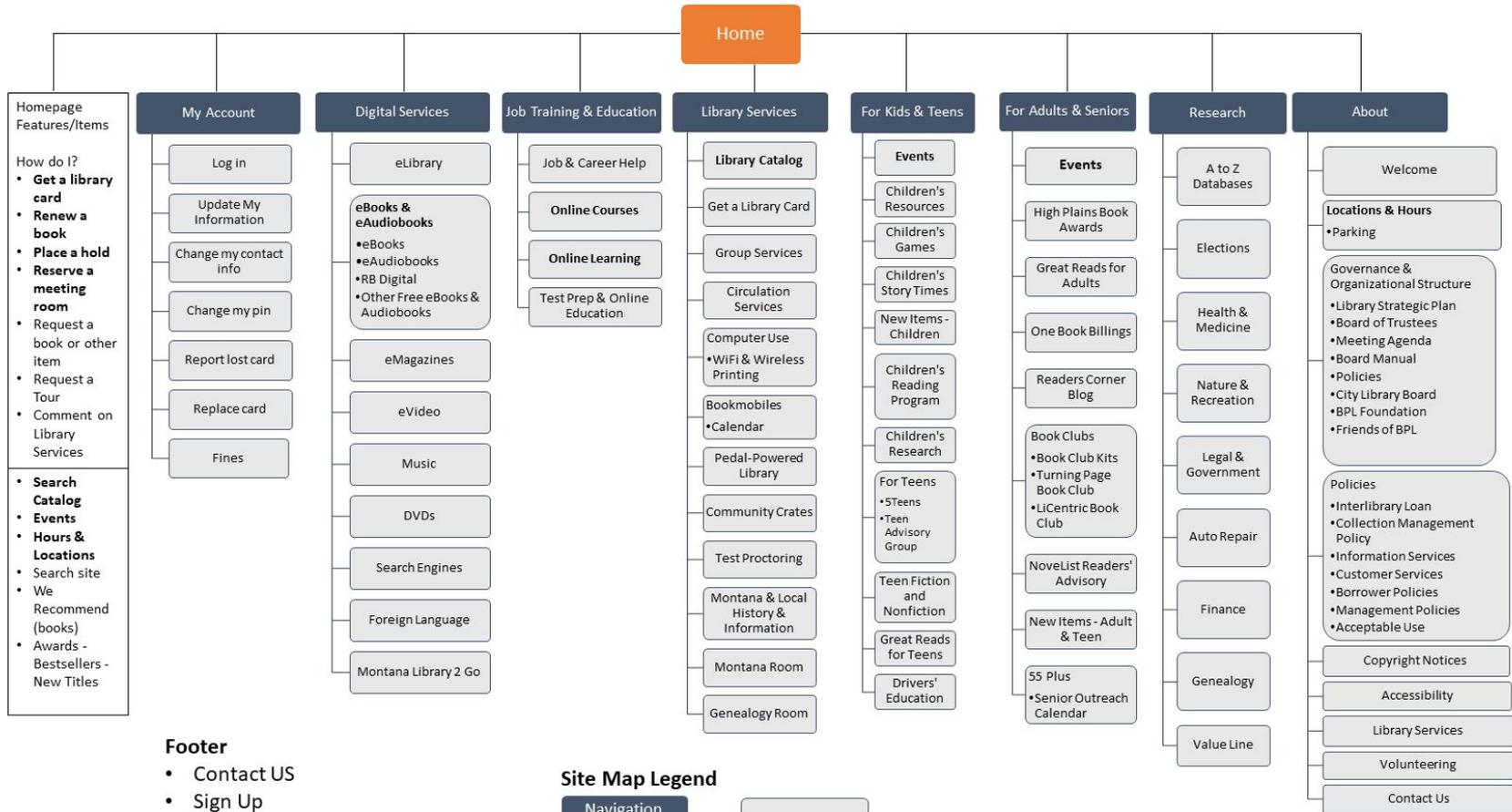
- My Account
 - Digital Services
 - Job Training & Education
 - Library Services
 - Research
 - About
 - For Kids & Teens
 - For Adults & Seniors
- Topic based
- Audience based

Homepage Features

In addition to the new navigation, enhancements to the homepage will help promote the site's primary tasks discovered during research.

- Top tasks
- "How do I feature," which lists common how-to tasks (get a card, renew a book, etc.)
 - Hours and Locations
 - Browse the catalog
 - Site search
 - Events
 - Featured books (We Recommend, Awards, Bestsellers, New Titles)

SITEMAP



Footer

- Contact US
- Sign Up
- Site Map
- A-Z List
- City of Billings
- Government Websites by CivicPlus

Site Map Legend

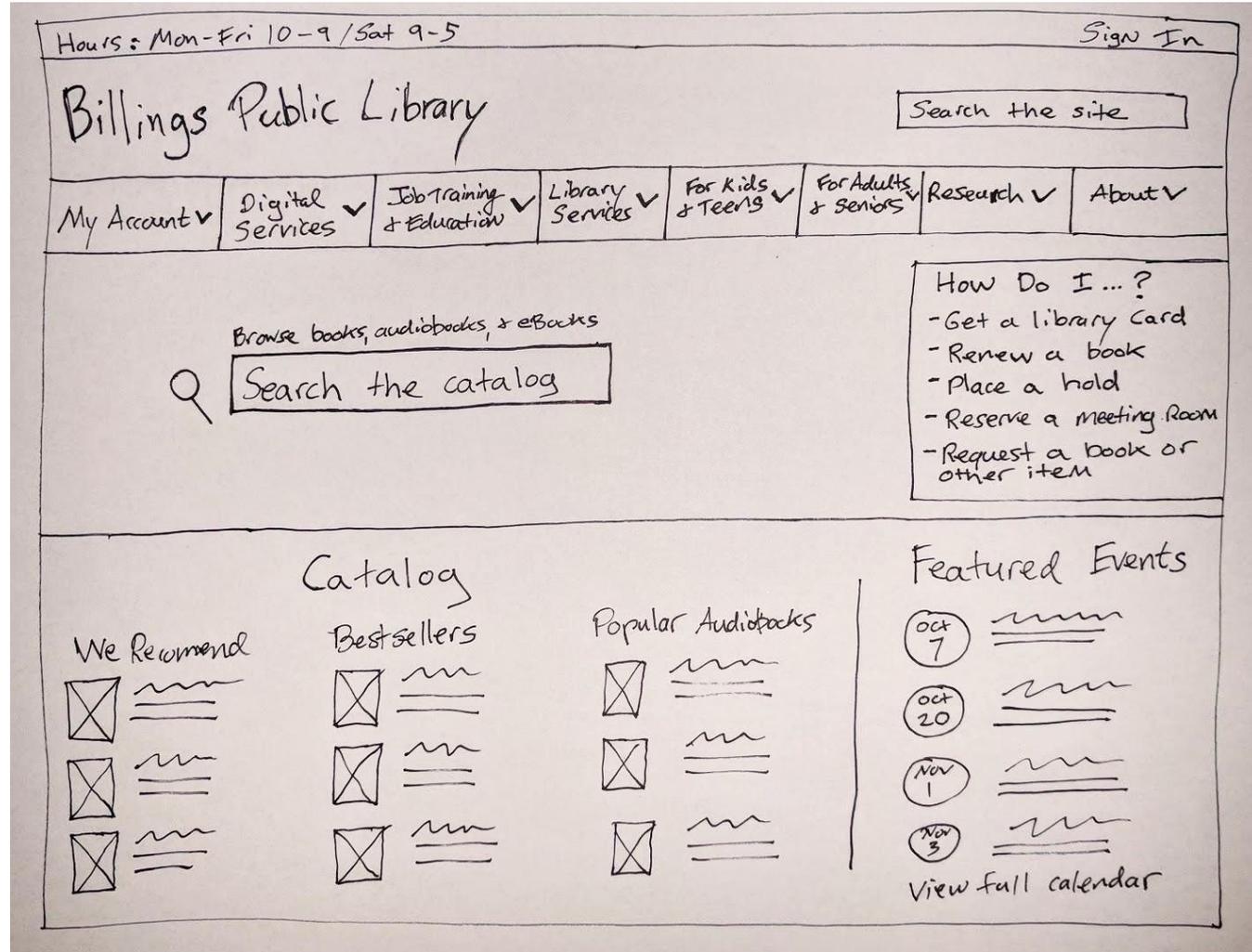
- Navigation Category**
- Secondary Page**
- Denotes previous page consolidated into secondary page
- **Bold** items indicate user top tasks

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SKETCHES - HOMEPAGE

Based on our research and proposed information architecture, we conducted a tree test, testing how well the site's information architecture performs as users attempt a number of tasks.

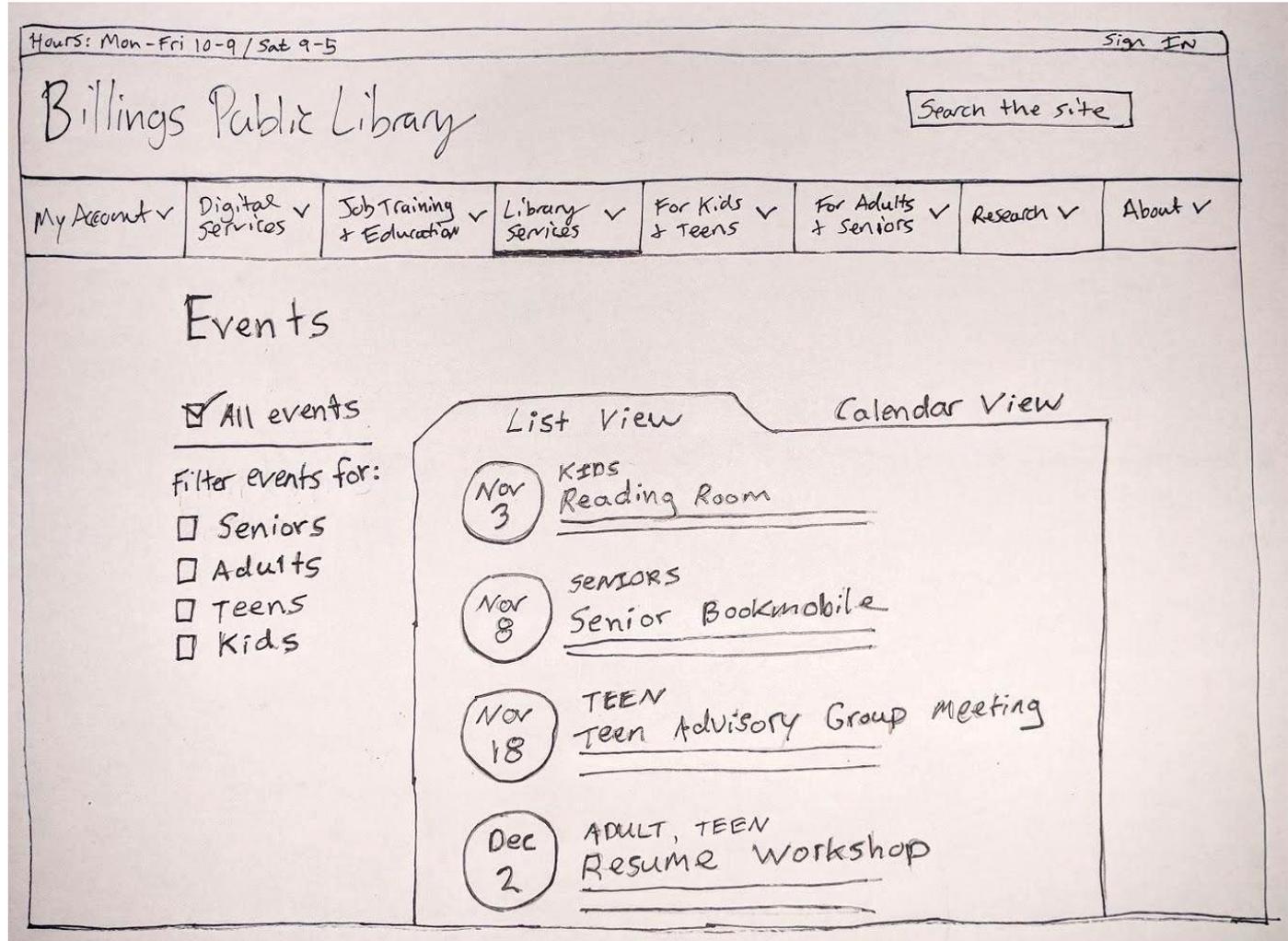
From there, we iterated initial design concepts through sketching both the homepage, navigation interaction, and events page.



SKETCHES - EVENTS PAGE

We learned finding events is a key task for users. By combining all Billings events together, and allowing users to quickly filter the view, we can consolidate nearly four different pages into one universal experience.

Instead of only offering a calendar view, our design focused on the information associated with the event, which improves scannability. A calendar view is still available.



WIREFRAMES - HOMEPAGE



A higher-fidelity version of the homepage was created. We tested five tasks with a first-click test, seeing where users would go to find out information.

Users had nearly 100 percent success rates, demonstrating the proposed information architecture, homepage experience, and overall site is working for users.

Next: From here, we'll work with the development team to implement the navigation and sub-page changes, rework the events page, and the homepage.

Main Library Hours: Mon - Fri 10-9 / Sat 9-5 Sign In

LOGO Billings Public Library Search this site

My Account Digital Services Job Training & Education Library Services For Kids & Teens For Adults & Seniors Research About

Browse books, audiobooks, and eBooks How do I ?
Get a Library Card
Renew a Book
Place a Hold
Reserve a Meeting Room
Request a Book or other item

Search the catalog ...

Catalog

- We Recommend**
 - Bleak Harbor: A Novel
 - Can't Hurt Me: Master Your Mind and Defy the Odds
 - The Warner Boys: Our Family's Story of Autism...
 - Becoming
- Bestsellers**
 - Beneath a Scarlet Sky: A Novel
 - I Am Watching You
 - Hidden Star (Stars of Mithra Book 1)
 - Harry Potter and the Sorcerer's Stone
- Popular Audiobooks**
 - So Cold the River
 - Where the Crawdads Sing
 - Fire & Blood: 300 Years Before A Game of Thrones
 - Dare to Lead: Brave Work. Tough Conversations...

Events

- NOV 3 Reading Time**
Thursday, Nov 3
- NOV 8 Resume Workshop**
Saturday, Nov 8
- NOV 15 Job Training**
Thursday, Nov 15
- NOV 26 Movie Night**
Saturday, Nov 26

[View full calendar](#)

Contact Us [A-Z List](#) **Main Library** **Community Library** **Bookmobile**
510 N Broadway 3803 Central Avenue Phone: 406-657-3091
Billings, MT 59101 Billings, MT 59101
Phone: 406-657-8258 Phone: 406-247-3094
Monday - Friday 10 a.m. - 9 p.m. Open Mon-Fri 8 a.m.-5 p.m.
Saturday 9 a.m. - 5 p.m.

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