



ANTHRO-TECH STRATEGY SERVICES

# Website Redesign Roadmap

**Greater Dayton Regional Transit Authority**

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**anthro**tech

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# Website Redesign Roadmap

## Background

The Greater Dayton Regional Transit Authority (RTA) is preparing to partner with design and development consultants to redesign the RTA public-facing website. RTA customers expect a website that is easy to use, provides real-time data, is effective on mobile devices, and is accessible for all users. They expect to easily find the information they need to have a successful trip by bus in the Dayton, OH region.

Over the last few weeks, Anthro-Tech worked with RTA to gather existing data from the current website and discuss the vision for the future website. This roadmap has been informed by:

- **A review of web analytics and existing customer data** that provided insight about the 250,000 users in 2019. Most users accessed the site on mobile devices, many returned frequently and most got what they needed in less than a minute.
- **Inventory of existing website content** that showed users' top pages and flagged outdated and redundant content. Evaluating this helped to narrow in on an appropriate tool to support migration.
- **Audit of current website content accessibility** that documented accessibility challenges and highlighted content clean-up needs, such as pulling text out of images and creating meaningful alt text for graphics.
- **Mapping session** that documented the current timetable and map service change update process and highlighted redundancies.
- **Review of peer websites** that showed current best practices and features, such as dynamic data-driven schedules, and helped to define project goals and requirements.

This document outlines the principles and goals for improving RTA's online presence, defines the project phases, details the activities and resources needed for a successful website redesign, and documents project requirements that will support RTA in writing an effective RFP.

## Principles

To transform customers' online experience, we recommend:

- **Customer-first approach.** Embrace a customer-first design approach that places the customer at the center of the design and development process early and often. This means making design and technology decisions based on direct customer input throughout the entire design process.
- **Mobile-first, task-oriented design.** Customers are coming to the RTA website to accomplish specific tasks to support their travel, including finding bus routes, when they need to be at a stop, and how to pay for their rides. Over 75% are accessing the website on their mobile devices. As part of the customer-centered process, design will start from key tasks and how to accomplish them in a mobile view.
- **Inclusive design.** Creating an online experience that strives to deliver excellent service to all customers. While accessibility is a core requirement, inclusion means much more. It enables people with diverse characteristics (physical abilities, age, income levels, etc.) to use the website in a variety of different environments. Inclusive design is a win-win for all customers and the organization. It expands the reach of the Dayton RTA online presence, increases access to services, sparks innovation, and supports a desire to take on a position of social responsibility.
- **Efficiency for customers and the agency.** Bring updated technology and consistency to customer service processes. Leverage current data formats to display website information dynamically and reduce internal process redundancy.

## Goals

The goals for a customer-focused redesign are for the website to be:

- **Useful.** Help users accomplish their tasks effectively, efficiently, and with satisfaction. Get customers where they need to go.
- **Current.** Give customers easy access to the information they need when they need it.
- **Intuitive.** Re-architect the site to be user-focused and approachable, not overwhelming.

- **Understandable and helpful.** Provide up-to-date content in plain language that is easy to understand and honest. Provide access to excellent customer service.
- **Accessible and inclusive.** Design the site to be easy to use for all members of the community, including people of diverse ability, age, socio-economic status, culture, and language.
- **Mobile-friendly.** Be responsive to various mobile devices and form factors.
- **Sustainable.** Support staff with training, new content strategy, governance, and user-centered design processes for effective site management.

## Scope

### In scope

- A new content management system for RTA website content
- Public-facing interfaces to display schedule and route information
- Integrating an external ticketing system into website information architecture and design

### Out of scope

- A new trip planning application
- A new stand-alone 'real time' transit data application
- A ticketing system website
- A new system to manage agency procurement

## Project approach

The proposed approach is a customer-first approach, called user-centered design. In the proposed approach, usability and usefulness are assured by building them into products and services through a process of user-centered design (UCD - also called the human-centered design process – ISO 9241-210). User-centered design is a risk reducing process that moves incrementally through planning and research to iteratively design, improve, and validate improvement with users of the website. The design is

evaluated and refined as it moves through the successive stages of development. By incorporating client and user feedback at every stage, UCD creates a progressively more refined website user experience with higher and higher levels of value and usability.

Five basic characteristics define the user-centered design process:

1. **Goal-driven and user focused.** Identify who the target customers are, how they work and what their goals are. Align customer goals with business goals to lay the foundation for a successful project.
2. **Empirical.** Base decisions on data, not opinions. Usability, usefulness, and value are measured by target customers' behavior with the website and web applications, not opinions.
3. **Iterative.** Try out ideas in a low-risk format. Success requires drafts and revisions. Investigate solutions with users prior to coding by creating prototypes and mockups. When problems are found in the website or applications during usability studies, they are fixed in subsequent versions before the system is launched.
4. **Collaborative.** Ensure a multidisciplinary team approach. Leverage a variety of skill sets, such as project management, user-experience design, communications, visual design, interaction design, writing and coding.
5. **Scalable.** Adapt to fit resources and time. The customer-centered design process scales to different challenges such as budget constraints, scheduling, and resource constraints.

The user-centered design approach ensures usable online services resulting in positive customer experiences, reduced development time, minimized risk for expensive changes to the system post-launch, increased user adoption, and an enhanced reputation for the organization responsible for the website and web applications.

The roadmap activities outlined below are based on these key characteristics of user-centered design.

## Workstreams

Project activities will be performed across eleven workstreams:

1. Vendor selection
2. User Experience research
3. Information architecture
4. User Experience design
5. Content creation
6. Governance
7. Training
8. Development, testing, and deployment
9. Accessibility auditing
10. Change management
11. Project management

### Vendor selection

The vendor selection workstream includes all activities required to set vendor expectations and critical deliverables, evaluate vendors' capabilities, select a vendor, and bring them in as collaborative partners with Dayton RTA and the project team.

#### RTA ACTIVITIES:

- **Final map, timetable, and real-time travel information tool requirements** ensures that the process centers on the website user and capture all the desired systems and features. Consider writing these as user stories. User story example: **As a...**RTA bus rider, **I want to...**find bus stops near me **so that...**I can catch the quickest bus home.
- **Evaluation team** ensures that the team includes representation from all staff impacted by the new system, including representatives from communications, IT and data management, service planning, contracts, and business teams.
- **RFP.**
- **Proposal review** narrows the field of potential vendors. Scoring will be based on specific, measurable selection criteria.
- **Demo and sandbox evaluation** ensure that the evaluation team experiences the system as it is use. Proposers must demonstrate key features during the demo. The sandbox allows evaluators to experience how those features function for new users.

- **Vendor selection.**

#### RTA/VENDOR COLLABORATIVE ACTIVITIES:

- **Vendor onboarding** familiarizes the vendor team with RTA goals and priorities and provides an opportunity for the full project team to begin collaboration. The vendor will coordinate project kick off and discover activities.
- **Roadmap revisions with the selected vendor** ensure that the tasks and timeline align with vendor capabilities and time estimates.

### User Experience research

Throughout the design and development process, research with customers brings user data and feedback into the design process, tests assumptions, and identifies additional opportunities for improvement.

#### RTA ACTIVITIES:

- **User groups and their goals** ensure that key user groups are centered in the design process. RTA should use current customer data and business goals to determine these target user groups and identify the goals they bring to their web site visits.

#### VENDOR ACTIVITIES WITH SOME RTA SUPPORT:

- **Card sort study** uncovers users' mental models for the structure of information on your website and gives a starting place for drafting a usable information architecture. The vendor will identify 40-60 cards that represent pieces of content or important tasks on the website and ask users to sort the cards into categories. They will analyze the results and identify the categories of information that users expect.
- **Tree testing** allows users to try out the draft information architecture in a task-based way and nominate where they think content would live. The vendor will design and conduct the online study and analyze the results. The report will identify how well the draft architecture met users' expectations and how it can be changed to improve findability.
- **Mobile wireframe usability study** tests design concepts and ensures the new website design will allow customers to accomplish their key tasks. The vendor will design, recruit participants, conduct the study, and analyze the study data. They will then create a report of key study findings and recommendations to be integrated into the design system.

- **Pre-launch usability study** validates that the new website will meet customer needs. The vendor will design, recruit participants, conduct the study, and analyze the study data. They will then create a report of key study findings and prioritized recommendations to be integrated into the website by the development team before launch.

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*What is user-centered design? Gathering, understanding, and applying user data throughout the planning, design, and development processes—reduces risk. UCD results in less rework during development and a better user experience at launch.*

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## Information architecture

The Information architecture workstream will define the structure of the website. This will include three bodies of work: establishing website content types, drafting the information architecture, and iteration based on research.

### RTA/VENDOR COLLABORATIVE ACTIVITIES:

- **Content types** define the content types that RTA uses most frequently. The vendor will guide the RTA team to draft their content types and establish what fields to include in each type. These could include news, landing pages, flyer holiday pages, or more. The vendor will advise RTA on the purpose and use of search engine optimization (SEO) fields including meta title, meta summary, and meta image.

### VENDOR ACTIVITIES WITH SOME RTA SUPPORT:

- **Draft information architecture** provides an initial structure for the website content that is validated through tree testing. The vendor will use the categories that emerge from the card sort activity to create the draft information architecture. The vendor will work with RTA to ensure the content fits into the categories, identify sub-categories, and refine based on content and business needs. The draft architecture is then tried out by users in a tree test.
- **Information architecture revision and refinement** ensures that users can find what they are looking for and easily complete their tasks on the new website. Based on the findings from tree testing, and with feedback from RTA, the vendor will make changes and finalize the draft information architecture.

## User Experience design

The UX Design workstream iteratively proposes design solutions and incorporates the findings for UX research to produce a customer-centered website.

### RTA ACTIVITIES:

- **Branding and style guide** sets the branding and style requirements and boundaries for the website design.

### VENDOR ACTIVITIES:

- **Mobile UX wireframe prototype** creates the initial website user experience using the information architecture, style guide, user needs, and design best practices. The vendor will use this wireframe in the mobile wireframe usability study to test and validate design decisions.
- **UX style guide** applies the established branding and style guide to the specific needs of the website. This includes defining style for web content, and ensuring consistent and accessible colors, fonts, and form elements.
- **Design system with annotations** establishes the global website design by documenting each website component. Annotations support each component by detailing how it functions when users interact and what is needed to ensure usability and accessibility. The vendor will create and annotate the design system based on the findings of the mobile wireframe usability study.

## Content creation

The Content creation workstream includes writing new content, improving existing content, and removing redundant, outdated, and trivial content to match the new website structure defined during the information architecture workstream.

### RTA/VENDOR COLLABORATIVE ACTIVITIES:

- **Content creation and migration plan** defines content creation deadlines for the UX design and overall website. The plan sets expectations for how content will be moved onto the new website and how RTA and the vendor will coordinate content work. The plan is a tool to transparently communicate content needs and writing capacity. RTA and the vendor will collaborate to create this plan together.

### RTA ACTIVITIES:

- **Sample content for UX design** provides content to test in the wireframe usability study. This will show how the content types and the fields within them are working

for users and highlight opportunities for improvements in writing and organization. RTA will provide sample content in advance of the wireframe usability study.

- **Draft content for new website** must be completed for the whole site website in advance of the pre-launch study.
- **Final content** is updated in the CMS by launch. RTA will make updates to the content before launch as needed based on study results.
- **Content management (ongoing)** keeps website content updated with guidance from the governance plan.

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*Why invest in content? Content creation is a common cause of delay or compromised project goals in redesign projects. Establishing and adhering to a well thought out content creation and migration plan helps projects launch websites that are usable, accessible, and on time.*

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## Governance

Governance provides ongoing decision-making and oversight to ensure that the system and team can support the website after implementation.

### RTA ACTIVITIES:

- **Content and data management process mapping** helps the project team understand existing processes, including steps that are non-negotiable and pain points that could be addressed in the new system implementation. Process maps should include service change GTFS data updates, ad-hoc or irregular GTFS data updates, day-to-day content updates, special event information, recurring event information, emergency notifications, alert, and news.
- **Governance workshop** collaboratively evaluates current content and data management processes, finds alignment with the new system, and establishes new goals. RTA will hold the governance workshop internally, or with the assistance of a third-party facilitator.
- **Governance plan** establishes and formalizes new governance processes. This process should include strategies for removing outdated content and updating recurring event information annually. It should also include a content tracking method, such as an updated audit, based on the new website.
- **Governance** manages change. Following the governance plan, RTA will manage the site, and continually to evaluate and update the plan as user needs and business goals change.

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*What is website governance? Governance planning creates an environment where websites can stay current, withstand change, and support new customer and organizational needs.*

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## Training

Training will ensure that content creators can support the new website's usability and accessibility over the life of the website. RTA content management staff will be trained in how to use the system, create accessible content, and write in plain language.

### RTA ACTIVITIES:

- **Writing for the web workshop** trains team members who write for the website with the specific web content writing skills that support and improve website users' experience. They will learn how to write in plain language, best use headers, bullets, and chunks of text, and identify redundant, outdated, or trivial content.
- **Content accessibility workshop** trains team members who create and maintain website content in the fundamentals of accessible and how to create content that complies with the Web Content Accessibility Guidelines (WCAG 2.1 AA) that RTA is using as an accessibility benchmark. They will learn accessible writing, use of color, content management, and graphics production skills that ensure that all content types are accessible.

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*Note: Workshops will likely require a third-party vendor. Training options range from a customized in-person workshop with a training vendor to pre-scripted web-based programs.*

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### RTA/VENDOR COLLABORATIVE ACTIVITIES:

- **Content management training** trains team members who enter and maintain web content on how to use the new system. The vendor will provide training to content managers, including use of the new system for basic content management tasks and ways to optimize their system use to improve accessibility, SEO, and customer experience. This should include use of content types, content fields, content components, WSIWYG editors, SEO fields, the asset library, and additional features as needed.
- **System administration training** trains team members who will be administering the system to maintain the system, complete regular user management, and support continuous improvement. The vendor will provide training to RTA system

administrators in day-to-day administration tasks, as well as system maintenance tasks (web CMS upgrades, patches, and security updates) and functionality that will support continuous improvement.

## **Development, testing, and deployment**

In the development, testing, and deployment workstream, the vendor builds the website based on design system specifications. Quality assurance and accessibility testing evaluate the website's functionality and accessible. Iteration based on testing and the pre-launch usability study ensure that the site meets user needs.

### VENDOR ACTIVITIES:

- **Content management system (CMS) set up and configuration.**
- **Schedule and map application set up and configuration.**
- **Design implementation and feature development for CMS.**
- **Design implementation and feature development for schedule and map application.**
- **System integrations** ensure seamless experience for website users. Integrations include CMS, schedules and maps, payment, and real-time data.
- **Quality assurance and accessibility testing** ensure that technical issues are identified and resolved before users access the system. Testing includes automated and manual QA testing, load testing, and automated and manual accessibility testing.
- **Changes based on research and testing** update the codebase to resolve issues and make enhancements. These issues and enhancements were identified in the pre-launch study and accessibility audit, and prioritized for pre-launch implementation as part of the change management process.

### RTA/VENDOR COLLABORATIVE ACTIVITIES:

- **Content migration and population** process will adhere to the content creation and migration plan established in the content creation workstream.
- **Launch** process adheres to the site cutover and launch plan developed as part of the change management process.
- **Knowledge transfer** ensure the hand-off of key information from the development team to RTA staff. Knowledge transfer includes technical documentation of implemented templates, applied technologies, code, and used web parts.

- **Continuous improvement post-launch** addresses the backlog of issues and enhancements that were not prioritized as critical before launch. The backlog is generated and prioritized as part of the change management workstream.

RTA ACTIVITIES:

- **System administration (ongoing)** ensures the system is maintained and can withstand change. Administration is performed with guidance from the governance plan.

## Accessibility auditing

An accessibility audit is performed by a third-party expert pre-launch to evaluate that design and implementation successfully met WCAG 2.1 AA guidelines.

THIRD-PARTY VENDOR ACTIVITY

- **Accessibility audit and compliance check** targets compliance with WCAG 2.1 AA standard and include both automated and manual review. The third-party vendor will conduct the study and create a report of key study findings and prioritized recommendations, including actionable practices for issues resolution.

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*Tasks that support accessibility are integrated throughout the design and development processes including annotation in UX design, and iterative manual and automated testing during Development and Testing. Ideally, an accessibility audit validates that this work was successful.*

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## Change management

The change management workstream supports customers and staff through the transition to a new system. This includes communications, transition planning, and managing post-launch activities.

RTA ACTIVITIES:

- **Communications plan** informs users and stakeholders of the redesigned website. RTA will create and deploy the plan, which will include public-facing communications about change, and staff-facing involvement to generate buy-in and ensure involvement of key staff.
- **Backlog of identified issues and enhancements** allows the team to track and prioritize issues and enhancements, and ensures that important changes are

implemented. RTA will rank the backlog by priority and provided it to the development team to support both launch and continuous enhancement.

VENDOR ACTIVITIES:

- **Site cutover and launch plan** ensures that site launch includes all necessary tasks and participants. The vendor will create the plan, which will include coordination, deployment, retirement of old application, transition between systems, and planning for potential issues.

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*Change management ensures that when the new site launches staff have what they need maintain the new system and customers have a positive experience.*

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## Project management

These services provide all project members clarity on the timeline, budget, and resources. Regular status updates are key to keep everyone working towards a common vision.

RTA/VENDOR COLLABORATIVE ACTIVITIES:

- **Project management** supports keeping the project on time and on budget. The team will manage workplan, key milestones and deliverable, budget, timelines, and risks.
- **Detailed project plan** ensure that the team has a coordinated, coherent, and well communicated approach to the project, and is prepared for risks. The project plan will detail project resources, roles and responsibilities, issue log and risk management approach, as well as a communications plan.

## Appendices

- A. Roadmap estimates
- B. Roadmap timeline flow
- C. Roadmap timeline by role
- D. Recommended RFP requirements
- E. Current process map for timetable updates
- F. Content audit
- G. Peer landscape review with timetable and map design recommendations