MOPED PROJECTS MAP & MOBILITY PROJECT VIEWER

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Patrick McDonnell (Senior PM) & Amenity Applewhite (Head of Product)

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CITY OF AUSTIN
FOUNDED 1839

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CONTEXT

Austin's local population - and traffic - are growing.

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But so is construction, and projects to improve the city's mobility infrastructure are in the mix.

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The Moped platform, allows ATD to track these mobility projects (and their robust data attributes).

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But right now, there isn't a great way to explore all this information holistically.

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229 ACTIVE PROJECTS

93 ACTIVE USERS

PROCESS

The Problem:

How might we translate the prior & ongoing research on Moped visualization strategies to actionable design tasks?

Questions:

- What data needs to be visualized? What data do we have?
- What are the specific needs for internal & external versions?
- What design steps make for flexible implementation down the line?

PROCESS

1 → **2** → **3**

Weeks 1-3: Research

Goal

- Learn project context, UX/UI best practices
- Establish plan for design process

Methods

- Desk research & full product audit
- User interviews & testing

Weeks 4-6: Design

Goal

- Define feature requirements
- Prototype design solutions

Methods

- User interviews & testing
- Feature planning
- UX/UI design

Weeks 7-10: Refine

Goal

- Handoff designs to development workflow
- Prioritize key features & next steps

Methods

- Iterate on mockups & animations
- Groom features in Zenhub

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STAGE 1

1 → **2** → **3**

Weeks 1-3: Research   Weeks 4-6: Design   Weeks 7-10: Refine

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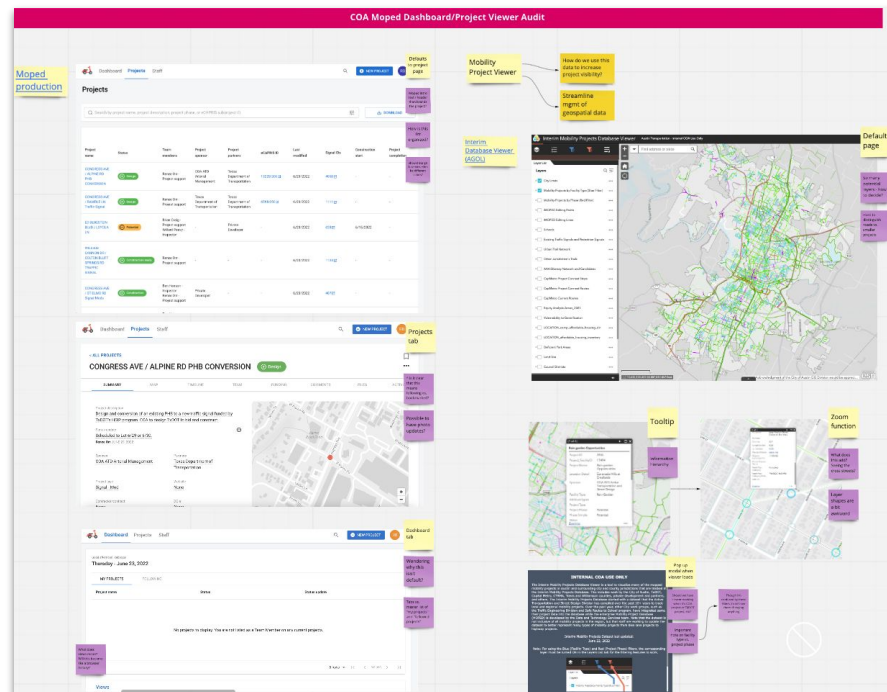CORPS

RESEARCH

Initial Desk Research

- Review CIC '21 insights
- Explore product landscape
- Note well-executed UI features

Continue Design Discovery

- Analyze internal products
- Map user flows
- Compare interaction capabilities

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RESEARCH
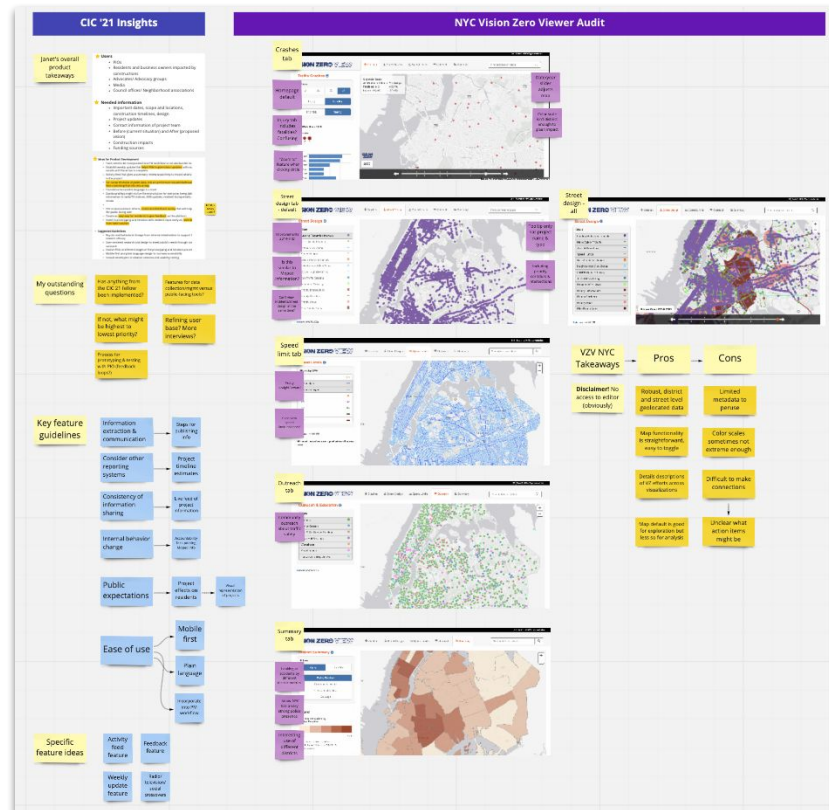
Internal Audit: Vision Zero Viewer, Moped, Interim Project Viewer (AGOL)

TEST

Moped user interviews: Performed user testing on existing products

TEST

Affinity mapping: Group similar insights by feature groups
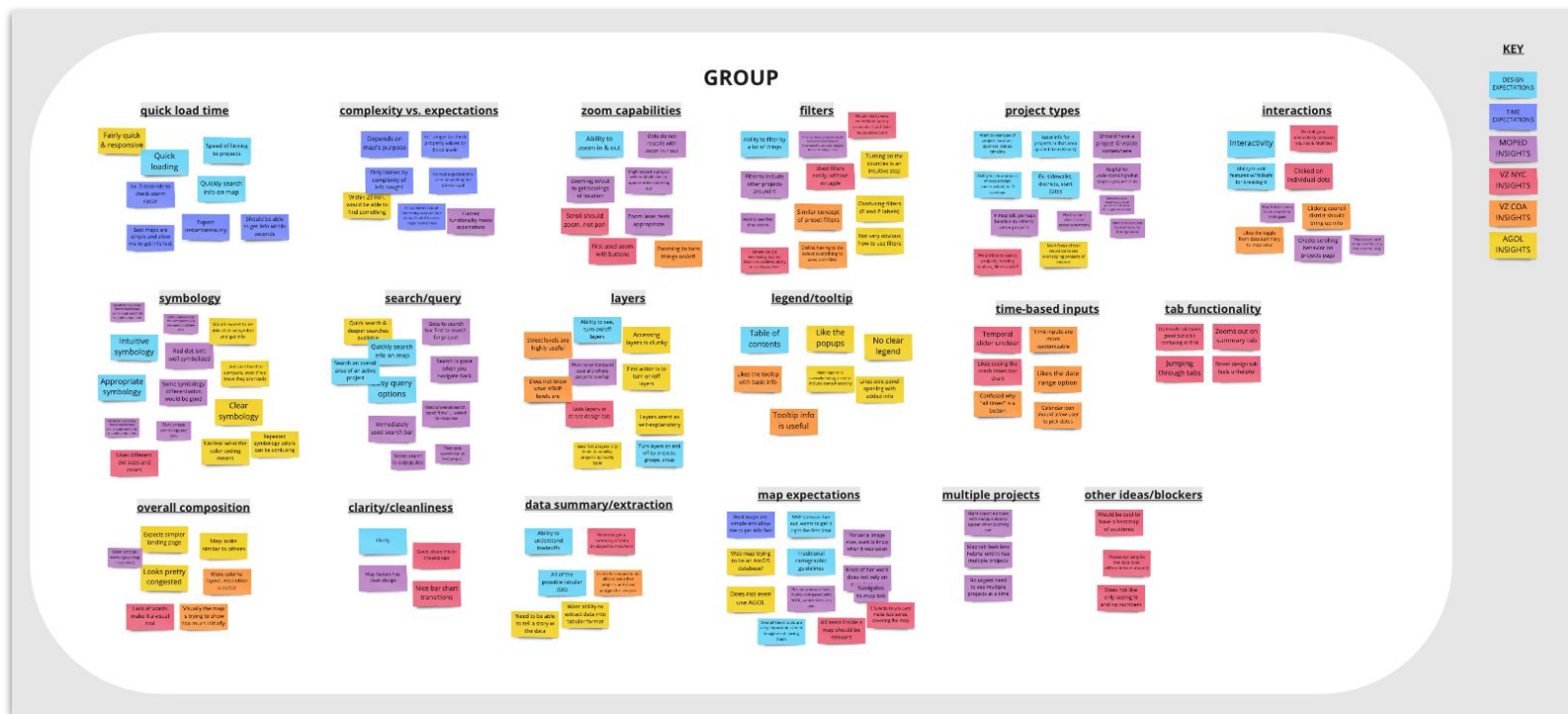
TEST

Idea generation: Rework feature requirements and ideas for implementation

SYNTHESIS: GENERATE

Reasonable loading times with visual feedback

Loading signal

Refresh option within map

Smooth transitions

Ways to improve load from design side (or is this a software issue)?

Make quick queries/ exports easy - low vs. high lifts

Distinct & cohesive symbology

One symbol per project type

Utilize colors & textures

Limit project types on map (fewer symbols)

Ability to show different symbology filters? Is this needed?

Keep everything dots, or new shapes?

Hierarchy of available filters & layers

Dropdown lists

Vertical/ horizontal scroll

Individual bill buttons - click on/off

Pre-populated or nothing populated?

How many filters can someone use at once?

Error message if no projects match search?

Composition is as simple as possible (less distractions)

Limited color palette

Large map area

Explode/hide legend and filters

Do the Material UI standards already meet this?

Balance simplicity with functionality?

Intuitive/typical digital map attributes

Click on individual project to access tooltip

Zoom in/out embedded in viewer (with broad starting view)

Search bar for 1 or more locations

How much to include in MVP? Triage features?

How to innovate on these expected features?

Access to advanced project information

Deeper search options available

Time-based information (schedules)

Different tooltip / filter options based on role

Embedded in first level nav, or need to open separately?

What kind of info is relevant here? Analysis?

Ability to toggle between map & list views

CTA pill button

Arrows between views (swipe?)

Keep filters between map & list views

What queries are needed for this?

Where does this toggle live? Multiple places?

Derive insights & export them for use elsewhere

Card or modal that shows metrics of selected projects

Export to tabular format

Toggle between map & list view

Open table or individual projects? New sheet?

Ways to show analyses within the map itself?

EVALUATE

Priorities

- Navigation to "Projects Map"

- Filtering all possible values

- Search bar / auto complete

- Zoom in / out

- Timeline filter

- Project symbology (phase or component?)

- Interaction / scroll capabilities

- Toggle between list and map view

STAGE 2

1 → **2** → **3**

Weeks 1-3: Research

Weeks 4-6: Design

Weeks 7-10: Refine

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Methods

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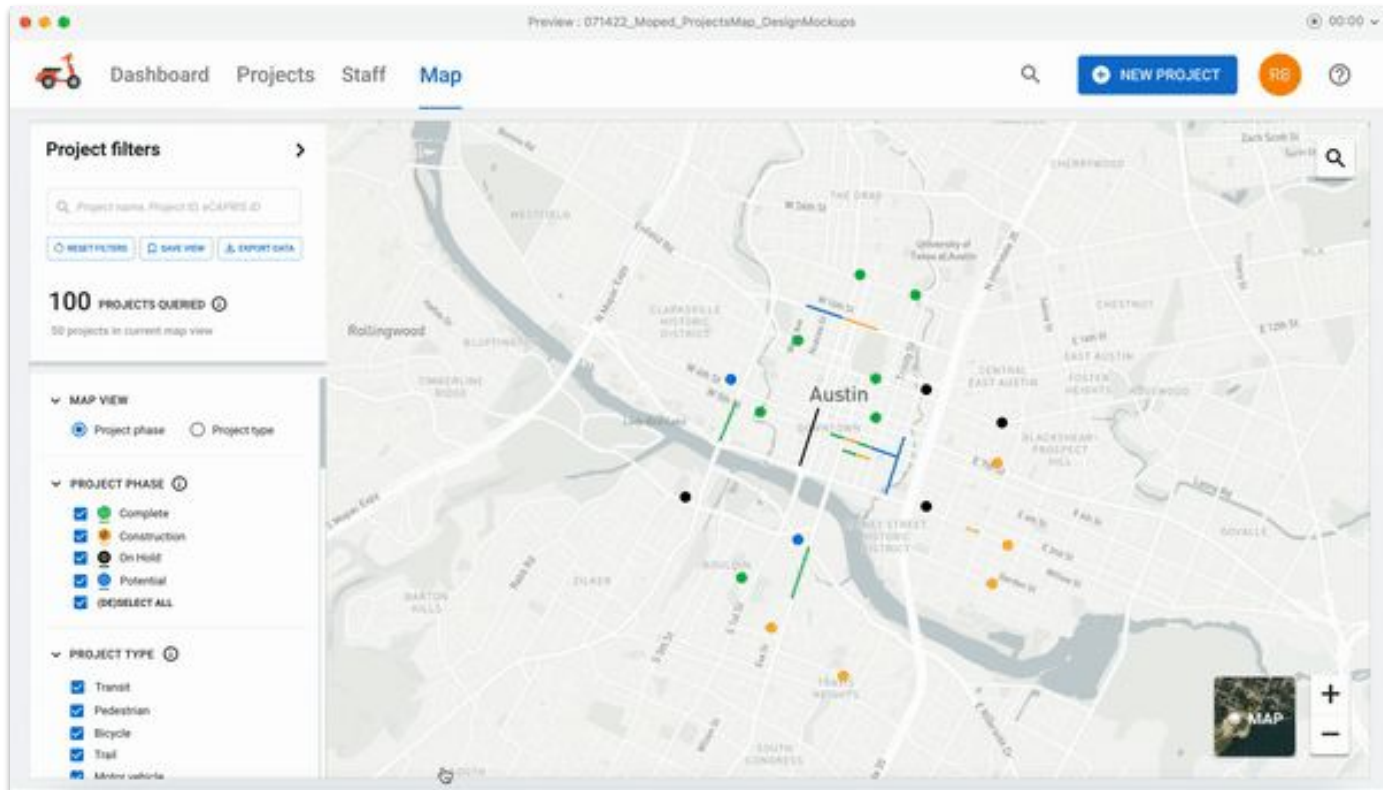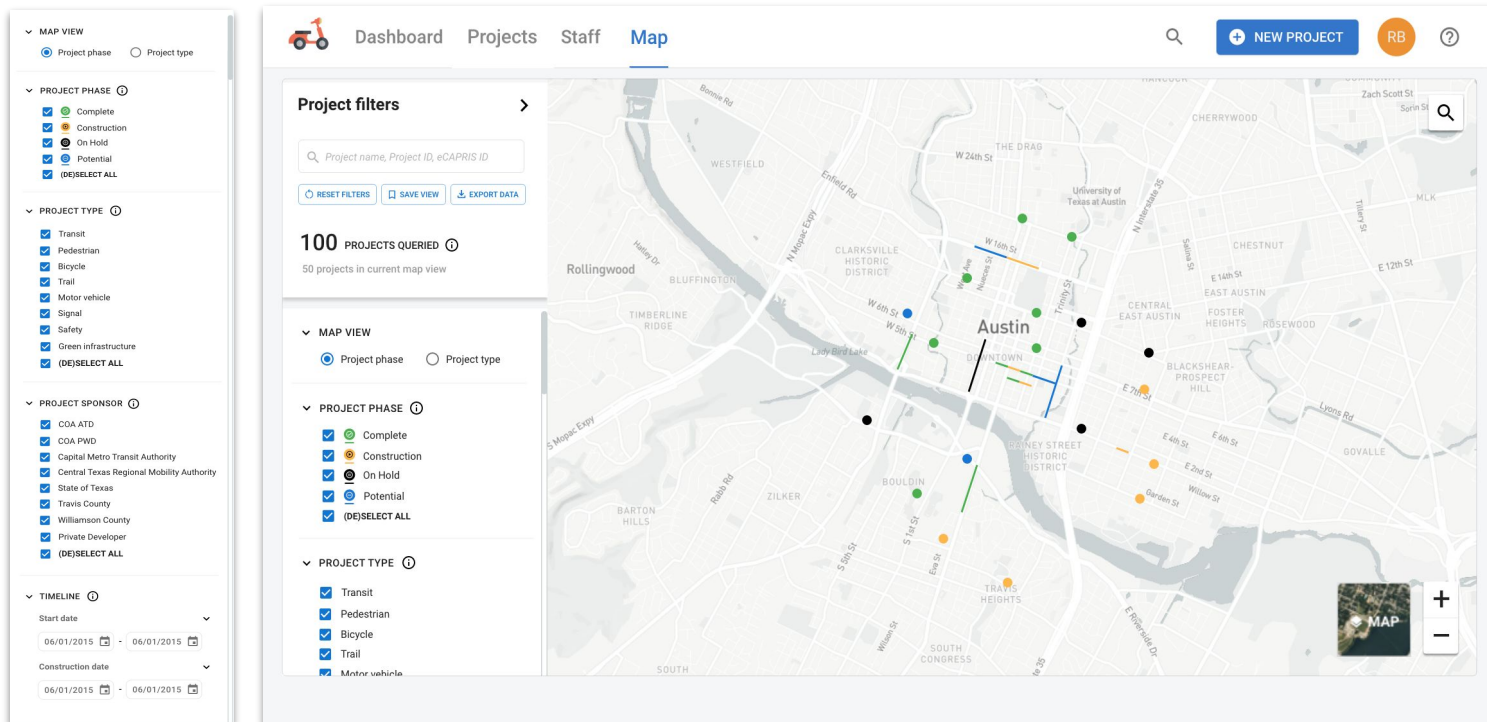- Iterate on mockups & animations
- Groom features in Zenhub

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DESIGN

Moped Projects Map

Catered to internal users' needs

DESIGN

Full filters

Default dashboard

DESIGN

By type

Adjusted dashboard

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DESIGN

By type

Error message

DESIGN

Mobility Project Viewer

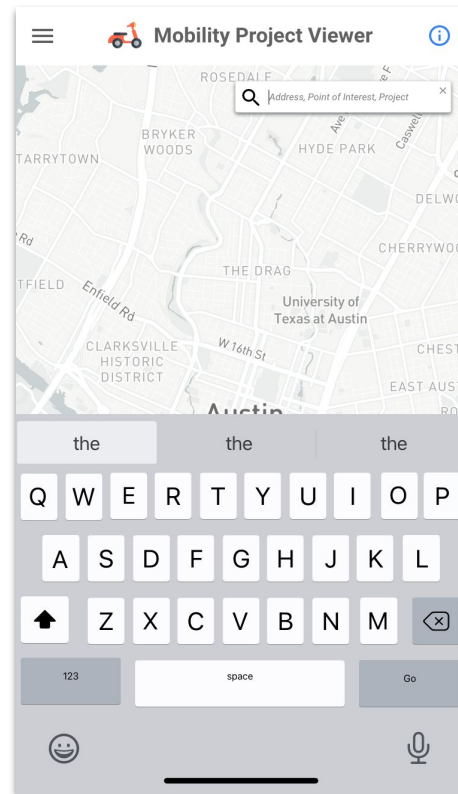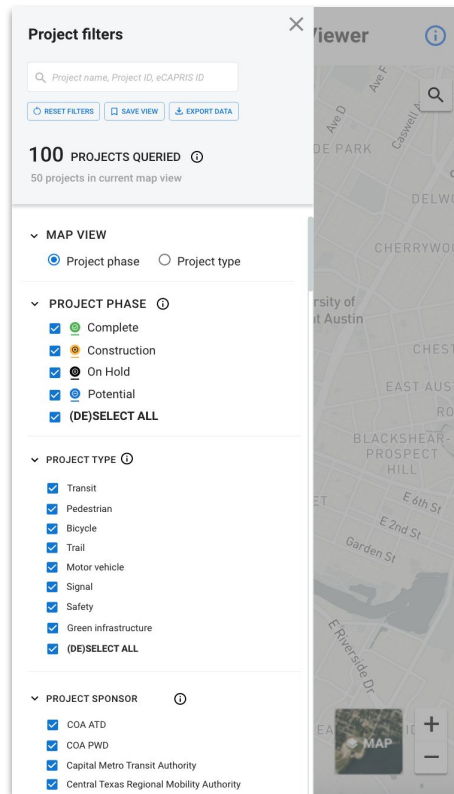Adjust some features for an external audience
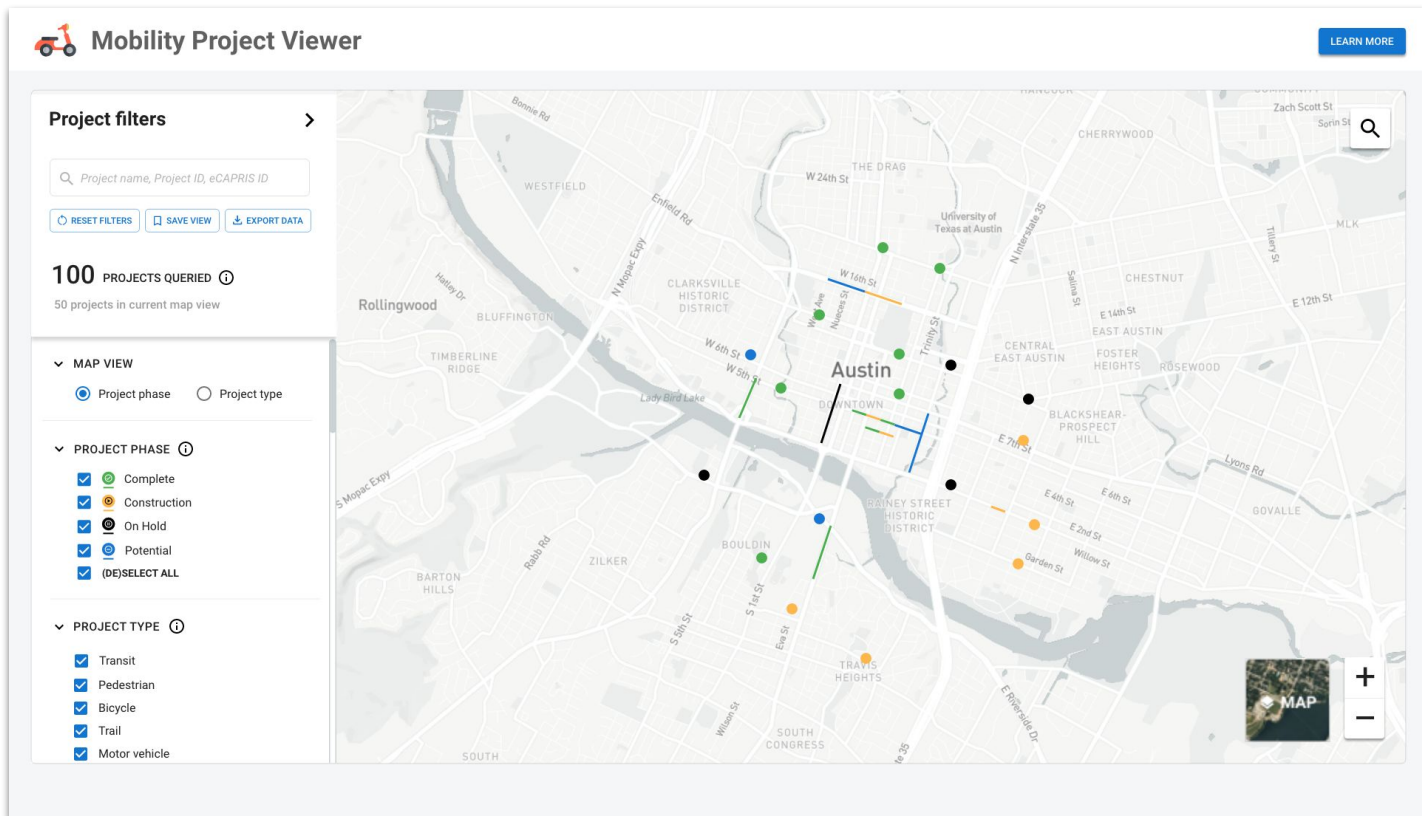
DESIGN

Mobility Project Viewer

Includes mobile accessibility

STAGE 3

① **Weeks 1-3: Research**

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② **Weeks 4-7: Design**

Goal

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Methods

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- Feature planning
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③ **Weeks 8-10: Refine**

Goal

- Handoff designs to development workflow
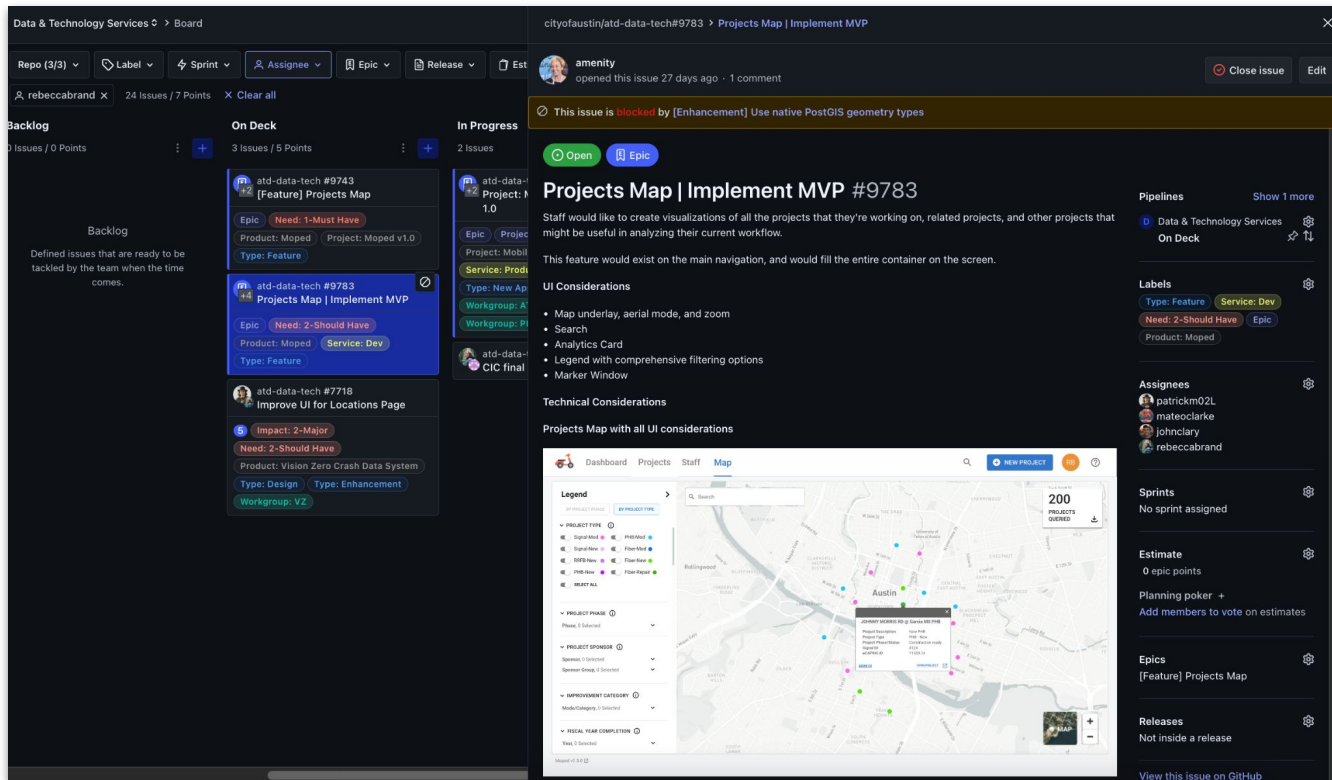- Prioritize handoff & next steps

Methods

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HANDOFF

Issue Grooming

Set expectations for development process

Learn about implementation workflow

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HANDOFF

Amended design system: codifies new Moped features for flexible reproduction

IMPACT

- **Increase data transparency:** more filtering options, eventual public platform to broaden connection

- **Improve mobility options:** streamline process for identifying & collaborating on new projects

- **Sync with Vision Zero goals:** translate policy efforts to safer infrastructure strategies (and save $)

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TAKEAWAYS

- **Local government *is* agile:** I enjoyed leaning into PM mindset and challenging my preconceived notions of bureaucracy.

- **Design contains multitudes:** The work spanned design, research, planning, and even development (thanks to Discovery Day).

- **People are everything:** Talking with is the most enlightening & rewarding part of any project. Much love to my team & users!

THANK YOU!

ATD DTS ❤️ Patrick, Amenity, Rose, Mateo & Everyone

CIF 💙 Rachel, Arianna, Emily (Facilitator) & Judy (Mentor)

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ADDENDUM

- **Role:** UX/UI Designer

- **Supervisors:** Patrick McDonnell & Amenity Applewhite

- **Dates:** June 13 - August 19, 2022

- **Duration:** 10 weeks

- **Projects:**

  - Design for the Moped Projects Map & Mobility Project Viewer

  - Support PM work on Vision Zero, issue maintenance, DTS branding

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