

Walmart

my design stuff

Technician App Redesign

My role:
UI/UX Design
Strategy
User-Research
Prototyping

My team:
Design Manager
Principal Designer (Me)
Senior Designer
Product Manager

Result:
Currently in development



Walmart technicians are responsible for maintaining and repairing equipment in Walmart stores. Their work spans across various areas like facilities maintenance, refrigeration, HVAC (heating, ventilation, and air conditioning), and sometimes automation systems. They handle tasks like fixing broken equipment, ensuring systems like refrigerators are functioning, and performing routine maintenance to prevent issues. Technicians work across multiple locations and play a key role in keeping operations running smoothly.



Problem Statement

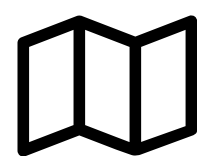
Walmart technicians currently face significant challenges with the tools they use, leading to a high **turnover rate of 70%**. The primary app, Field FM, suffers from latency issues, uses outdated legacy software that is difficult to update, and lacks the ability to integrate new features easily.

In addition, **work orders often get lost**, and technicians **struggle to find relevant information**, as evidenced by quotes from the field. This increases onboarding time and **causes delays** in managing work orders. Technicians are also required to use multiple apps – such as Zeus for ordering parts and ME@campus for tracking their time – further complicating their workflow.

Opportunity

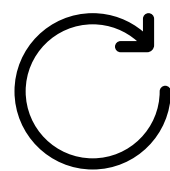
Empower technicians to carry out repairs with efficiency and satisfaction. Enable technicians to troubleshoot problems, but providing reference materials and an frictionless path to collaborating with their colleagues.

Goals & Objectives



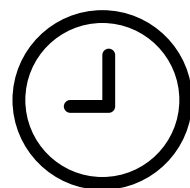
Guided work

The app aims to be a companion to their day to day activities. Guiding them efficiently to stores via Google Maps, showing them where assets are with in-store maps and provide technicians with contextual help content.



Reduce turnover

Provide a more intuitive, efficient tool that reduces frustration and errors, ultimately improving job satisfaction and lowering the 70% technician turnover rate.



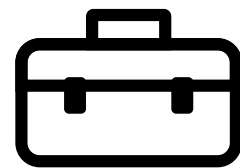
Increase efficiency

Improving the organization of details within each work order to minimize onboarding time, help technicians get aligned faster, and prevent orders from being overlooked.



Optimize performance

Address latency issues by migrating from legacy software to a modern, easily upgradable system, ensuring faster response times and the ability to implement new features without delay.



Consolidate tools

Combine multiple tools (Field FM, Zeus, navigation, timeclock) into a single, app to streamline workflows and reduce the complexity of managing tasks across different platforms.

Approach

Discover

As a designer I feel in order to get to the ‘How’ we need to understand the ‘Why’.
Because there was an existing app, I needed to become a SME to fully grasp the pain-points to improve the experience

Define

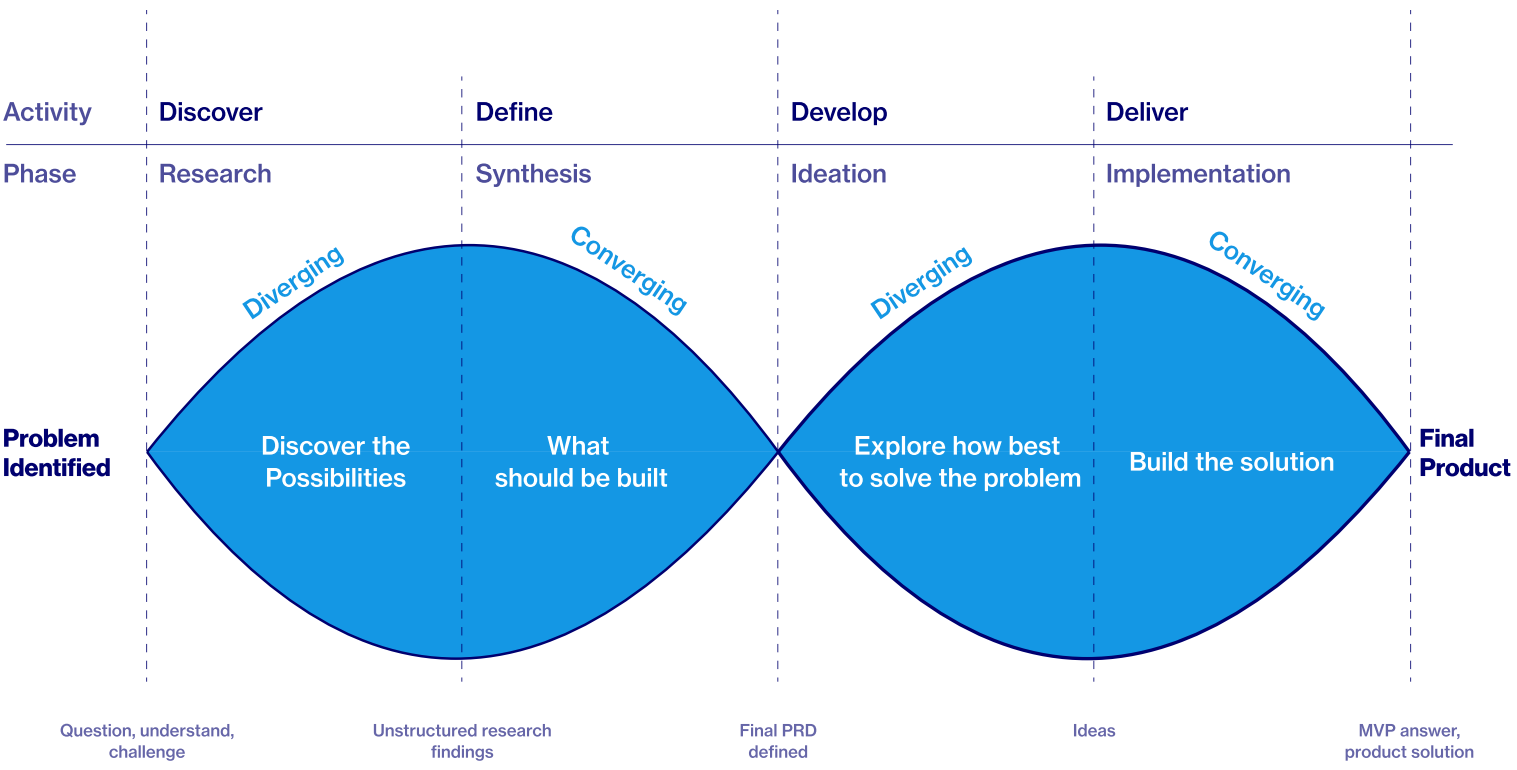
From there we had a better understanding of the problematic areas and we could then plan the roadmap for the project

Develop

We worked closely with our dev team to better understand the limitations/complexities when sketching and brainstorming ideas

Deliver

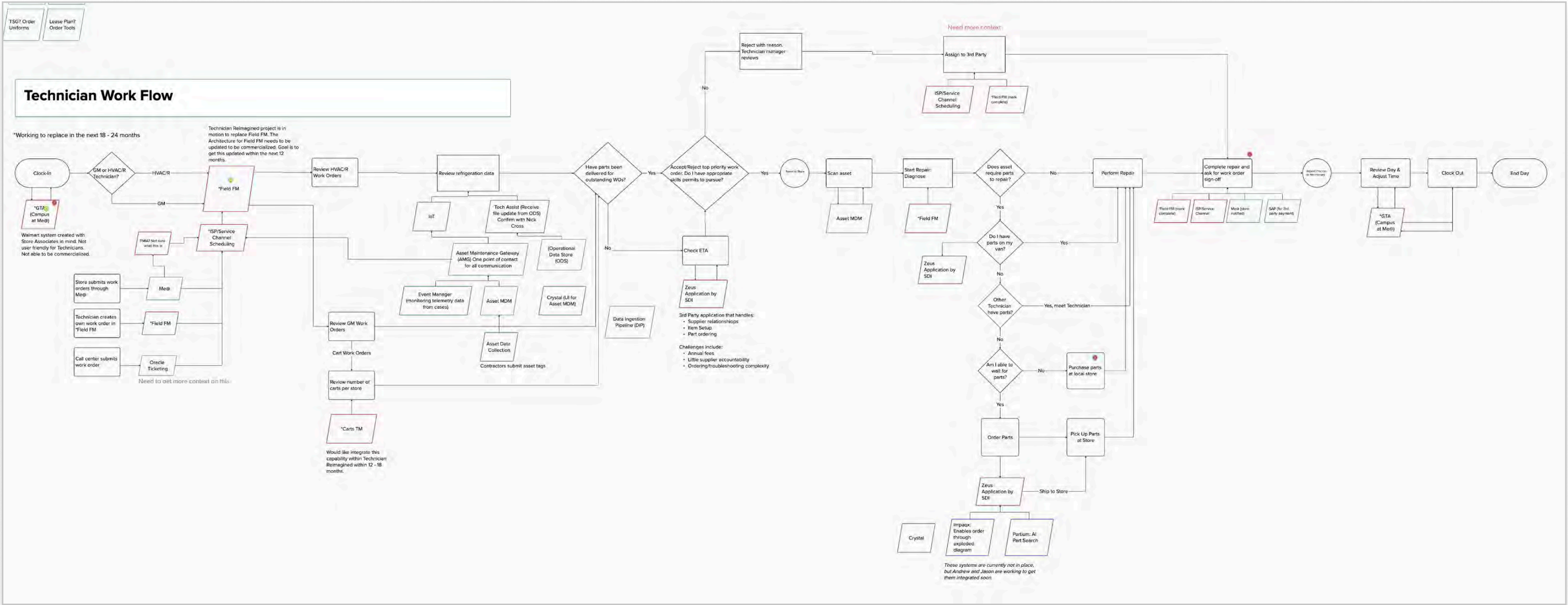
We went back to our users to validate our Hi-Fi designs via prototypes, as well as our internal stakeholders/devs and made iterations



Discover

Understanding the current app experience

As a designer I feel in order to get to the ‘How’ we need to understand the ‘Why’. Because there was an existing app, I needed to become a SME to fully grasp the pain-points to improve the experience.



Looking at the highs and lows of a technician during a typical day.



E2E Technician: Search User Testing Notes

Dustin Hicks and Jeremy Bach, GM Technician

11.8.23

Work Order Filtering

- Like to see total number of work orders after searching/filtering
- Stores: Would like to be able to add favorite stores
 - He primarily uses the stores filter
- "I never touch Distance." - Dustin
- In service channel, stores are listed in order
- All stores in the US are shown in the Field FM experience
- It would be nice to have the 27 stores that are within my area
 - I help out throughout the whole region, so I love to see what's going on in other people's stores
 - It would be helpful to have quick access to recently searched stores
 - "I check in with 4 – 5 other Technicians on my team every week." - Jeremy

Creating a Work Order

- Even if I am in the store, it doesn't know where I'm at
- "Speed is most important to me." - Dustin

Picking an area

- There is a bunch of animation within FM, and I am not crazy about this
 - There are several areas in which to choose, and I can only see 6 at a time in FM
- In SC, the store in which I'm located appears at the top
 - Row height is reduced and he can see 17 options on a single screen
 - I like to touch one area and have the maximum number of options available to me
 - Bottom sheet seems to be giving them trouble because it will not allow as many search results to be displayed
 - "Let me see as much of the screen as I can." - Dustin
- I have accidentally sent a work order to the wrong store because the system did not recognize where I am

"There are so many options to fill out the work order. Not sure if there is a way to throttle this down, but if we can display maximum options this helps." - Jeremy

Me@ pre-fills dropdowns based on a search result, and this really helps Dustin out.

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n't relate to the problem
itly just add the resolution manually

- Jeremy
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I answers and still don't find what

be helpful to put 'add' at the top so

side." - Jeremy

- Jeremy

:" - Dustin

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order

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toward the first of the month
and Extended

this information that I don't need to see

of the details on the face of the WO)." -

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o perform a double check

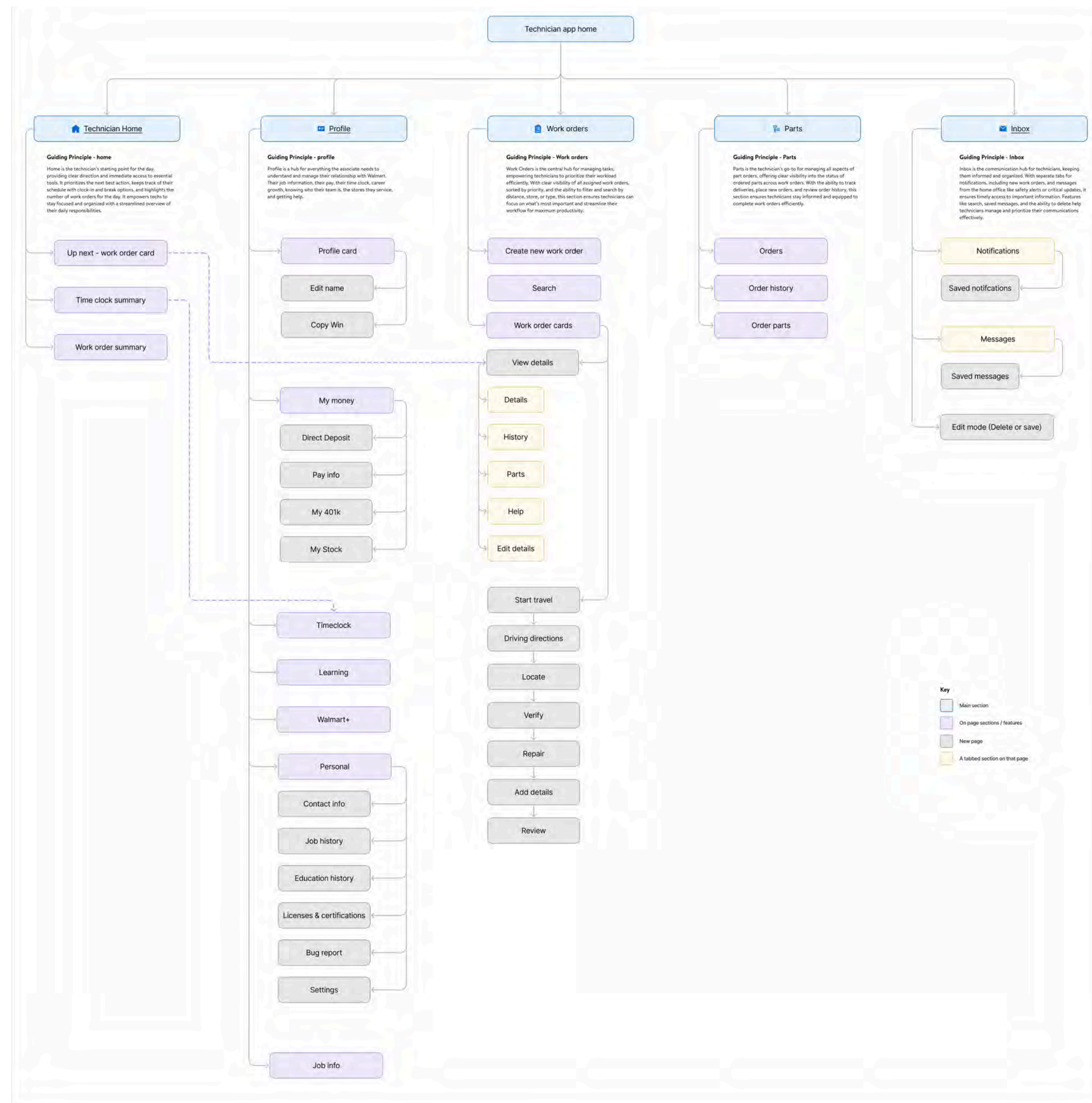
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Understanding the problem

Alongside stakeholder interviews I led user interviews with new and experienced technicians alike.

"I get worried about aging work orders. Sometimes they get lost and you don't have them available."

"I didn't know what I was looking at. It takes a good month to get use to this (Field FM app)."



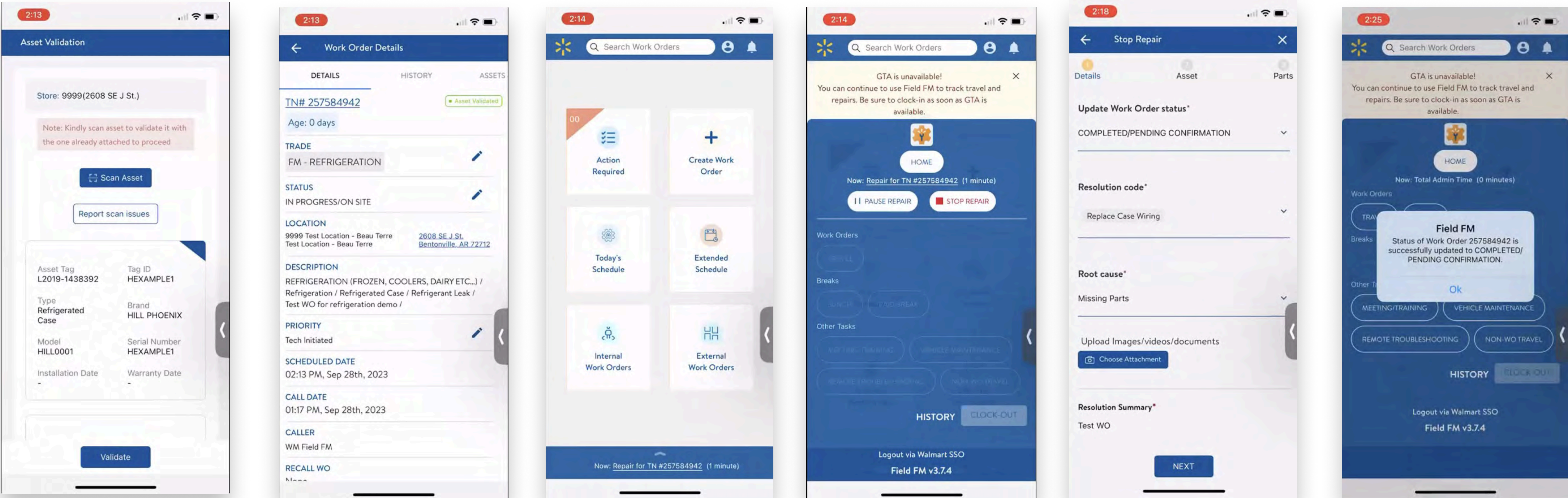
Site map

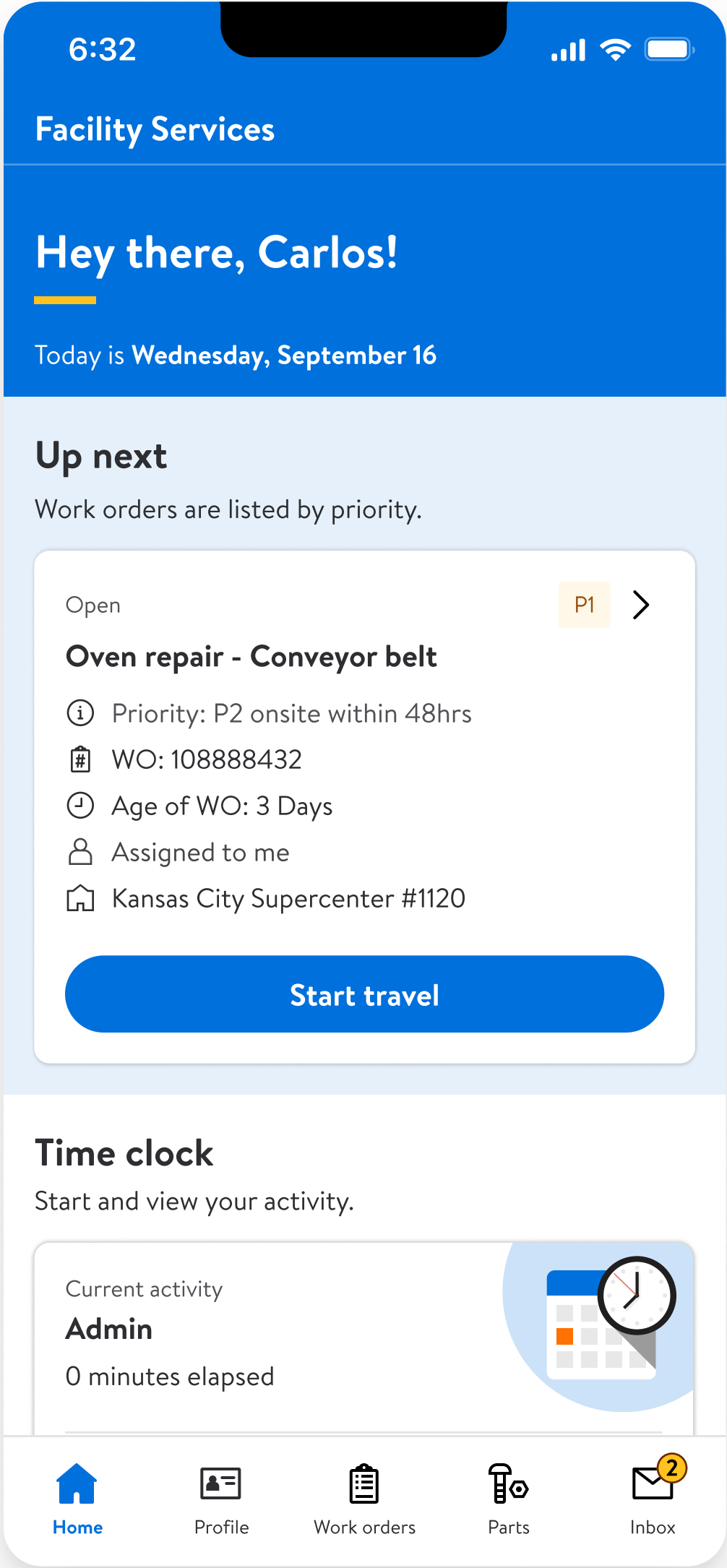
This map helped team and I visualize how the IA looked like, it also enabled us to map out how tackle this huge project, influencing the road map.

Develop

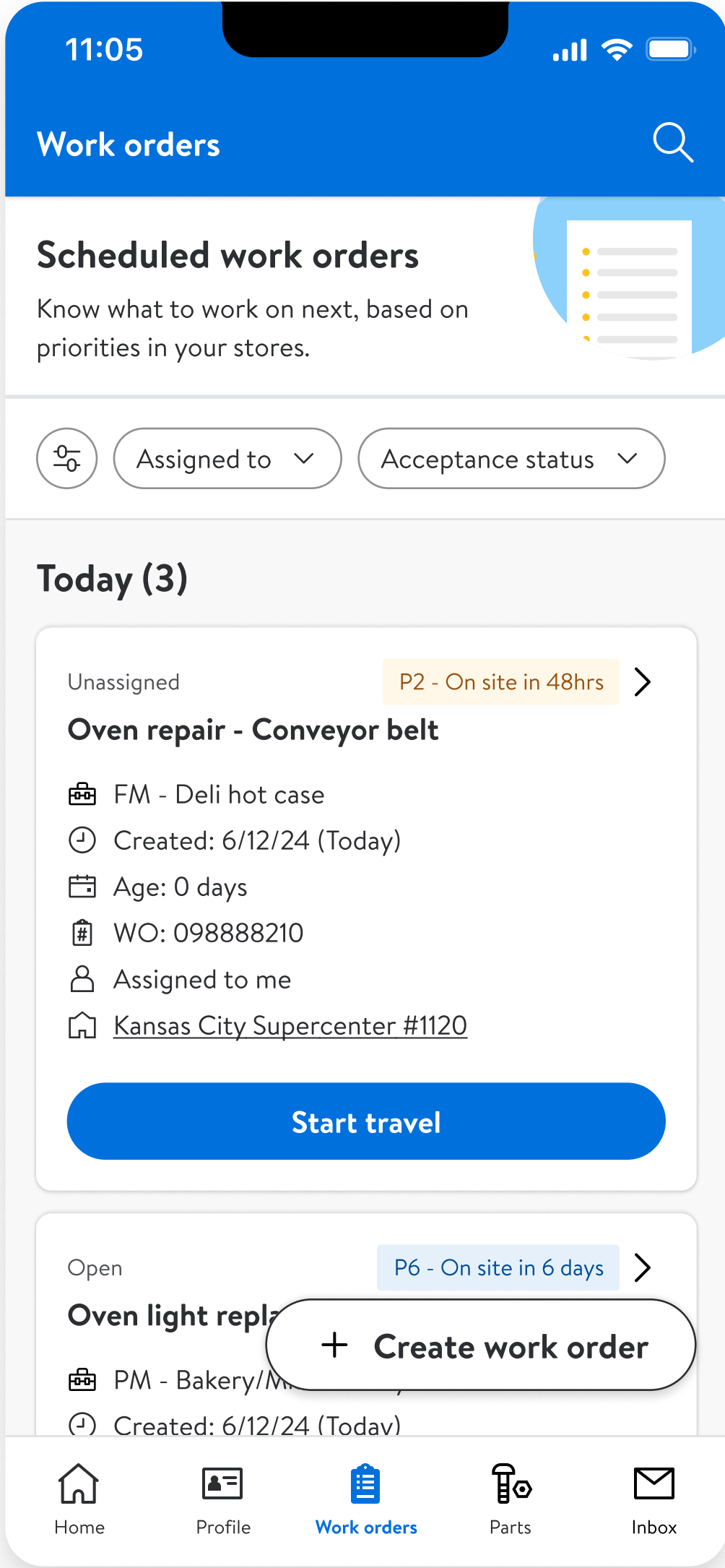
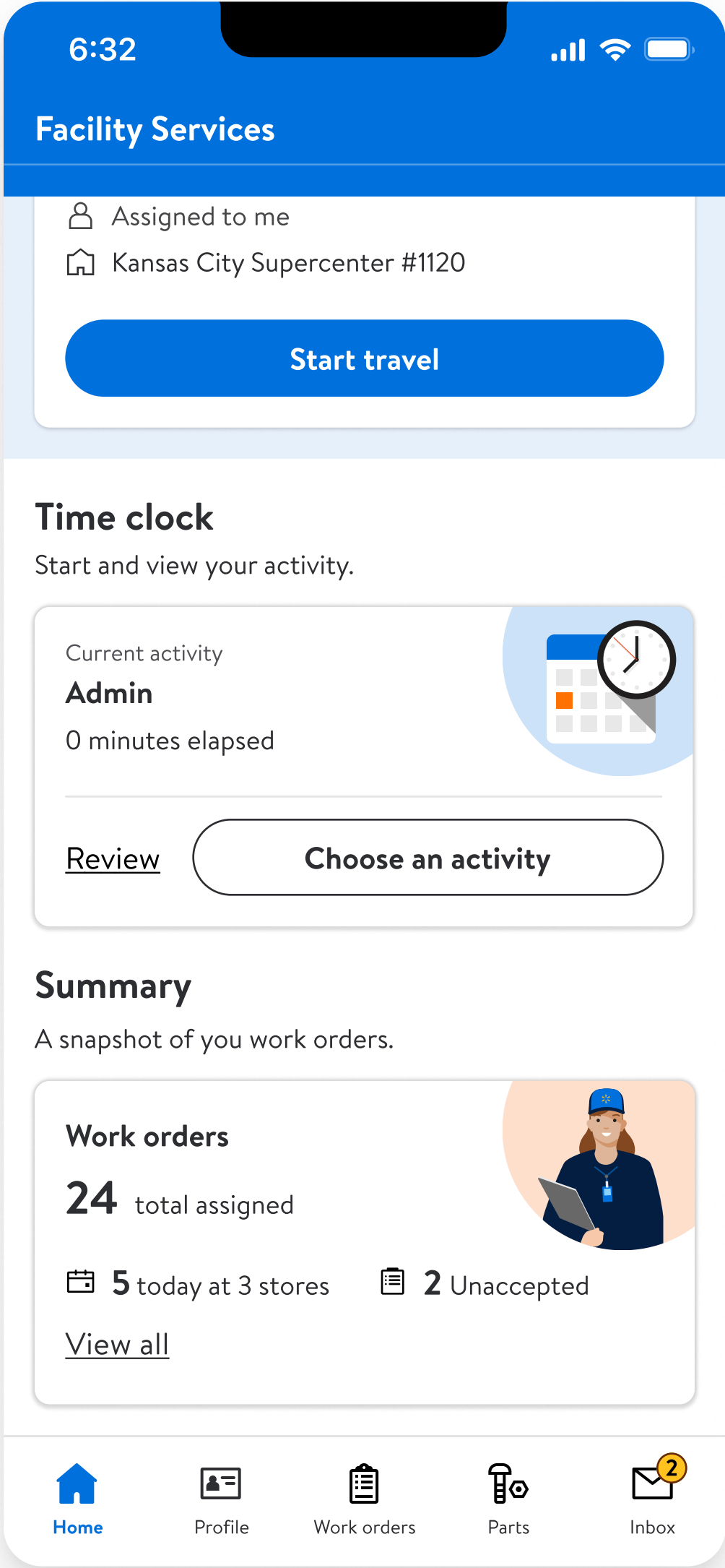
Existing app

Clunky, outdated visual design system and unintuitive to the average technician.





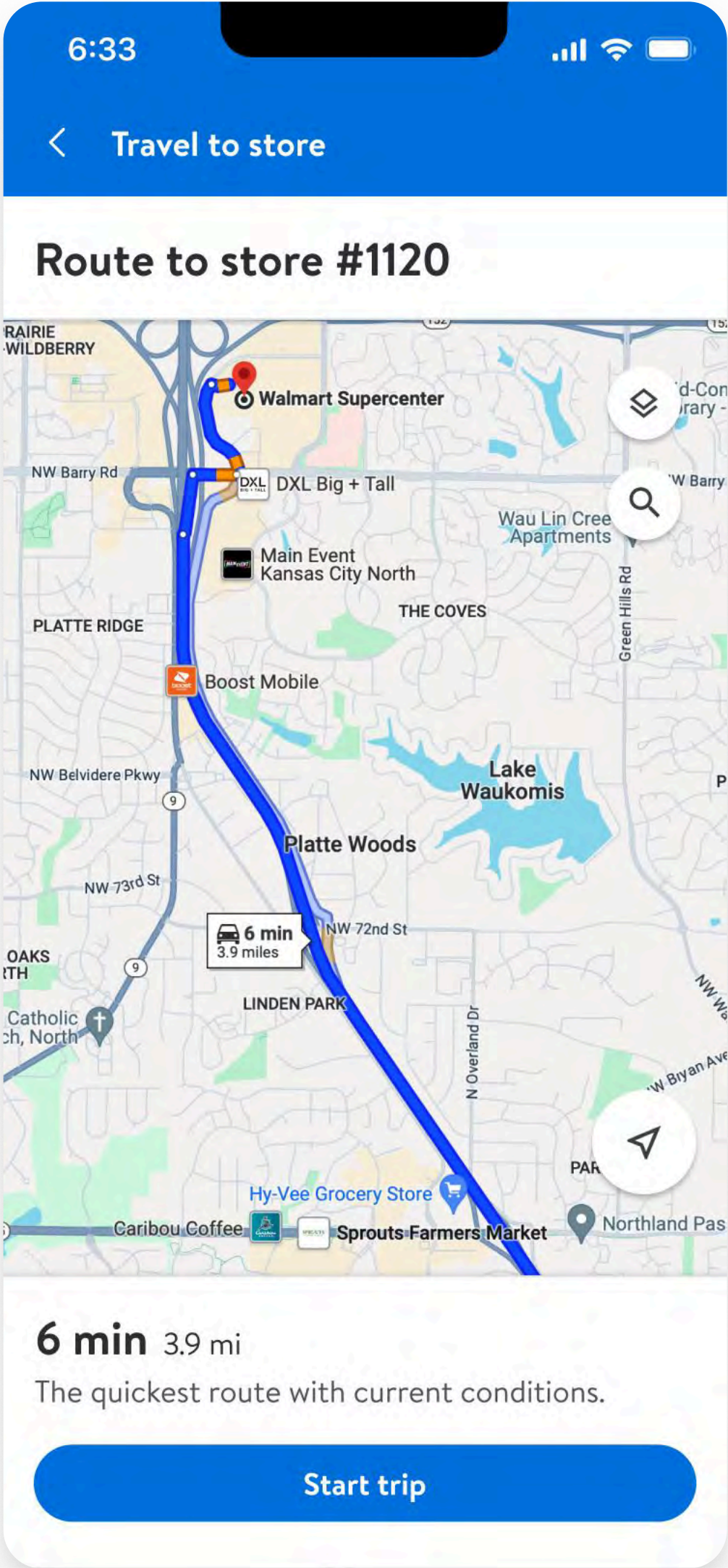
Home screen



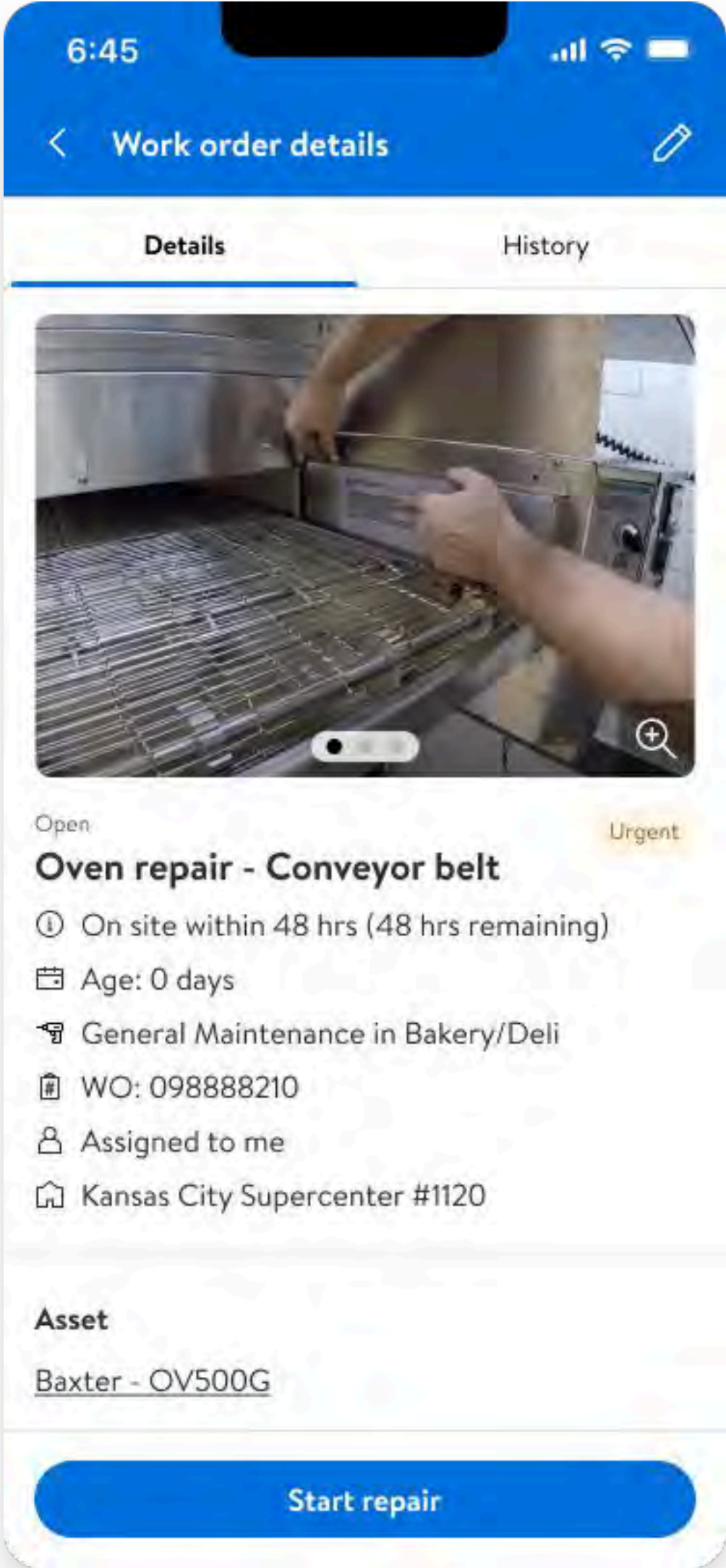
Work orders

Initial designs
These screens show the ‘home screen’, when Carlos is starting his day at home.

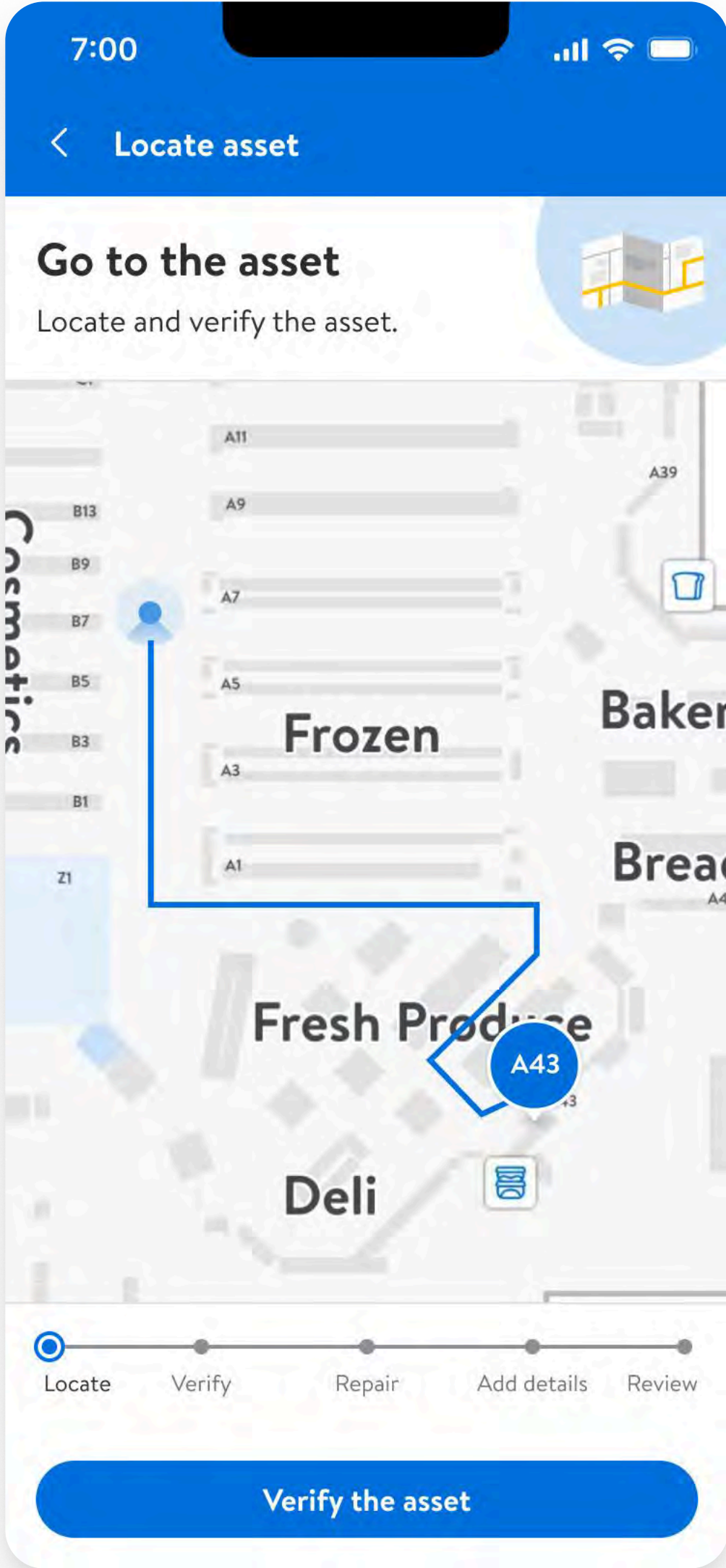
And also the ‘work orders’ screen where Carlos can see all his accepted automated queued work orders.



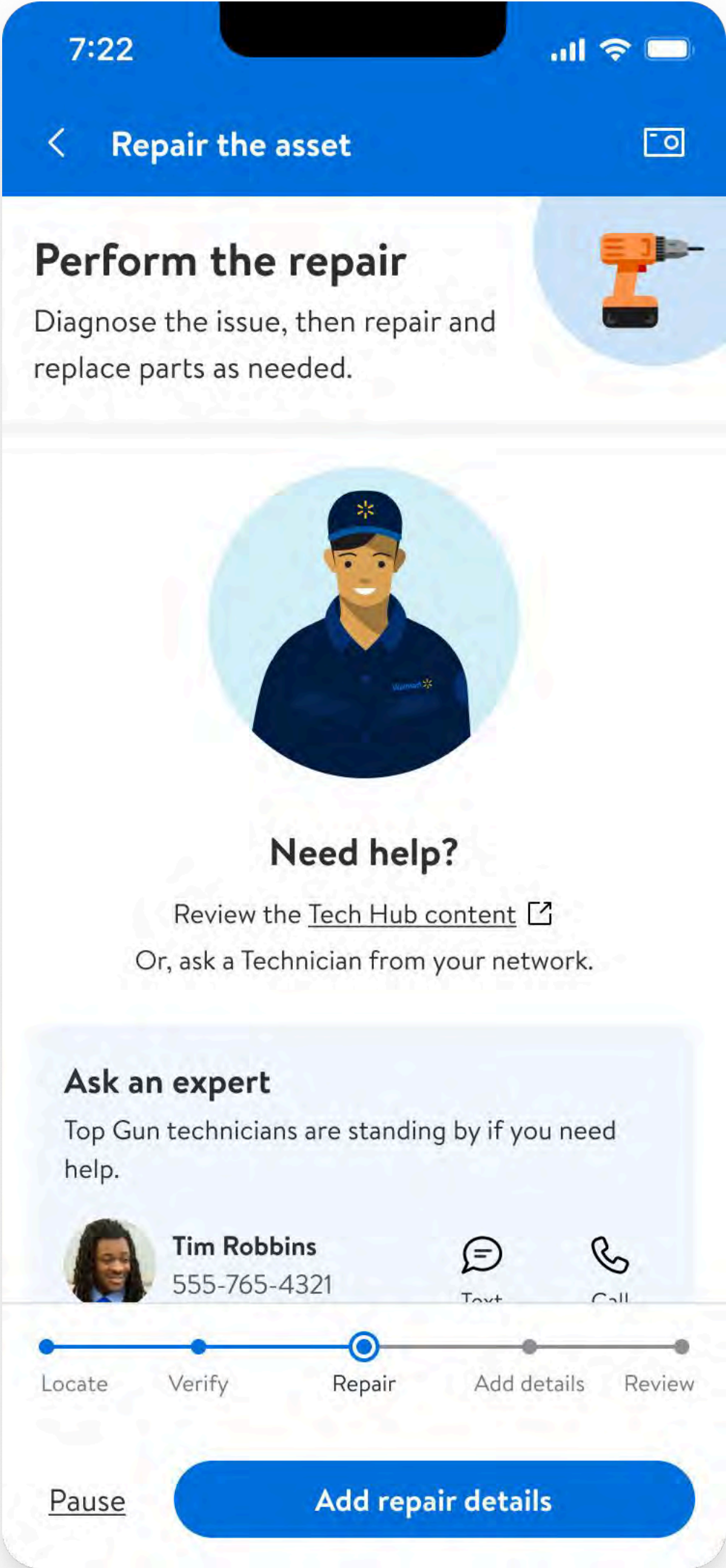
Traveling to the store



Work orders

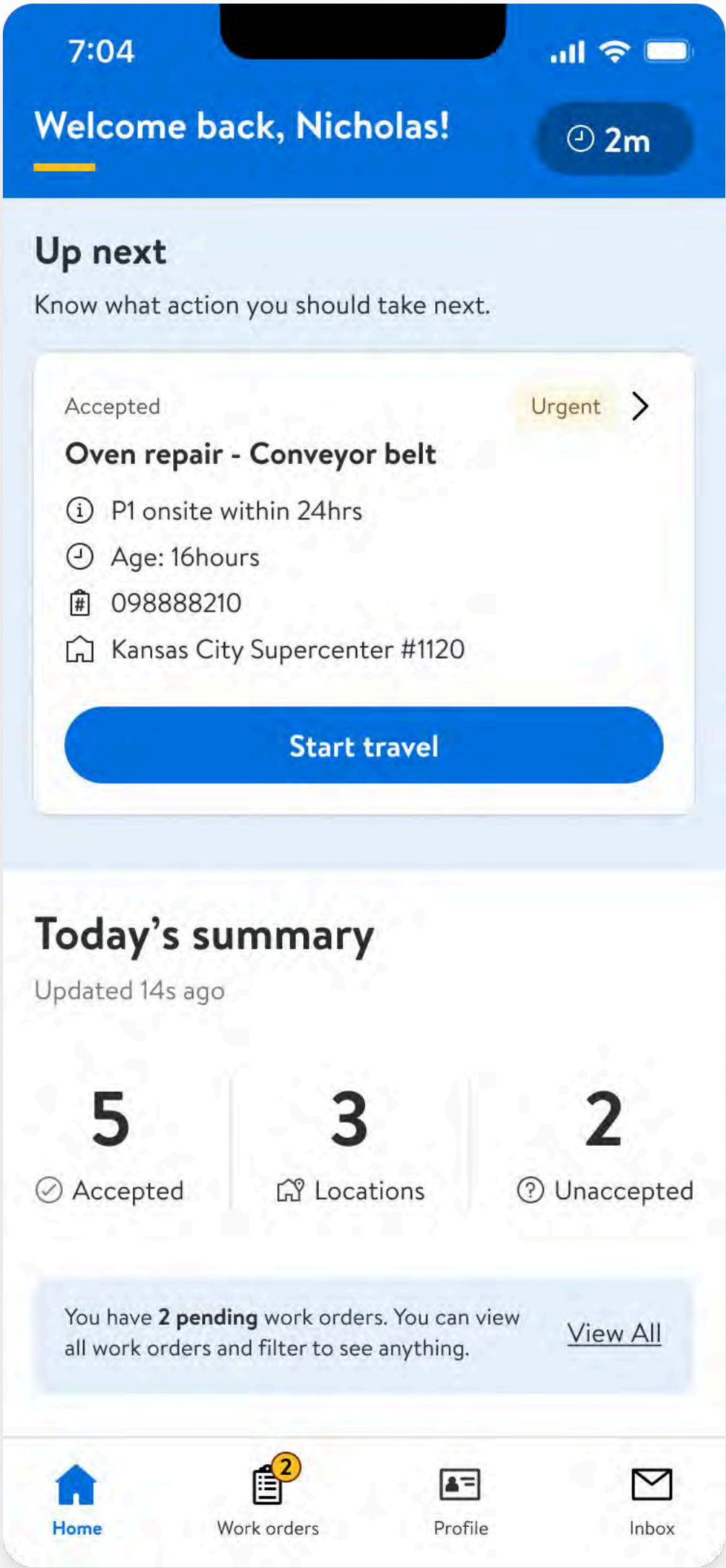


Locating the asset, need attention

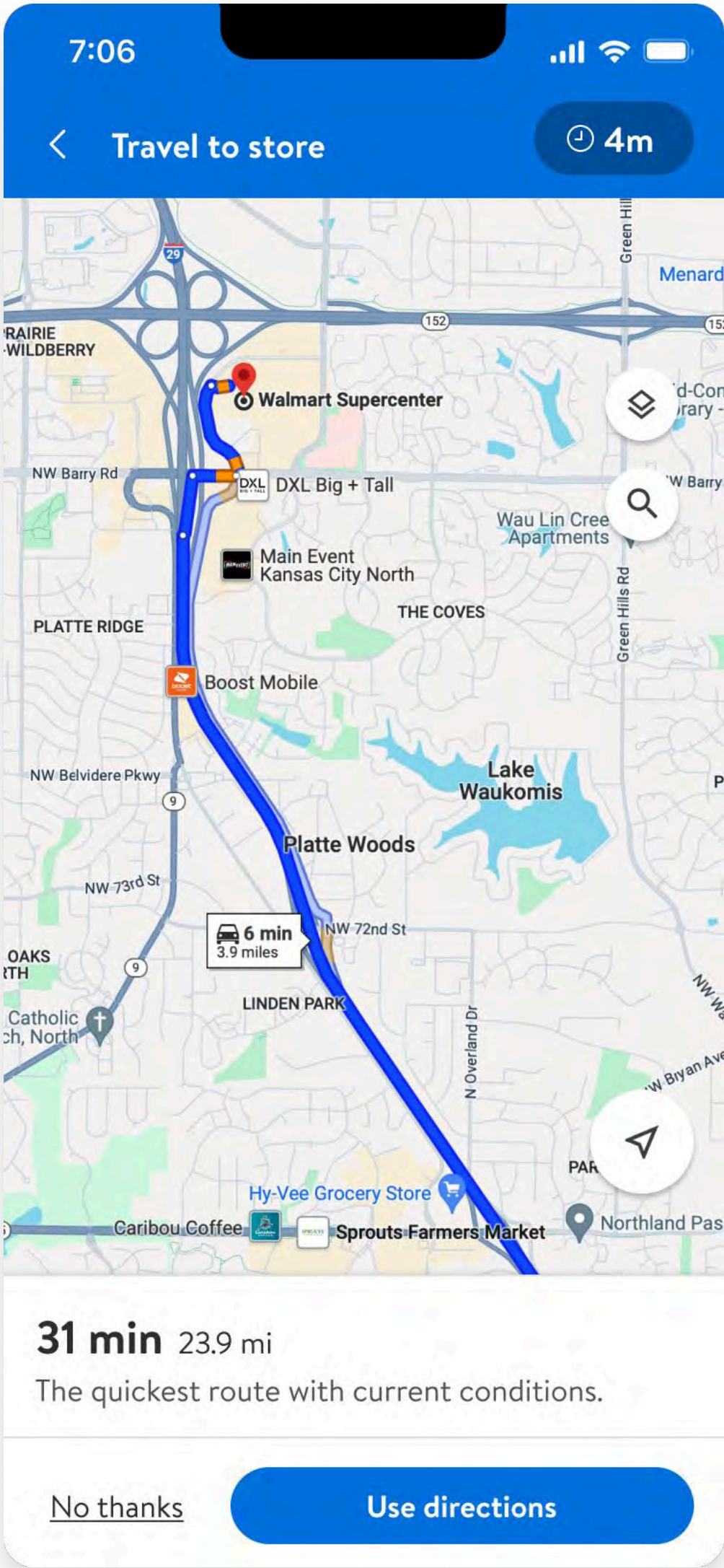


Performing the repair

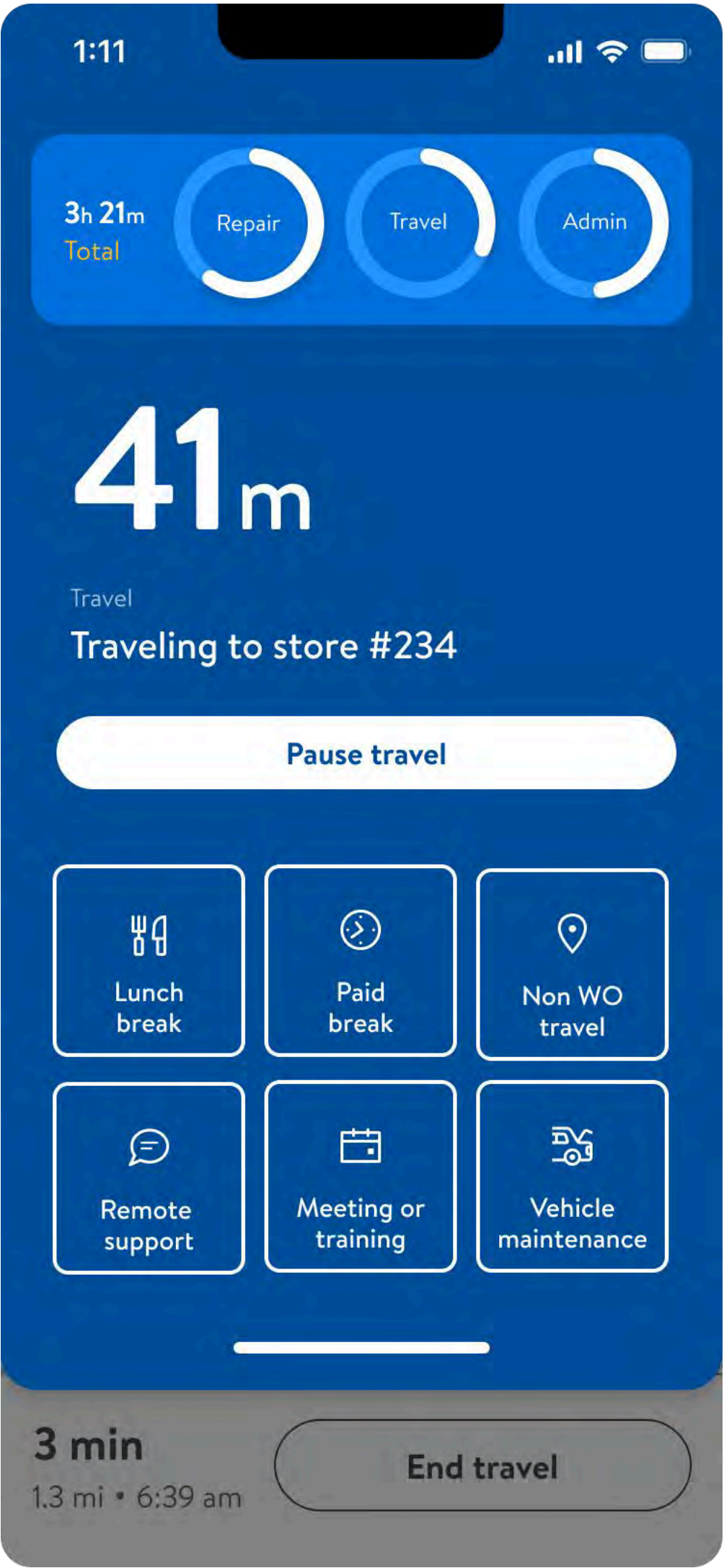
Final Designs



Home screen

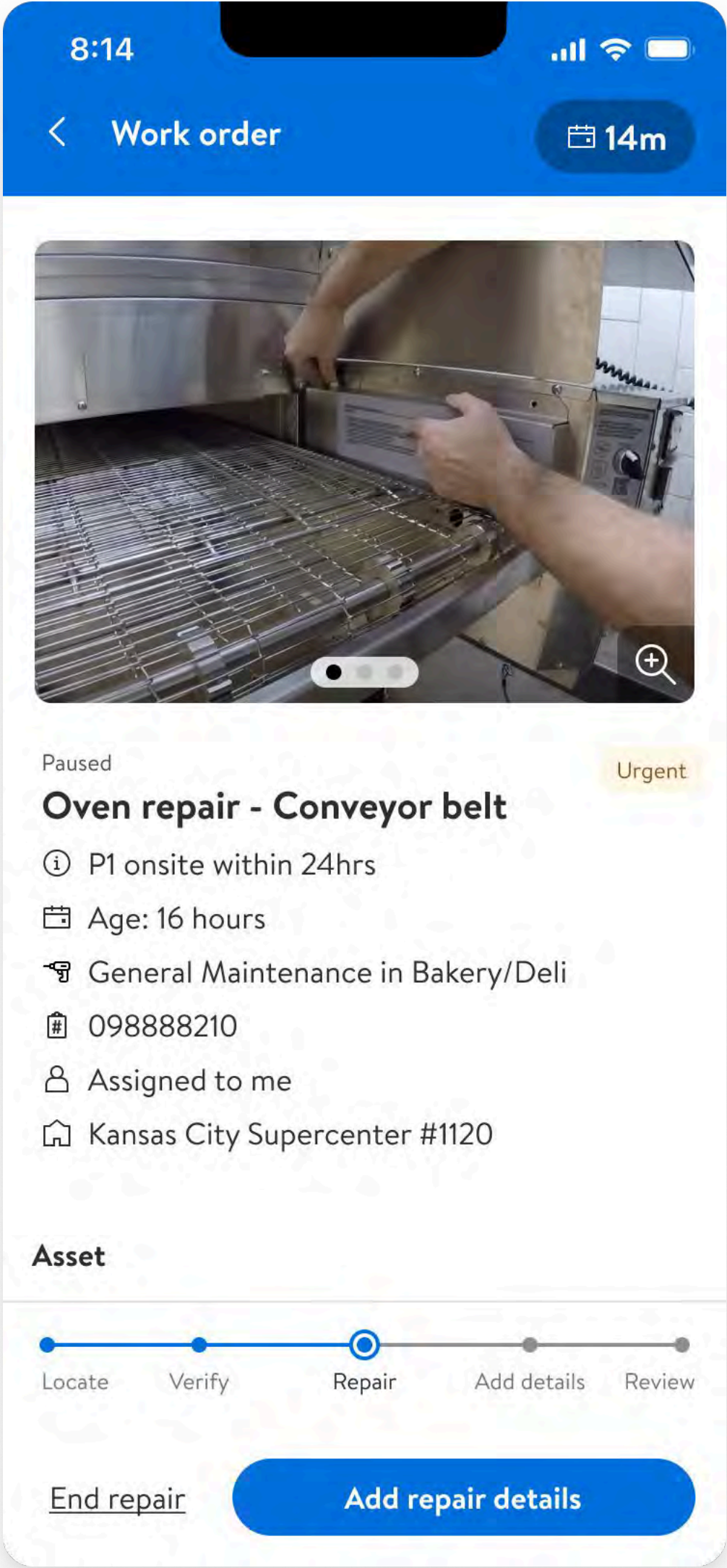


Trsvel to repair

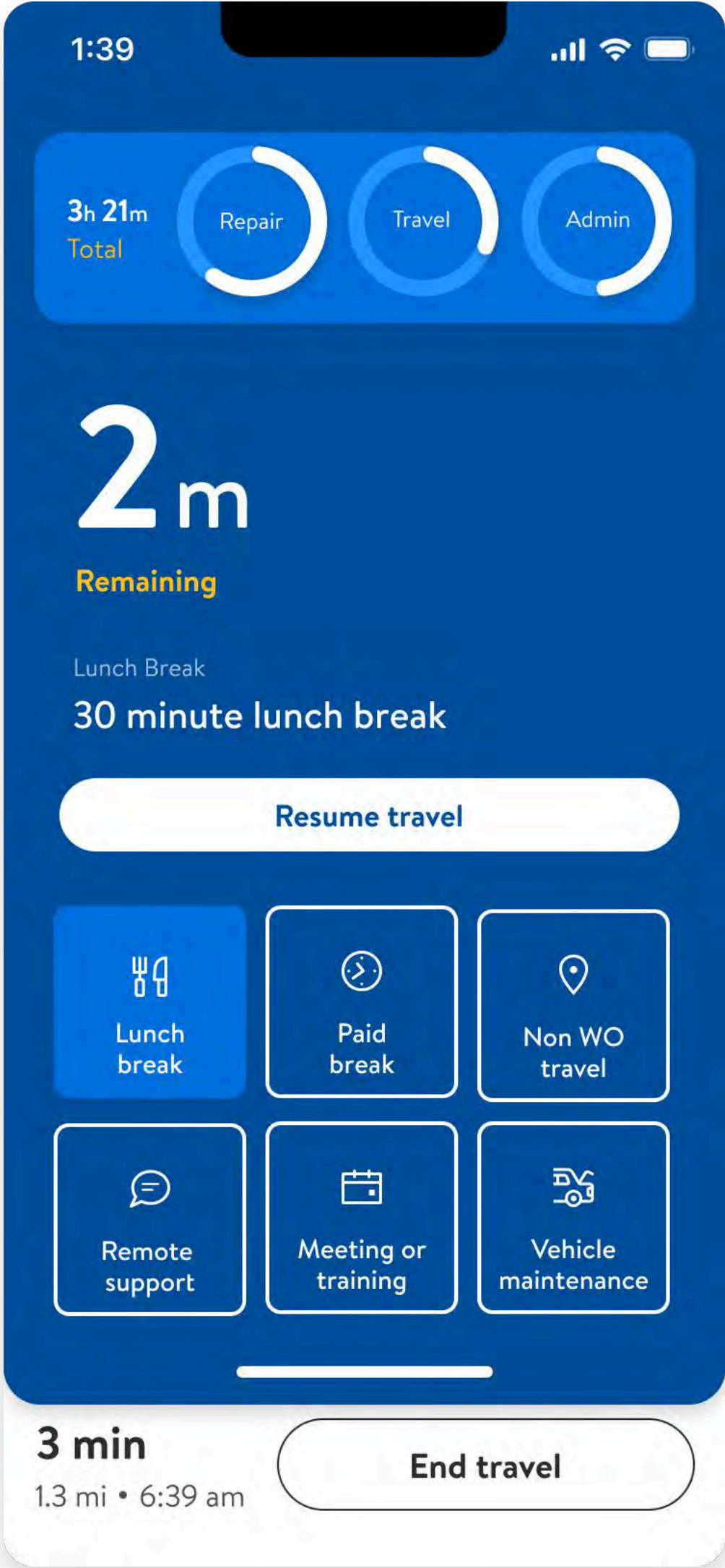


Lunch

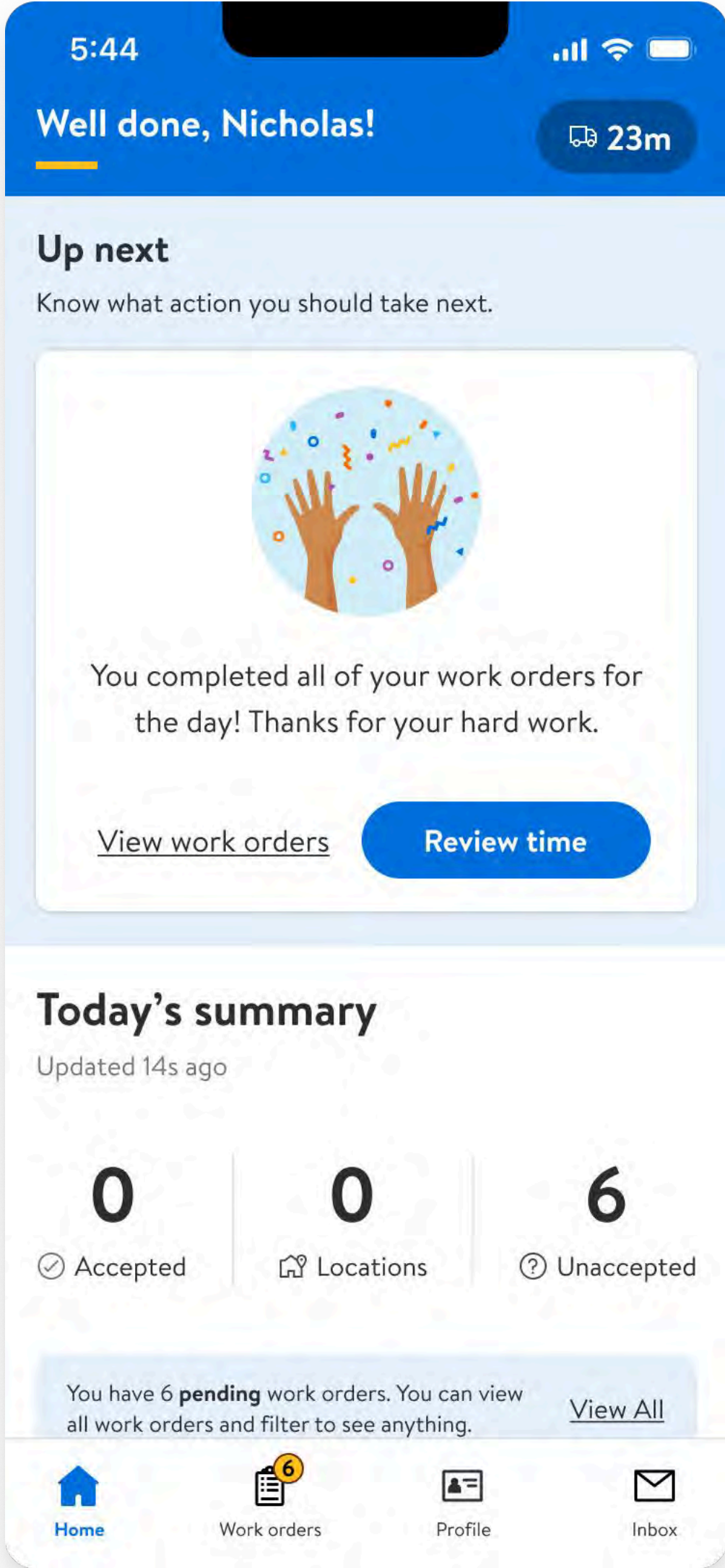
Final designs
After prototype testing with another round of technicians. We made iterations and finalized our designs



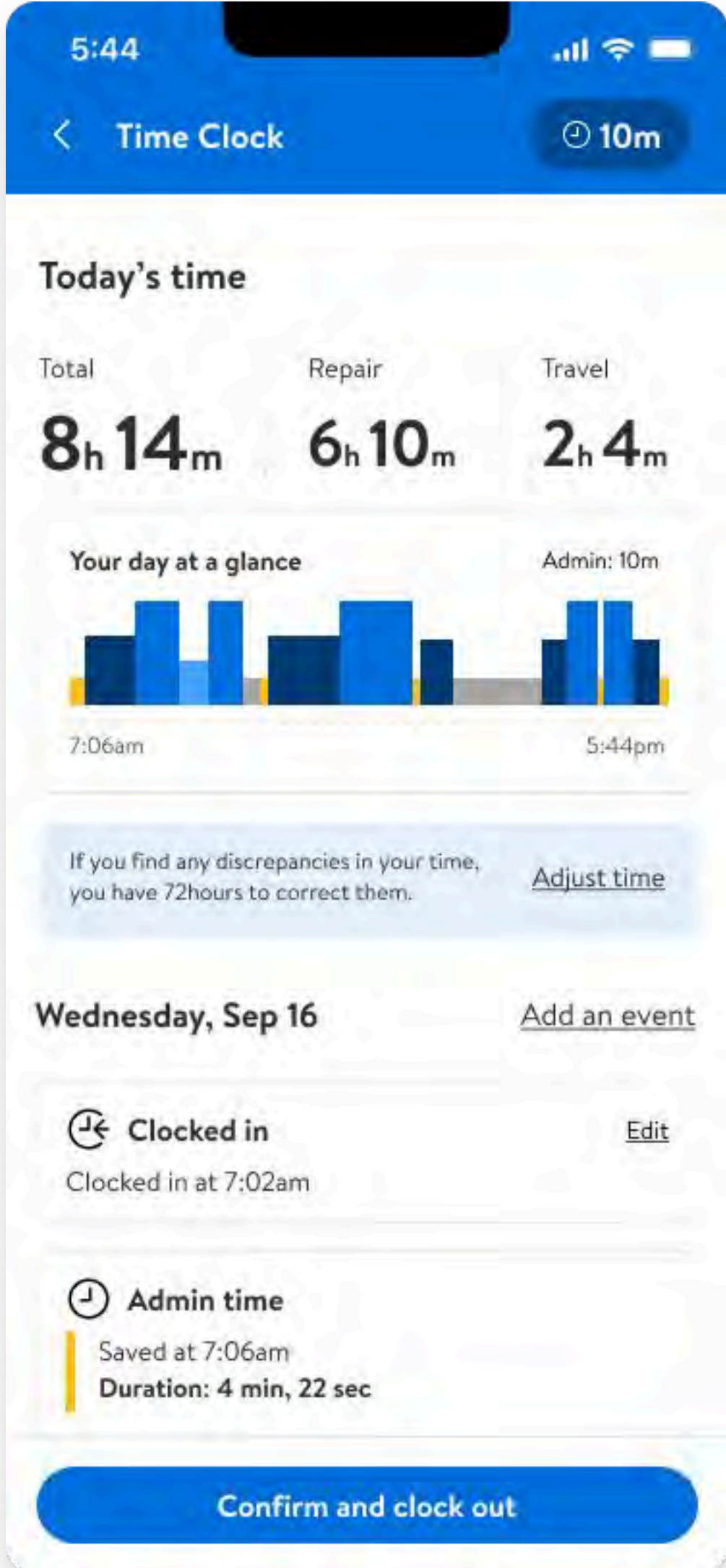
Repair



Lunch break



End of the day



Time clock

Conclusion

I left this team and project after delivering Engineering ready files. But I'm proud of where we improved the tool, all our partners from senior leadership to technicians were thrilled and believed this updated tool, would help streamline store facility management from a technician's perspective.

What I learned

This project really put into perspective the importance of research. Understanding the current tool and listening to technicians, unlocked my thinking allowing me to design a improved experience.

There were many challenges with a large project. Mostly, coming to a solid understanding with our partners, and robust roadmap that indicated on the moving parts.

Cheers!