

Designing for *Montgomery County DEP*

Meeting Agenda

- 01 Refresher on Goals & Solutions
- 02 Prototype Walk-Through - Office Side
- 03 Prototype Walk-Through - Driver Side
- 04 Project Handoff

Refresher On Goals & Solutions

What are we addressing with the final Bin Delivery System?

01

INITIAL CLIENT BRIEF

Reduce time-consuming inefficiencies in DEP's internal processes and provide better communication for residents

Filtering and organizing requests in 311 is repetitive and complicated

A lot of application hopping due to repetitive download process and software limitations

Efficient routes are planned mentally and can be a burden of information

Ensuring even distribution of workload based on driver availability

Addresses sometimes incomplete or in wrong field

311 is inaccessible on phone to close orders making this task unnecessarily complicated

A lot of application hopping between Google Maps and Excel to create the map

Newly constructed addresses don't always show up correctly in Google Maps

Tasks are not marked off instantly, adding a delay of a day or two to add in the system

Repeating steps done by Lina in cleaning up data and checking stop numbers

Using phone screen to check map routes can be a problem due to small screen size

Keeping track of completed deliveries and pending deliveries can be tedious

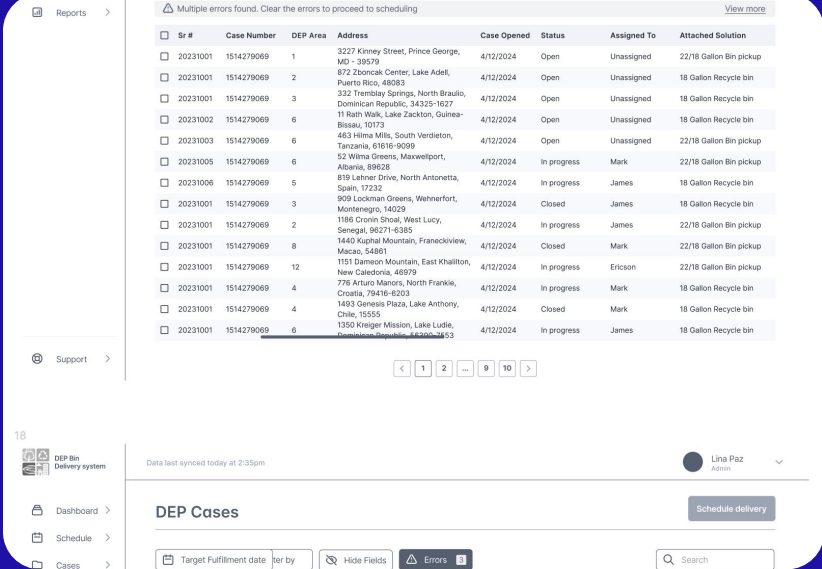
Prioritized Goals

- 1 Streamline data processing and scheduling
- 2 Streamline route planning
- 3 Simple tracking of completed and pending tasks
- 4 Reduce manual and repetitive work in task closure
- 5 Narrow drop-off time window
- 6 Provide recommendations to improve 311 in future

SPRINT #5 PROCESS

An overview on how we went about achieving the final goals in our last sprint.

ITERATING



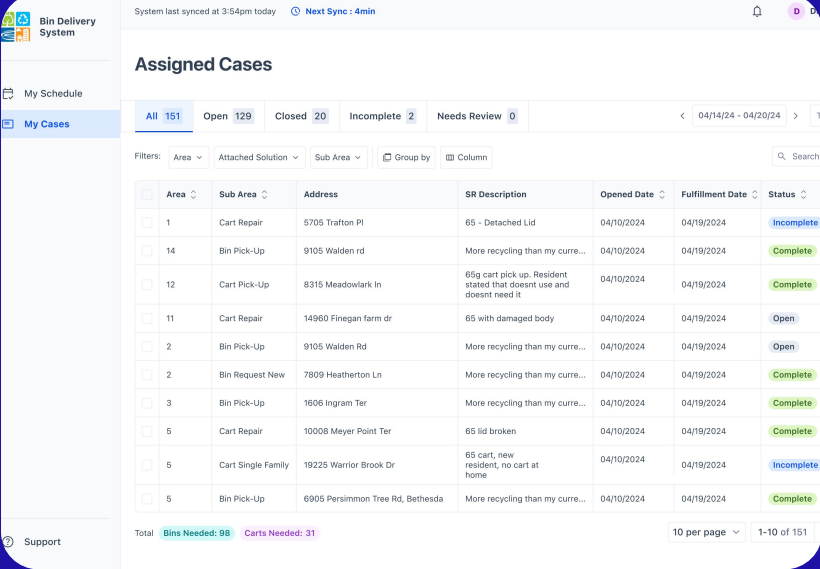
Implemented feedback from user testing

TESTING



Tested updated designs with office staff & drivers

POLISHING



Incorporated feedback and finished prototypes

USER TESTING: ACTIONABLE INSIGHTS

Both user testing sessions provided valuable insights that led to tailored user experiences for drivers and office staff.

Edge Cases

Thinking about the different scenarios apart from the standard complete/incomplete flow, which helped us cover a lot of scenarios which would have been missed, such as flagging cases and changing documentation.

Mental Math for Loading the Trucks

In the current process, drivers have to do mental math to figure out how many bins or carts they need to load on their truck each day. In the new system, these counts are automatically calculated for them.

Multiple SRs v. Single SRs

We implemented designs that incorporate multiple SRs into one screen, while still maintaining the ability to document them separately. This is based on the drivers' need to do both pick ups & deliveries at the same address.

Office Workflow

From data processing and scheduling to closed service requests

02

Pain Points: Office Processing

“Usually, it takes 30 min to an hour to complete the process, depending on how many [requests] we have, and it gets complicated sometimes.”

Filtering and organizing requests in 311 is repetitive and complicated

A lot of application hopping due to repetitive download process and software limitations

Ensuring even distribution of workload based on driver availability

Addresses sometimes incomplete or in wrong field

Pain Points: Closing Out Orders

"I try to close it as soon as possible when I get [the scans]; that way if a resident calls for any reason, that information is in the system."

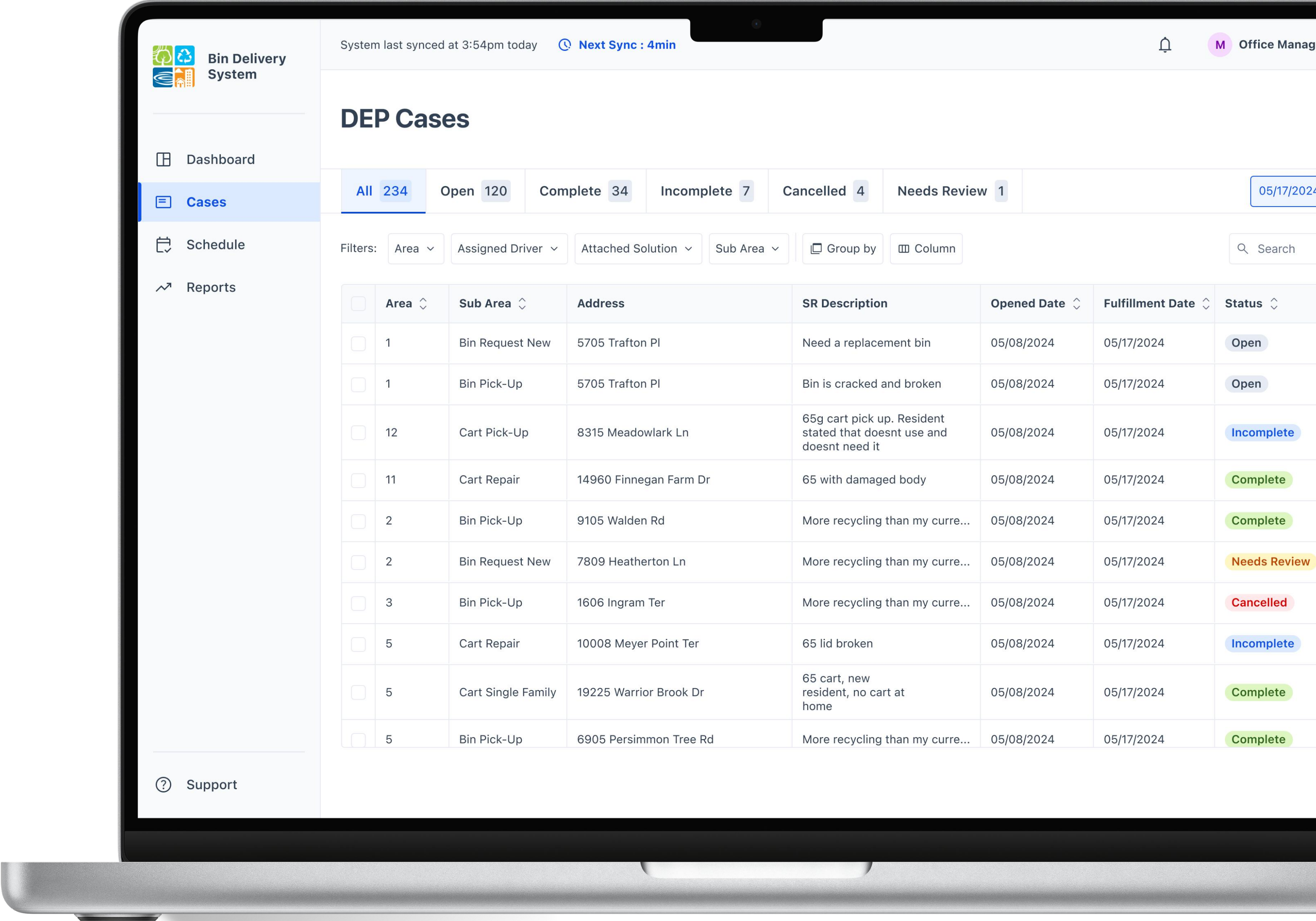
311 is inaccessible on phone to close orders making this task unnecessarily complicated

Updates of tasks are done manually on paper and later on system, making some of these steps repetitive

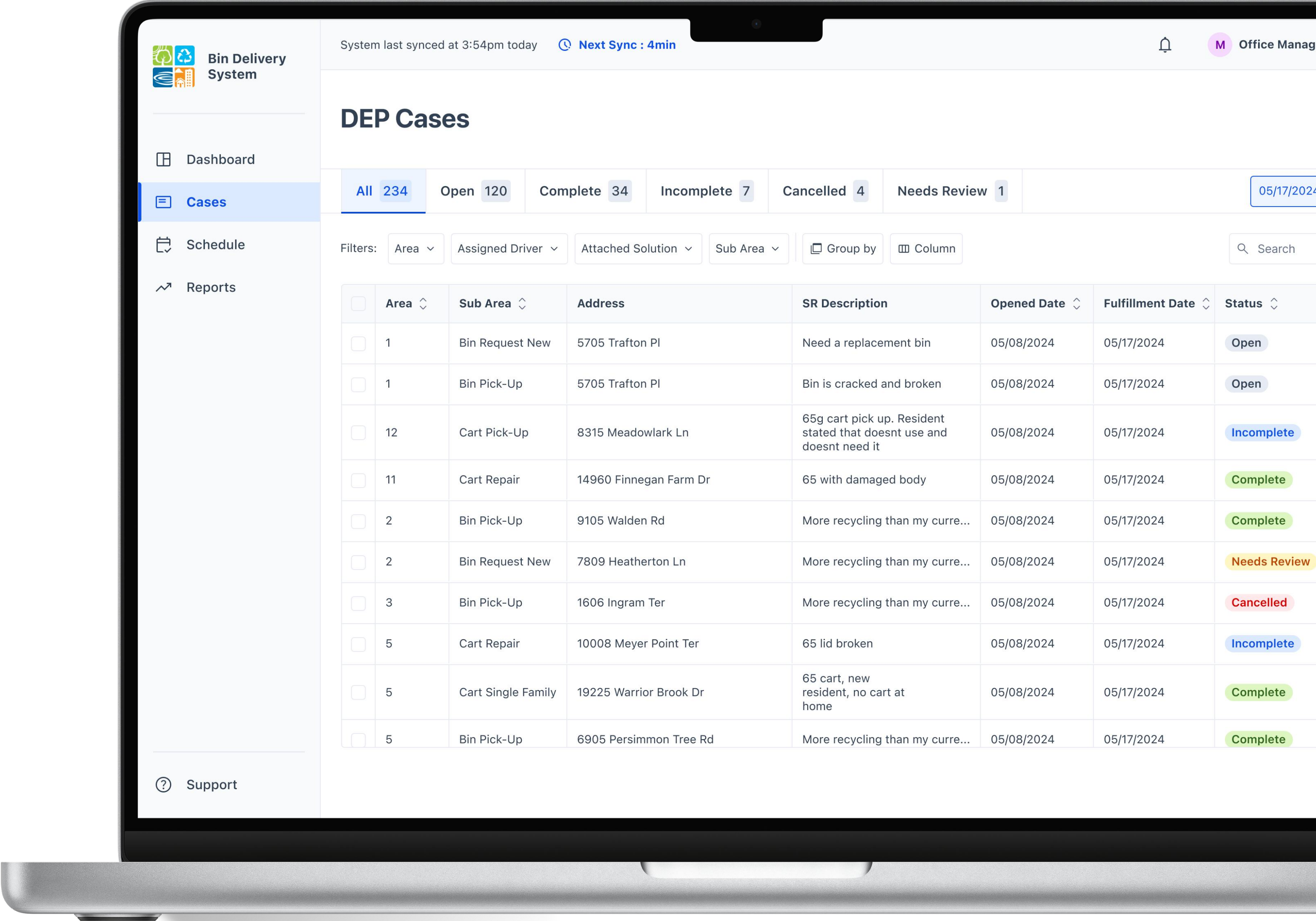
Tasks are not marked off instantly, adding a delay of a day or two to add in the system

OFFICE WORKFLOW

Office prototype



QUESTIONS: OFFICE WORKFLOW



Driver Workflow

From route-planning to real-time status updates

03

Pain Points: Driver Setup

“I would like to know and update the delivered address on the map.”

A lot of application hopping between Google Maps and Excel to create the map

Newly constructed addresses don't always show up correctly in Google Maps

Repeating steps done by office staff in cleaning up data and checking stop numbers

Efficient routes are planned mentally and can be a burden of information

Pain Points: Out In The Field

***"Our priority is on-field work.
Documentation is our
secondary work."***

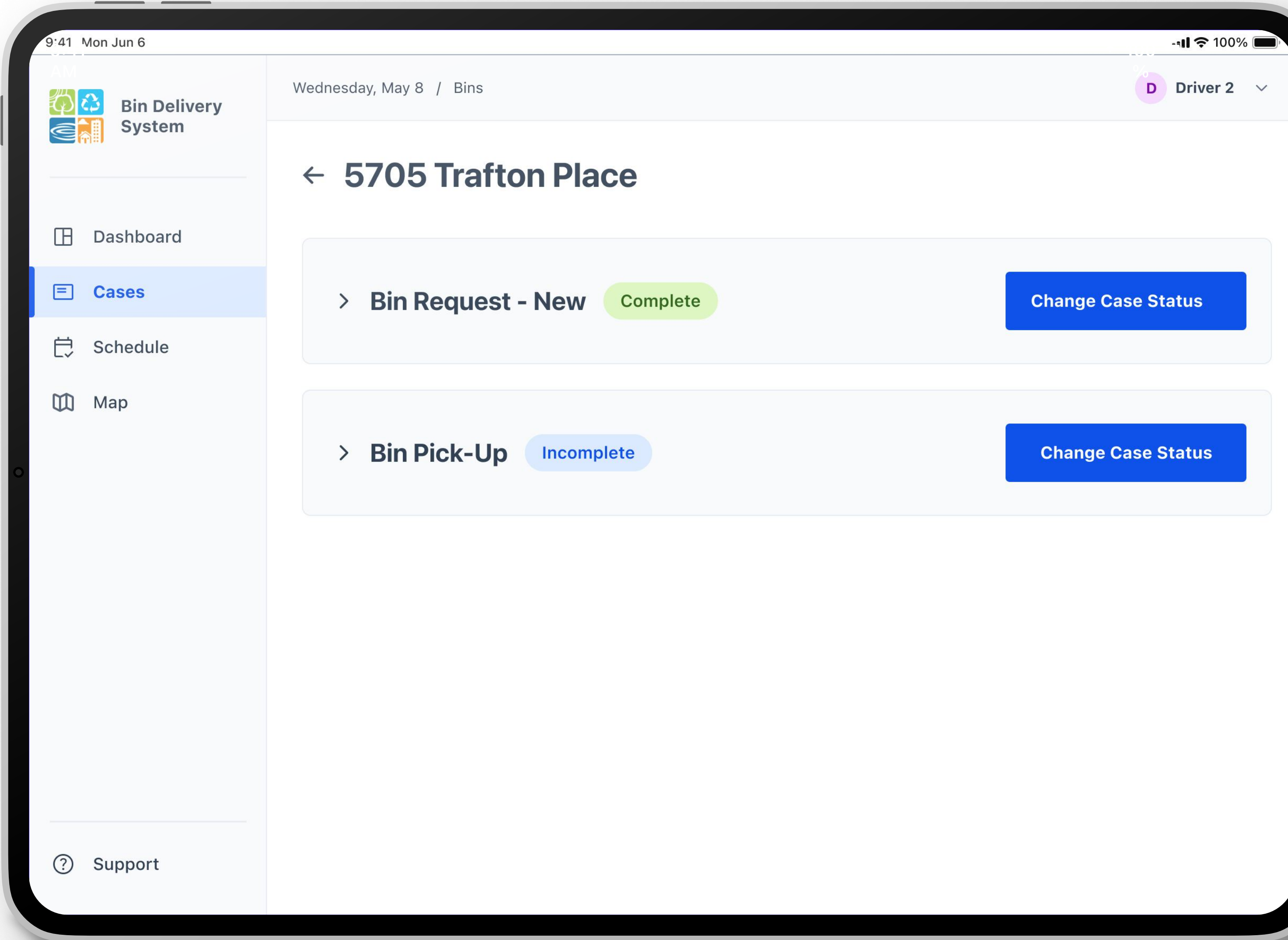
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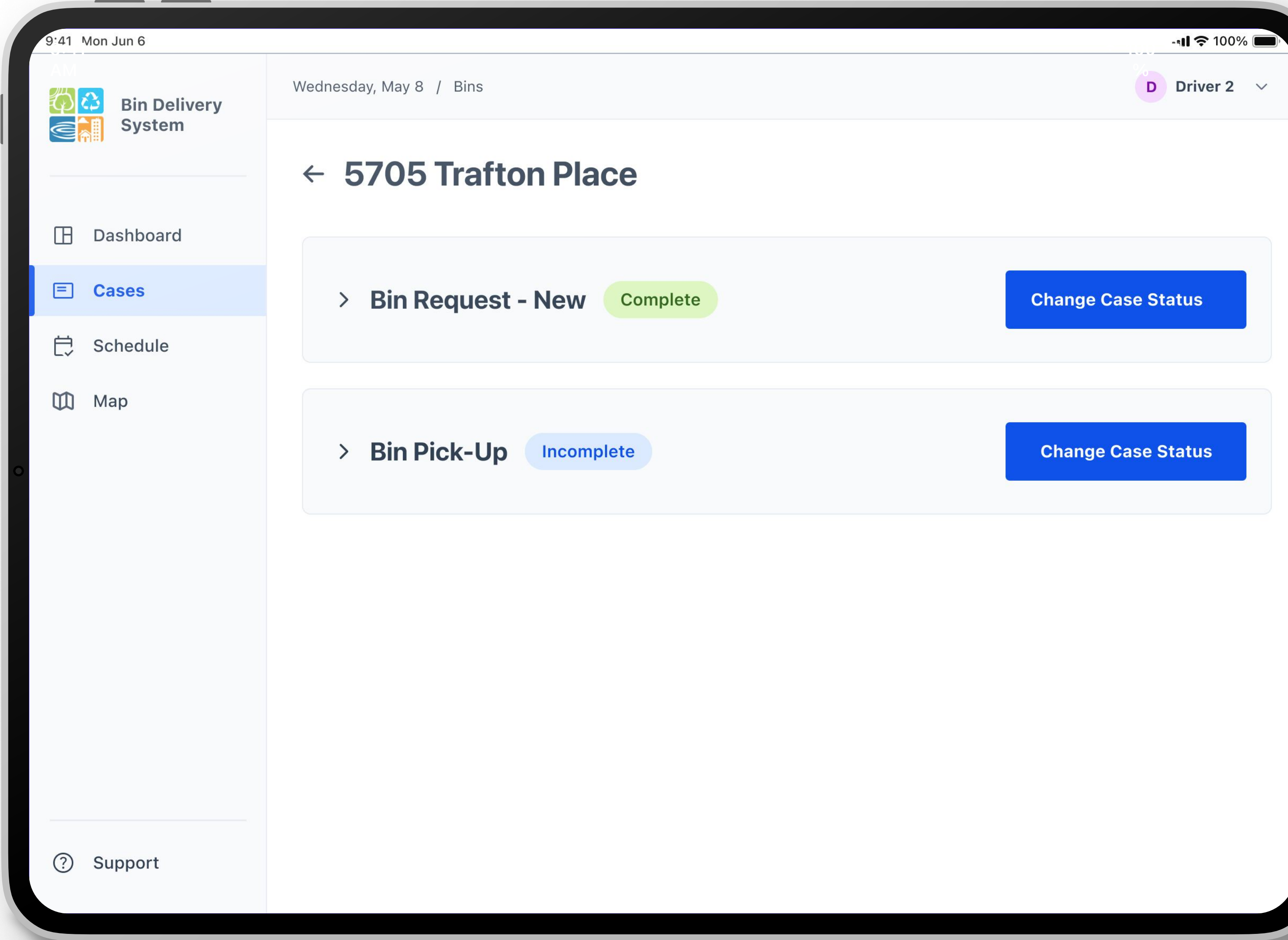
DRIVER WORKFLOW

Driver prototype (desktop)

Driver prototype (tablet)



QUESTIONS: DRIVER WORKFLOW

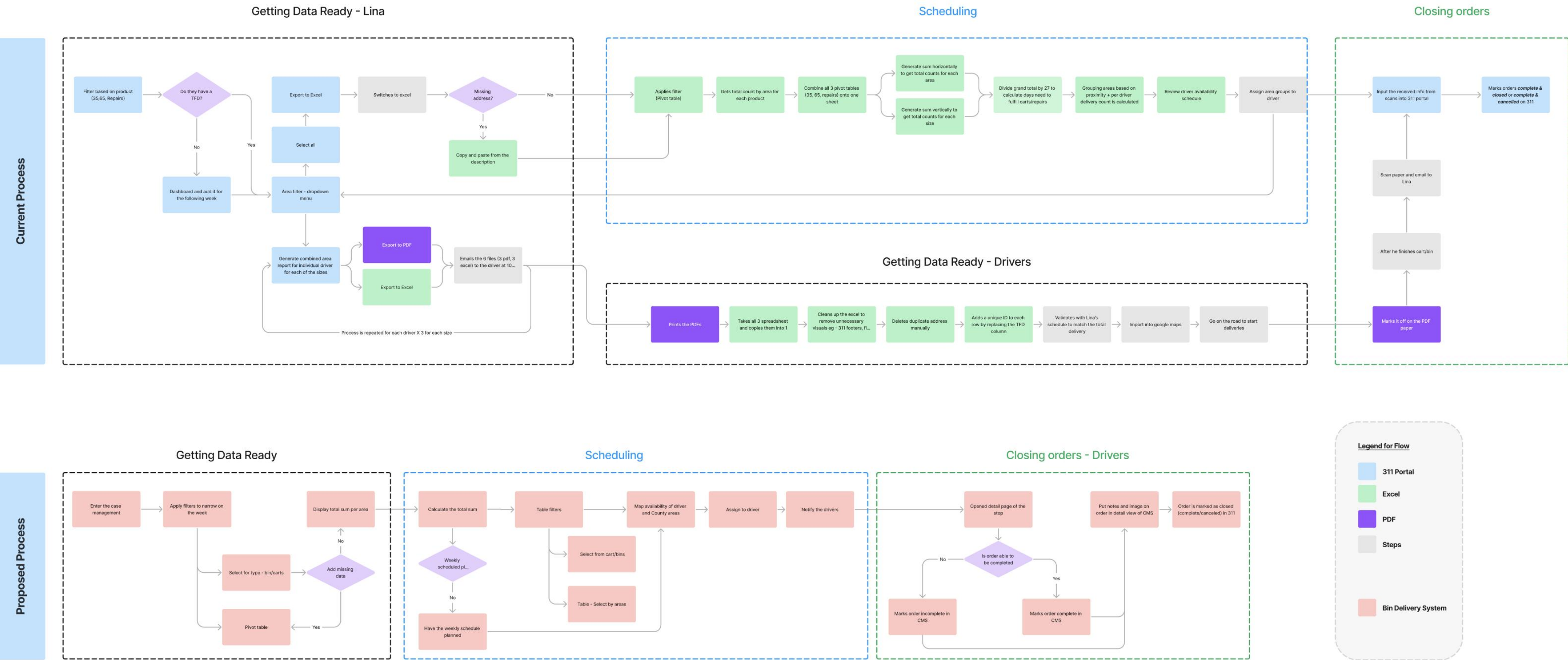


Project Handoff

04

PROCESS COMPARISON

How are we creating tangible improvements to the existing workflow?



PROCESS BENEFITS

01 Improved Integration Between Softwares

3 systems sync with each other & reduce external software usage (Google Maps, Excel, etc)

02 Reduction in Number of Steps Required

40% decrease

03 Eliminating Process Overlap

Drivers not required to clean data further for route planning

04 Real-Time Updates in CMS

Drivers able to close requests in the field

05 Improved Customer Communication

Residents are automatically notified when their request is complete

06 New Features

Introduced new features aimed at clearer communication, improved efficiency, and better usability

HANDOFF MATERIALS

Training Document

Document providing information for efficiently using the new bin delivery system

Developer Documentation

Set of annotated screens with prototype examples and callouts to provide guidance on implementing the designs

Full Set of Deliverables

Google Folder of all deliverables from Sprints 1-5 (Data Insights, Workflow Models, Business Case Documentation, Prototypes, etc)

QUESTIONS

THANK YOU