

The top-left portion of the page features a series of thin, light-colored lines that intersect to form various irregular polygons and shapes, creating a complex, abstract geometric pattern.

# S.L.A.T. HIGH FIDELITY USABILITY REPORT

Catherine Hite

## MAIN GOAL

Ensure that tasks will encourage users to interact with different parts of app, avoid mis-clicks caused by limited functionality of prototype, and avoid previous confusion around active/inactive sections of tab menu bar.

## PARTICIPANTS

Seven participants (3 females and 4 males, between the ages of 25 and 36) evaluated a high-fidelity clickable prototype made using Figma.

## SESSIONS

Participants completed a series of 4 tasks independently via Maze.co and were asked questions about their expectations about how app would function, thoughts about selected screens, ease of use, overall impressions, and about their mobile device usage. Sessions were completed on May 8, 2023

## ROLES

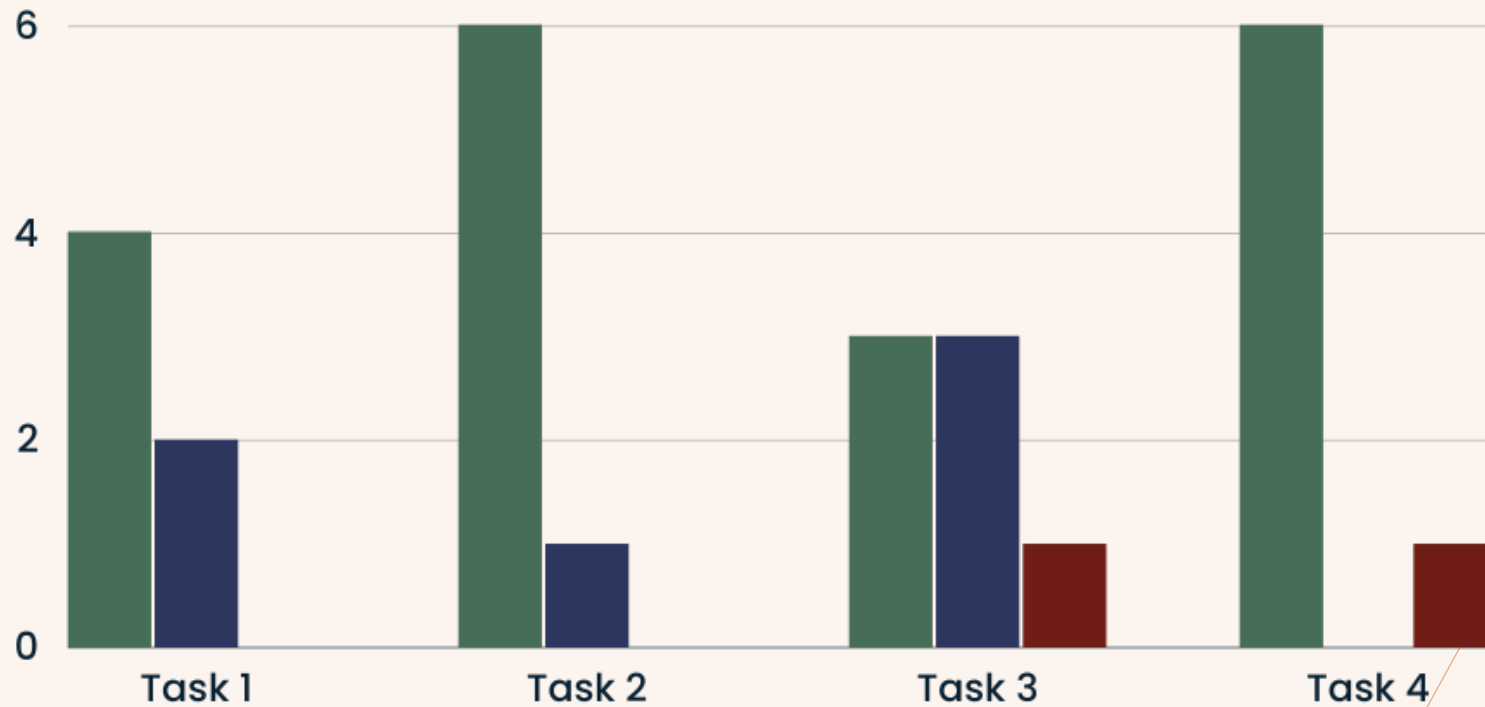
Catherine Hite, UX Researcher & Designer

# EXECUTIVE SUMMARY



# SESSIONS: PATTERNS

# MIS-CLICK RATES



**Green**= 0 mis-clicks

**Navy**= 1 mis-click

**Red**= more than 2 mis-clicks

# 6 OUT OF 7 PARTICIPANTS USED **THE SAME METHOD** ON TASK #3 AS THEY HAD ON TASK #2

ONE PARTICIPANT USED **SEARCH**

TWO PARTICIPANTS CLICKED ON THE MAP'S WASHINGTON  
& STATE BUS STOP **ICON**

THREE PARTICIPANTS SELECTED **NEARBY BUS** FROM MENU



6 OUT OF 7 PARTICIPANTS WERE ABLE TO  
COMPLETE TASK #1 IN 4 OR 5 CLICKS

THE 7<sup>TH</sup> PARTICIPANTS TOOK SIGNIFICANTLY MORE CLICKS DUE TO CONFUSION  
OVER THE LIMITED FUNCTIONALITY OF THE PROTOTYPE'S KEYBOARD

6 OUT OF 7 PARTICIPANTS LOCATED FAVORITES  
FROM TAB MENU ON FIRST TRY (TASK #4)

# OVERALL IMPRESSIONS

“SIMPLE NAVIGATION MADE SENSE AND DISPLAYED APPROPRIATE INFORMATION.”

“VERY SIMPLE YET COLORFUL AND LOTS OF INFORMATION INCLUDED. I WOULD DEFINITELY USE SUCH AN APP IF I NEEDED TO TAKE THE BUS FREQUENTLY.”

“VERY CONSISTENT DESIGN, MOSTLY INTUITIVE TO USE.”

“THE CONSISTENCY OF THE LAYOUT/DISPLAY AND COLORS USED WAS A SUCCESSFUL LOOK FOR THE APP DESIGN. THERE WAS LITTLE TO NO CONFUSION WHILE USING THE APP.”

# FINDINGS, INSIGHTS & ITERATIONS: BY TASK



# SUMMARY OF MAJOR FINDINGS: FINDINGS, INSIGHTS & ITERATIONS: BY TASK

CHANGING HOW TAB MENU FUNCTIONS (CRITICAL)

COLOR AND HEADER ADDED TO SEARCH PAGES (CRITICAL)

BUS ARRIVAL VS. ARRIVAL AT DESTINATION (MEDIUM CONCERN)

RE-COLORING START BUTTONS (MINOR CONCERN)

ROUTE NOT DRAWN ON MAP (MINOR CONCERN)

CHANGES FOR BUSES ARRIVING IN MORE THAN AN HOUR (MINOR CONCERN)

CLARIFYING FAVORITES (MEDIUM CONCERN)



# TASK #1

FROM CURRENT LOCATION,  
PLEASE SEARCH FOR & OBTAIN  
STEP-BY-STEP DIRECTIONS TO  
270 SKINKER BLVD.  
PREFERRED BUS ROUTE IS #2.



## SUCCESS METRICS

How often a participant achieved their task:

7 out of 7 participants completed task #1

How many mis-clicks each participant makes:

4 participants made 0 mis-clicks;

2 participants made 1 mis-click each;

1 participant was not counted due to mis-clicks being result of the limits of the prototype's functionality.

How many clicks it takes participant to achieve task:

4 participants achieved task with 4 clicks;

2 participants achieved with 5 clicks;

1 participant was not counted due to mis-clicks being result of the limits of the prototype's functionality.



**“NO COMPLAINTS HERE. I THOUGHT  
THE AMOUNT AND TYPE OF  
INFORMATION GIVEN WAS EASY TO  
READ AND VERY HELPFUL.”**

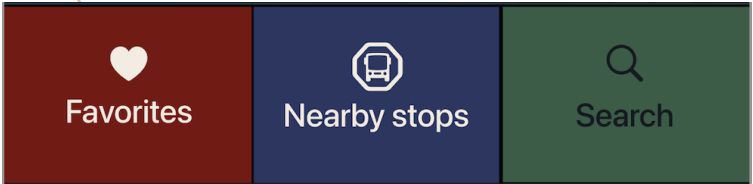
# CHANGING HOW TAB MENU FUNCTIONS

(CRITICAL)

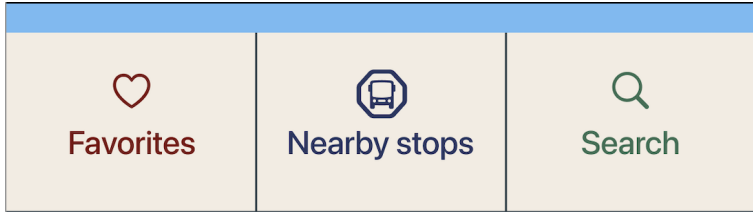
“THE GREEN ON THE SEARCH ICON BACKGROUND IS DIFFERENT ON THIS SCREEN THAN THE OTHER AND IS EASIER TO SEE.”

It was necessary to update the original green with a darker shade in order to adhere to accessibility standards when it is used in conjunction with alabaster.

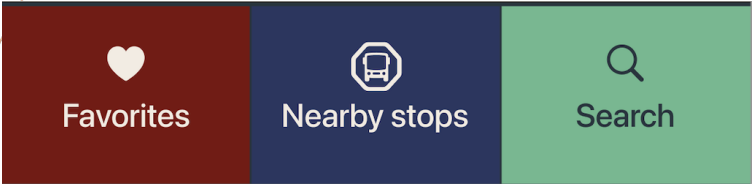
Previous Version



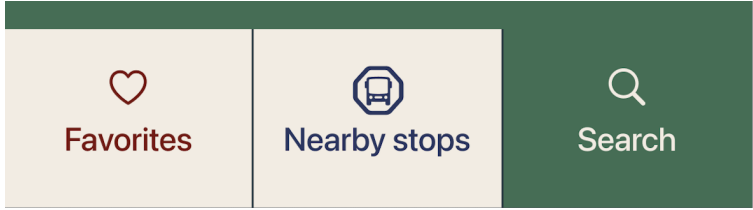
Update



Active Option

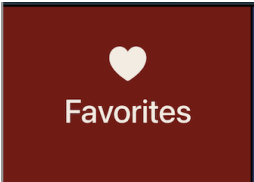
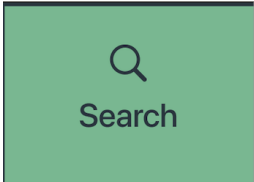


Option Selected

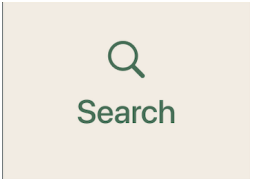
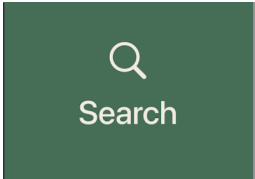


# SECONDARY CHANGES TO TAB MENU

Previous Version



Update



Original green need to be replaced with a darker shade to ensure that accessibility would not be an issue when pairing it with alabaster.

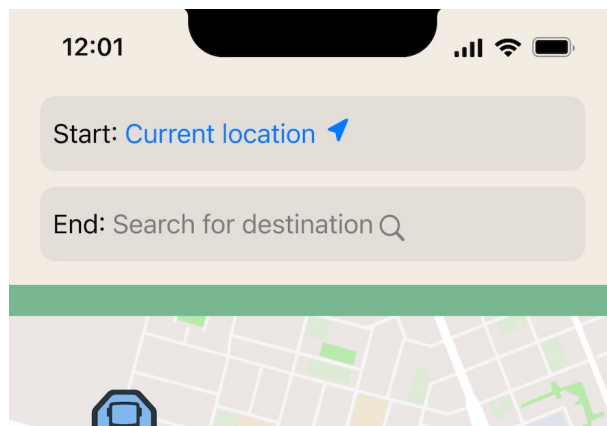
Favorites icon was tweaked to make it more in keeping with other icons in tab menu.

# COLOR AND HEADER ADDED TO SEARCH PAGES

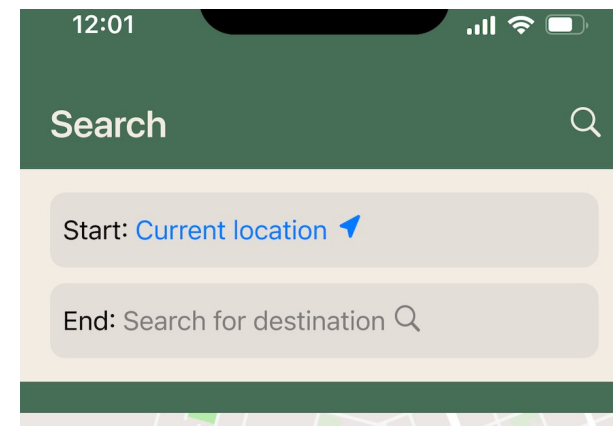
(CRITICAL)

In conjunction with updated tab menu, adding a large header to Search pages will provide greater clarity for user.

Previous Version



Update



# ALL HEADERS UPDATED TO MATCH NEW STYLE

## Previous headers



## Updated headers



# BUS ARRIVAL VS. ARRIVAL AT DESTINATION

(MEDIUM CONCERN)

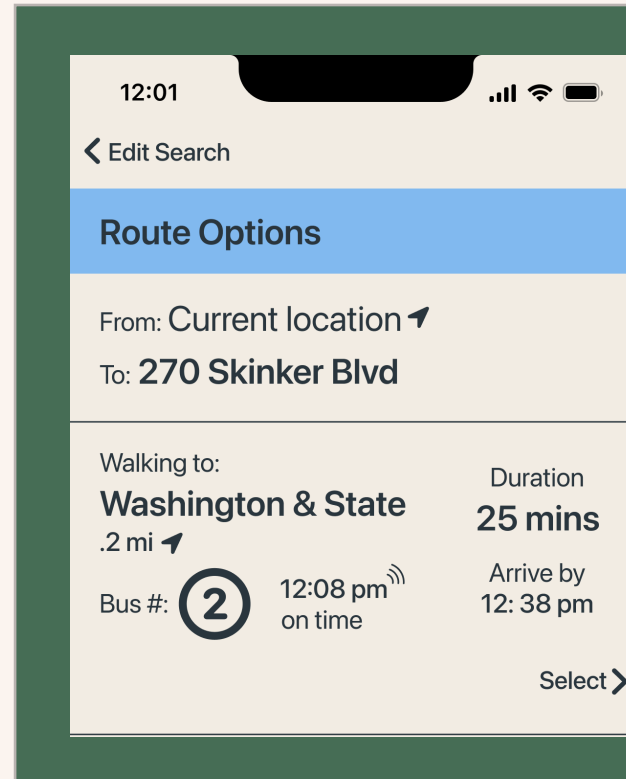
“THE BUS IS GOING TO ARRIVE AT 12:08. THAT’S PROBABLY WHAT THAT MEANS.”

While participant ultimately understood, any hesitance about vital information signaled that improvements could be made:

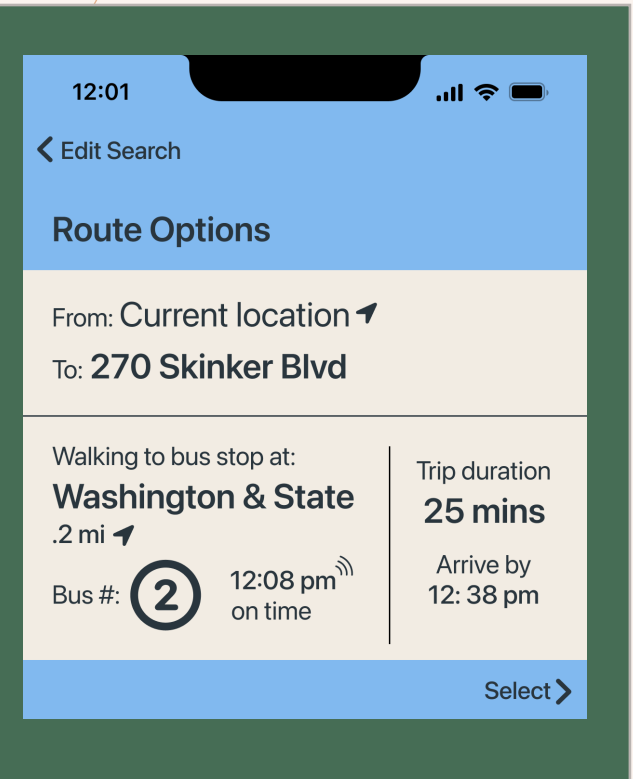
‘Walking to’ amended with addition of ‘bus stop at’ for further clarity.

Partial vertical line added to enhance visual separation of information.

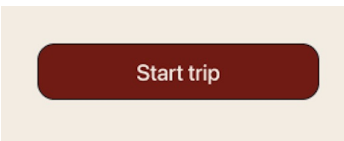
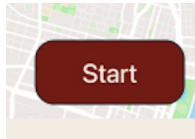
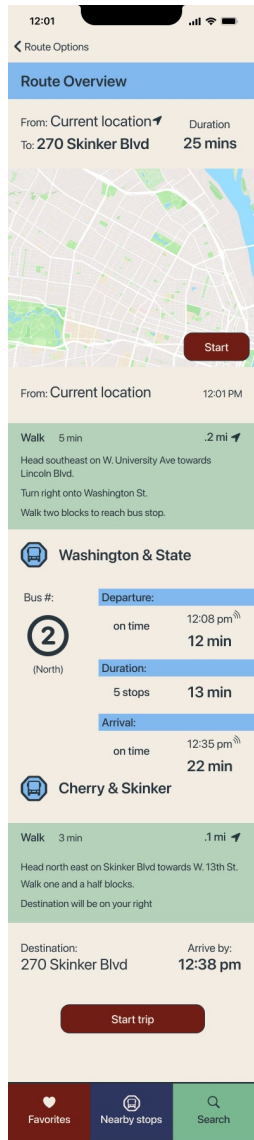
Previous Version



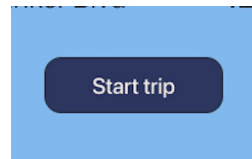
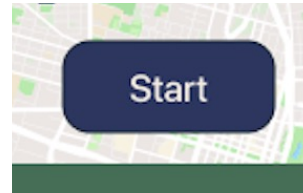
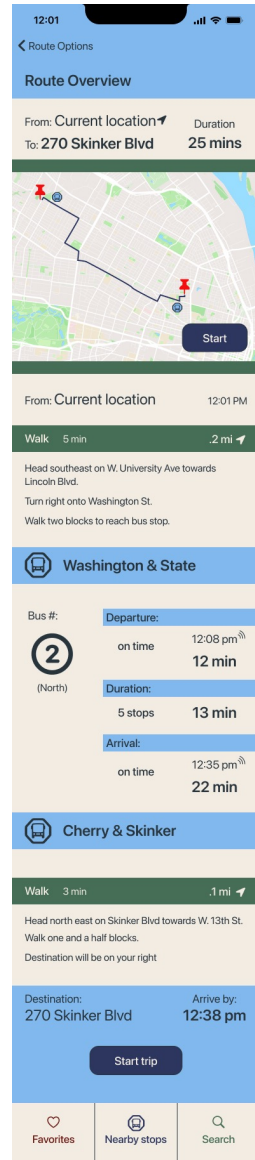
Update



## Previous version



## Update



RE-COLORING  
START BUTTONS  
(MINOR CONCERN)

“I like the simple blues and green. The color palette works well. I am not sure if I like the red as red usually makes me think I did something wrong.”

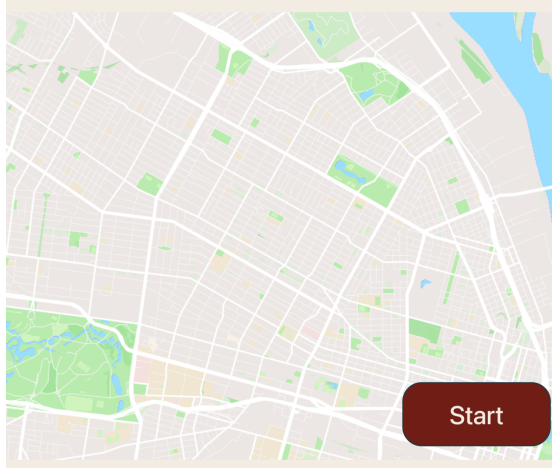
“Start buttons being red? Red means, “stop.”

# ROUTE NOT DRAWN ON MAP

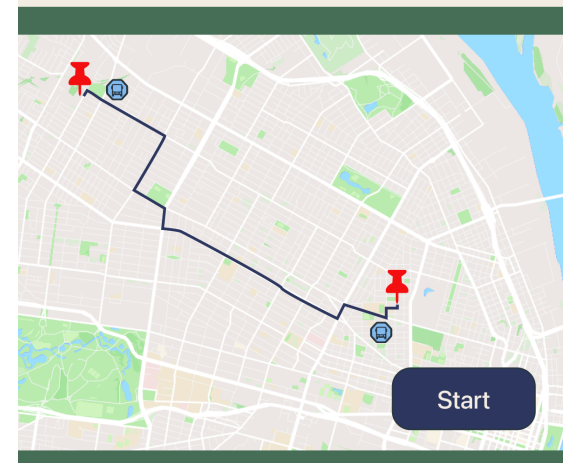
(MINOR CONCERN)

One participant realized that I had forgotten to draw in a route on map.

Previous version



Update



# TASK #2

HOW WOULD YOU FIND OUT  
INFORMATION ABOUT BUS  
ARRIVAL TIMES FOR THE STOP  
AT WASHINGTON & STATE?



## SUCCESS METRICS

How often a participant achieved their task:

7 out of 7 participants completed task #2

How many mis-clicks each participant makes:

6 participants made 0 mis-clicks;

1 participants made 1 mis-click

Participant satisfaction when interacting with product:

Average score: 76%

How many clicks it takes participant to achieve task:

4 participants achieved task with 2 clicks;

3 participants achieved with 3 clicks.



## QUOTES FROM PARTICIPANTS ABOUT TASK #2: BUS STOP DETAILS PAGE

“I LIKE THE LAYOUT OF THIS SCREEN A LOT  
... I THINK IT’S VERY CLEAN AND EASY TO  
READ/EASY TO FOLLOW SCREEN.”

”THE INFORMATION IS NOT HARD TO  
UNDERSTAND. IT’S EASY TO LOOK AT  
WITH THE CURRENT PRESENTATION.”

# STANDARD UPDATES: BUS STOP DETAILS PAGE

Previous version

Update

The image shows two side-by-side screenshots of a mobile application interface for bus stop details. The left screenshot is labeled 'Previous version' and the right is labeled 'Update'. Both screenshots show the same data for the 'Washington & State' bus stop, but with different visual styling. The 'Previous version' has a white background with a light blue header, while the 'Update' version has a blue header and a white background. The data table is identical in both.

Direction	Bus Line	Arrival
North	2	12:13 pm 12 min
East	8	12:15 pm 14 min
North	1	12:18 pm 17 min
West	10	12:21 pm 20 min
South	4	12:23 pm 22 min
East	13	12:24 pm 23 min
West	18	12:26 pm 25 min

Navigation: < Earlier | Later >

Bottom Bar: Favorites | Nearby stops | Search



# TASK #3

YOU'RE ON A CALL THAT WILL END AT 12:15 PM  
AND THEN YOU'LL HEAD TO WASHINGTON &  
STATE TO CATCH THE #2.

HOW WOULD YOU GO ABOUT LOOKING UP THE  
ARRIVAL TIME FOR THE BUS YOU WANT TO GET  
ON?





How often a participant achieved their task:

7 out of 7 participants completed task #3

How many mis-clicks each participant makes:

3 participants made 0 mis-clicks;

3 participants made 1 mis-click each;

1 participant fell outside of the acceptable range

Participant satisfaction when interacting with product:

Average score: 71%

How many clicks it takes participant to achieve task:

4 participants achieved task with 3 clicks;

1 participant achieved with 4 clicks;

2 participants fell outside of acceptable range.

## SUCCESS METRICS

## TASK #3 & BUS LINE DETAILS PAGE: PARTICIPANT QUOTES

“THE SCREEN SHOWS INFORMATION WITH  
NICE COLOR AND LAYOUT.”

“VERY EASY (TO UNDERSTAND). I LIKE  
[THAT IT INCLUDES] THE STATUS.”

# CHANGES FOR BUSES ARRIVING IN MORE THAN AN HOUR

(MINOR CONCERN)

“I ALSO DON’T [LIKE TO] COMMUNICATE TIME IN MORE THAN 60 MINUTE INCREMENTS, 102 MINUTES SHOULD BE 1 HOUR AND 42 MINUTES.”

Previous version

Arrival	Status	Minutes
12:13 pm	on time	12 min
12:28 pm	on time	27 min
12:45 pm	delayed	44 min
12:58 pm	on time	57 min
01:13 pm	on time	72 min
01:28 pm	on time	87 min
01:45 pm	delayed	102 min
01:58 pm	on time	115 min

Update

Arrival	Status	Minutes
12:13 pm	on time	12 min
12:28 pm	on time	27 min
12:45 pm	delayed	44 min
12:58 pm	on time	57 min
arriving in 1 hour &		
01:13 pm	on time	12 min
01:28 pm	on time	27 min
01:45 pm	delayed	44 min

Changing minutes into hours & minutes (hr & min) would require the font size to be significantly reduced in order to fit within the existing format.

Adding bright banner as a clear demarcation every 60 minutes allows formatting to remain as it, while making it easier for user to understand/interpret.

Detailed View of Update

Arrival	Status	Minutes
12:13 pm	on time	12 min
12:28 pm	on time	27 min
12:45 pm	delayed	44 min
12:58 pm	on time	57 min
arriving in 1 hour &		
01:13 pm	on time	12 min
01:28 pm	on time	27 min

# TASK #4

PRETEND THAT YOU WERE LOOKING AT THIS APP ON A MOBILE DEVICE BELONGING TO A FRIEND, FAMILY MEMBER, OR COLLEAGUE.

WHERE WOULD YOU EXPECT TO FIND SAVED ROUTES/BUS STOPS/BUS LINES?



## SUCCESS METRICS

How often a participant achieved their task:

7 out of 7 participants completed task #4

How many mis-clicks each participant makes:

6 participants made 0 mis-clicks;

1 participant fell outside of acceptable range

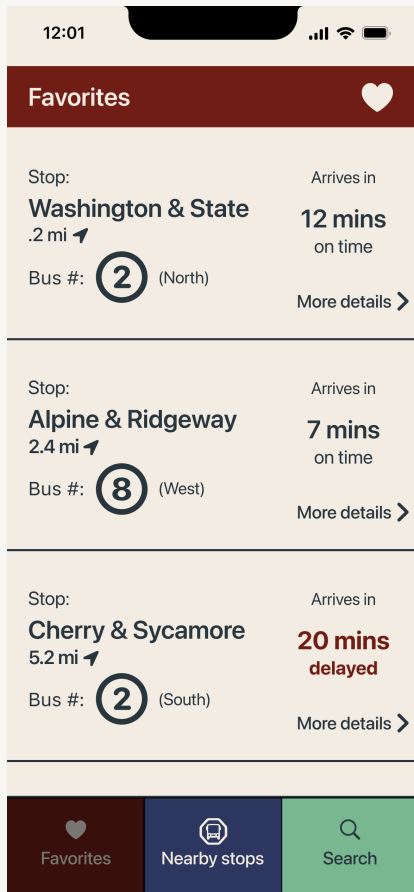
How many clicks it takes participant to achieve task:

6 participants achieved task with 1click;

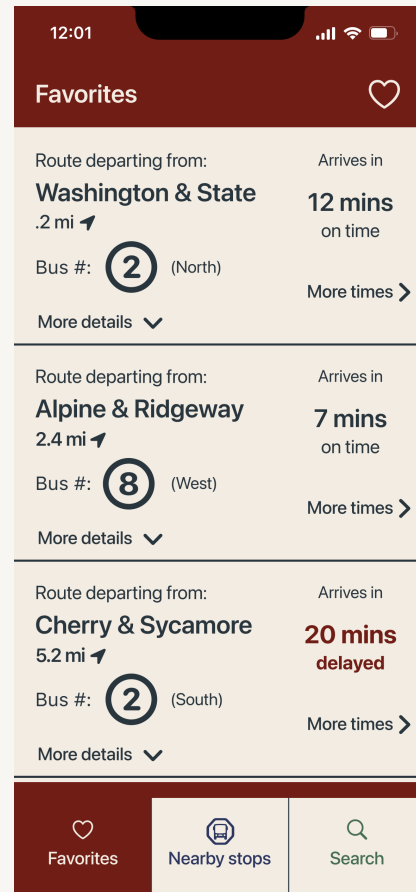
1 participant fell outside of acceptable range.

# TASK #4: UPDATE & PARTICIPANT QUOTES

Previous version



Update



“THIS FEATURE WOULD COME IN HANDY FOR REGULARLY COMMUTING ON THE SAME ROUTES.”

“YES, I WOULD EXPECT FAVORITES WOULD BE USEFUL FOR DAILY COMMUTING.”

## PARTICIPANT QUOTES: WHAT ARE FAVORITES?

“THE ONLY THING THAT IS UNCLEAR IS IF THEY’RE ALL STARTING AT THE SAME STATION OR IF THE STOP IS THE STATION IT’S STARTING ON. I DON’T KNOW.”

“I’M NOT SURE WHAT THE FAVORITE ITEMS ARE. ARE THEY THEIR FAVORITE BUS ROUTE? OR IS IT THEIR FAVORITE BUT STOP? OR IS IT THEIR FAVORITE BUS LINE? NOT SURE.”

# CLARIFYING FAVORITES

(MEDIUM CONCERN)

Detailed View of Update

The screenshot shows a 'Favorites' section with a heart icon. Below the header, it displays route information: 'Route departing from: Washington & State .2 mi' with an arrow icon, and 'Arrives in 12 mins on time'. The bus number is 'Bus #: 2 (North)' with the number '2' in a circle. At the bottom, there are two links: 'More details' with a downward arrow and 'More times' with a rightward arrow.

‘Stop:’ updated to ‘Route departing from:’ provides more clarity about what information is being displayed.

Full route details aren’t necessary for daily commuting, but this information is still relevant and should be accessible.

On previous version, link to additional arrival times was listed as ‘More details.’ Updating this to be ‘More times’ provides greater clarity about what user will see if they click on link.

In updated version, “More details” now provides the user with the option to see the rest of the information related to the saved route.

The idea for favorites came about following interviews with two commuters who both described first opening their transit apps to check on bus status about 30 minutes before it was due to arrive.

The limited amount of information shown, was all you would need to know for this task.





## NEXT STEPS

AFTER UPDATING DESIGN AS OUTLINED THROUGHOUT, IT WILL BE CRUCIAL TO RUN ANOTHER ROUND OF USABILITY TESTS.

PRIOR TO LAUNCHING S.L.A.T., SUCCESS METRICS SHOULD SHOW IMPROVEMENT. MOST SIGNIFICANT IS ENSURING THAT ALL PARTICIPANTS COMPLETE TASKS WITHIN THE AGREED UPON ACCEPTABLE STANDARDS.

A series of thin, light-brown lines forming an abstract, overlapping geometric pattern in the top-left corner of the slide. The lines create various polygons and intersecting paths.

# THANK YOU

Catherine Hite

[catherinehiteux@gmail.com](mailto:catherinehiteux@gmail.com)