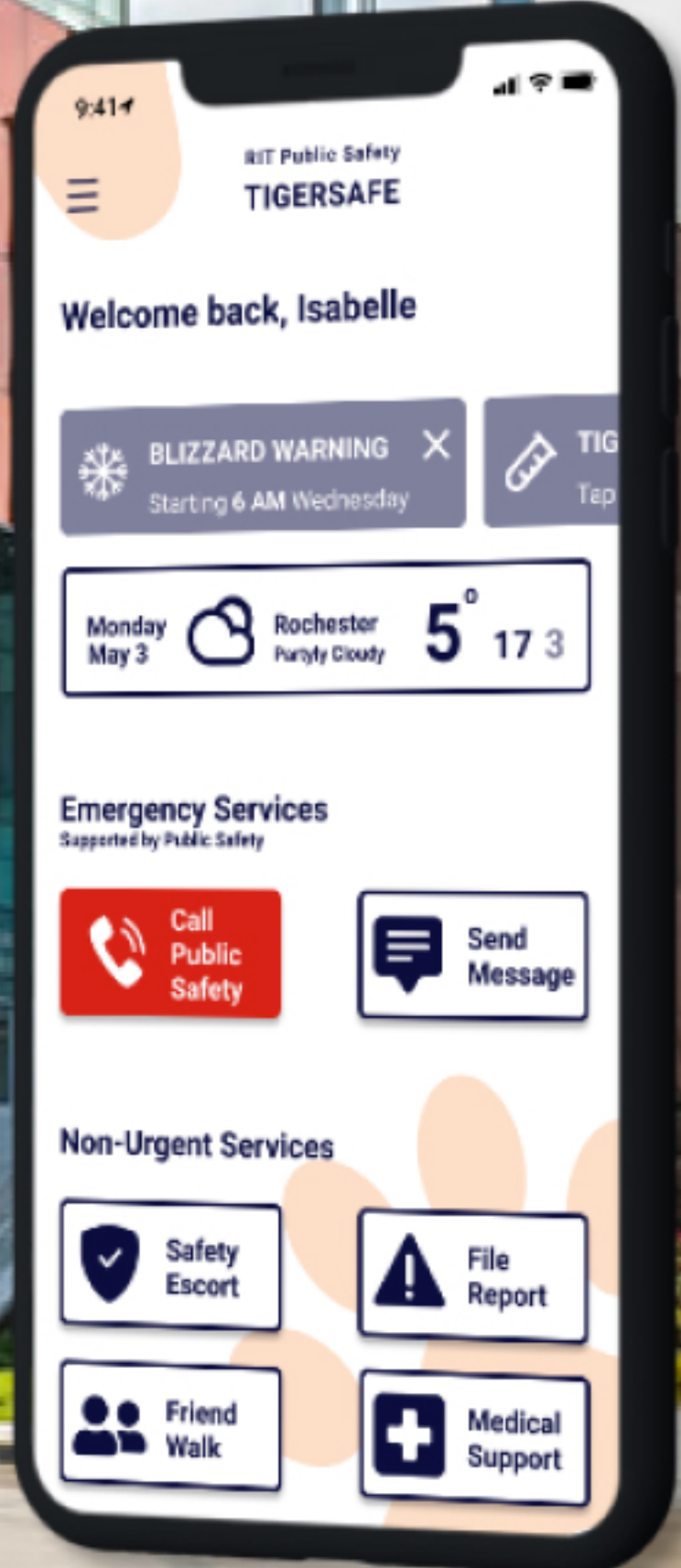




TIGERSAFE

College Safety App Redesign

Project Process Deck

Isabelle Qiu

Redesign an Existing Mobile Device App: TigerSafe

Research

- Current Product Details
- Heuristic Evaluation
- Field Observation
- Competitive Analysis

Design

- Design Goal
- Function and Feature Scope
- Workflow
- Sketch
- Mood Board
- Style Board
- Visual Design
- Home Screen Icon
- Screen Iteration
- Wireframe
- Prototype
- Animation
- URL



Current Product Details

🐾 **App Name**

TigerSafe

🐾 **Developer Name**

AppArmor
www.apparmor.com

🐾 **Description**

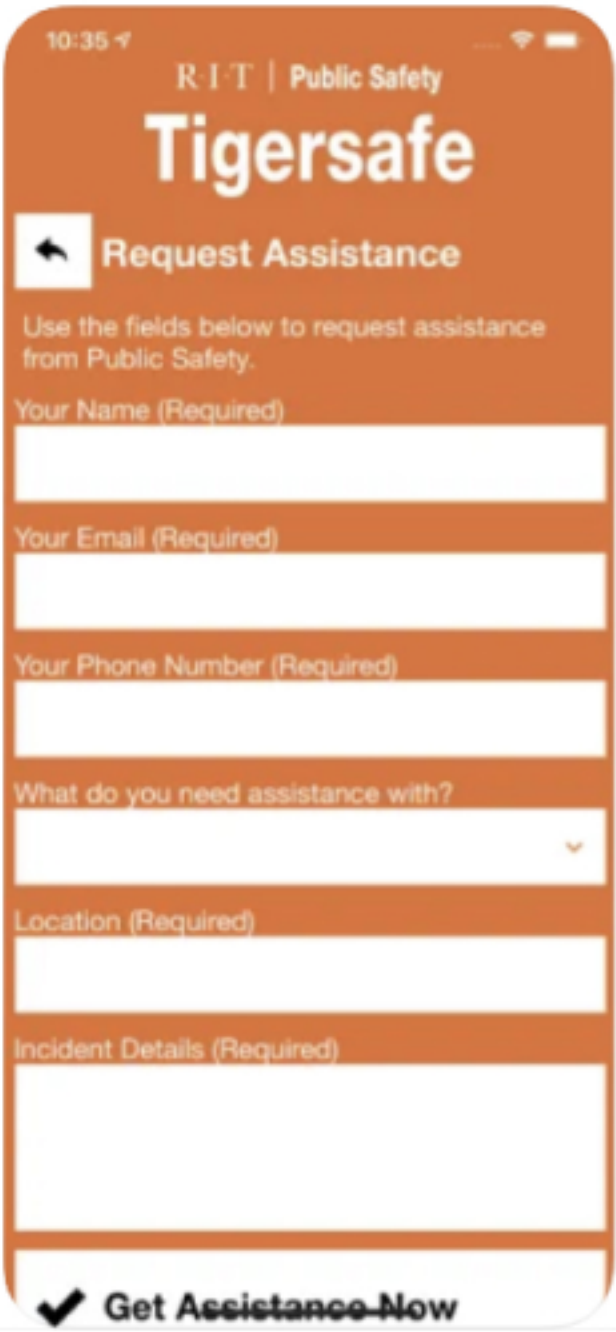
Tigersafe is the official safety app of Rochester Institute of Technology. It is the only app that integrates with RIT's safety and security systems. RIT Public Safety has worked to develop a unique app that provides students, faculty and staff with added safety on the RIT campus. The app will send you important safety alerts and provide instant access to campus safety resources.

🐾 **Main Feature**

- **Mobile Bluelight:** Send your location to RIT security in real-time in case of a crisis.
- **Emergency Contacts:** Contact the correct services for the RIT area in case of an emergency or a non-emergency concern.
- **Tip Reporting:** Multiple ways to report a safety/security concern directly to RIT Public Safety, or request assistance from Public Safety.
- **Friend Walk:** Ask a friend to monitor your location as you walk home.
- **Safety notifications:** Receive instant notifications and instructions from campus safety when on-campus emergencies occur.
- **Chat with Security:** Communicate live with safety staff at RIT via chat.
- **Campus Map:** Find your way around campus!
- **Campus safety resources:** access all important safety resources in one convenient app.

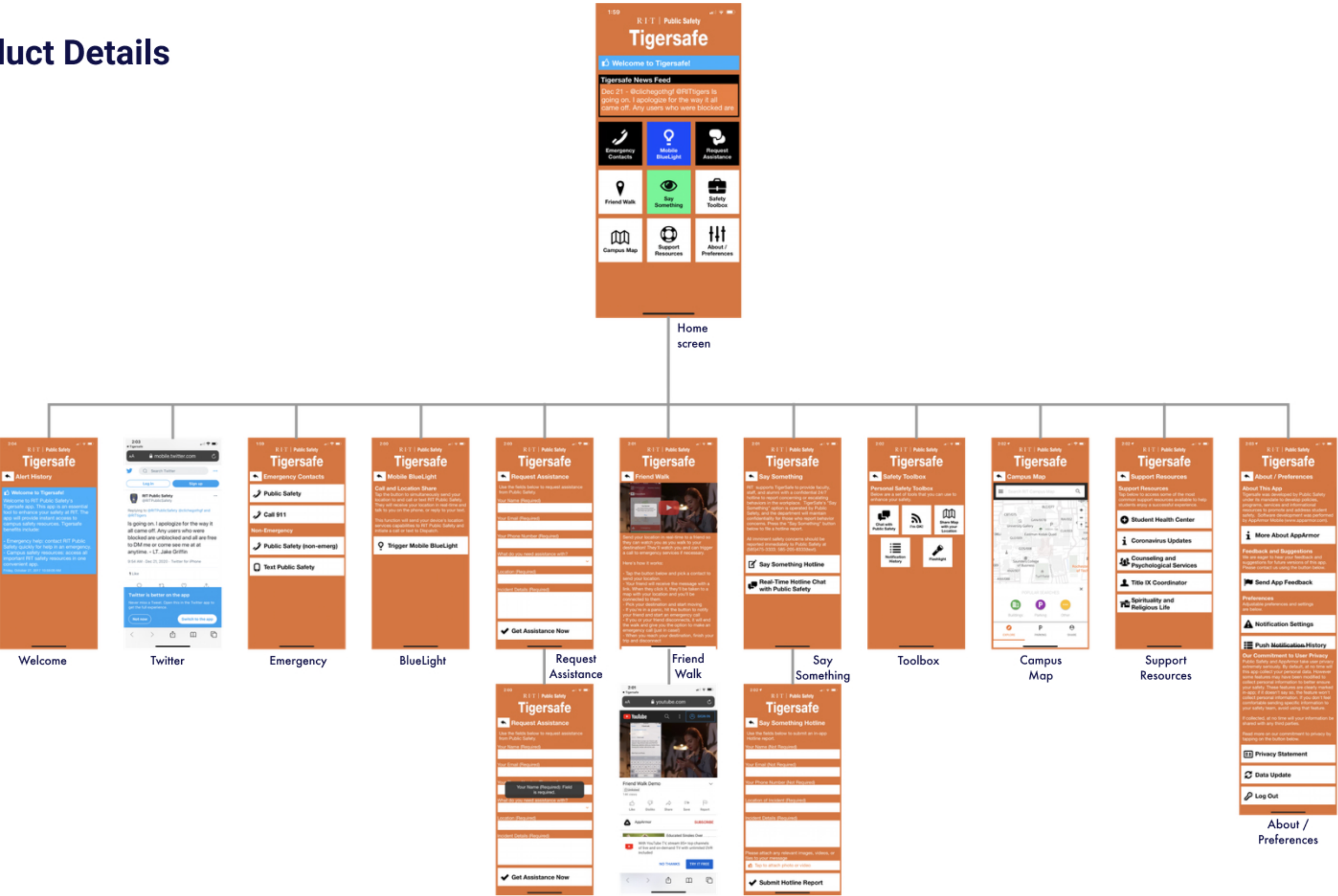


Tigersafe - RIT 4+
Official Safety App of RIT
[Rochester Institute of Technology](#)
★★★★★ 3.0 • 2 Ratings
Free



Current Product Details

Structure



Heuristic Evaluation - Principle

The heuristic evaluation is conducted based Jakob Nielsen's 10 Usability Heuristics for User Interface Design, which are listed below and will be employed in the following analysis.

#1: Visibility of system status

- Clear current status without informing users
- Immediate feedback
- Build trust through open and continuous communication

#2: Match between system and the real world

- Users can understand without looking up definition
- No assumption
- Conduct user research to uncover users' familiar terminology

#3: User control and freedom

- Undo & redo
- Cancel button
- Exit

#4: Consistency and standards

- Improve learnability by maintaining internal and external consistency
 - Internal consistency: maintain stability within the product
 - External consistency: follow industry conventions

#5: Error prevention

- Prioritize effort: high-cost error > little frustrations
- Avoid slips
 - provide constraints
 - good defaults
- Removing memory burdens, supporting undo, warning

#6: Recognition rather than recall

- Recognize rather than remember
- Offer help in context
- Reduce the information that users have to remember

#7: Flexibility and efficiency of use

- Provide accelerators, eg. keyboard shortcuts and touch gestures
- Provide personalizations by tailoring content and functionality for individual users
- Allow for customization

#8: Aesthetic and minimalist design

- Content focus on the essentials
- No unnecessary elements
- Prioritize the content and features

#9: Help users recognize, diagnose, and recover from errors

- Traditional error message visuals, eg. bold, red text
- Tell users what went wrong in understandable language
- Offer users a solution

#10: Help and documentation

- Easy to search help documentation
- Present documentation in context right at the moment
- List concrete steps

Heuristic Evaluation - Analysis 1

Page	Problem	Usability Heuristics	Solution
1 Home Screen	• Weird color • Several useless function buttons • Hard to remember all the buttons	Pros #1 Easy to know it's home screen Cons #6 Recognition rather than recall #7 Flexibility and efficiency of use #8 Aesthetic and minimalist design	• Change the color • Remove and rearrange the buttons
2 Welcome	• Redundant function • Too much text • Doesn't need to be emphasized. To some extent, users may feel pleasant seeing welcome text. However, when users are in dangerous situation, it's better to keep the home screen neat.	Pros #1 Easy to see "Welcome to TigerSafe" #3 Obvious Exit button Cons #8 Aesthetic and minimalist design	• Either delete or weaken the banner
3 New Feed	• Unnecessary Why would users want to check out twitter when he/she feels unsafe walking on campus?	Pros #1 Easy to notice it's twitter #3 ObviousExit button Cons #7 Flexibility and efficiency of use #8 Aesthetic and minimalist design	• Remove

Heuristic Evaluation - Analysis 2

Page	Problem	Usability Heuristics	Solution
4 Emergency Contacts	• Bad layout	Pros: #1 Clear to see where I am, which is call 911 etc. #3 Obvious Exit button #4 Consistency and standard Cons: #8 Aesthetic and minimalist design	• Redesign layout. Use different color to separate emergency and non-emergency contacts or split the contacts into two parts, which is emergency contacts and non-emergency contacts.
5 Mobile BlueLight	• Too much text • Logo doesn't match real facility	Pros: #2 Match between real world and the system #3 Obvious Exit button Cons: #5 Error prevention #6 Recognition rather than recall #7 Flexibility and efficiency of use #8 Aesthetic and minimalist design	• Delete inessential information • Redesign logo
6 Request Assistance	• Too much text • Duplicated function • Error warning is not clear enough	Pros: #2 Match between real world and the system #3 Obvious Exit button Cons: #4 Consistency and standard #5 Error prevention #8 Aesthetic and minimalist design #9 Help users recognize, diagnose, and recover from errors	• Combine this page to "Text Public Safety"

Heuristic Evaluation - Analysis 3

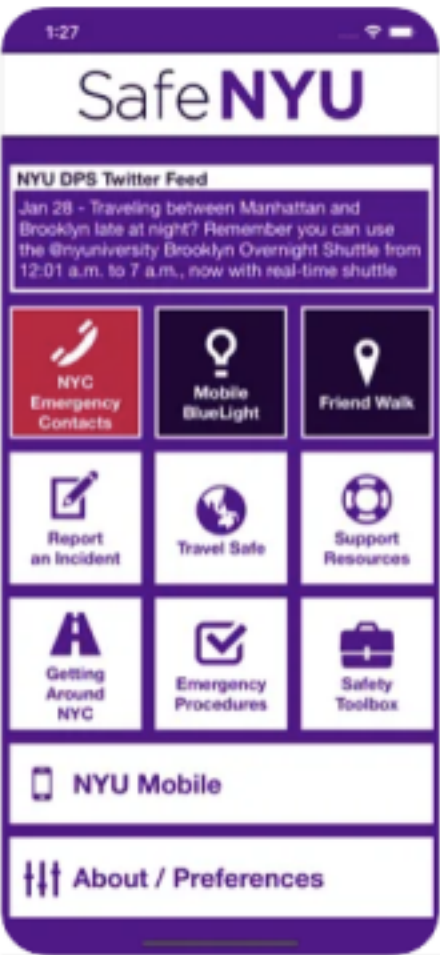
Page	Problem	Usability Heuristics	Solution
7 Friend Walk	• Too much text • Hard to understand what is “Friend Walk”. Moreover, there is a video to watch outside of this app. When you click on the link, this video is muted as default setting. Should I listen to the sound of instruction or not?	Pros #3 Obvious Exit button Cons #1 Visibility of system status #2 Doesn’t match between system and real world #4 Consistency and standard #7 Flexibility and efficiency of use #8 Aesthetic and minimalist design	• Delete inessential information • Change it to video call and move it under non-emergency contacts
8 Say Something	• Duplicated function • Too much text	Pro #2 Match between real world and the system #3 Obvious Exit button Cons #4 Consistency and standard #7 Flexibility and efficiency of use #8 Aesthetic and minimalist design	• Remove
9 Safety Toolbox	• Duplicated function of “Chat with Public Safety” while having the function of calling 911 and Public Safety already. • Function “I’m OK!” makes no sense. A cancel button under calling is enough. • Duplicated function of “Share Map with your location.” Can put this under “Campus Map” • “Notification History” is a secondary information. Can be moved to settings-notification history.	Pros #3 Obvious Exit button Cons #2 Doesn’t match between system and real world #4 Consistency and standard #7 Flexibility and efficiency of use	• Remove “Chat with Public Safety” • Add cancel button under calling • Move “Share Map with your location” under “Campus Map”

Heuristic Evaluation - Analysis 4

Page	Problem	Usability Heuristics	Solution
10 Campus Map	- Primary and secondary information should be clearer and lessened - Color doesn't match. Parking logo is purple. After clicking on parking, the areas show green on the map.	Pros #2 Match between real world and the system #3 Obvious Exit button Cons #4 Consistency and standard #7 Flexibility and efficiency of use	- Simplify the process of using map - Delete unnecessary functions - Keep design consistent and easy to understand
11 Support Resources	- Too much text "Title IX Coordinator" is difficult for international users to understand "Spirituality and Religious Life" function can be moved to non-emergency contacts	Pros #3 Obvious Exit button Cons #2 Doesn't match between system and real world #7 Flexibility and efficiency of use #8 Aesthetic and minimalist design	- Shorten function name - Change strange function name - Rearrange "Support Resources" to either emergency contacts("Student Health Care", "Coronavirus Updates") or non-emergency contacts("Counseling and Psychological Services", "Spirituality and Religious Life")
12 About/Preferences	Too much text	Pros #3 Obvious Exit button Cons #7 Flexibility and efficiency of use #8 Aesthetic and minimalist design	- Delete inessential information - Move these to "Settings"

Competitive Analysis - Part 1

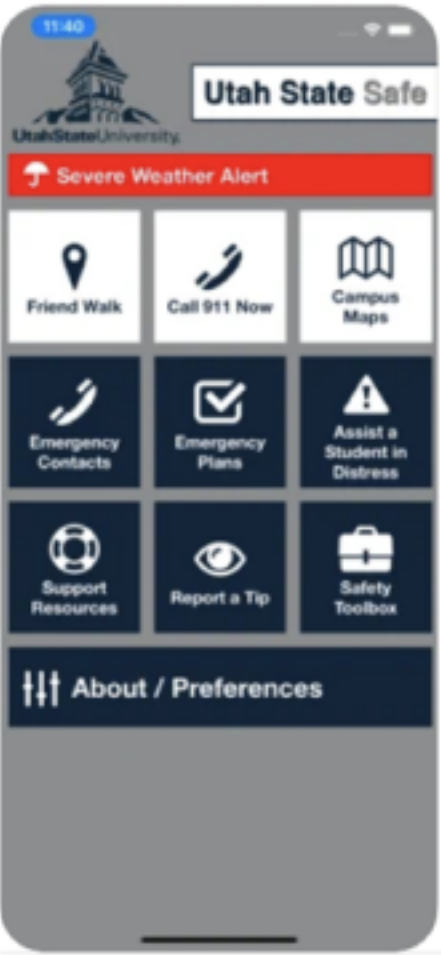
Competitive analysis was conducted among other college’s safety mobile applications and other safety-oriented applications on the market. Part 1 indicates other college’s safety mobile applications’ special features. Part 2 portrays other safety-oriented applications’ features.



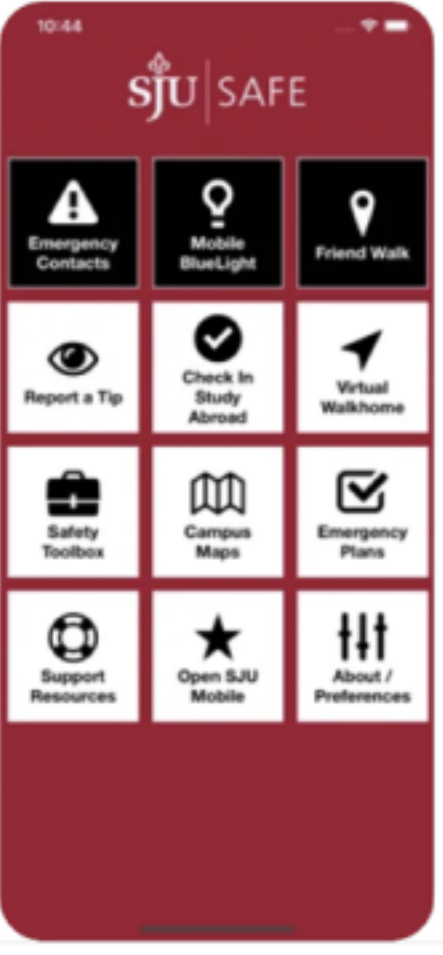
Emergency Procedures
Travel Safe



Emergency Procedures



Work Alone
Take Action Guides



Virtual Walkhome
Emergency Plans



Be Hokie Ready
Weather



Take Action Guides
Weather
Director and Services



Changes During Covid-19 Period
Daily Symptom Check
Testing Kit
Work Alone

Conclusion

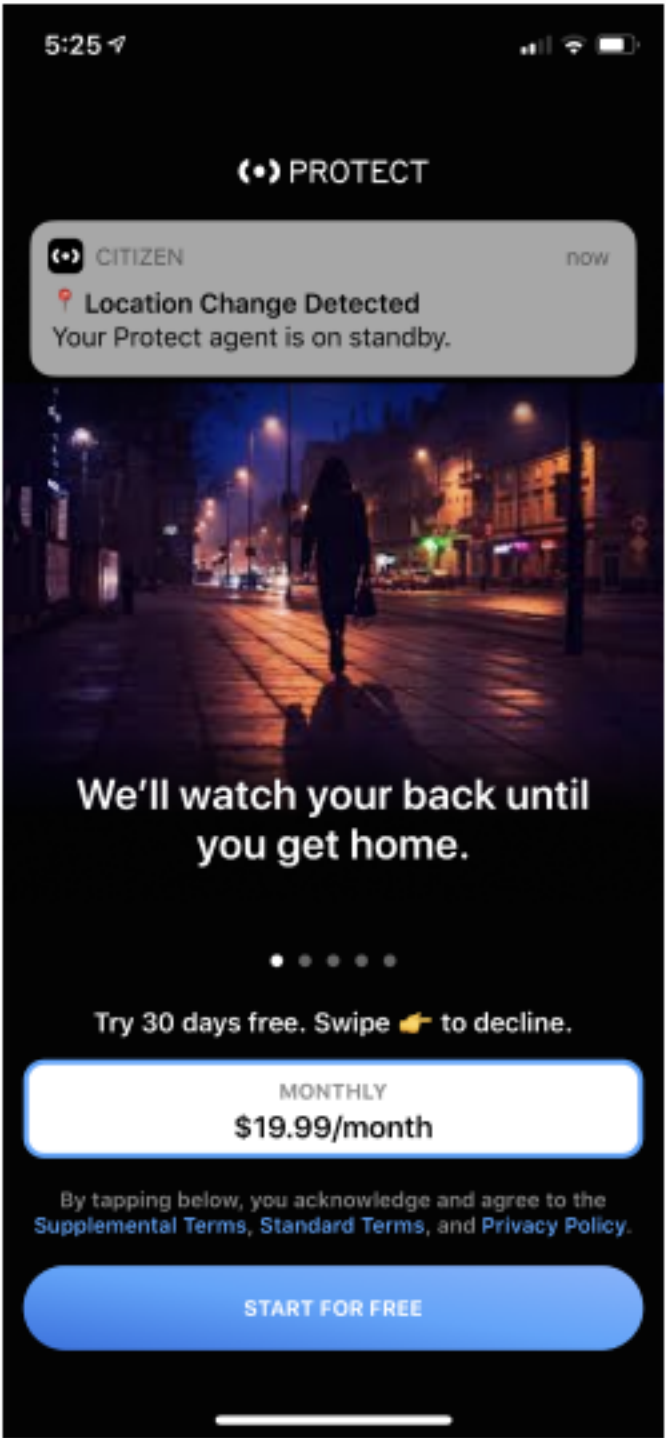
Safety apps made by AppArmor are generally the same. Each one has a little difference. Owing to RIT’s location, the “Extreme Weather” function will be added as a notification banner.

Competitive Analysis - Part 2

Citizen's primary features and analysis.



Citizen



Watch Your Back



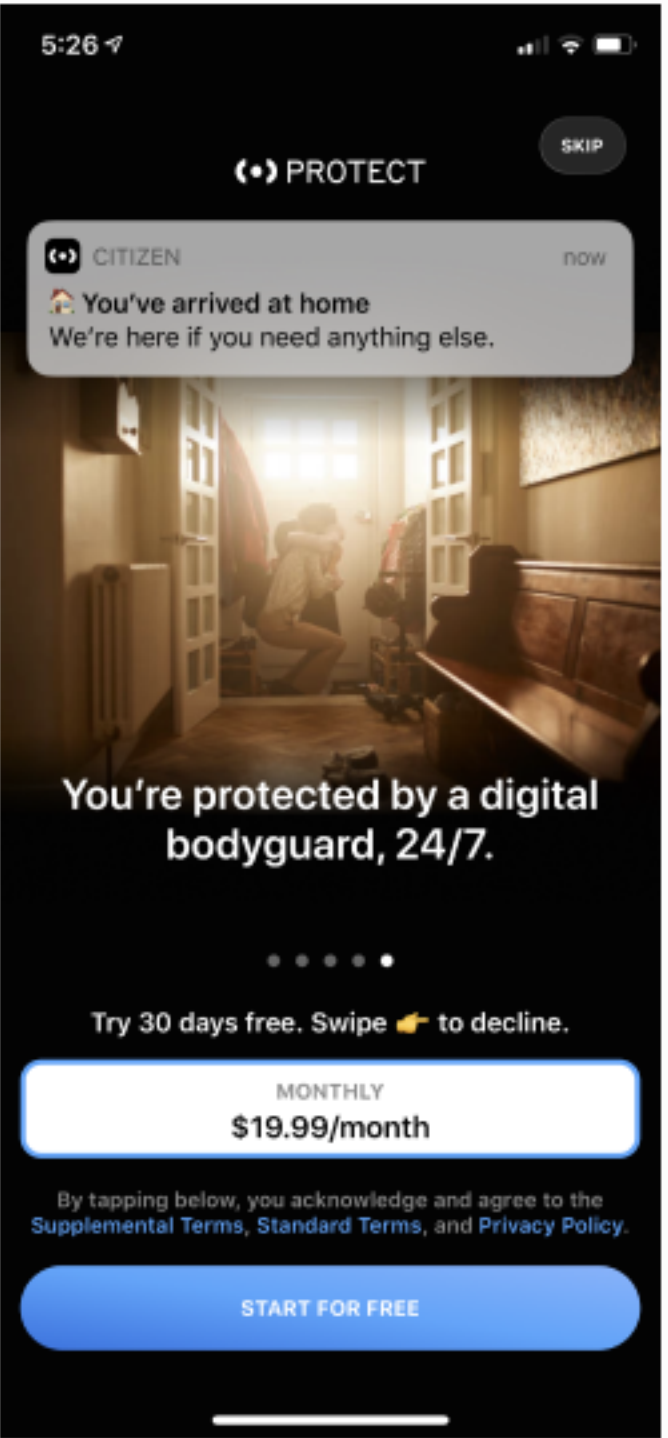
Live Monitoring



Instant Emergency Response



Community Help



24/7

Pros

- Live monitoring user
- Help to call ambulance and send location
- Nearby covid trends can be checked

Cons

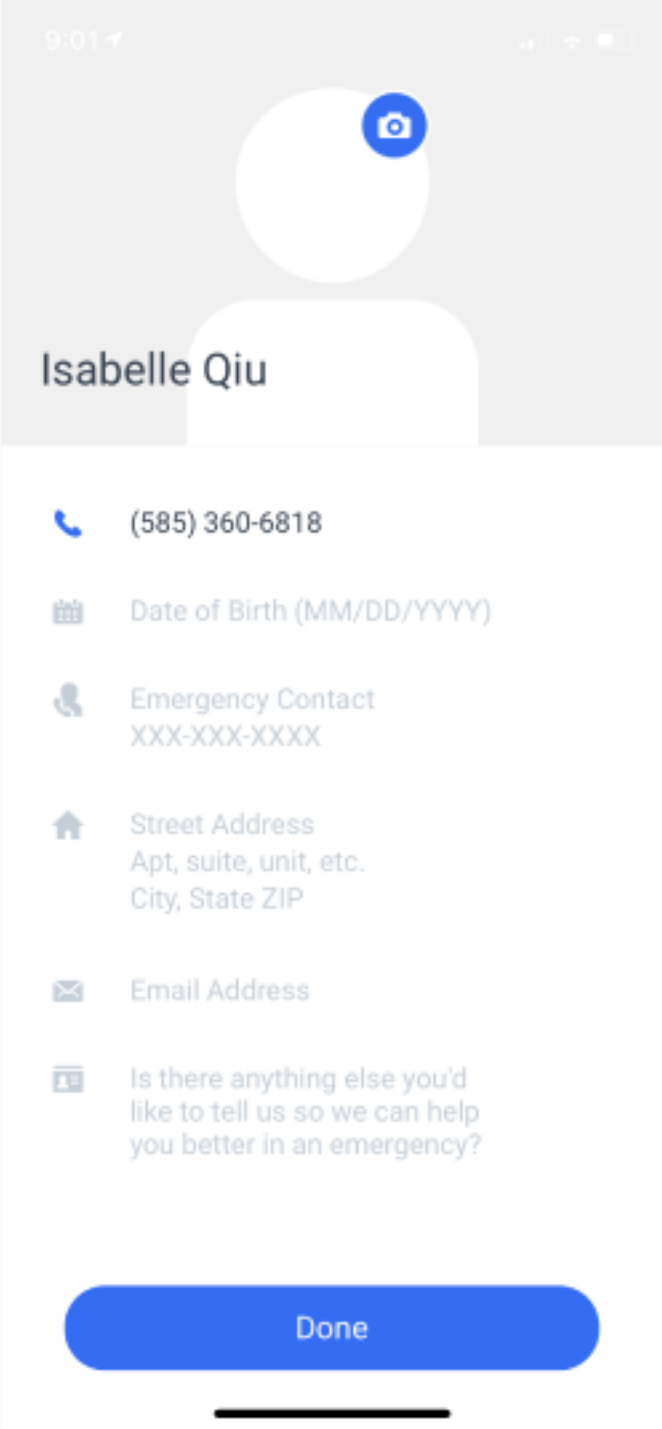
- Not very useful if no other users nearby
- Cannot use "Get Help" function for free version
- Complicated home screen

Competitive Analysis - Part 2

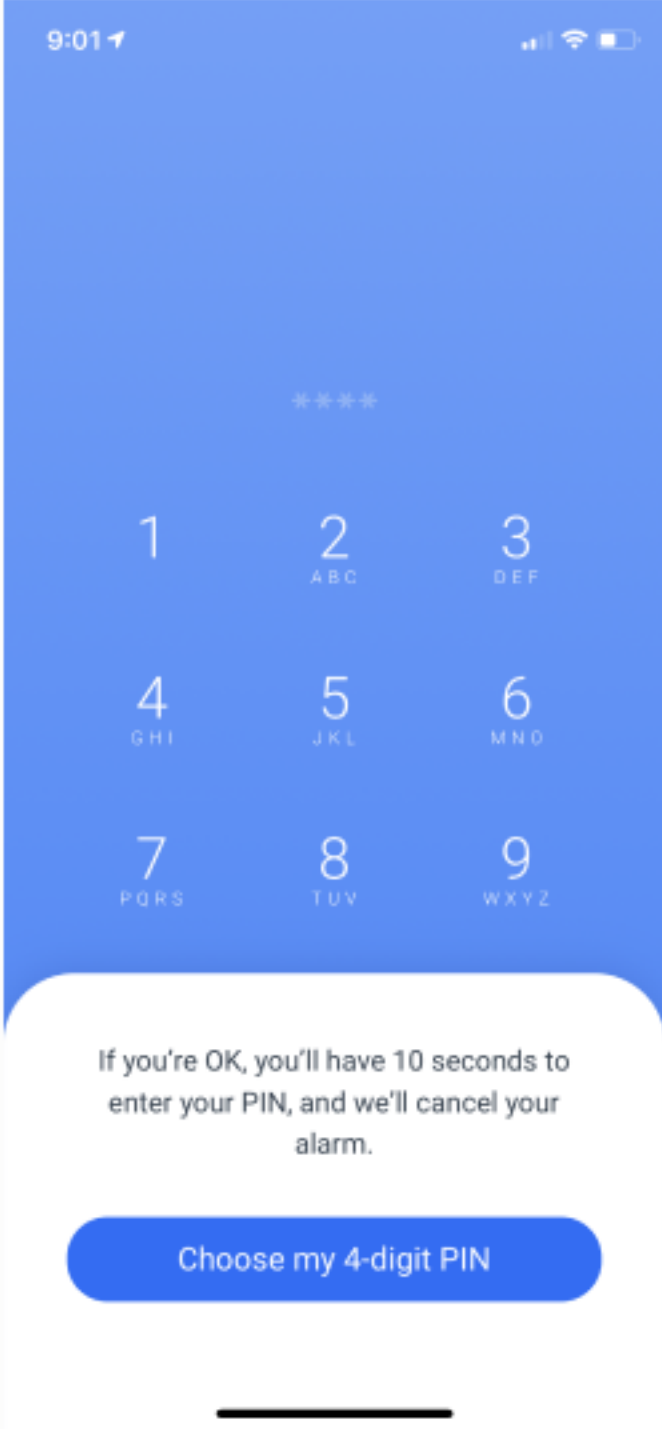
Noonlight's primary features and analysis.



Noonlight



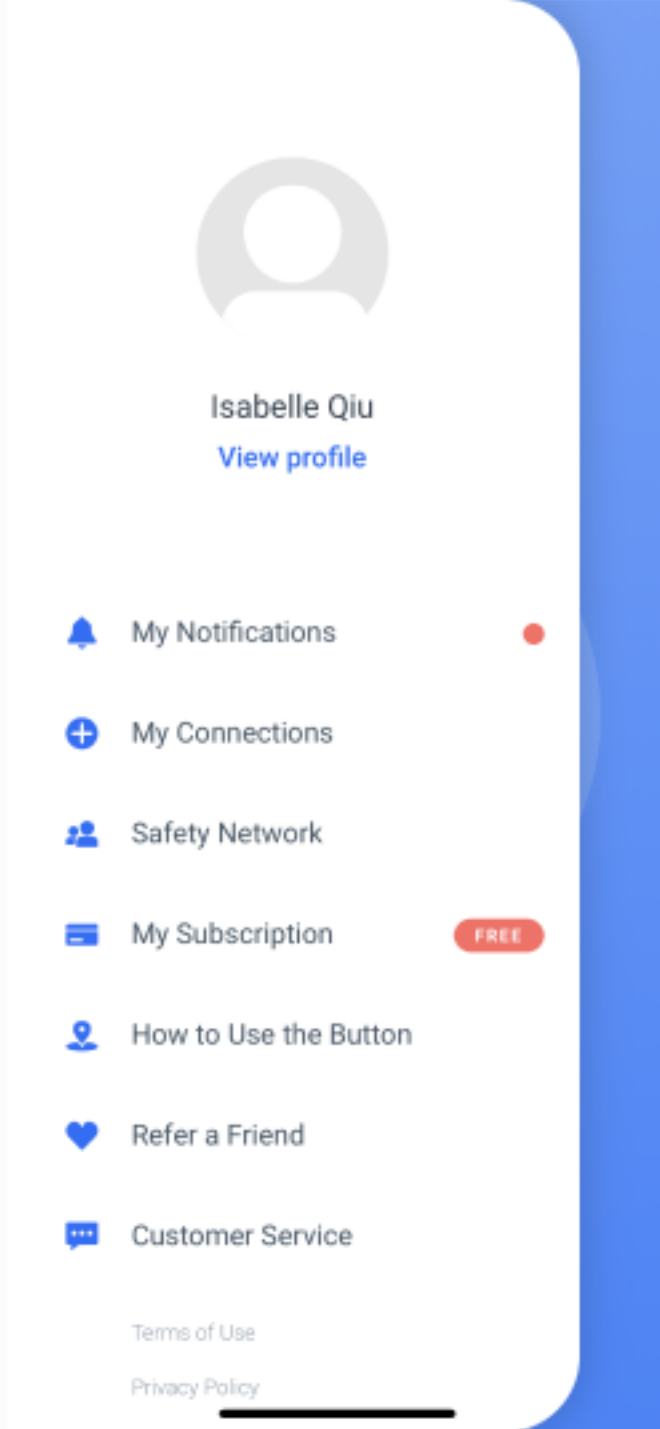
Emergency Contact



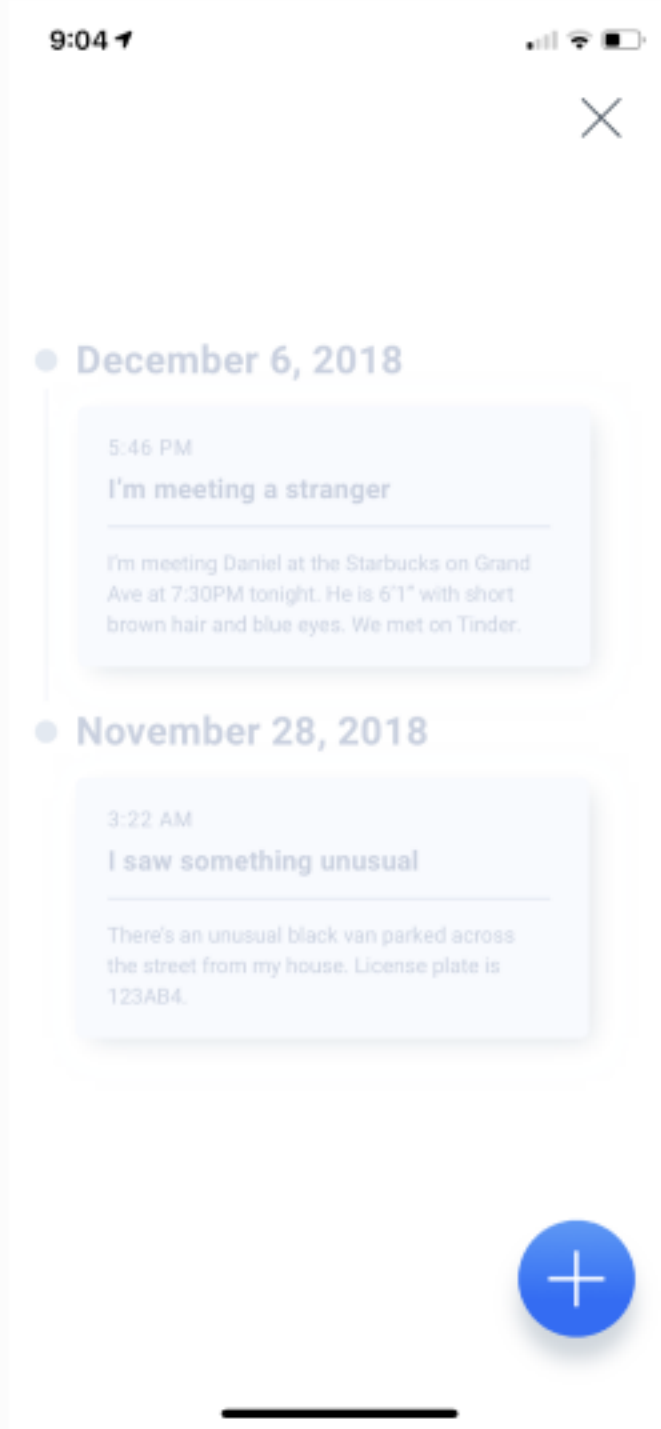
Tap PIN to Cancel Alarm



Hold Until Safe



Menu on the Up Left Corner



Timeline

Pros

- Emergency contact saved in profile
- Clean UI
- Keep secondary functions under menu
- Check if user is safe when schedule saved

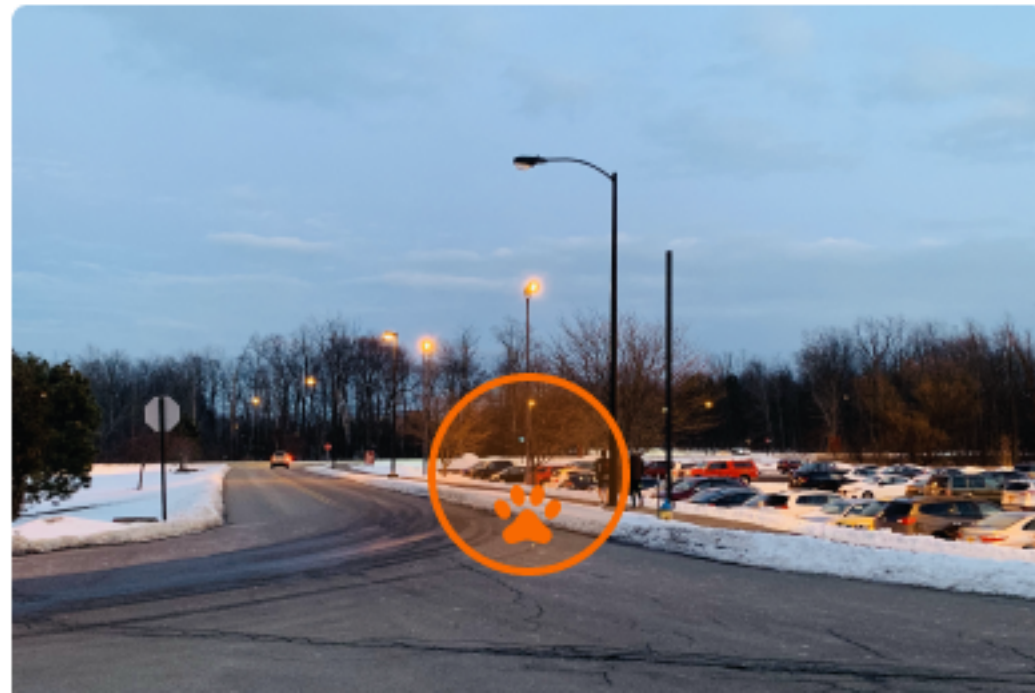
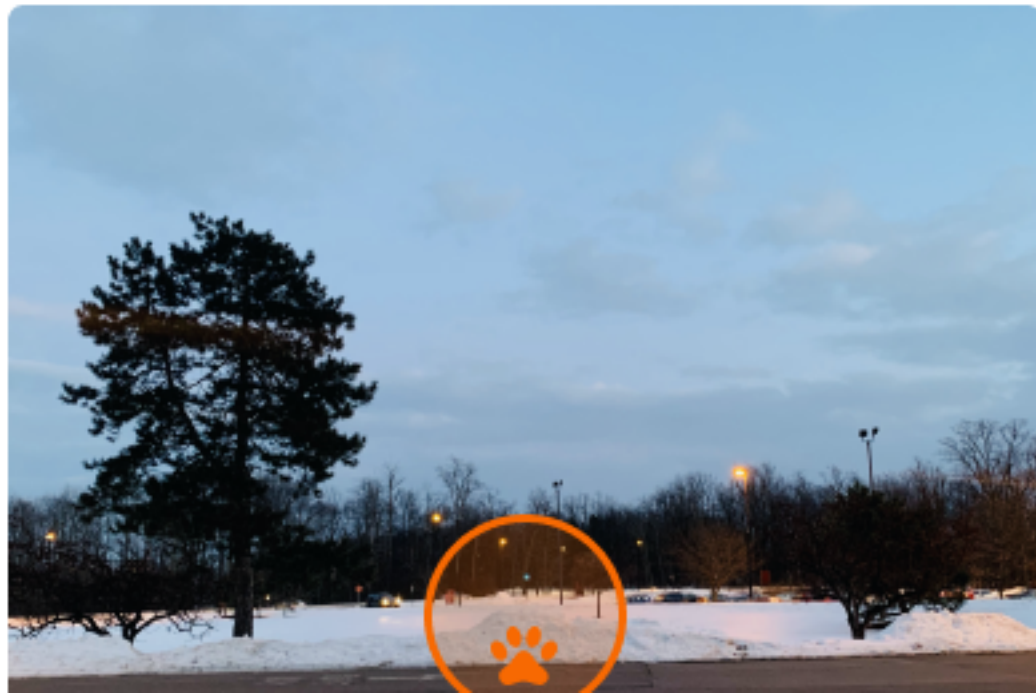
Cons

- Easily miss-trigger the alarm
- Keep holding phone when unsafe is hard

Field Observation

A field trip on February 10th, 2021 at Rochester Institute of Technology was conducted in order to observe the safety facilities including Public Safety and BlueLight system.

RESEARCH



Conclusion

The BlueLight system is easy to follow. It will be kept as part of the functions under "Map" for students studying late at night to navigate.

Design Goal



Instant Safety

Both Emergency and Non-Urgent services are available to make sure each user is safe on campus no matter day and night.



Easy to Use

Functions on each screen will not exceed eight. The process will also be designed as simple as it could in order to eliminate potential confusion from users.

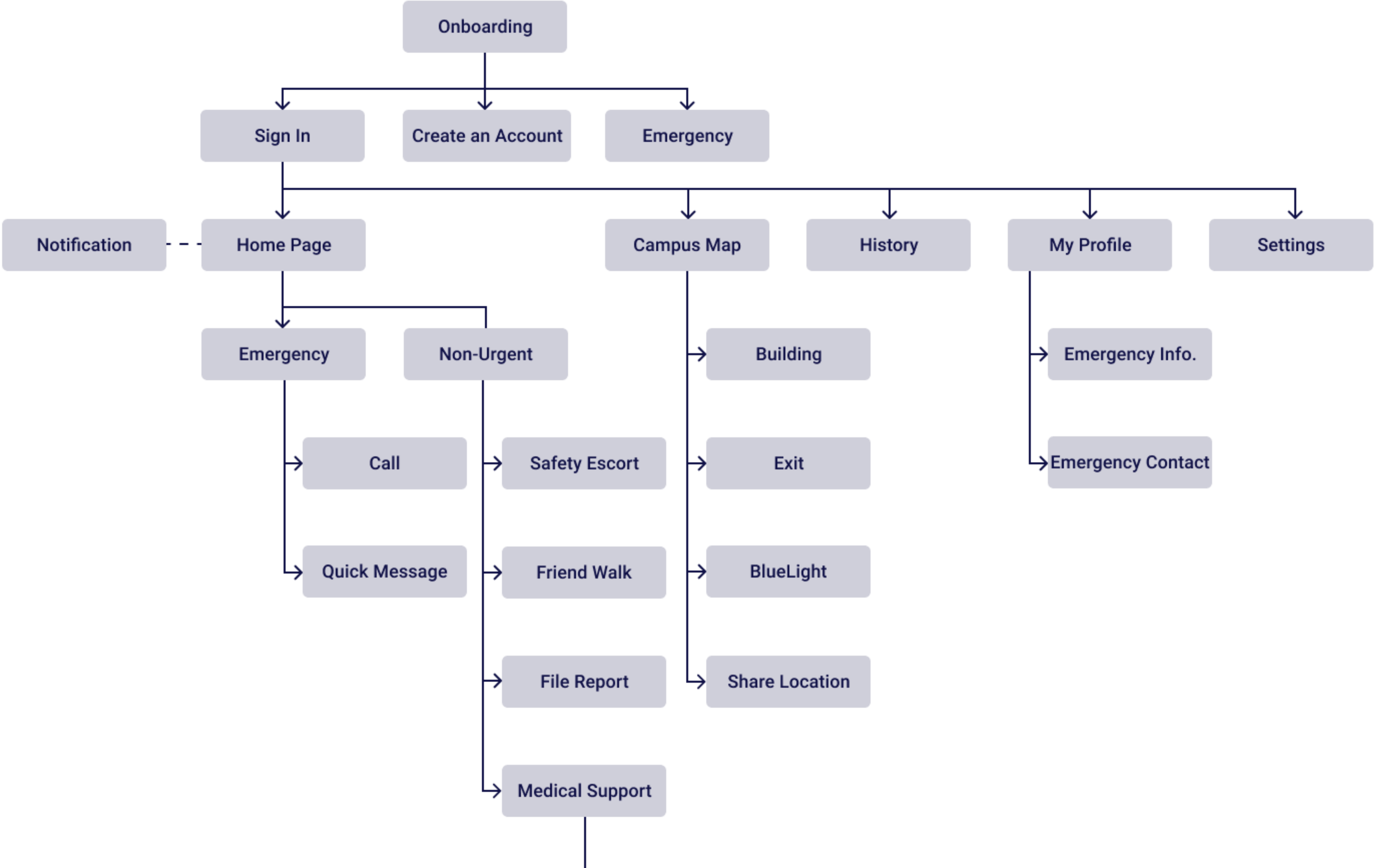


Clean User Interfaces

Keep essential information and functions only. Although the primary users are college students, family members who visit the campus are also welcomed to use. Therefore, no complicated images or usage introductions will be used in this app.

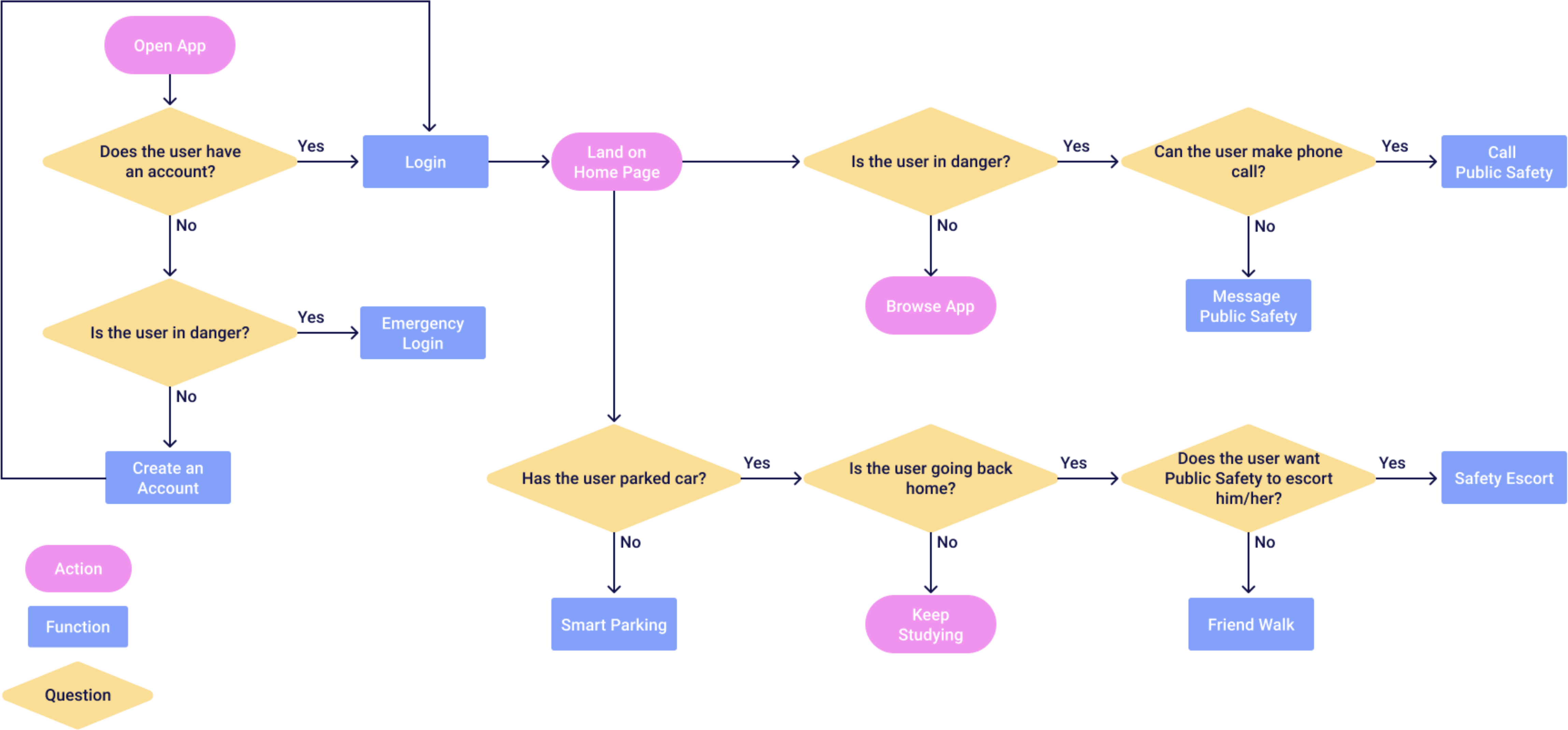
Function and Feature Scope

The primary function and feature scope of final design is illustrated as below.

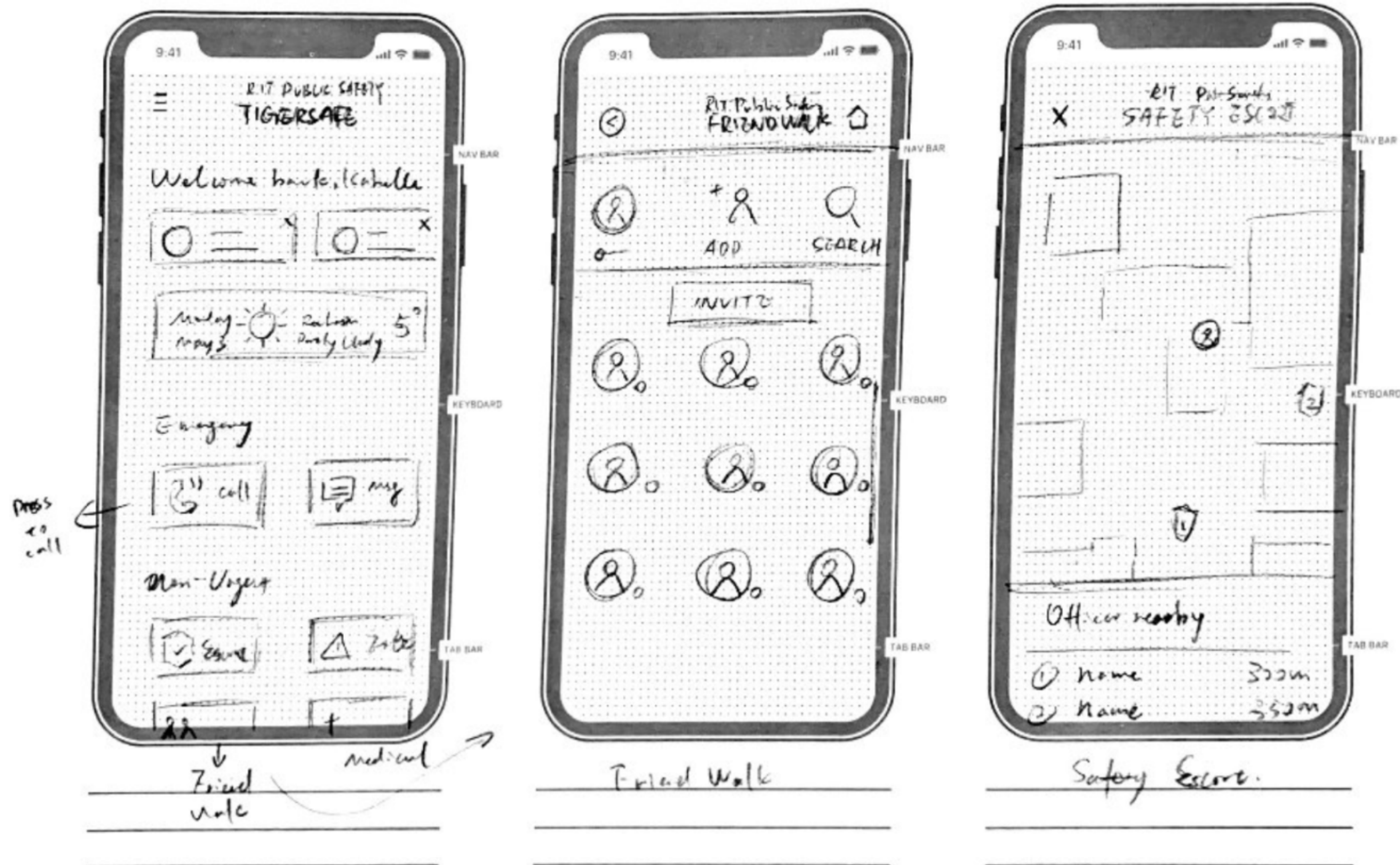


Workflow

Workflow diagrams for primary use cases are drawn as below.



Sketch



DESIGN

Mood Board

Images are sourced from Pinterest.

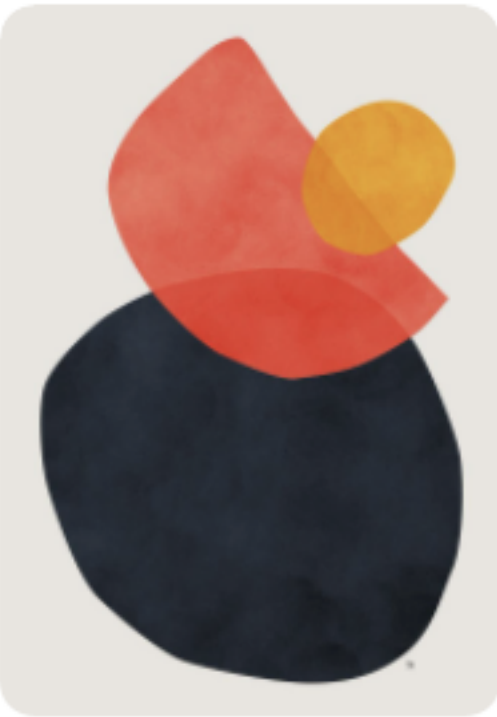
Clean

Sans-serif

Friendly

Simple

Straightforward



Balance Art Print
Society6



Mikado - Canvas Print
iCanvas

 Smaracuja || Nina Hüpen-...



This item is unavailable | Etsy



This item is unavailable | Etsy



Electronics, Cars, Fashion,
Collectibles & More | eBay



'Paisley Squirrel' by Andy...
Wayfair.ca

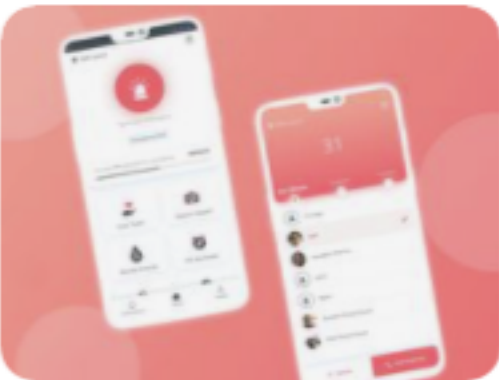
 Wayfair Canada



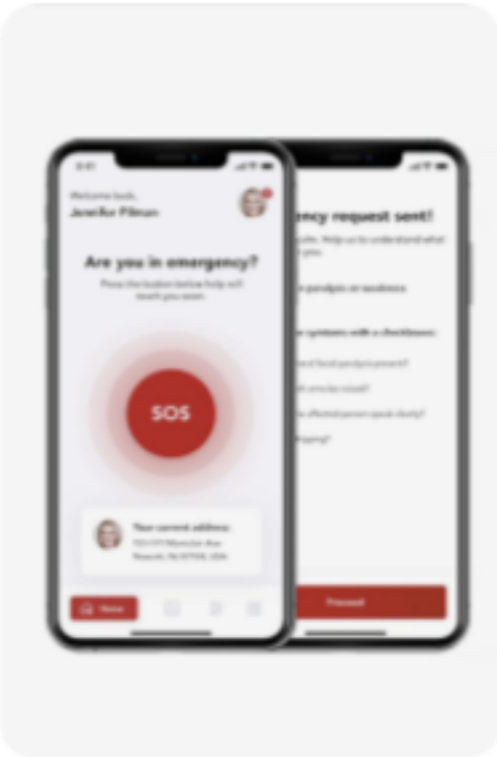
Home X / Smart home
application



Bebank — Mobile Banking



Emergency App



Work Safely

DESIGN

Style Board

Images are sourced from Behance, Dribbble, Pinterest, etc.

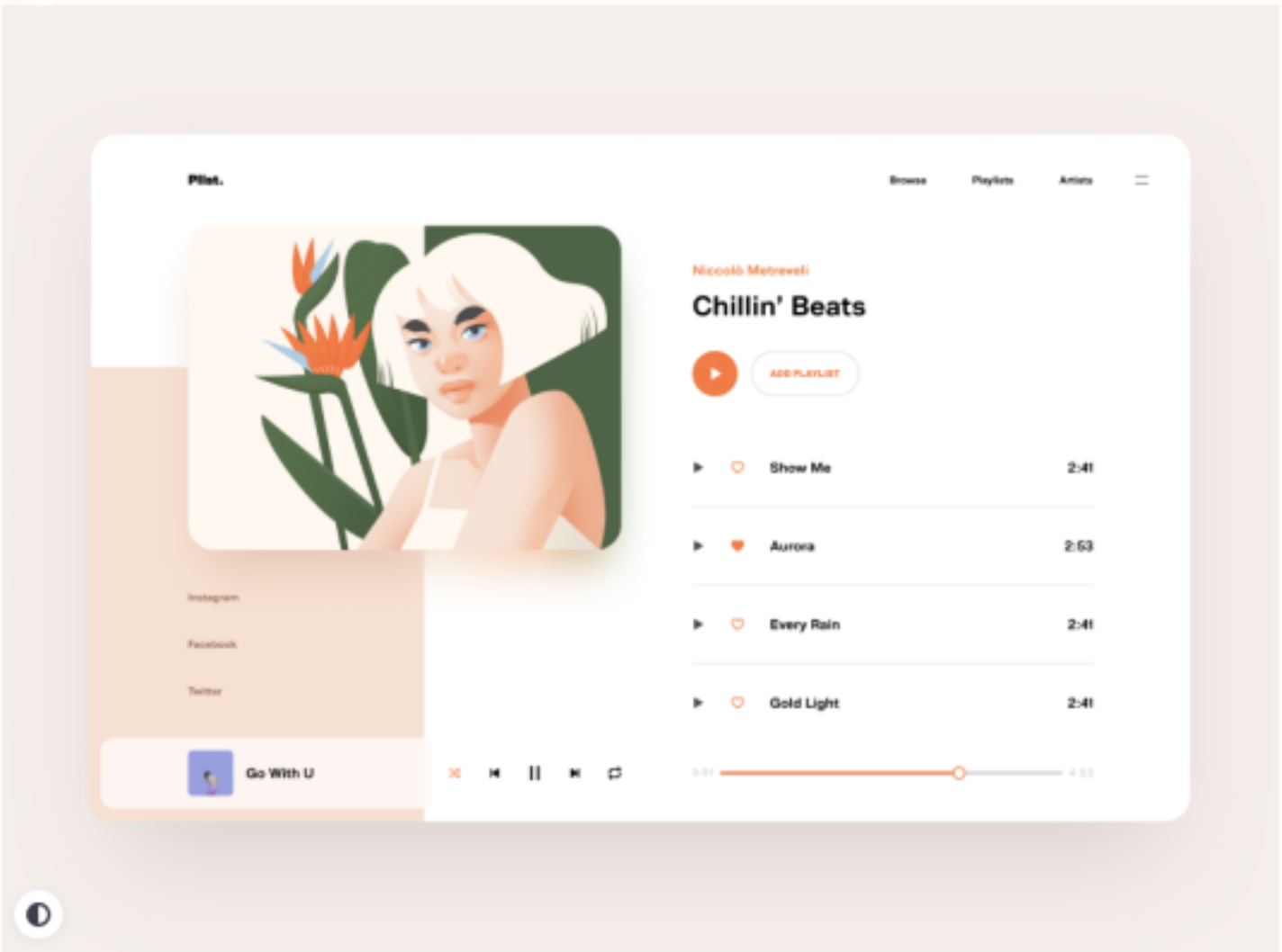
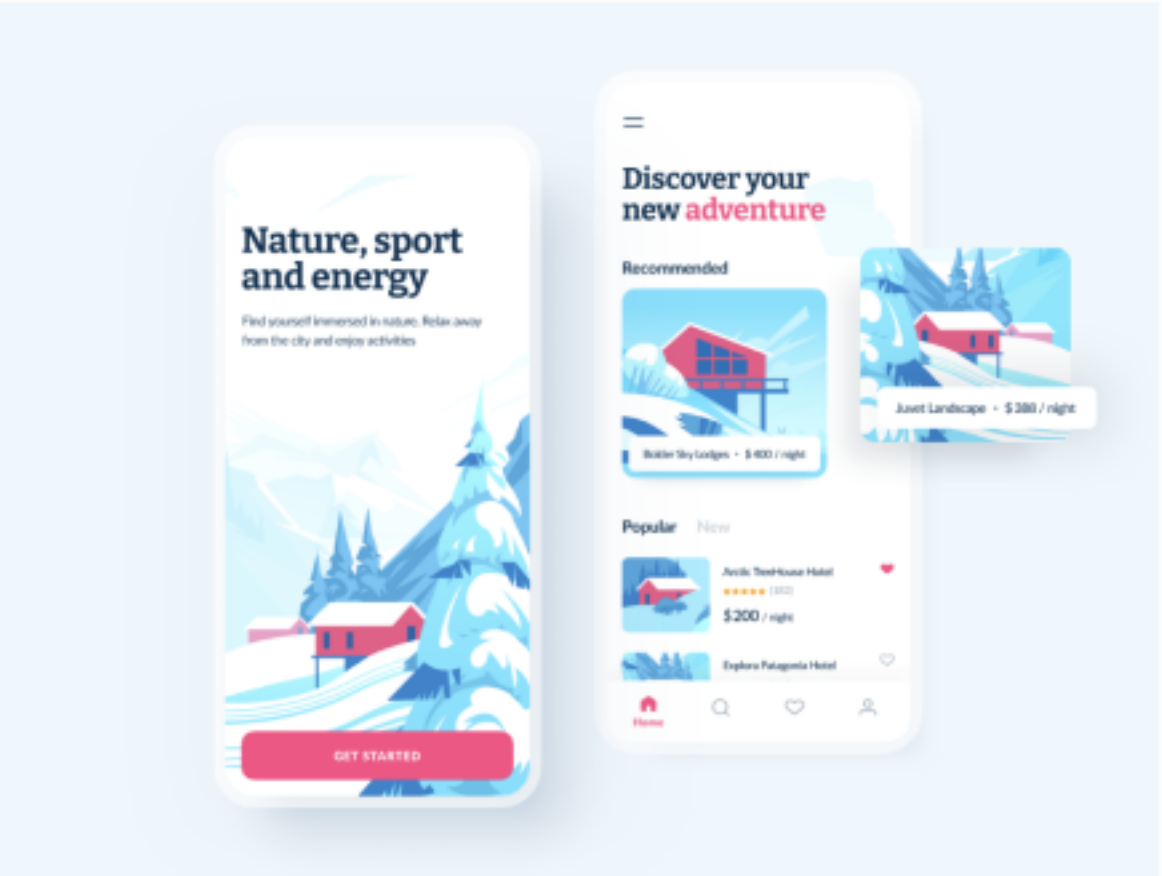
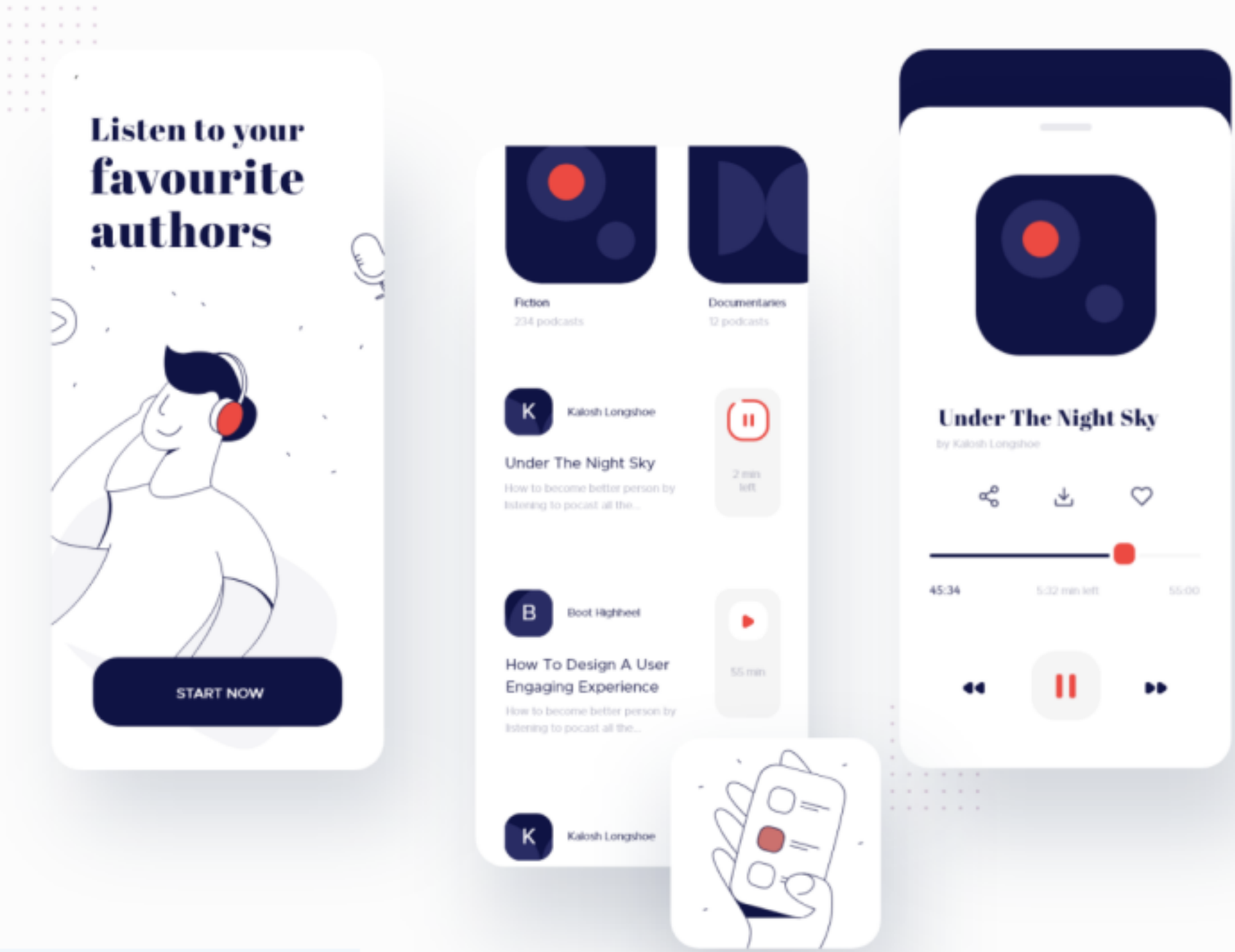
Rounded corner

Navy and orange

White space

Clean layout

Simple icon



DESIGN

Visual Design 1

Navy(#101147) and orange(#F76902) colors are chosen as the key tone to make a strong contract but keep a clean appearance at the same time. The navy color keeps the users calm no matter there is an emergency or not. The orange color is RIT's brand color, which creates a close and familiar feel to the students and faculties.

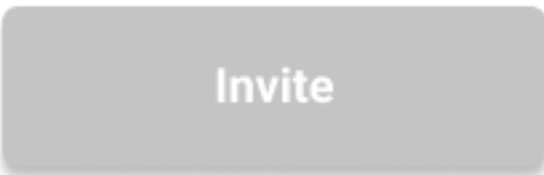
Typography

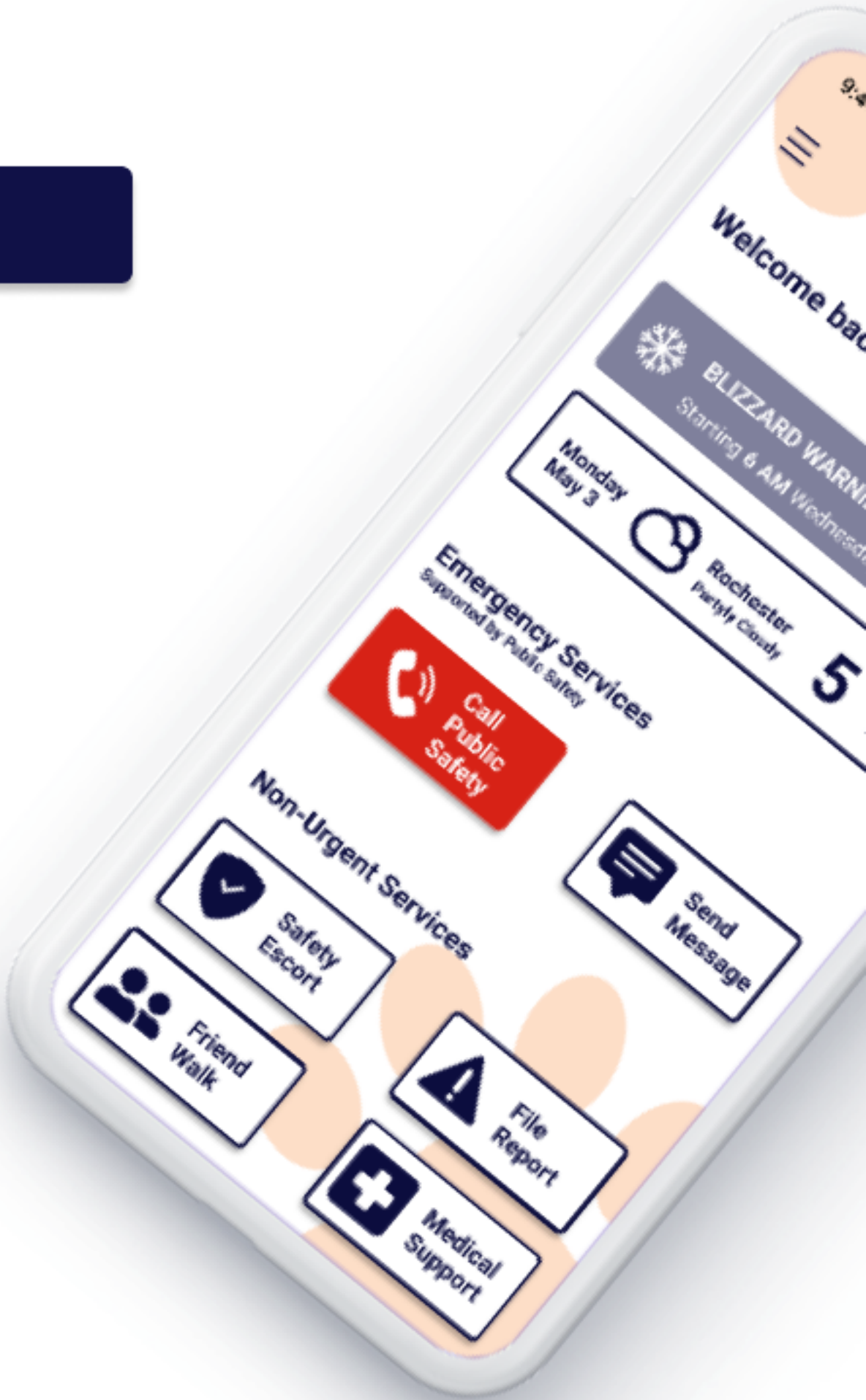
- Roboto Thin
- Roboto Light
- Roboto Regular
- Roboto Medium
- Roboto Bold
- Roboto Black

Color

#101147	#F76902	#FFFFFF
#8788A3	#DA291C	#C4D600
#CFCFDA	#FBB480	#C4C4C4

Button Statuses

 Inactive	 Active	 After tap
 Notification pops-up	 After tap	
 Location not saved yet	 Location saved	
 Emergency Button	 After press and hold	



Visual Design 2

Frames, caps, and corners are all set as round to evoke feelings of friendly. 80% of the frames are filled with white and navy to keep as clean as possible. Red has applied restrictedly only for emergency use.

Widgets

 **BLIZZARD WARNING** 

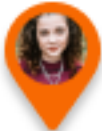
Starting 6 AM Wednesday

Monday
May 3

 **Rochester**
Partly Cloudy

5° 17 3





1 Press and hold the button
5 seconds to call Public Safety

 **Call
Public
Safety**

 **Send
Message**

Waiting for Response... 

 **Safety
Escort**

 **File
Report**

Ash has confirmed
to join Friend Walk.


**Do you want to end
Friend Walk now?**


 **Building**

 **Exit**

 **BlueLight**

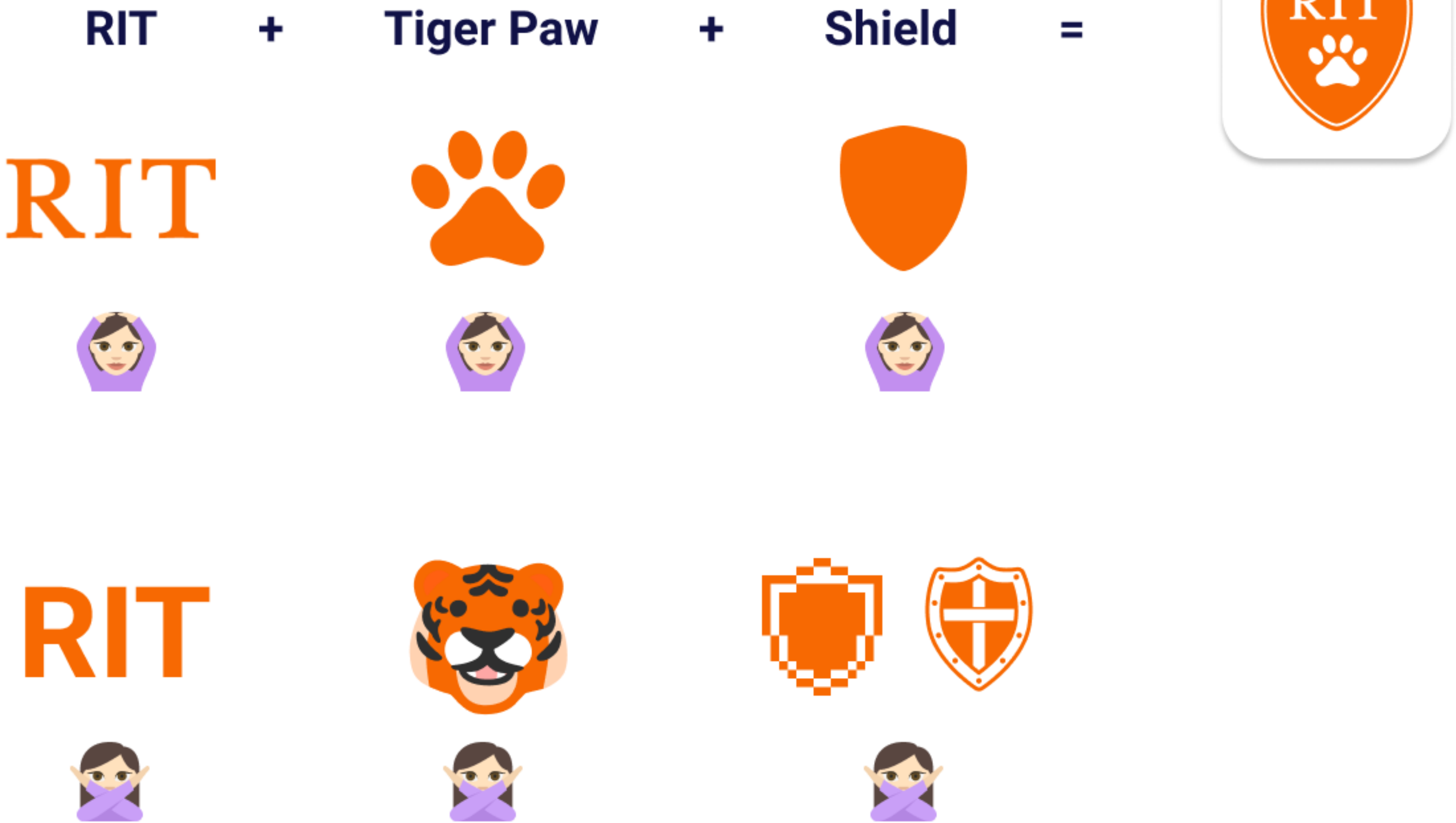
 **Share**

A detailed campus map showing various buildings and landmarks. The map is oriented with North at the top. Buildings are represented by grey shapes with labels. Green dots are scattered across the map, indicating specific locations or points of interest. The labels include: Institute Hall, Center for Bioscience Education & Technology, University Gallery, James E. Booth Hall, Magic Spell Studios, Frank E. Gannet Hall, Liberal Arts Hall, Ge Eastn, Engineering Hall, James E. Gleason Hall, Orange Hall, Coll, CBET, INT, Magic, Gannet Hall, Booth Hall, Liberal Arts Hall, Gleason Hall, and Engineering Hall.

DESIGN

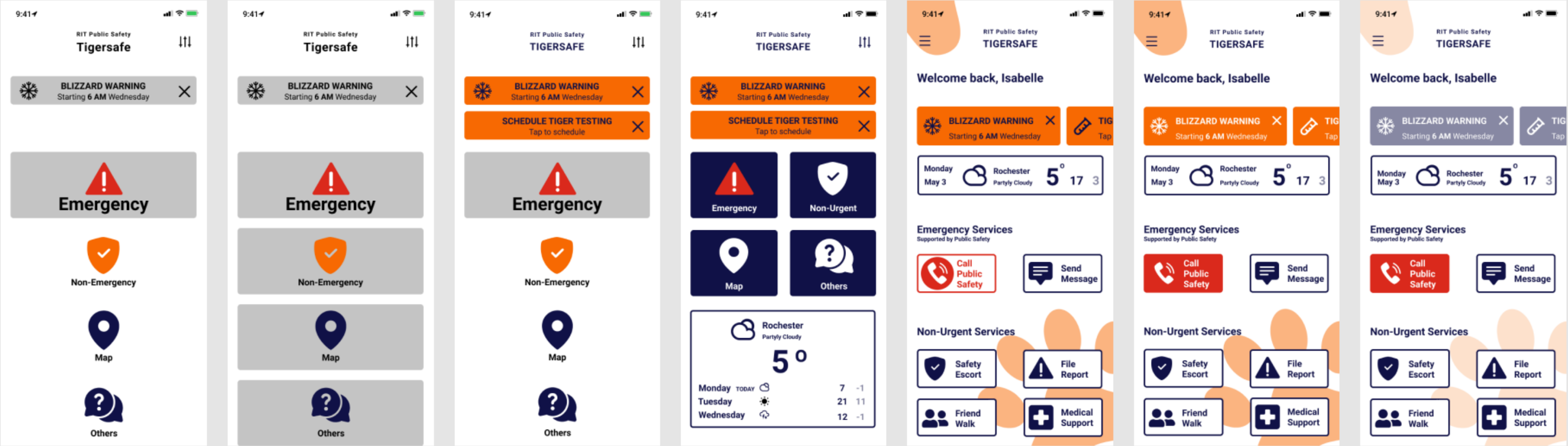
Home Screen Icon

To align with the entire design style of the app, the home screen icon also maintains friendly, simple, clean, straightforward feelings. Complicated visual assets are avoided. Main elements are remained, including tiger, orange color, and clean impression.



Screen Iteration

Through iterations, the home page is revised several versions.



Initial Design →

Final Design

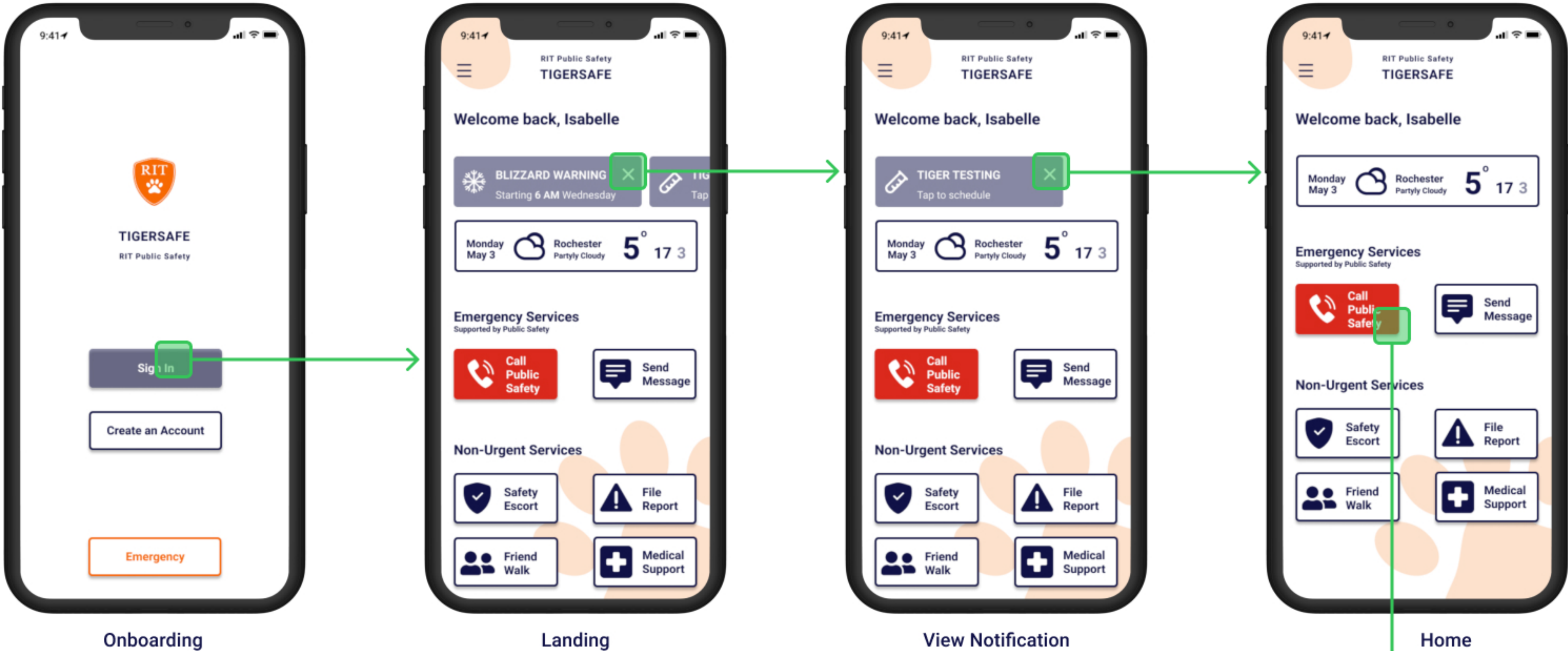
Wireframe

Wireframes of screens for primary use cases.

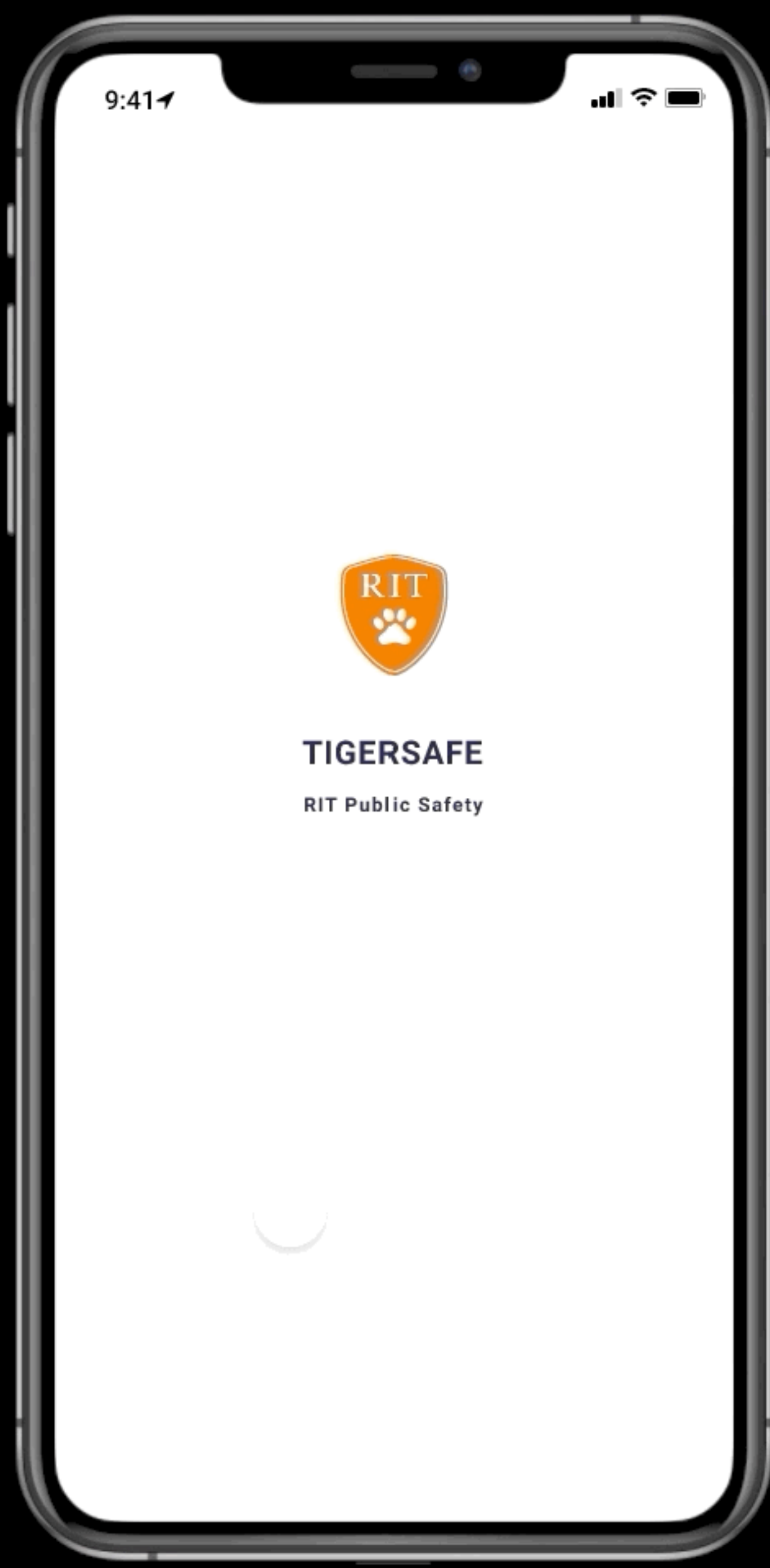


Prototype - Onboarding and Landing Page

The following wireframes demonstrate the processes of eight primary functions, including onboarding & landing, emergency call to Public Safety, quick message, safety escort, friend walk, smart parking and navigation, profile, and settings.



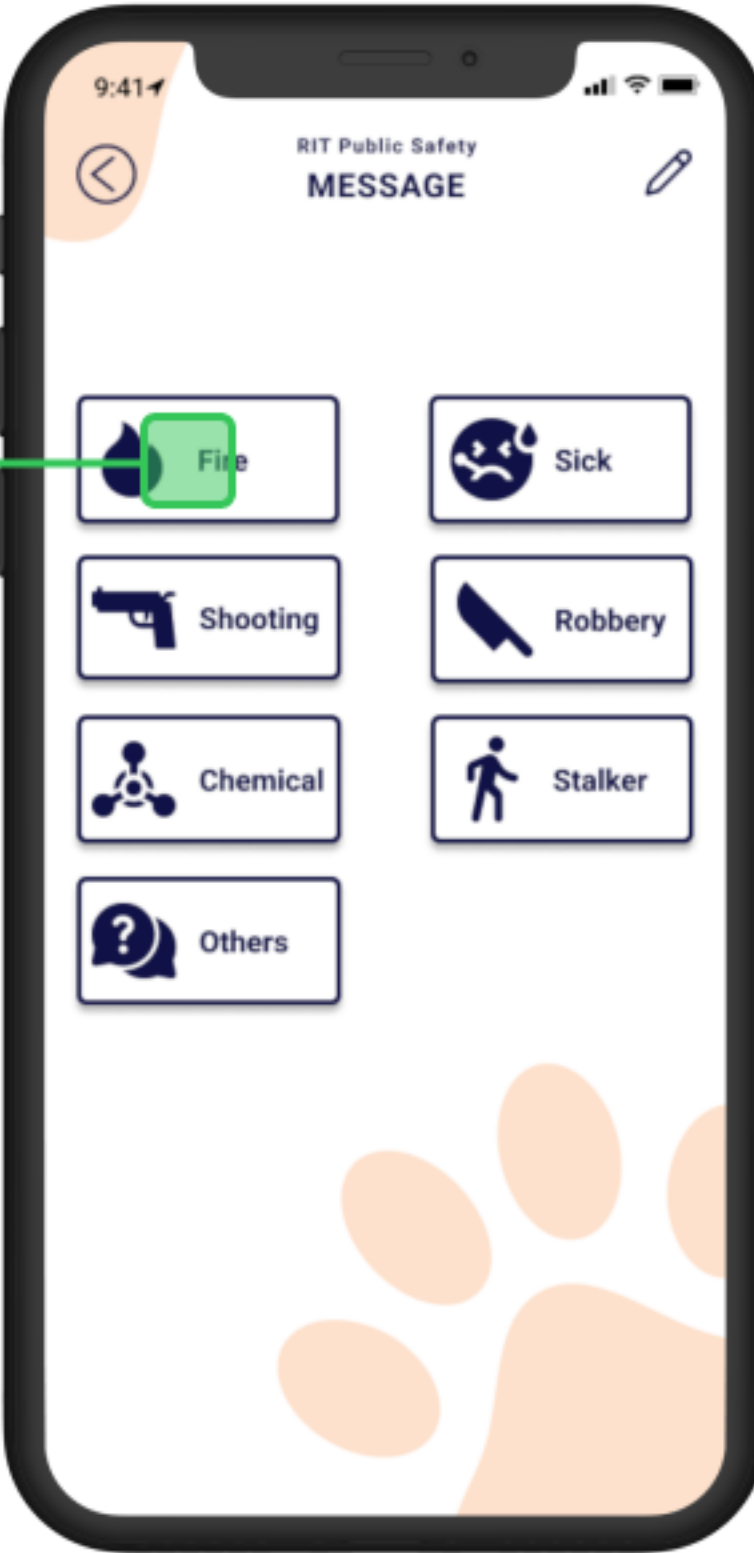
Animation 1 Onboarding & Landing



Prototype - Emergency Call & Quick Message



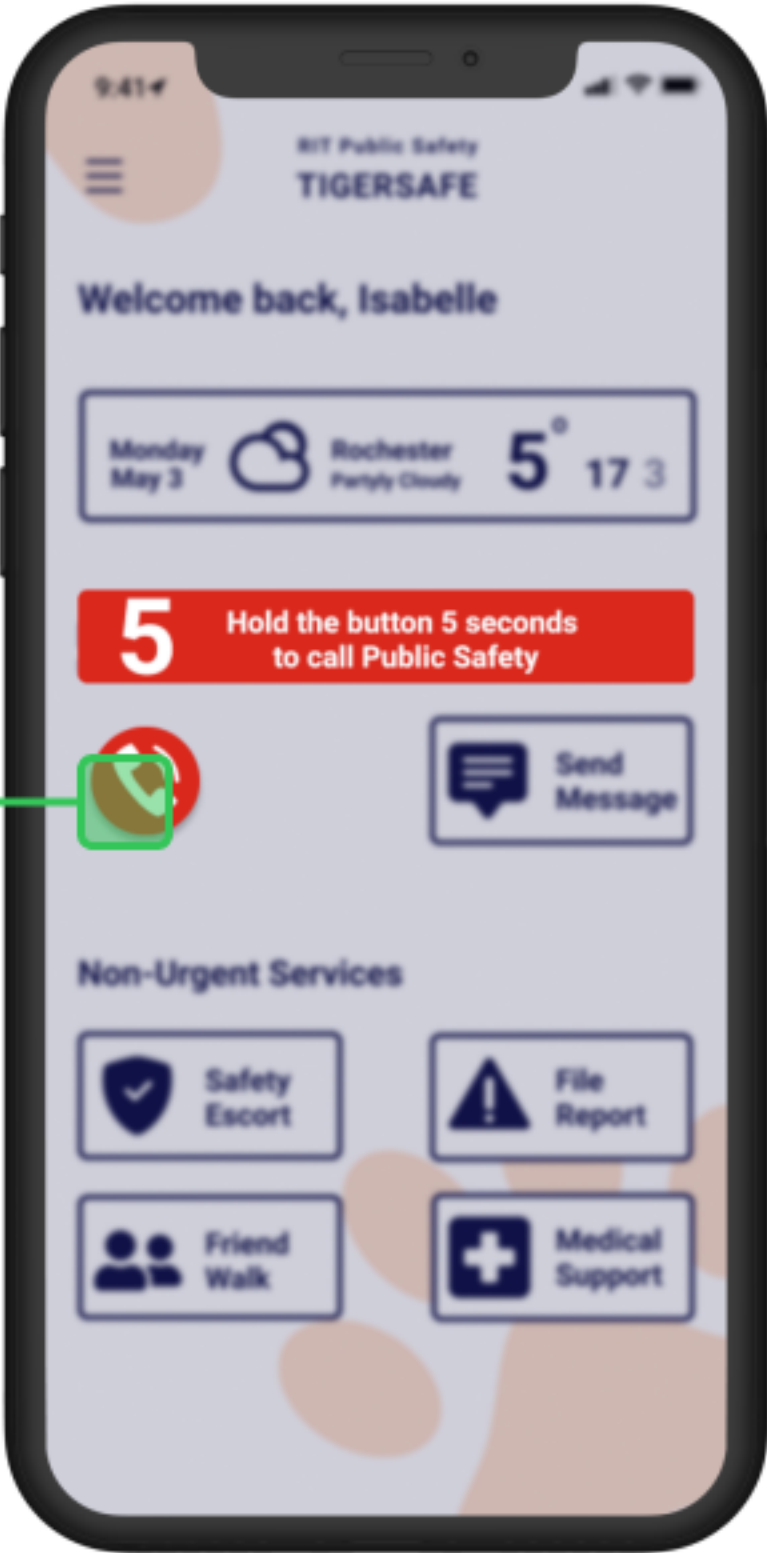
Send Message to Public Safety



Choose Quick Message



Talking with Public Safety

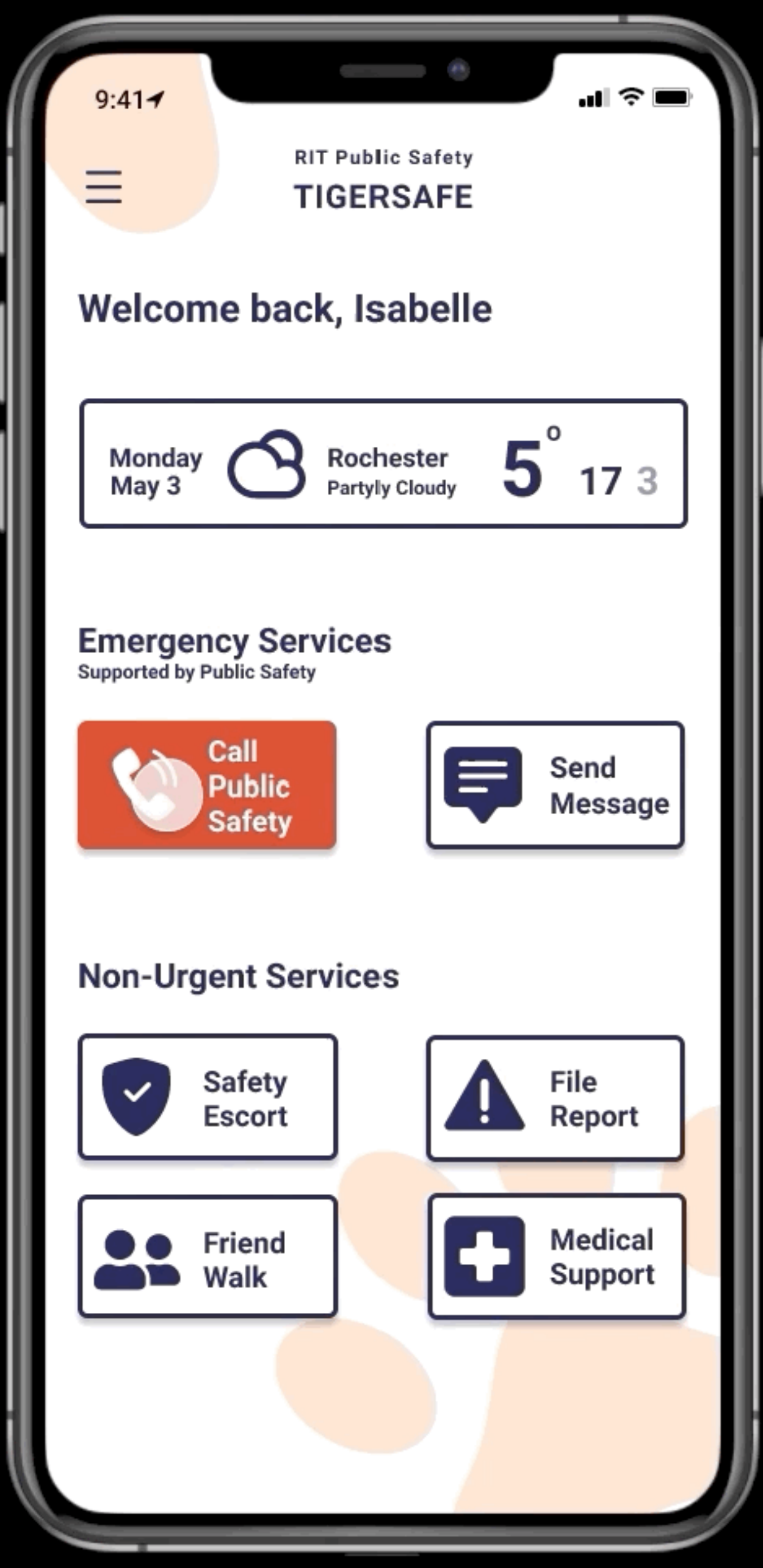


Wait to Connect

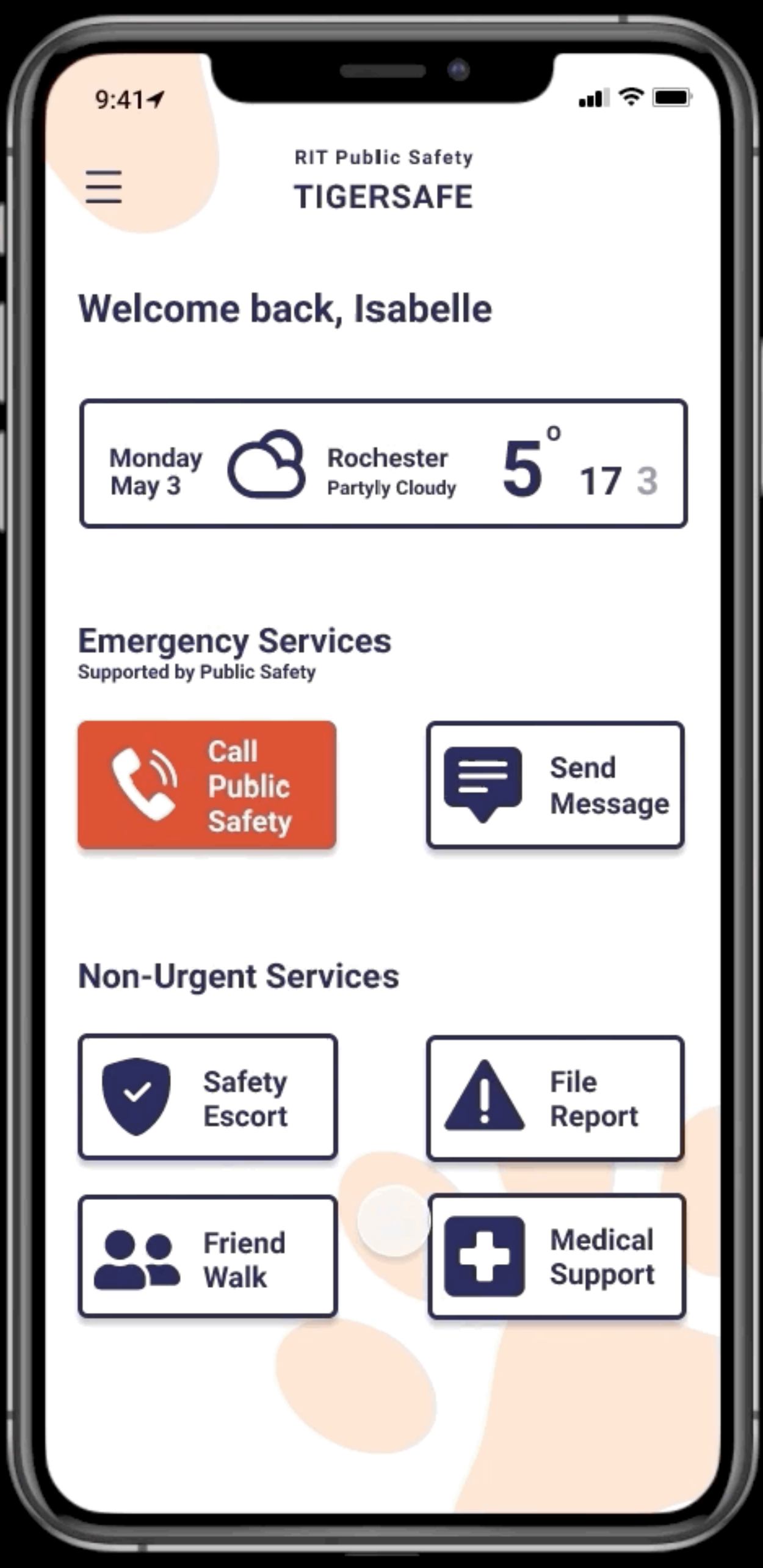


Press and hold 5s to make a call

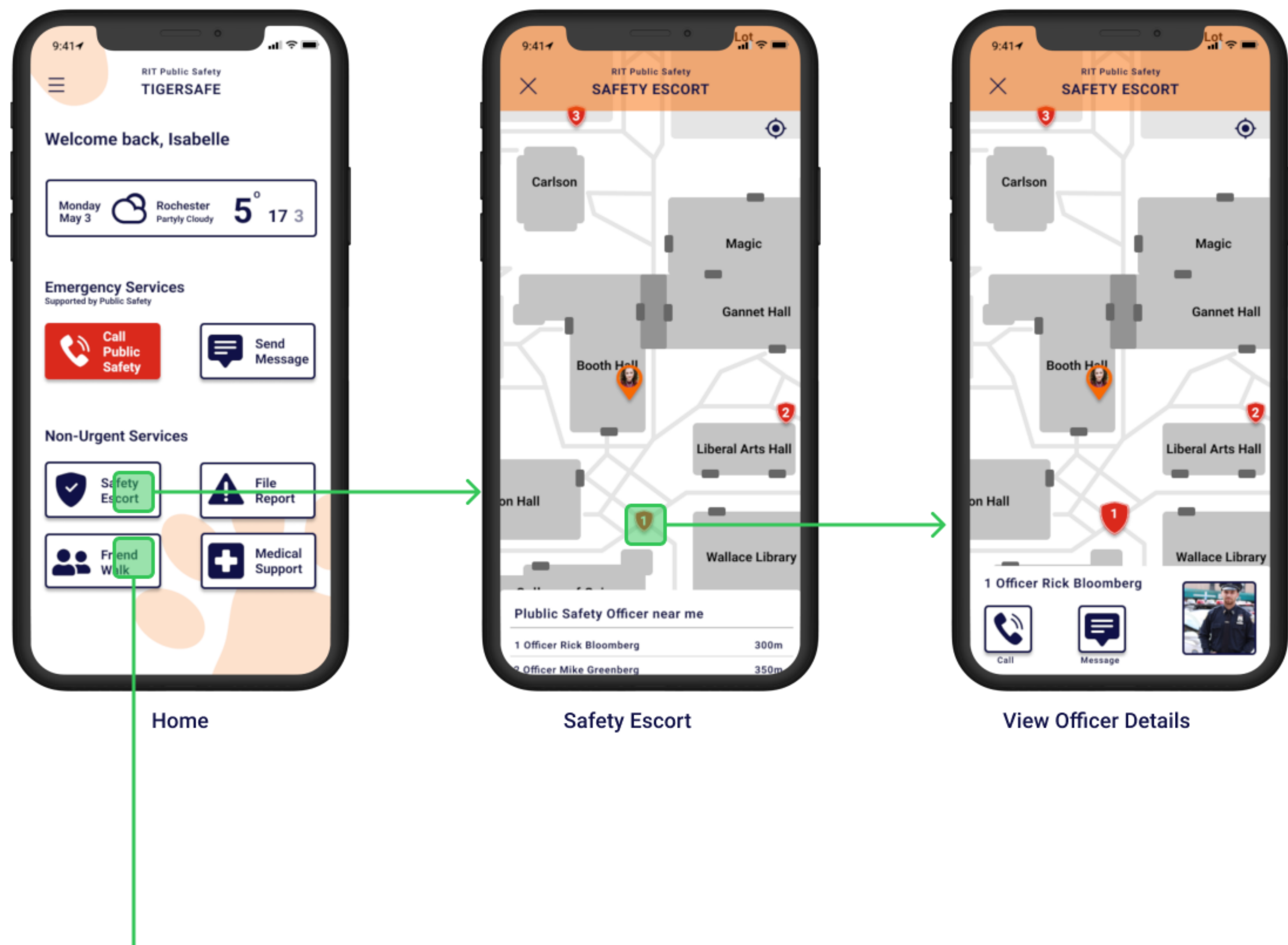
Animation 2 Emergency Call



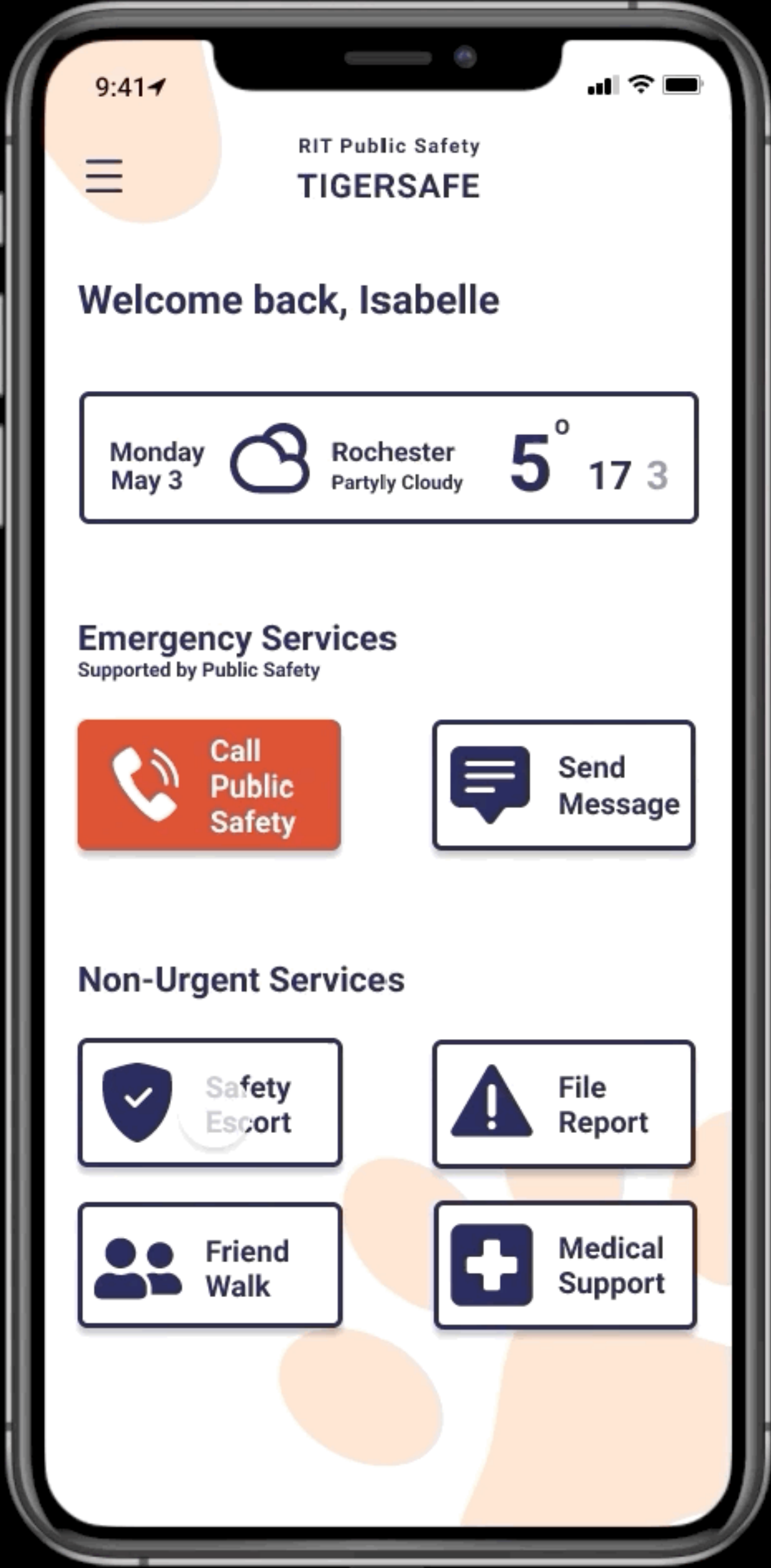
Animation 3 Quick Message



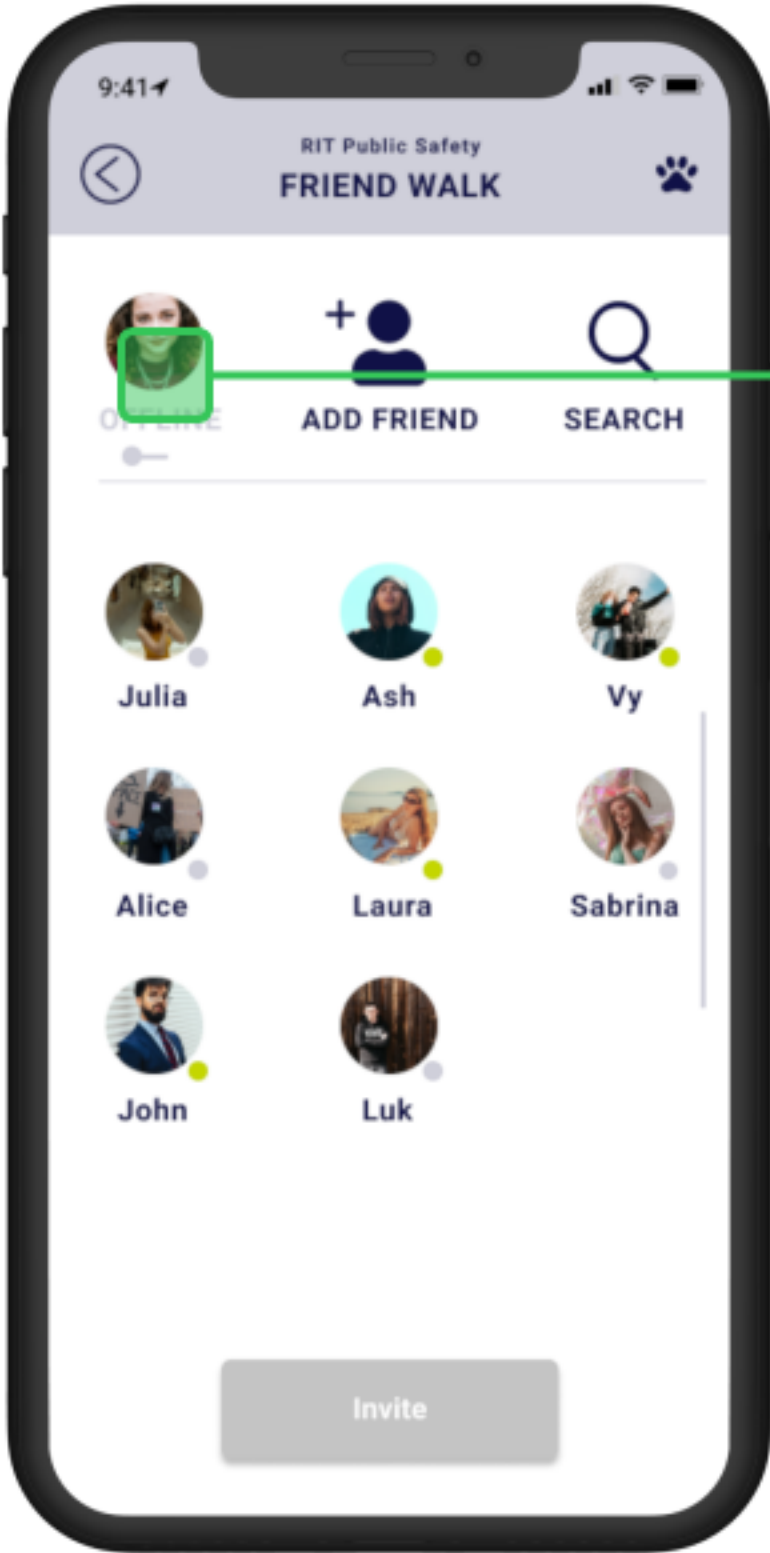
Prototype - Safety Escort



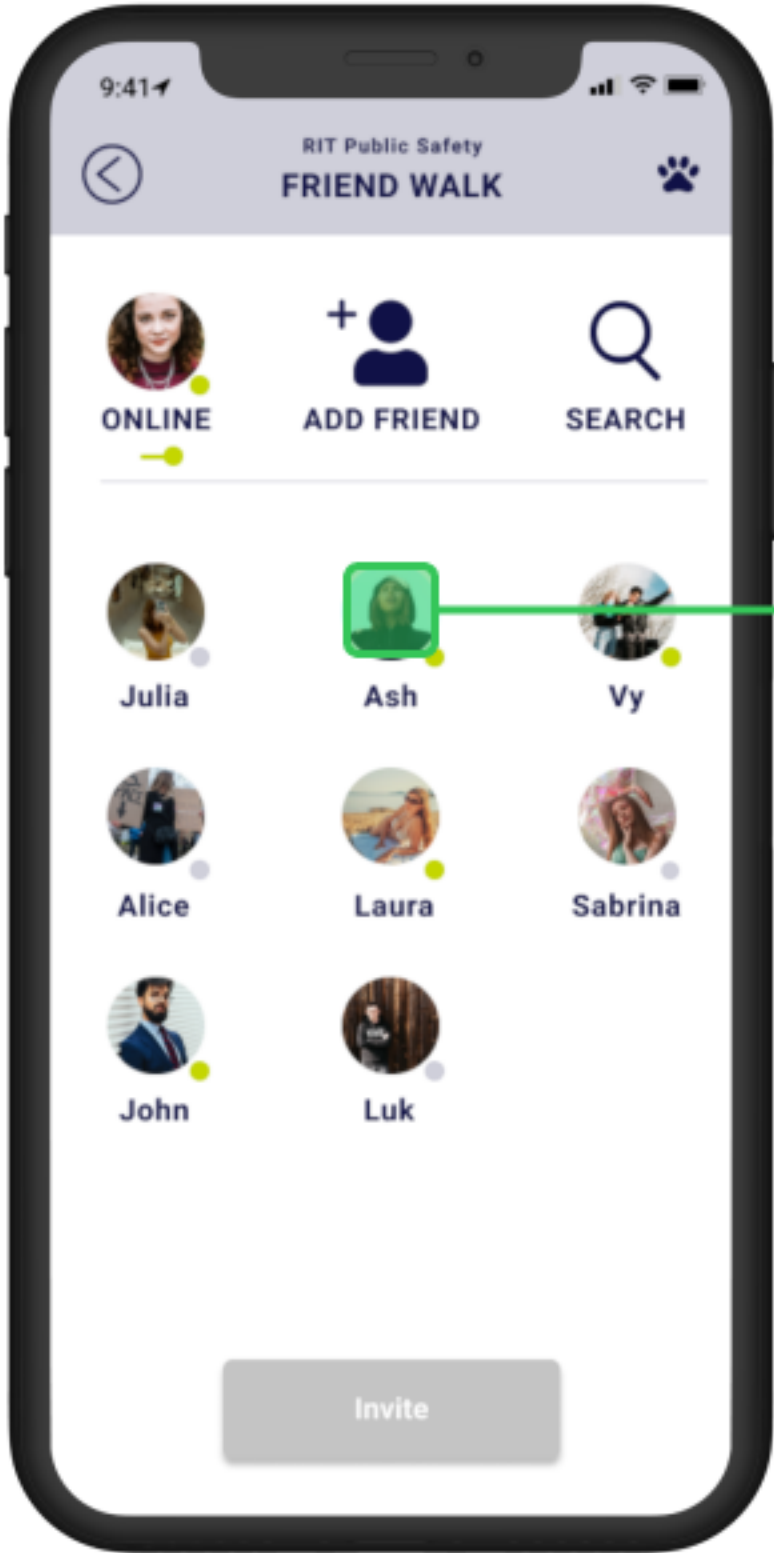
Animation 4 Safety Escort



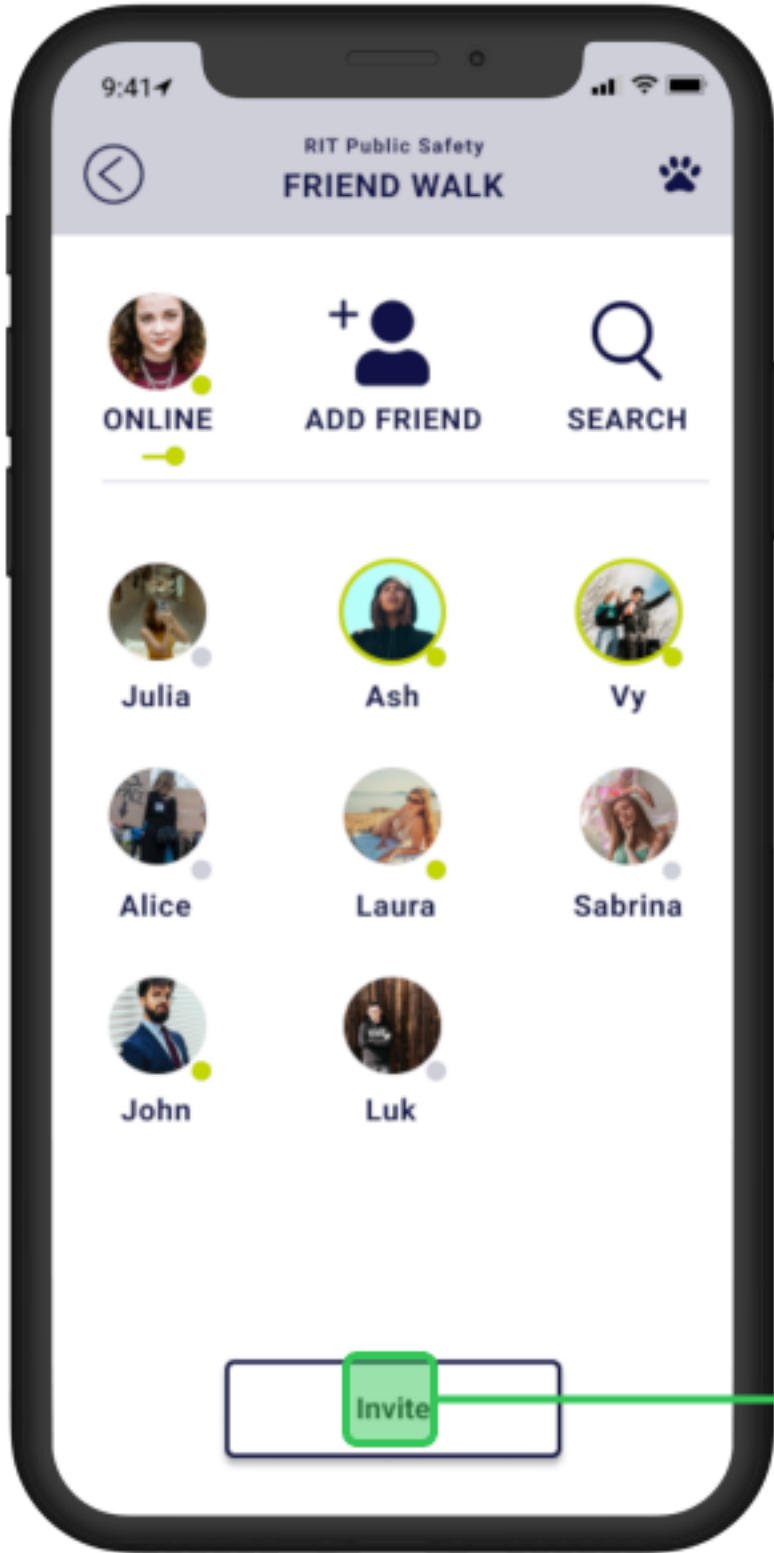
Prototype - Friend Walk 1



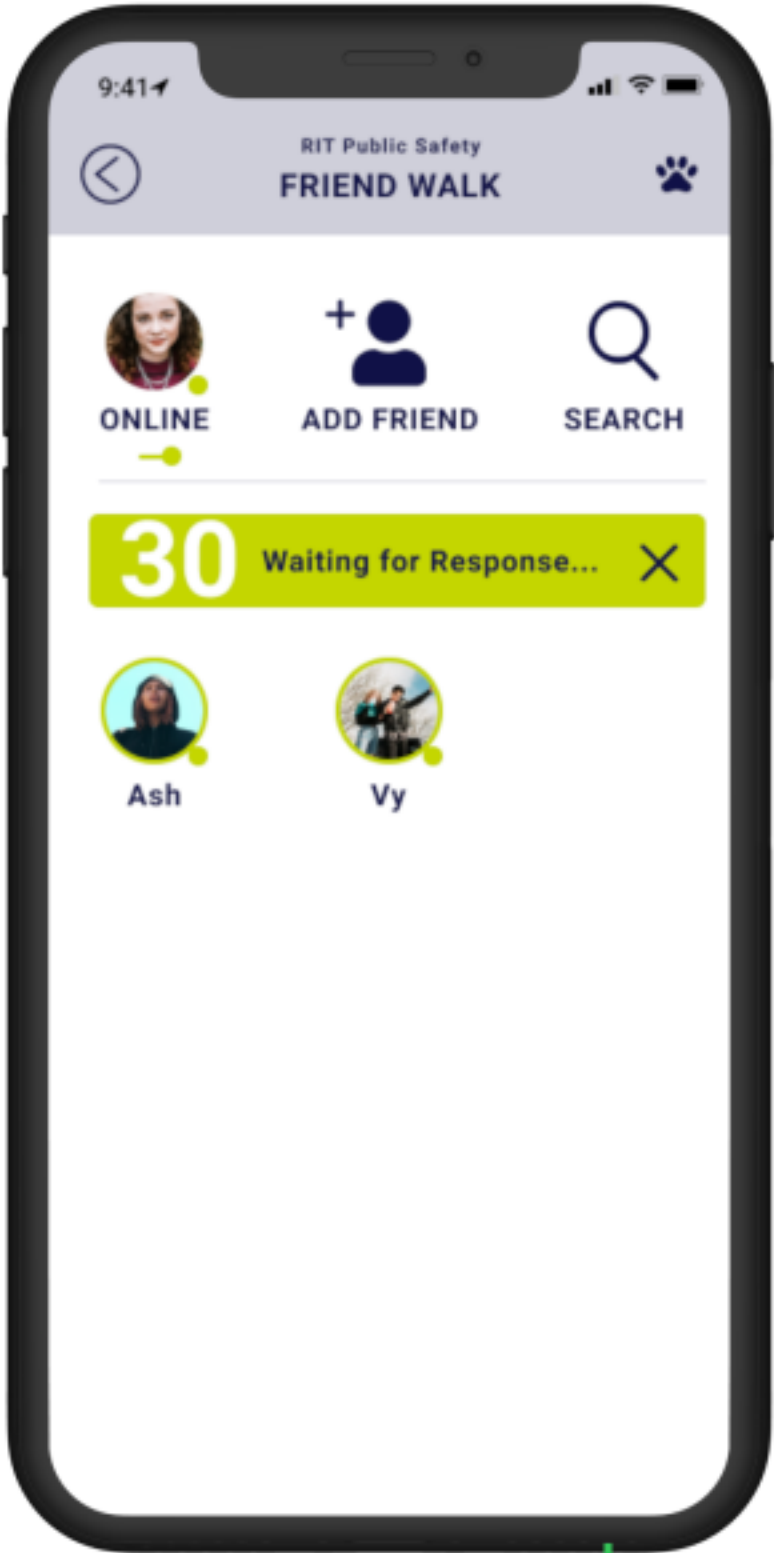
Friend Walk



Set to "Online"

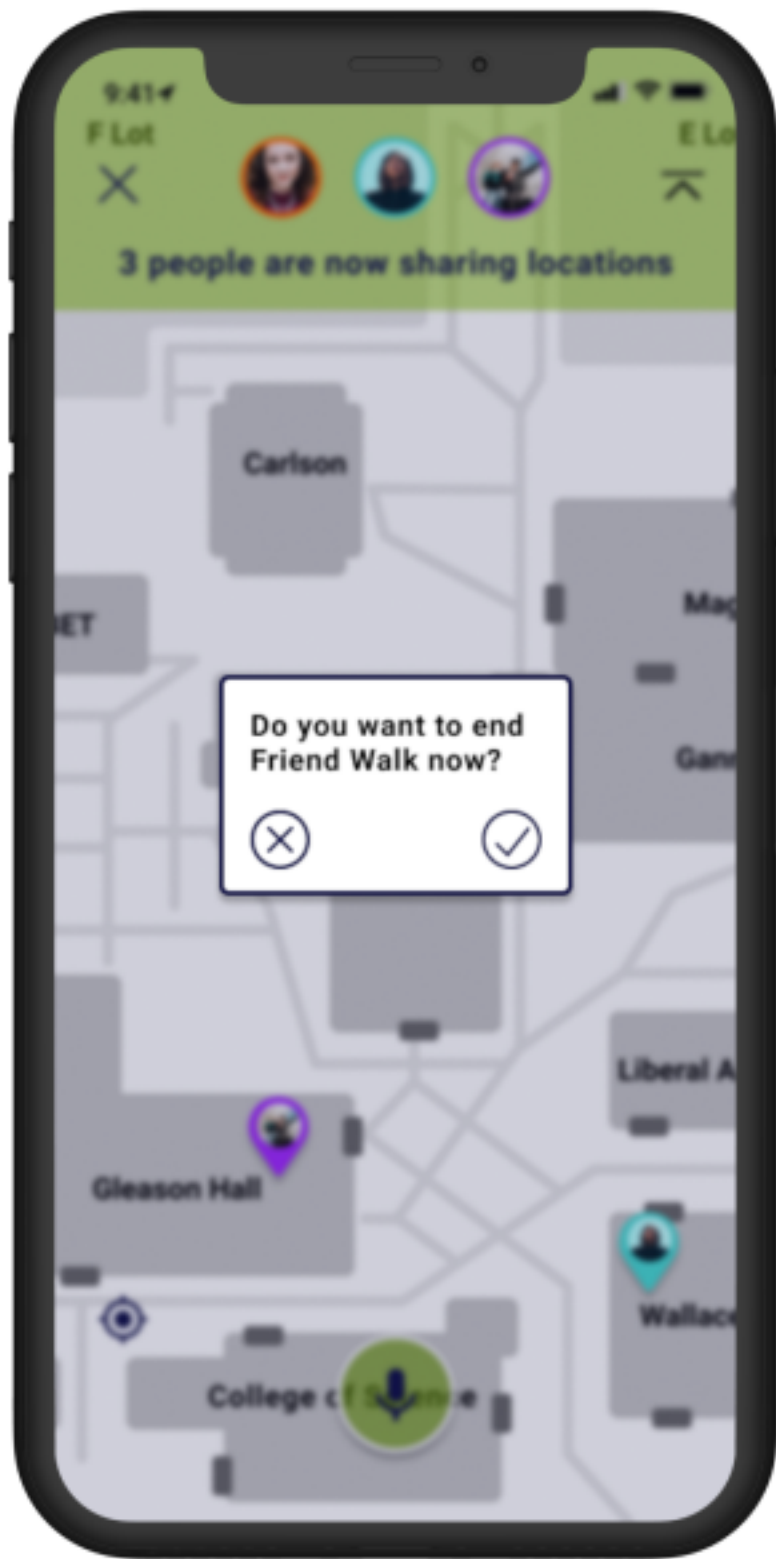


Choose Friends and Invite

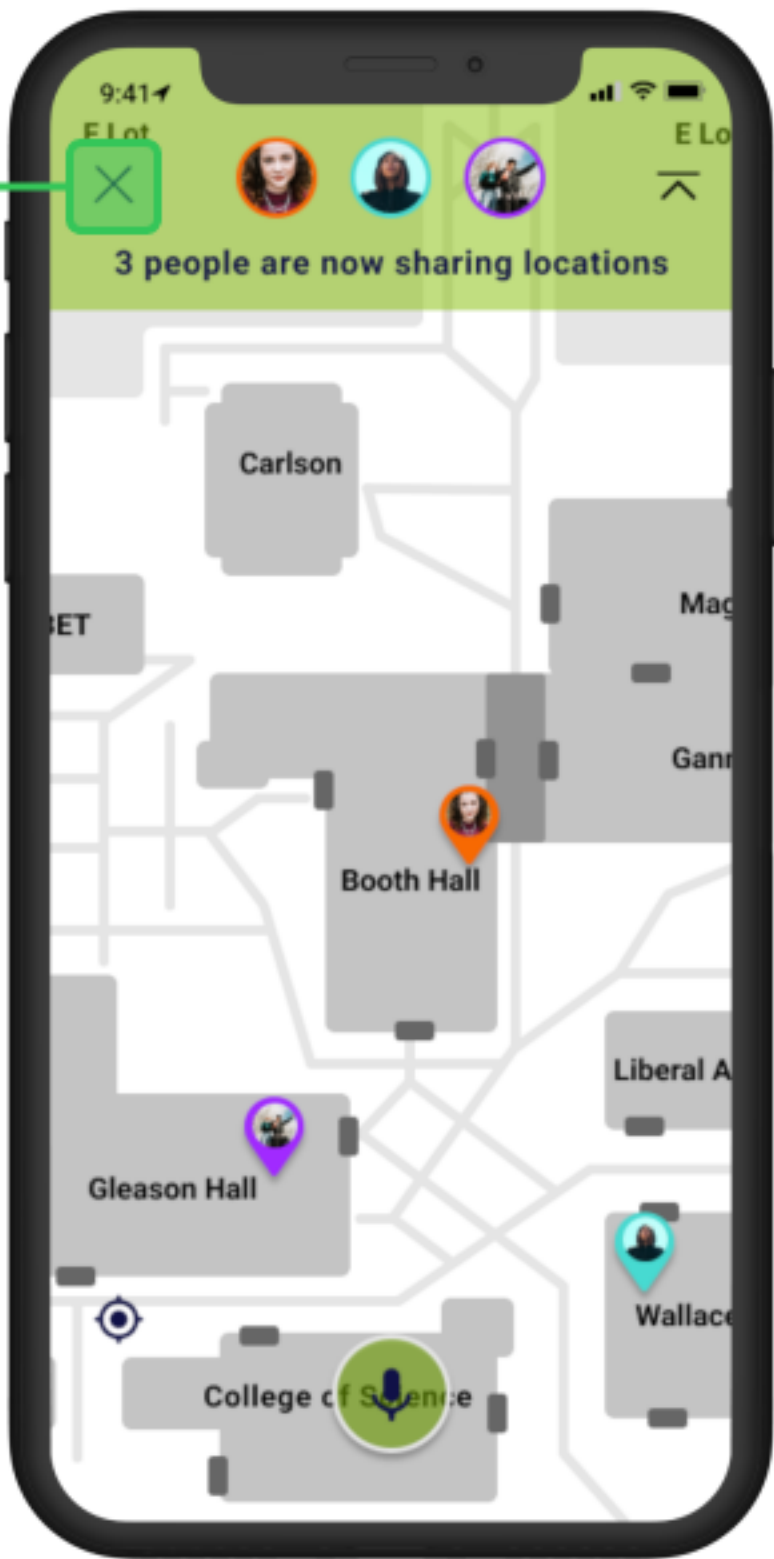


Wait for Response

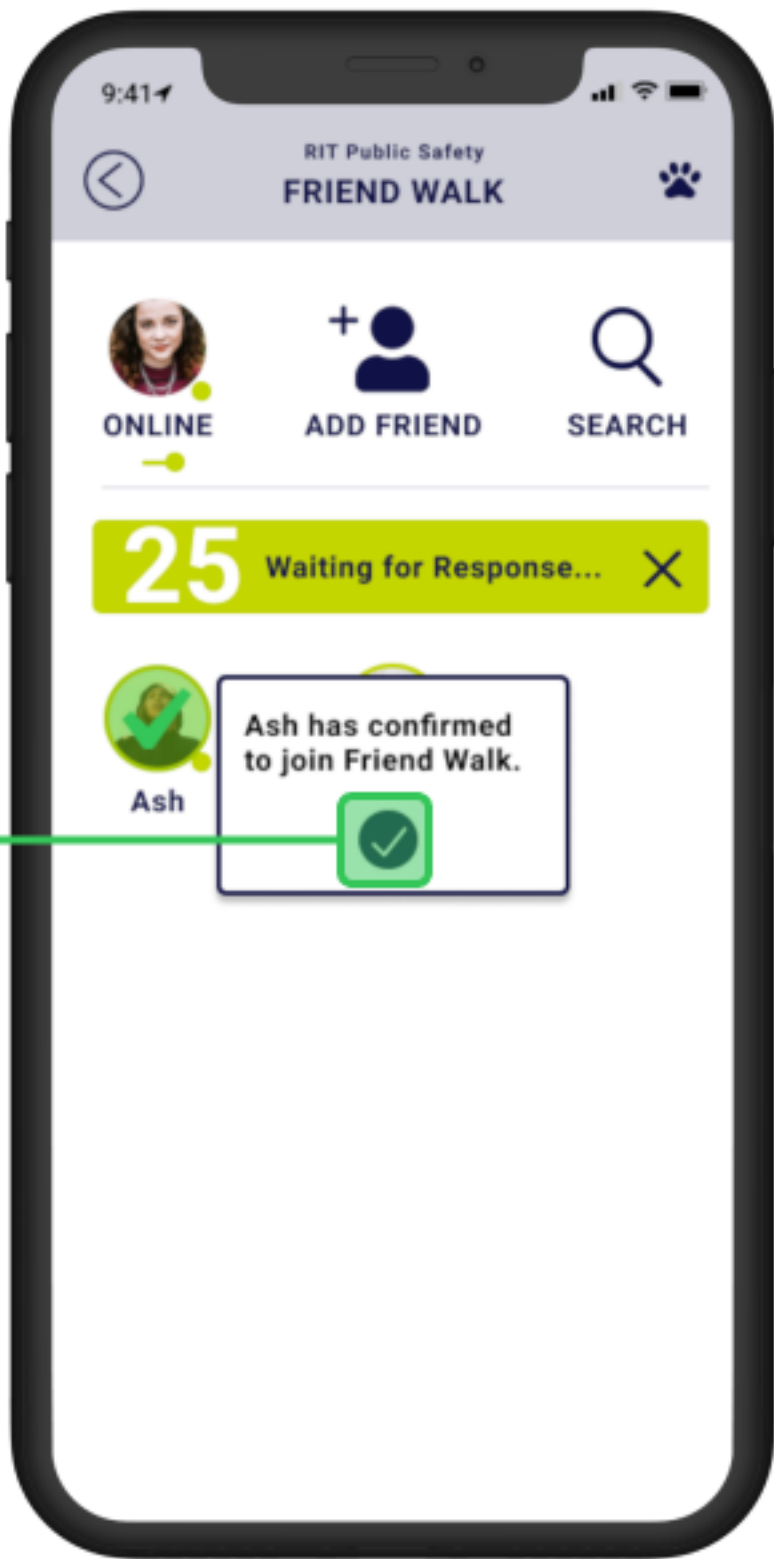
Prototype - Friend Walk 2



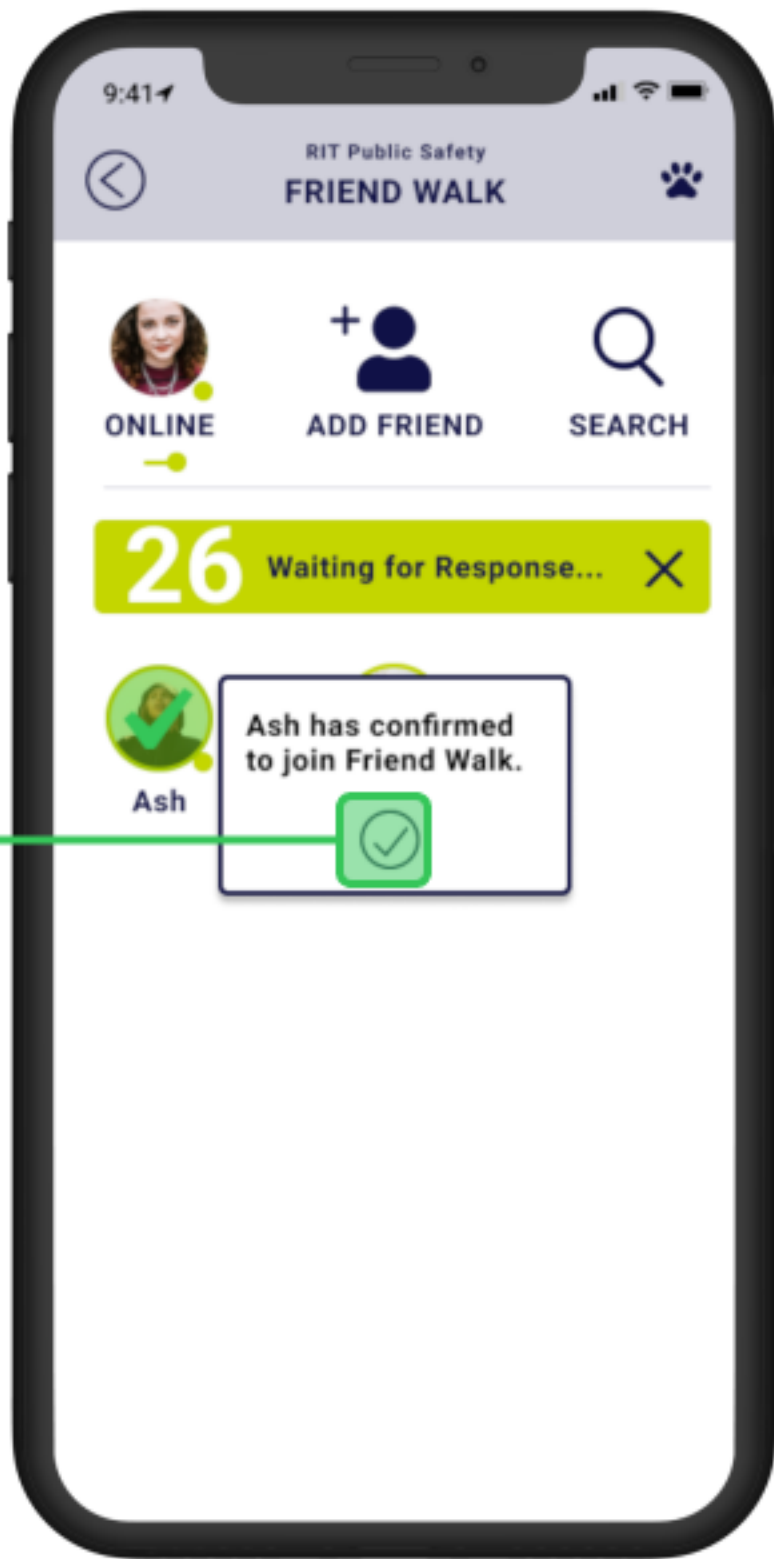
End Friend Walk



Start Friend Walk

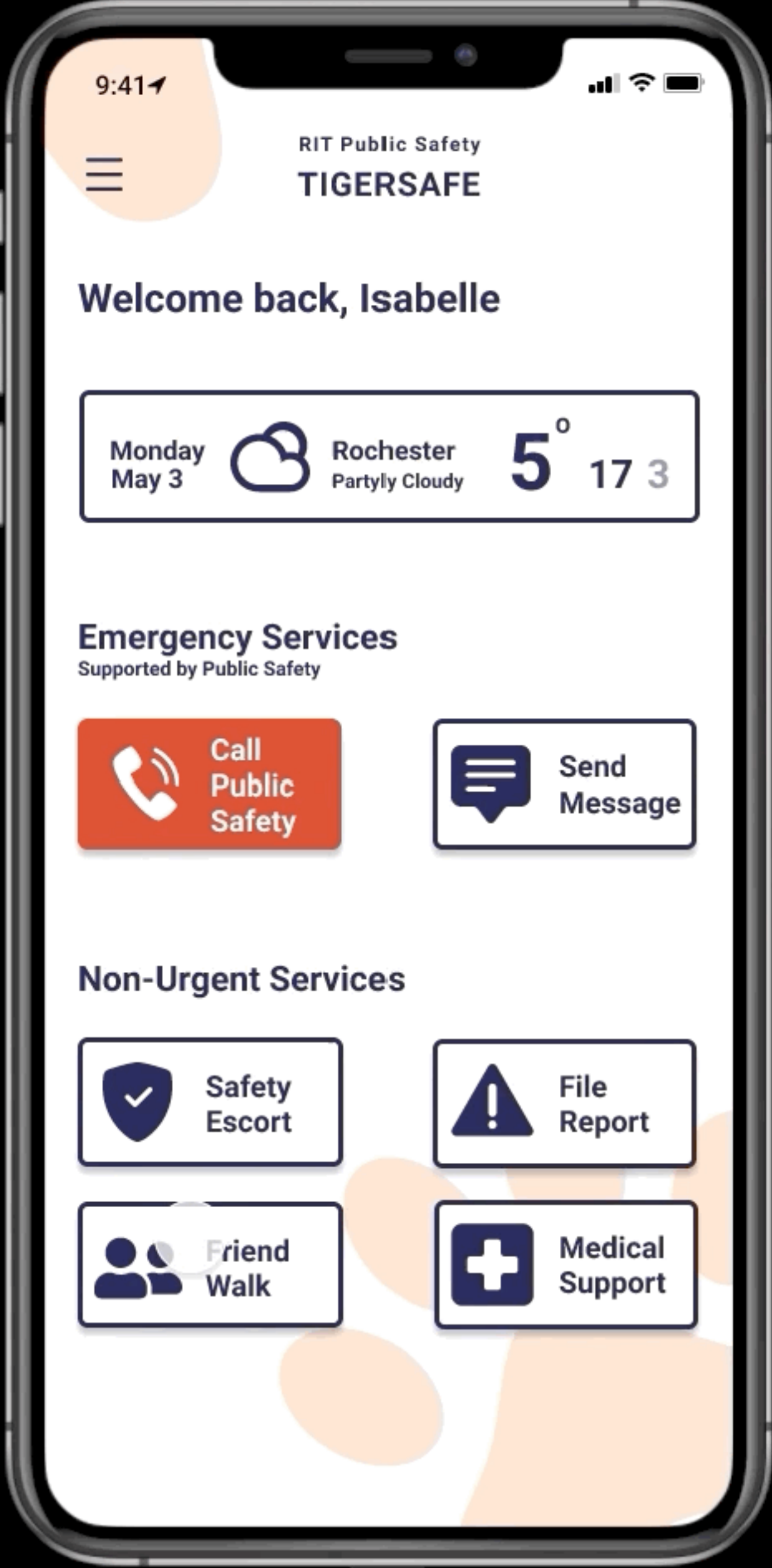


Confirm

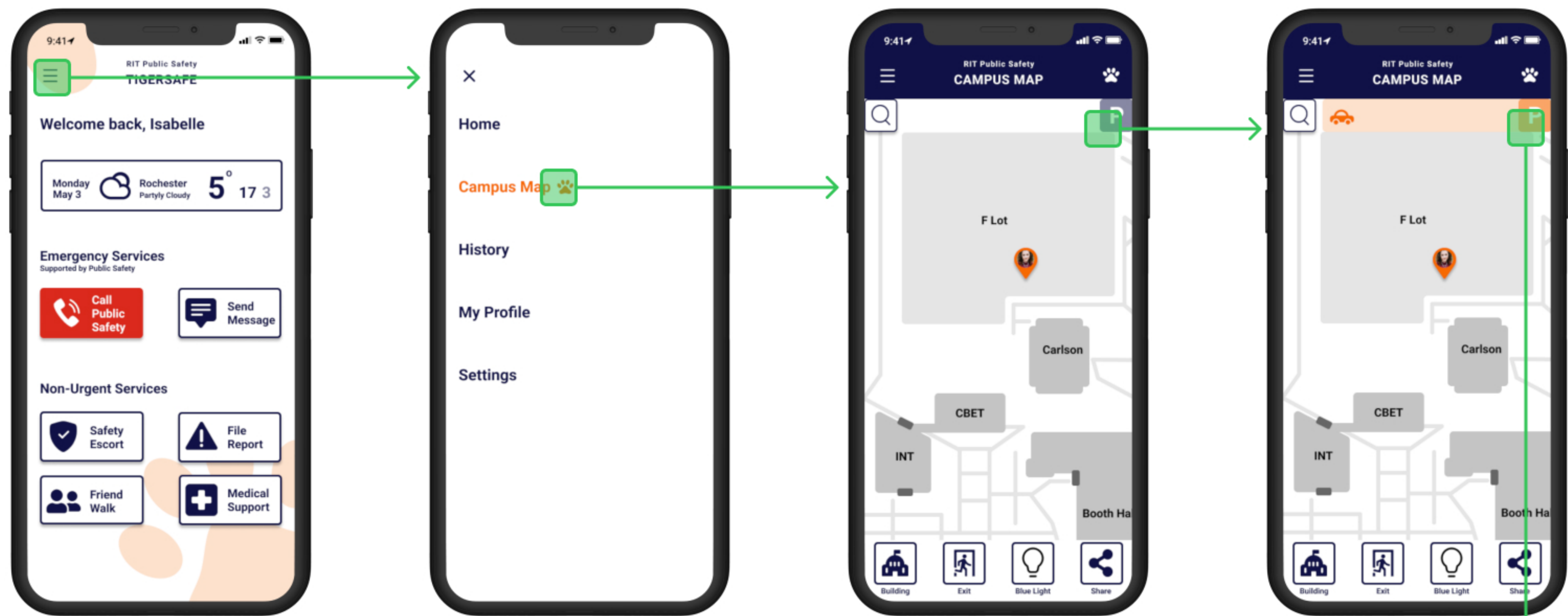


Friend Confirms to Join

Animation 5 Friend Walk



Prototype - Smart Parking 1



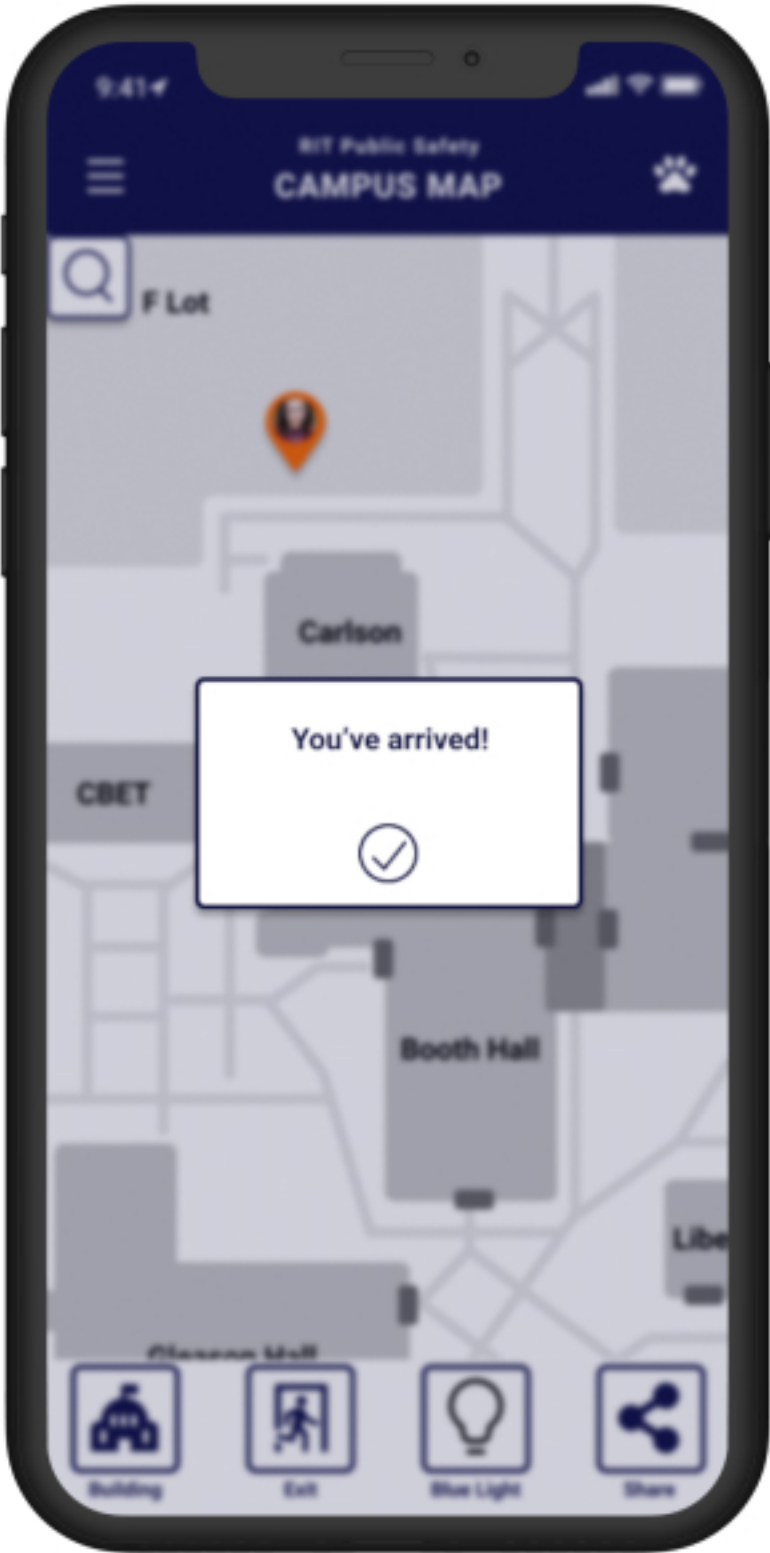
Tap on Menu

Choose Campus Map

Press and Hold "Smart Parking" Button

Wait for the app to save the car's location

Prototype - Smart Parking 2



Navigation Finish

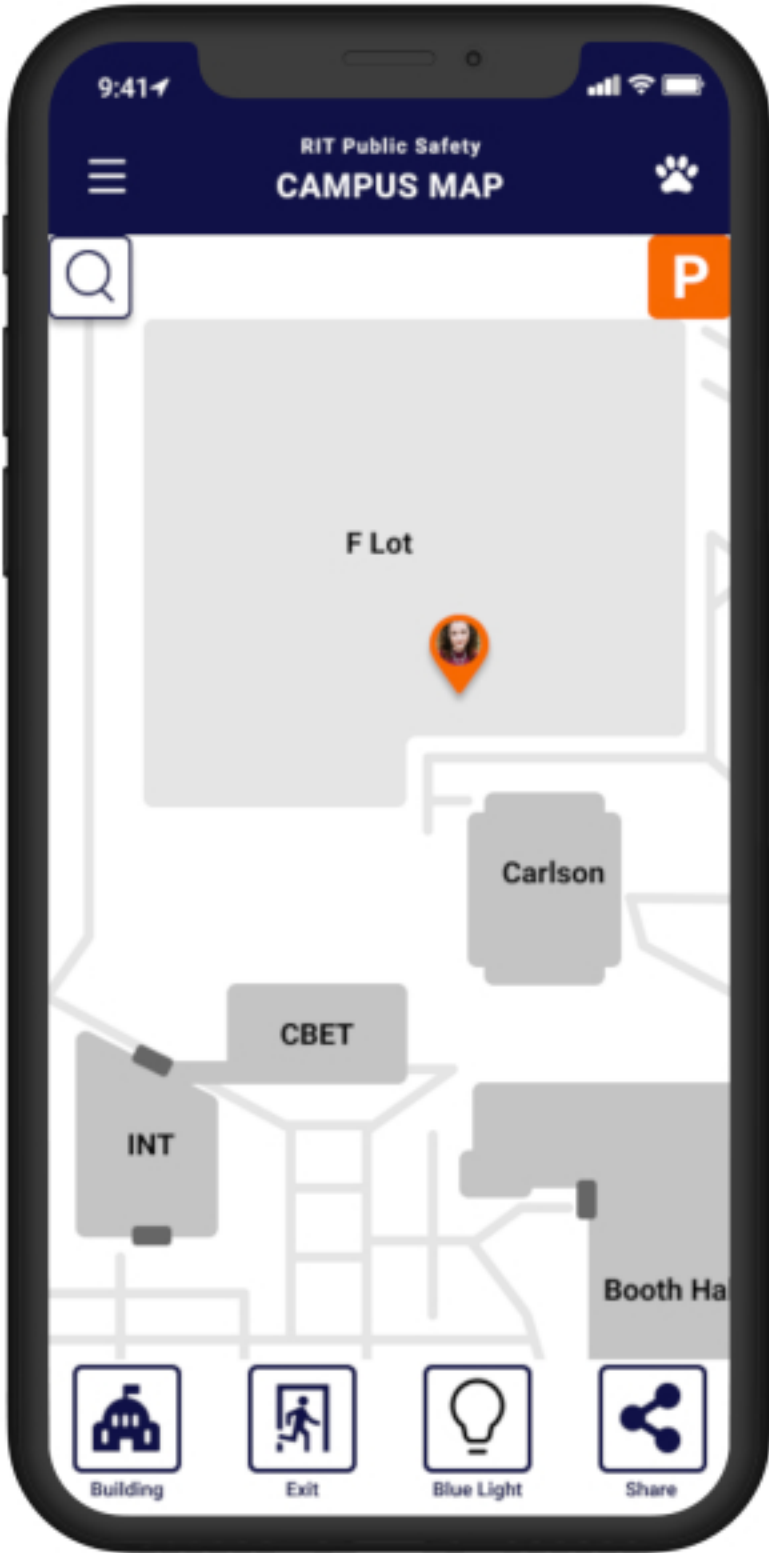


Navigation to Car Shows



Tap on "P"

A Few Hours Later

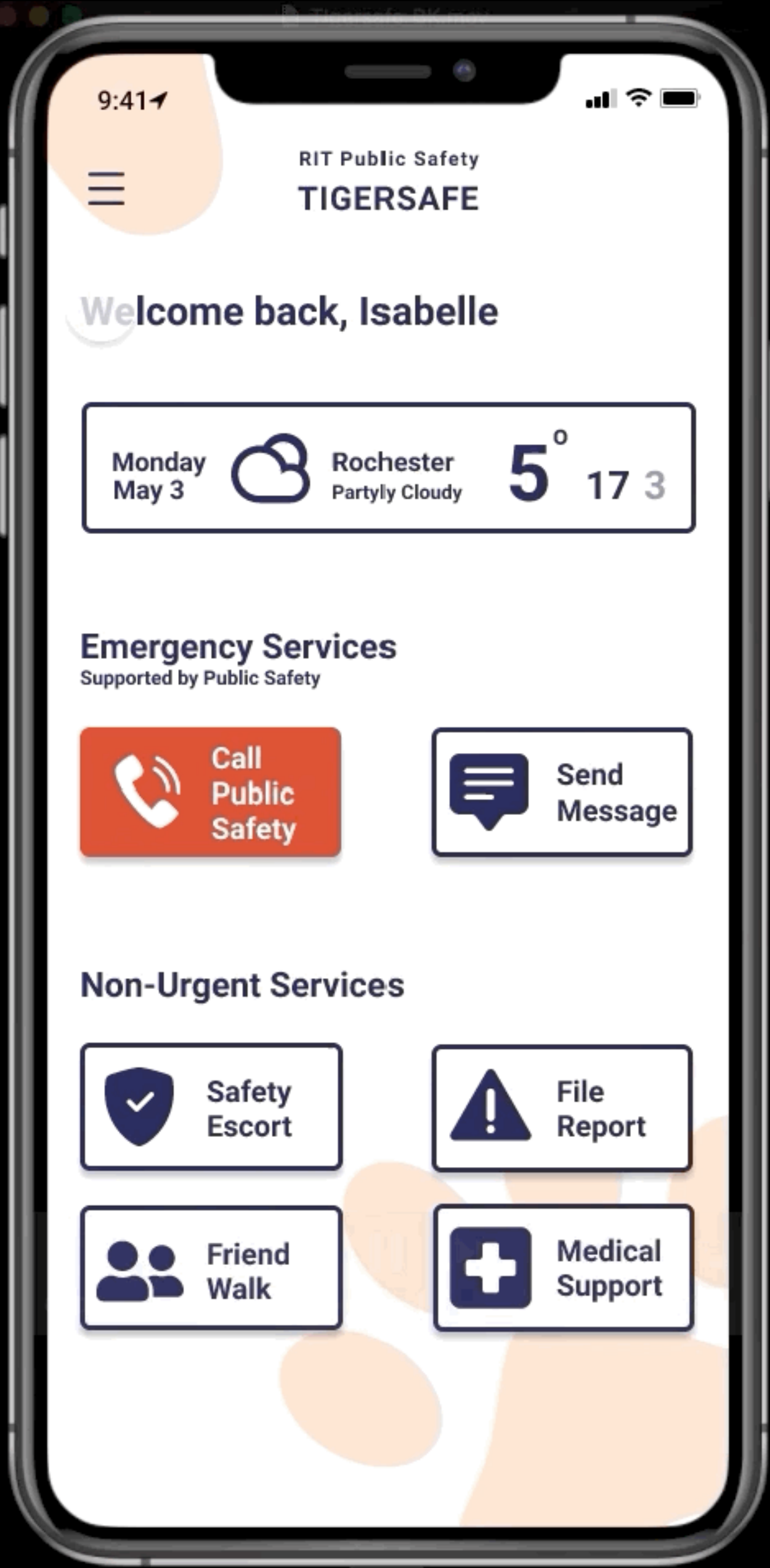


Parking Location Saved

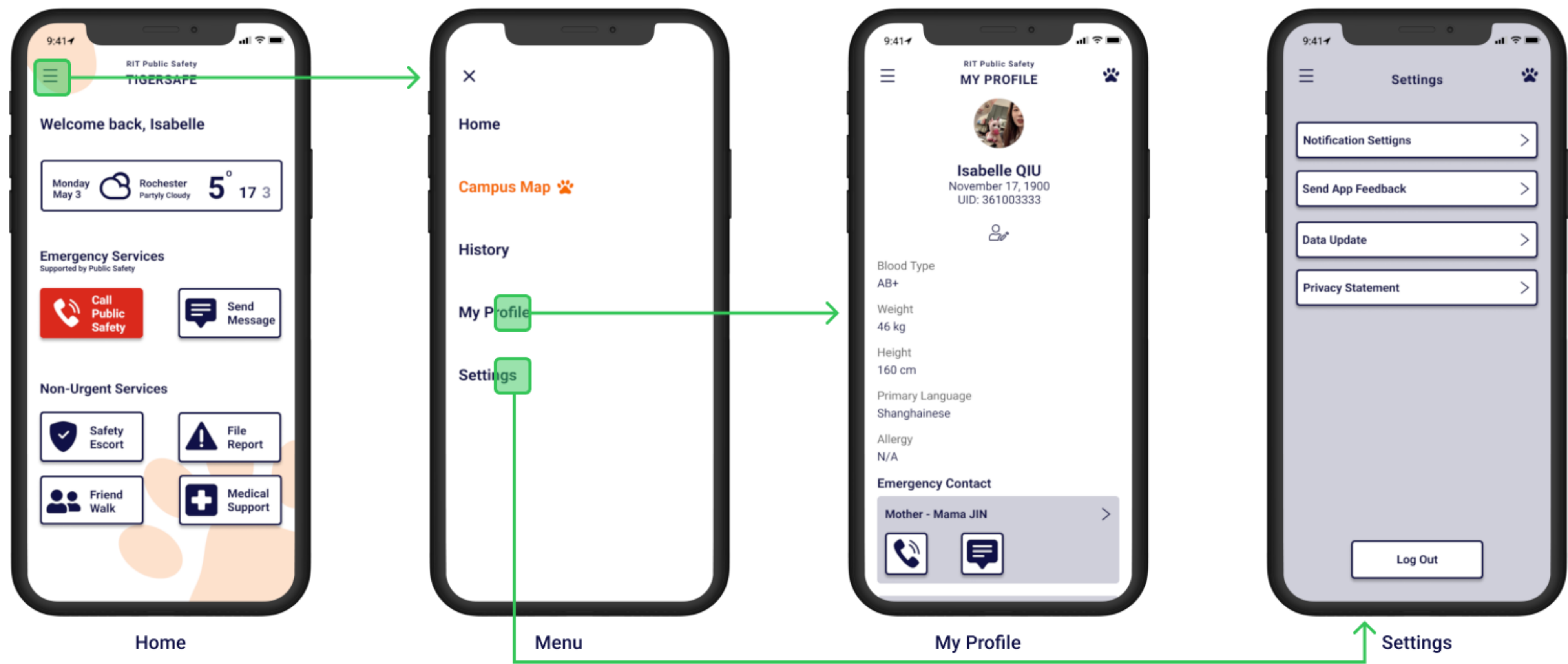


Press and hold the "P" button to save the location of the user's car

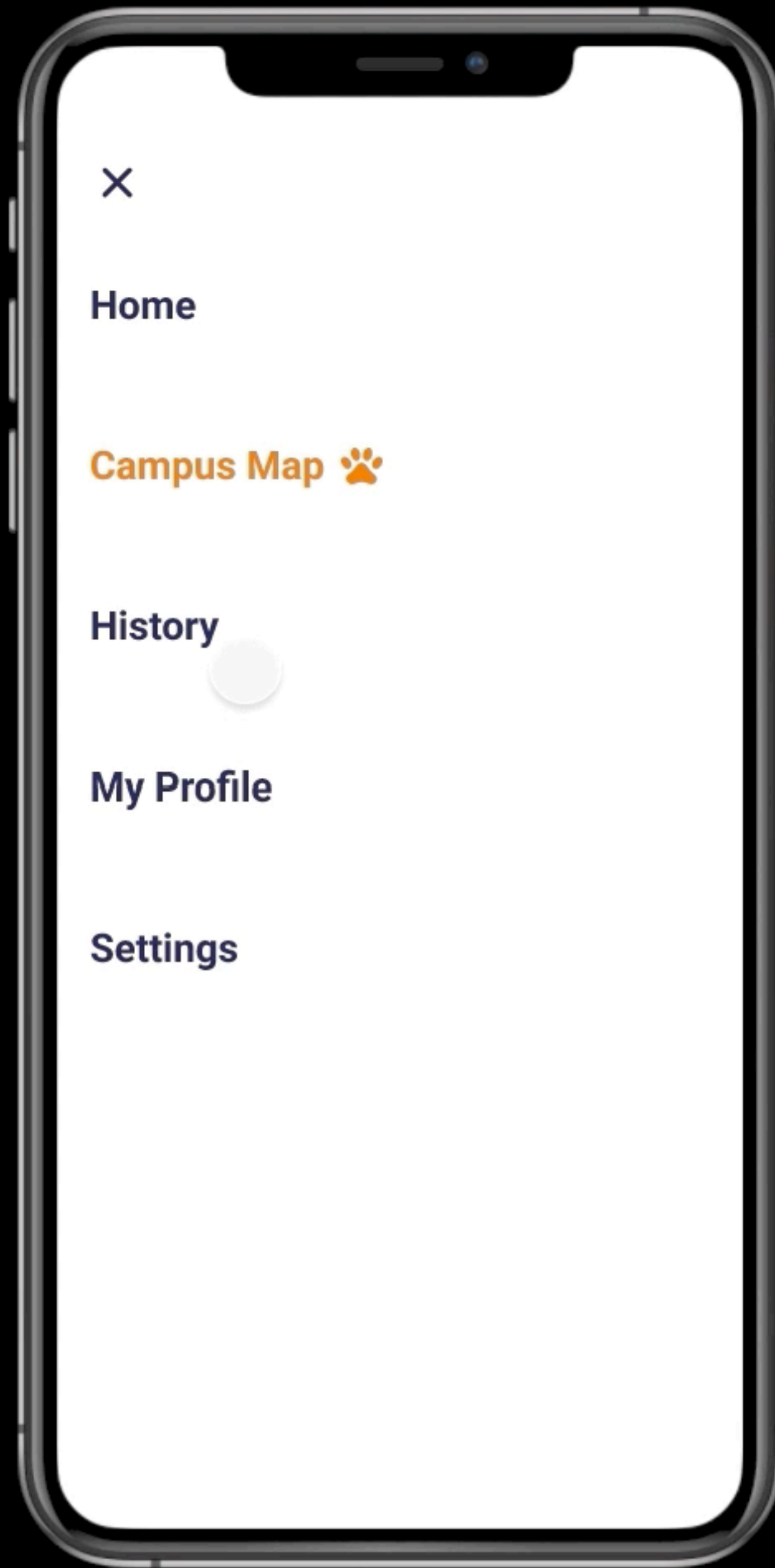
Animation 6 Smart Parking



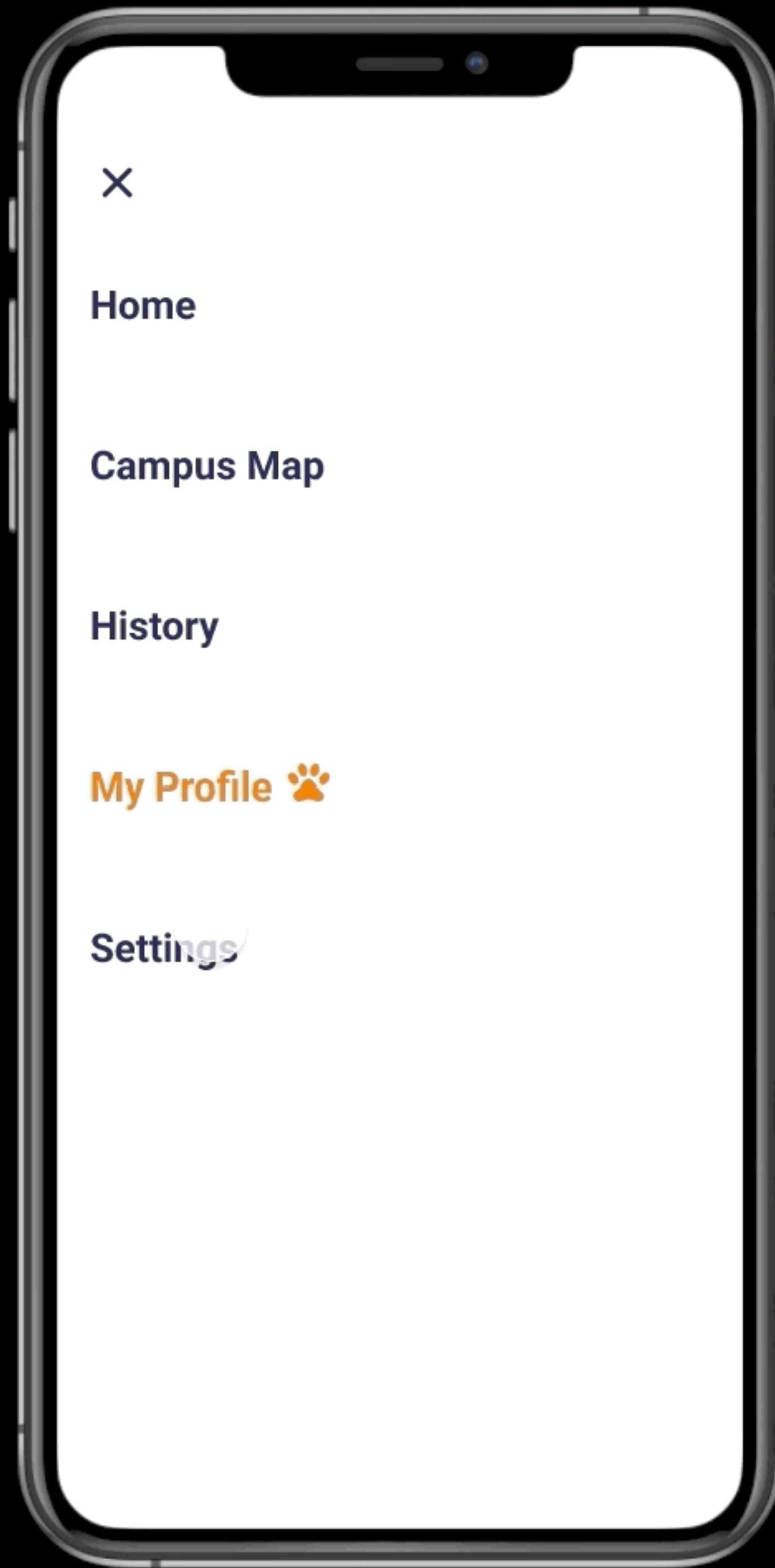
Prototype - My Profile & Settings



Animation 7 My Profile



Animation 8 Settings, Paw, & Logout



Animation 9 Whole Process

9:41



TIGERSAFE

RIT Public Safety

DESIGN



DESIGN

URL

Prototype

<https://www.figma.com/proto/yTPjbYKPiY77NAolcZjcF1/Project-Design-and-Implementation?node-id=347%3A5694&scaling=scale-down&page-id=347%3A437>

Design Process on Figma

<https://www.figma.com/file/yTPjbYKPiY77NAolcZjcF1/Project-Design-and-Implementation?node-id=347%3A437>

More Works

<https://isabelleqiu.wixsite.com/website>

Thank You 🙄