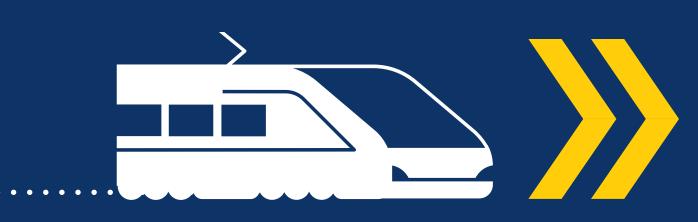
All Aboard for Aging in Place

Aleksandra Jelenkovic, Emily J. Mosbaugh, Matthew C. Warrington, Elizabeth A. Turac, Paige E. Towler



Problem Statement

Public transportation is not used by older adults due to lack of accessibility. There are various reasons there is a lack of accessibility in public transportation, for example, older adults struggle with safety, wayfinding, and technology usage. Aging in place involves autonomy about choosing where to live but transportation affects this decision. If an older adult that is experiencing aging in place cannot access basic needs due to transportation issues, their decision about where to live is made for them and they can no longer stay in the residence in which they prefer. Accessible public transportation can help these older adults stay in their residences by connecting them to places that cater to their needs.

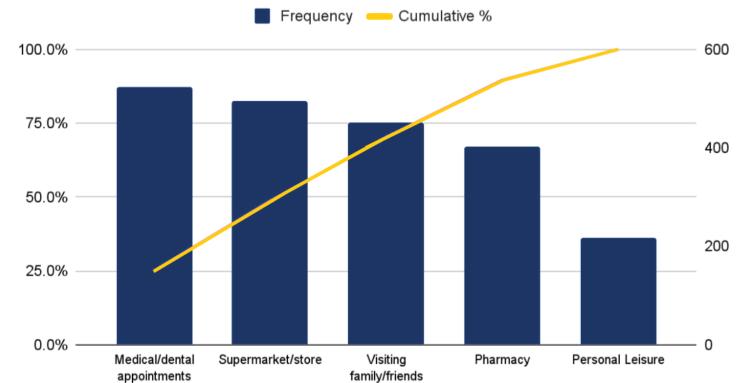
Project Value Statement

Implementing a light rail design that caters to the needs of older individuals would be valuable for inclusivity and safety. Older adults will be more willing to travel on public transportation if there is a design in place that is easily accessible. Public transportation is beneficial for the economy, environment, and community.

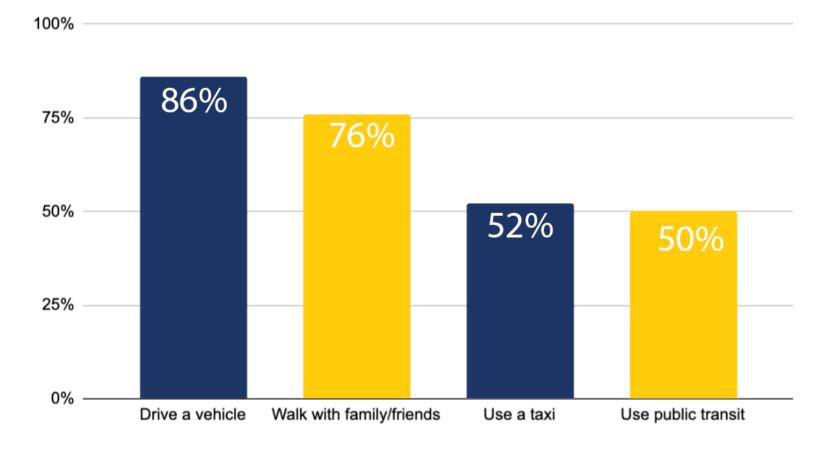
What is Aging in Place?

"Aging in place" is when adults continue living in a residence of their choice for as long as they are able. The majority of older adults prefer staying in their own residence as they age. Aging in place is beneficial for older adults and community members; older adults benefits include self-esteem improvement and community members benefit from more active older adults in the community.

Uses of Public Transit by Older Adults

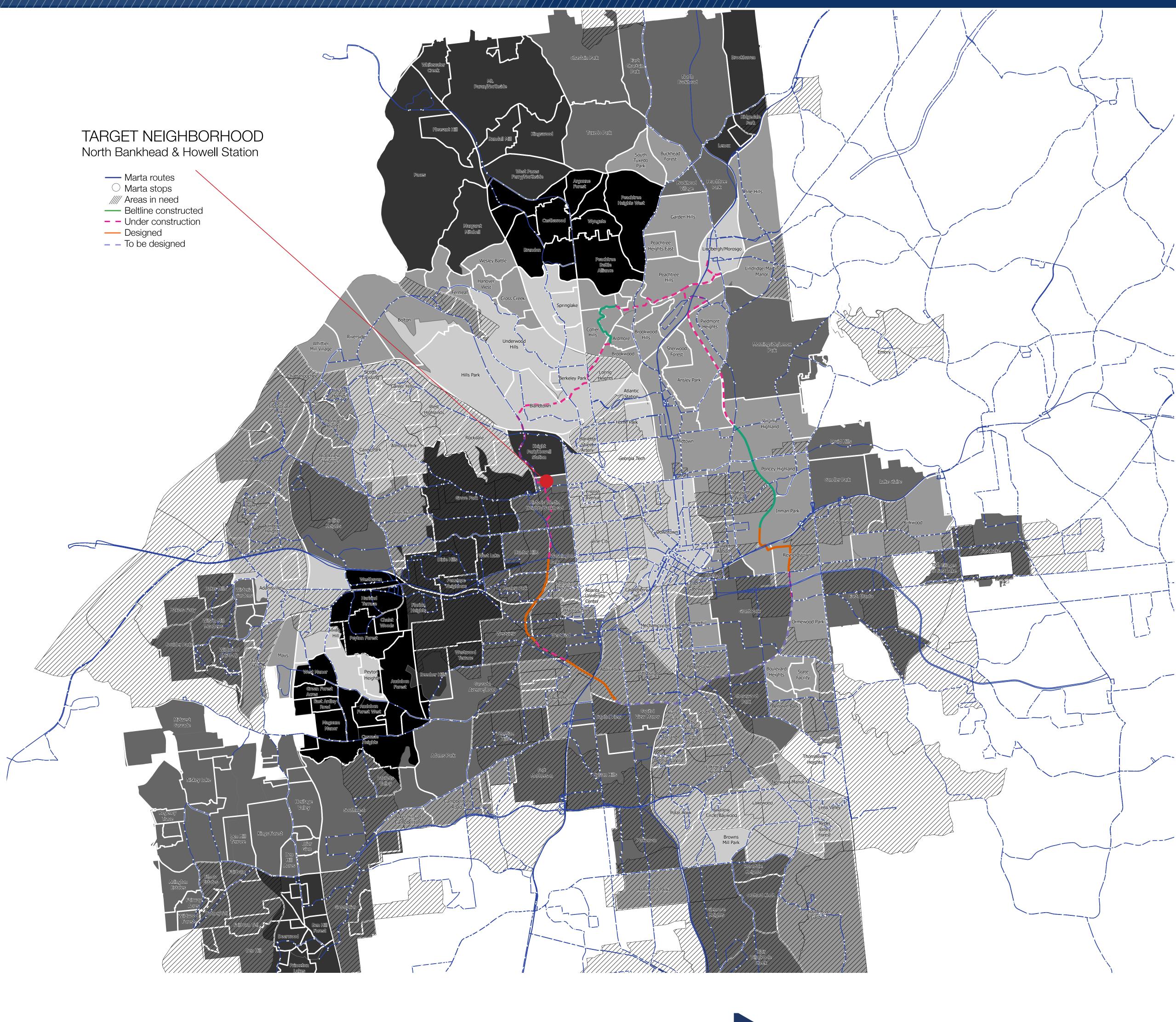


Transportation Behaviors of Older Adults



Objective

Older adults who wish to age in place struggle to maintain independence in an urban environment due to public transportation challenges relating to safety, wayfinding, technology, and accessibility.





navigate station





exit at correct stop



Paul - MCI

The individual traveling with public transportation is a 67 year-old male struggling with early onset MCI and

using problem-solving skills.

User arrives at the train station

Paul is overwhelmed by the signs, number of people and winding hallways

Include something specific about issues with buying a ticket

Has difficulty using problem-solving skills and focusing attention on wayfinding User has a hard time knowing when the train is coming and which train to taket

User asks for help from other train-riders but struggles to communi-

Once user finds the correct train and enters, they struggle to know which stop is theirs due to a lack of signage



Dimitri - Wheelchair User

The individual using public transit is aged 67 and struggles to navigate the train station with a wheelchair. Due to their mobility issues, they find it hard to access the public transit. More specifically, they find that the stop locations are hard to access, the pavements are oftentimes too narrow, there is overcrowding, and there is a lack of curb ramps throughout the station.

User takes longer than normal to arrive to train station due to accessibility issues

around the city

User uses elevator to navigate the station, feeling anxious and unsafe

User struggles to purchase a ticket due to the height of the ticket booth

User waits for train to arrive and worries

about boarding

User has trouble boarding the train, as there is an uneven grade change and needs assistance

After boarding, the wheelchair user has trouble getting out of wheelchair into a seat

User is anxious thinking about how to exit and needs assistance to get back into wheelchair

User has trouble leaving train with grade change and navigating out of the

station



The individual traveling using public transportation that has

blurry/impartially impaired vision is a 50 year-old woman who oftentimes struggles with wayfinding. She struggles due to

the lack of contrasting signage, adequate lighting, and clear auditory announcements when using public transit.

Margery - Partially Blind

User arrives at the train station

User struggles to navigate the station and is frustrated with the lack of contrasting signage

User takes more time than normal to buy a ticket at the ticket booth

User has a hard time knowing which train is theirs, again due to unclear signage at the

station

User has trouble boarding correct training and gaging where grade change occurs between train and platform

Once user finds the correct train and enters, they struggle to know which stop is theirs due to a lack of signage

Eventually gets off at correct stop based on carefully observing surroundings and navigates way out of station

Approach/Methods

During phase 1 of the course, members of the team conducted research on a specific subtopics related to the issue of aging in place. The research paper topics revolved around present issues that inhibit aging in place and analyzed the feasibility of implementing various solutions. Examples included the benefits of emerging technologies such as smart watches, navigating and wayfinding in suburban landscapes, and the mental and physical dynamics of

After creating a realistic journey map of an individual facing the challenges described in our paper, each member of the team created a poster to create a visual representation of their subtopic.

In phase 3, the team was formed to combine our subtopics to address a broader issue regarding aging in place. We decided to focus on urban environments and understood how many older adults may not be able to travel on their own and may have to rely on public or private transit. In efforts to be inclusive of different financial situations, we moved forward with researching public transit. Given that Marta is the most prominent form of public transit in Atlanta, we used it as a baseline, as well as solutions in other cities around the world, to develop an evidence table with citations to summarize our findings.

We used the evidence table in phase 3 to develop design solutions for the future light rail that will be surrounding urban Atlanta. We narrowed down our categories of focus to wayfinding, safety, and accessibility in regards to light rail stations. With a combination of research from our previous projects, in-class presenters, and data/survey analysis, the team was able to develop the design principles that are necessary to consider when designing public transit for aging adults.

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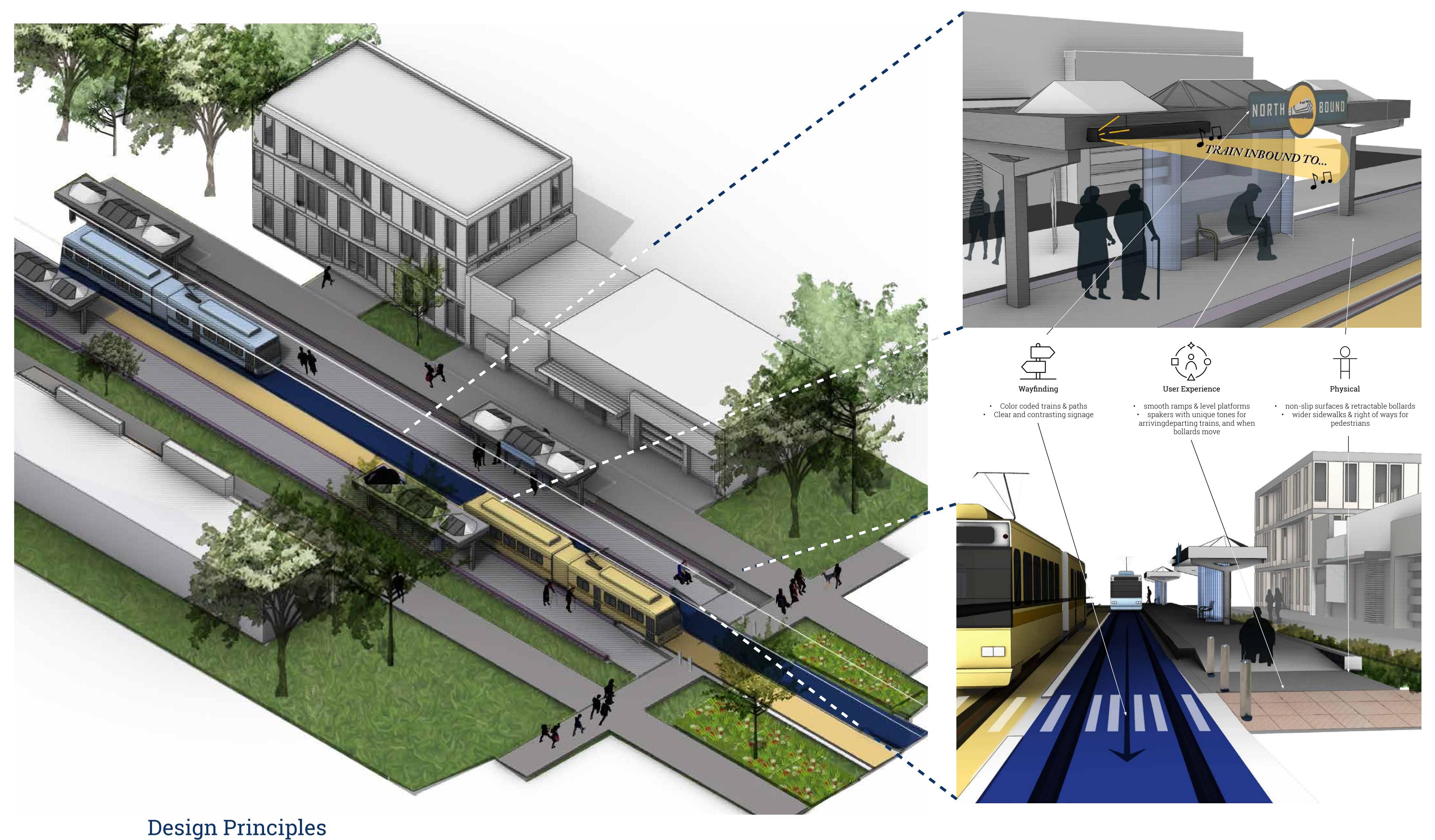
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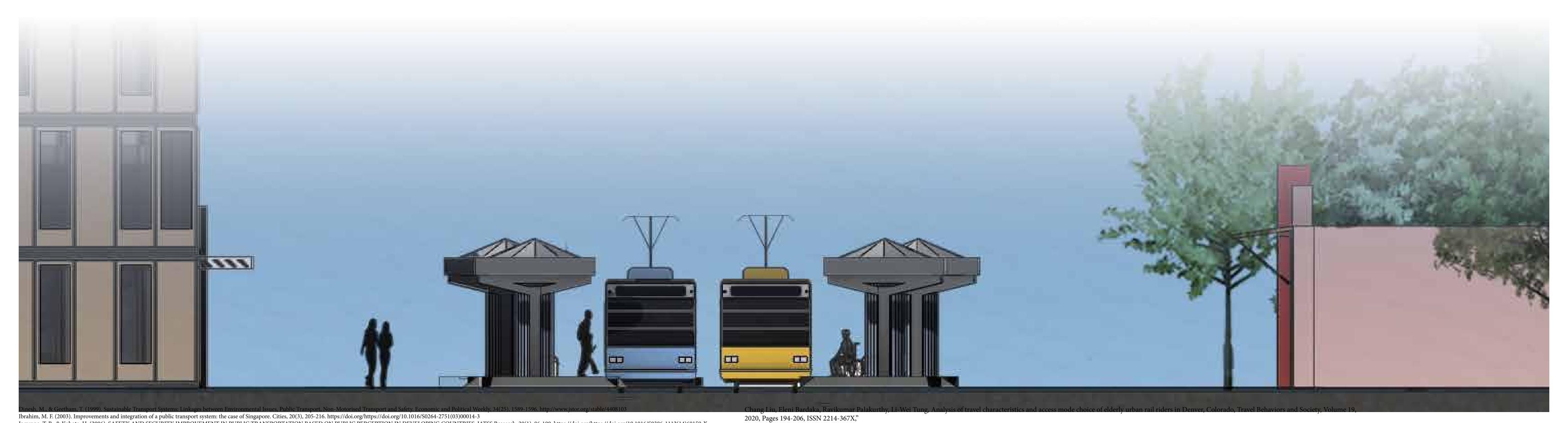
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