The Right to City Streets:
The Story of Charles Street and Bike Lanes

A Master's Thesis Submitted By
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Abstract

The transformation of streets into complete streets is a contentious process. In this thesis, I focus on Charles Street in the Beacon Hill neighborhood of Boston to understand how the conflict over bike lanes allows local stakeholders to practice their right to the city, In practicing this right, they either produce new visions of the space or advocate for the present street configuration to be preserved. The role of the municipal government in this process is complex. They have the final say in determining the future of the street. In this context, city planners act as mediators. They listen to the needs and desires of major stakeholders to plan for a future that does not create further antagonism between the users of the street. Using public sources, I construct a history of bike lanes in the corridor. A focus on the infrastructure and its development helps identify the key stakeholders involved within the larger planning process.

This thesis adds to the literature on the right to the city in transportation. Henri Lefebvre's concept of the right to the city continues to be reinterpreted by contemporary authors in urban planning, sociology, and political science. The framework has rarely been used to analyze the development of transportation infrastructure in the city. By doing so, I show how bottom-up planning initiatives by municipal governments are a way for urban residents to practice their right to the city.

Acknowledgments

This thesis was made possible because of the efforts put in by my advisor, Christine Cousineau. I've had the pleasure of being advised by her since my very first semester at Tufts and her guidance has always given me more to think about. She has always been an honest editor and without her, this thesis would not have been possible. I would also like to thank my reader, Mark Chase. His feedback and insights allowed me to humanize this work to make it more accessible to people. I'm also supremely grateful to my undergraduate professors at Lahore University of Management Sciences (LUMS.) They not only introduced me to urban studies and geography but helped me understand the value of producing work that seeks to grow knowledge. I would have never been exposed to Lefebvre, Harvey, Simone, or even Marx if it wasn't for them. For that, I will be eternally grateful. And I am also in great debt to my friends, Mahnoor, Kulsoom, and Ali. They've supported my passion for exploring and telling stories about cities and continue to do so.

I would also like to thank the people at the Boston Transportation Department who gave me the opportunity to work with them. My limited time there inspired me to work on Charles Street. Without that experience, this thesis would not have been a reality.

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1. Introduction

> *"Infrastructures are built networks that facilitate the flow of goods, people, or ideas and allow for their exchange over space. As physical forms, they shape the nature of a network, the speed, and direction of its movement, its temporalities, and its vulnerability to breakdown. They comprise the architecture for circulation, literally providing the undergirding of modern societies, and they generate the ambient environment of everyday life."* – Brian Larkin (T*he Politics and Poetics of Infrastructure*, 2013, pp. 328)

> *"…infrastructures are woven into the fabric of society; they are situated, heterogenous, and quotidian"* – Ashley Carse (*Keyword: Infrastructure How a humble French engineering term shaped the modern world*, 2017, pp. 35)

For both cultural anthropologists Larkin (2013) and Carse (2017), infrastructures are deeply linked to the experience of everyday life. They facilitate the movement of the material and immaterial and create connections between points. But even beyond that, they act as sites that can help us understand the relationships between various actors in society. Studying infrastructure can uncover the various conflicts in society and tell a story of how people produce space and practice their right to space.

The right to the city is a concept developed by French philosopher and urbanist Henri Lefebvre in his 1968 book *Le Droit à la Ville*. It posits that urban spaces should be inclusive, democratic, and accessible to all residents. Lefebvre argues that urban space should not be solely controlled by market forces, but shaped and governed by the citizens who live in it.

Within this context of infrastructures and the right to the city, this thesis looks at the transportation infrastructure of bike lanes on Charles Street in Boston to understand how different groups of people produce space in the city and practice their right to the city. In doing so, I explore how the right-to-the-city framework can be extended to urban transportation infrastructure, specifically biking infrastructure. Work in this field is scarce and thus this thesis adds to the literature and creates room for studying other forms of active transport infrastructure in the city.

Research Questions

The following are the research questions that guided my exploration.

1. How is the right to the city practiced within the context of Charles Street?
2. How do different actors produce their desired city?

By using archival sources and personal experience, I construct a story of the history of bike lanes on Charles Street. This story brings forth the various conflicts and stakeholders that are involved in this process of urban infrastructural change. This story is then analyzed using the right to the city framework to think about how different parties make their demands for a desirable city visible in the city.

The structure of the thesis is as follows. First, I describe the data collection process and the limitations of the methods used. I explain why these methods were selected as compared to ethnographic fieldwork. The second chapter focuses on laying down the context of Charles Street and telling the history of bike lanes in the area. This is followed by the literature review where the right to the city is defined in detail along with an exploration of the importance of complete streets. The fourth chapter is an analysis and

discussion of how various stakeholders practice their right to the city. The paper concludes by identifying areas of future work.

Throughout this thesis, bike lanes are considered a part of complete streets. Complete Streets is a concept in transportation planning that encourages street designs that safely accommodates all street users – pedestrians and cyclists as well as drivers. I focus specifically on the idea of complete streets because they create room for sustainable transportation, which is in line with the City of Boston's larger goals of moving towards a sustainable city. In this way, this thesis is also an exploration of the right to the city in relation to green infrastructure in transportation.

Methods

The initial plan for the project was to survey and interview people around Charles Street and the Beacon Hill neighborhood to understand how they feel about the infrastructural changes in the Charles Street corridor. This would have involved analyzing people's reactions to proposed changes to understand if emotions and feelings could guide how the city is redeveloped.

After talking to city planners working on the project, that approach was abandoned. They had just ended a large engagement effort with the businesses and residents in the area and built a certain amount of trust with the community. This was important because the activities of local biking activists had created a lot of confusion around the future of Charles Street. The city wanted to prevent further confusion and did not want anyone talking to people in the area, which would make it harder to introduce new changes to the corridor.

Given this context, the project's aim and goals were adjusted to meet the new circumstances. As a result, instead of conducting surveys and interviews, the focus was directed on using archives to collect data. Archives in this case were planning documents, press releases, news articles from various resources, and petitions by various entities. These documents highlight the history, opinions, emotions, and policy developments around the Charles Street corridor, creating a rich narrative of the struggles and issues that have come up in relation to the installation of bike infrastructure in the area.

To analyze the narrative constructed from the above I used a right-to-the-city framework. My aim was to highlight how the various groups working in the area are practicing their right to the city to produce space that they see as desirable. To understand this framework, I conducted a detailed literature review about the right to the city, how the concept has evolved over time, and why it is important to think about it in the context of infrastructure.

In addition to archival resources, I used my own personal experience in working with the City of Boston as a data source for this project. While working as an intern with the city during the summer of 2022, I had the opportunity to be involved in the community outreach efforts on Charles Street. This included interacting with various business owners and listening to their concerns about the biking infrastructure in the corridor. Through this process, I heard views that were similar to the ones encountered during my review of various archival resources. This personal experience is then corroborated by other data sources.

Because I was not able to talk to businesses and advocates during the process of writing this thesis, some of the information I analyzed may be outdated: it may not be representative of the current views of parties involved in the process of redeveloping Charles Street. In that way, this thesis is then telling a story of a moment in time and analyzed it to think more about the right to the city in the context of transportation.

2. Charles Street, Boston

Area Context

Charles Street is located in the historic Beacon Hill neighborhood of Boston (Figure 1). Beacon Hill is bordered to the north by Cambridge Steet separating it from West End, and to the south by Beacon Street which separates it from the Boston Common. Charles Street is a north-south mixed-use street that connects Cambridge Street to Beacon Street (Figure 2).

Figure 1: Context map of Beacon Hill in Boston. (Forays of a Finance Foodie, 2019.

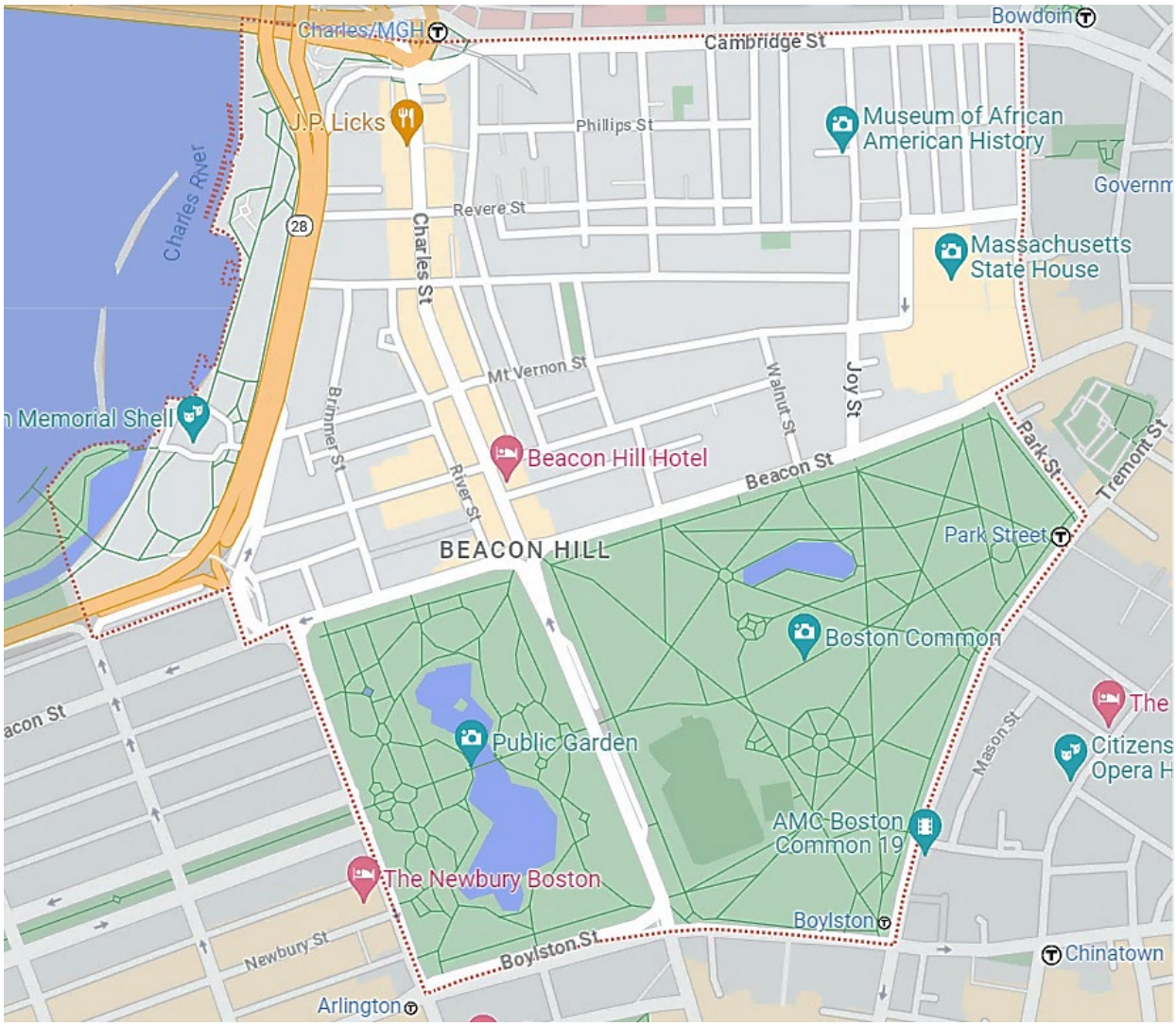

Figure 2: Context map of Charles Street in Beacon Hill. (Google Maps.)

Because of its location in a historic quarter, and close to the Boston Commons and Public Garden, Charles Street is visited by many tourists throughout the year. The street not only acts as an attraction on its own but is also the commercial street and main access point for the greater Beacon Hill Neighborhood. The street sees large volumes of pedestrian traffic year-round. Several long-standing businesses line the street. They are primarily located on the ground floor, creating a lively public realm. As a result of the

pandemic, several food-based businesses were able to establish outdoor dining which resulted in the elimination of several parking spaces.

Figure 3: A view of Charles Street showing its current configuration. (Jon Bilous)

Figure 4. Pedestrians on the sidewalk of Charles Street. (Linear Retail)

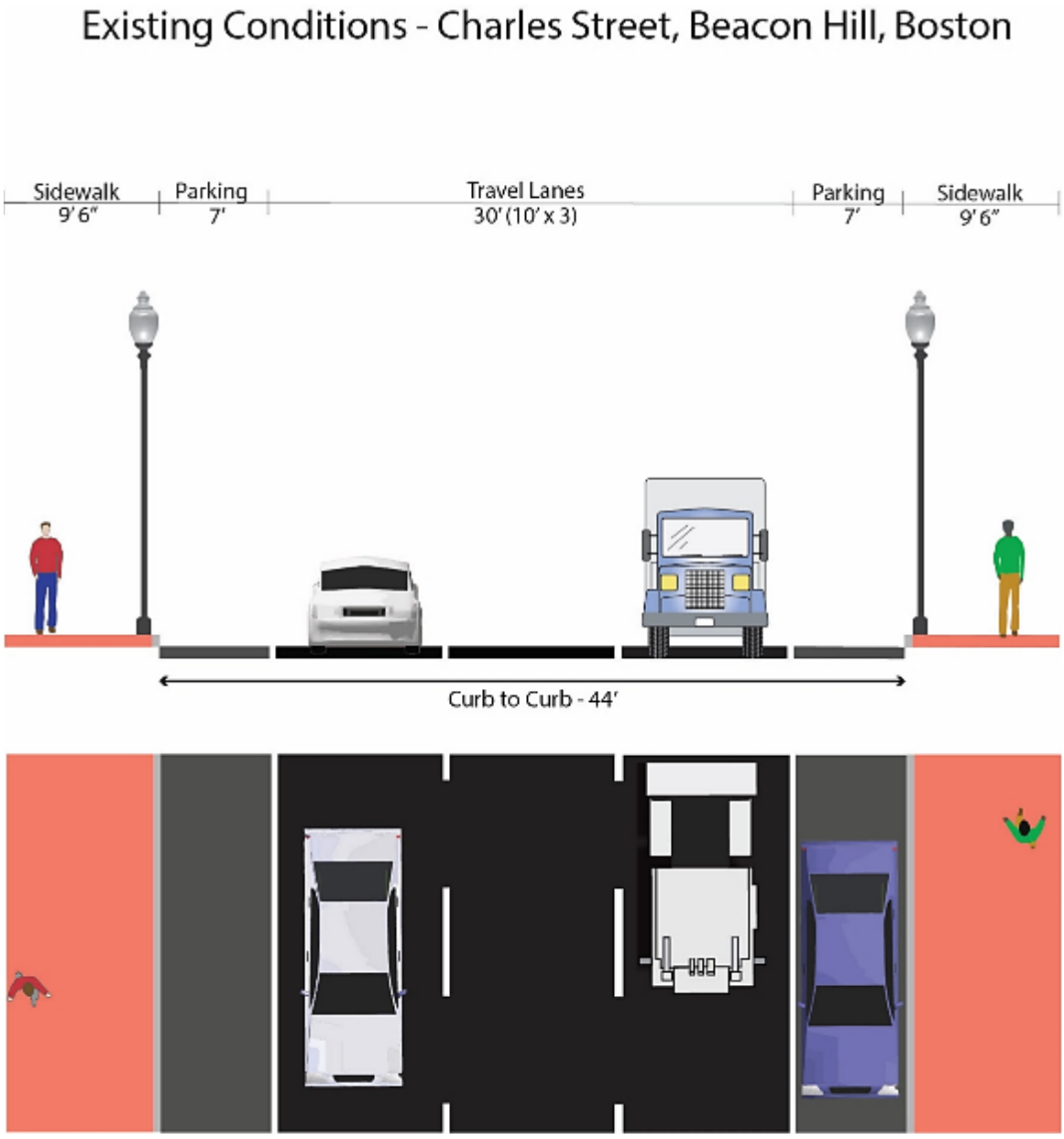

Figure 5: Current Street configuration of Charles Street. (Moiz Abdul Majid)

Figure 6 (left): A view of the sidewalk on Charles Street (Andy Ryan Photography)

Figure 7 (right): Charles Street meeting house (Andy Ryan Photography)

Figure 8. Outdoor eating at Tatte Bakery & Café, next to the Charles Street Meeting House. (Google Street Views.)

Demographically, Beacon Hill is a white majority neighborhood with a high average property value. The area has a population of 9,336 according to the 2020 US Census (Boston Planning and Development Authority, 2023). Of this, 80% of the population is white while the remaining 20% is made up of several minorities. The area generally houses higher-income residents of the city. The median household income for the area, according to the American Community Survey of 2021, is $158,278 which is significantly more than the city's median of $81,744 (US Census Bureau, n.d.).

Figure 9. Pedestrians and cyclists at the Beacon Hill Books & Café. (NBC 2022)

Traffic Context

The Charles Street Corridor is a busy bike and pedestrian corridor. According to the City of Boston, the four intersections in the area can see up to 1,400 pedestrians a day (City of Boston, 2020). Between 70% to 85% of Beacon Hill residents walk, bike, or take transit to work (City of Boston, 2020). Beacon Hill is connected to the MBTA Red Line subway at the Mass General Hospital and Downtown Crossing stations, the Green Line Stops at Boylston, Park Street, and Government Center, the Orange Line at Downtown Crossing and State Street, the Blue Line at Government Center and Bowdoin, and, from the Red Line, to several Silver Line stops. Given the neighborhood's access points to public transit, the development of active transport in and around Beacon Hill not only aids people in moving around the city but also acts to connect them to nearby T stops. Many cyclists already use the Charles Street corridor for their commute. The City of Boston's bike counts from 2020 to 2022 show that the summer and fall periods are the busiest for the corridor: in the warmer months, as much as 16% of the total traffic on Charles Street is bikes. But even in the winter, up to 7% of the traffic in the corridor is bikes (Figure 7).

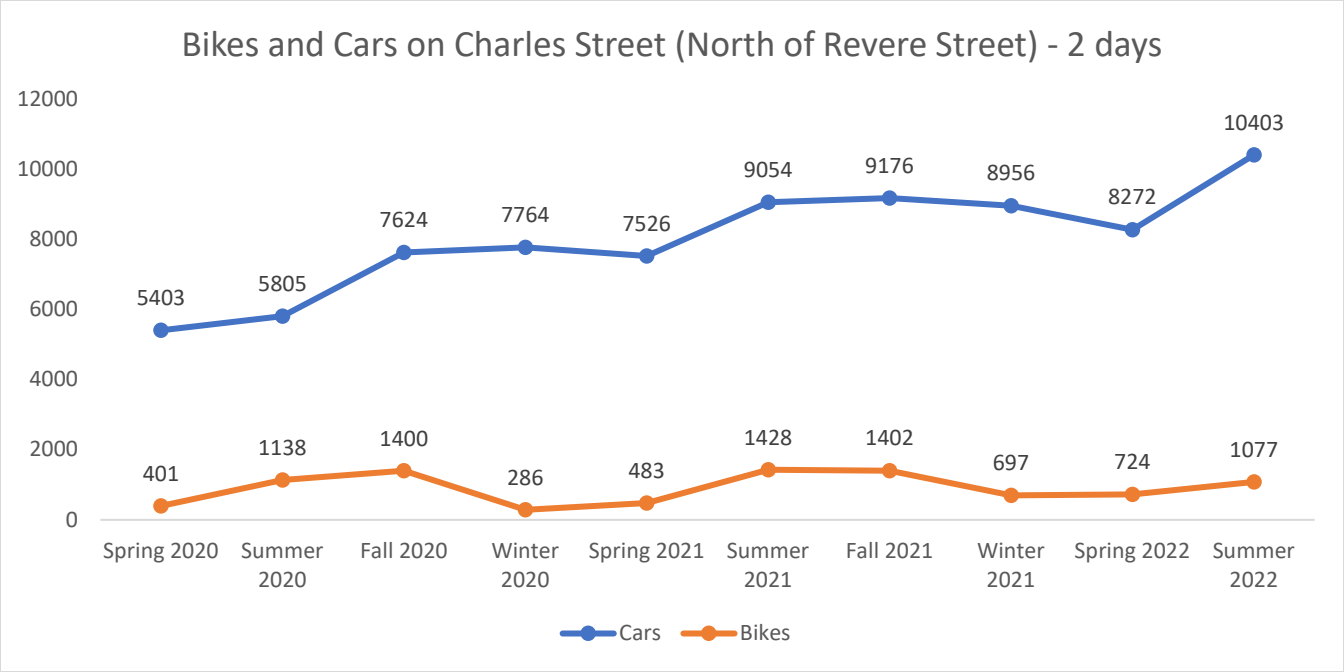

Figure 10: Total bike and car counts by season on Charles Street. (Source: Boston Transportation Department.)

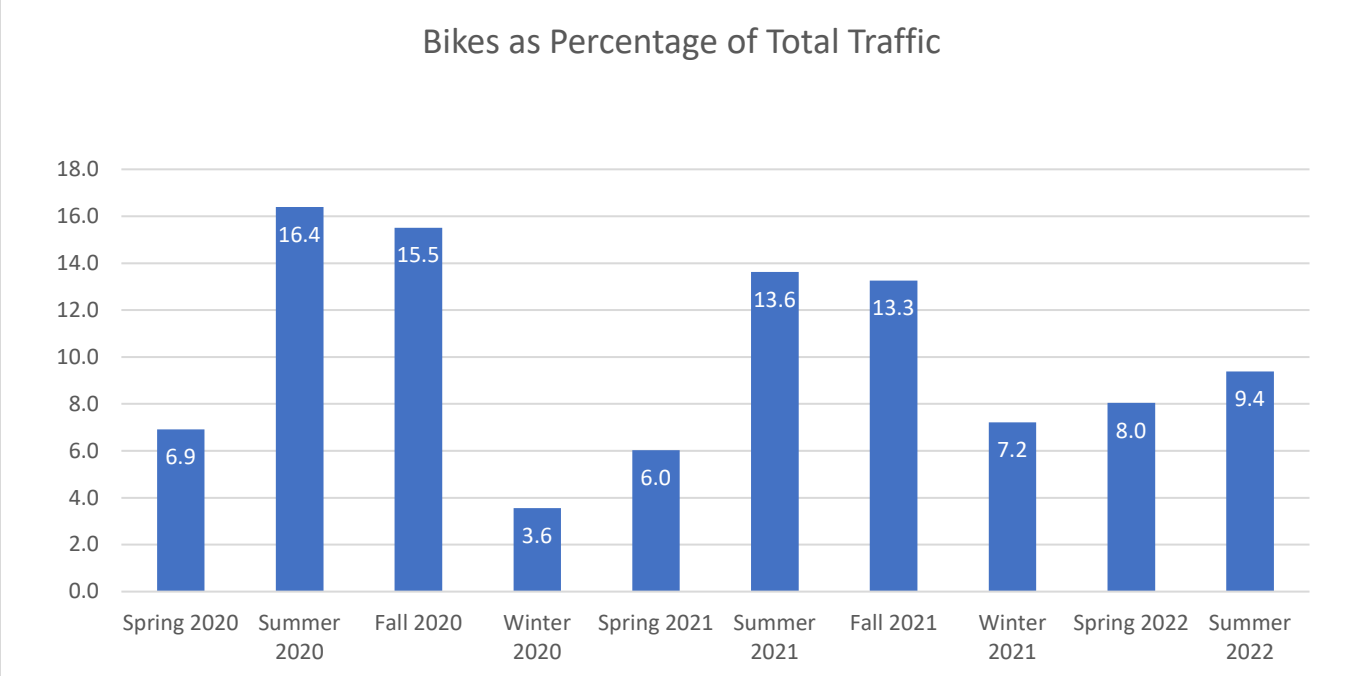

Figure 11: Bikes as a percentage of total traffic by season on Charles Street. *(*Source*:* Boston Transportation Department*.)*

Focusing specifically on peak times, in the warmer months, bikes make up at least 25% of the total traffic in the Charles Street corridor. In the colder months, bikes can make up to 15% of the total traffic. The AM peak time is 8 AM to 10 AM while the PM peak time is 5 PM to 7 PM. The graphs below (Figures 8, 9, and 10) show the trends for bike counts for the three years for peak time periods.

Given that bikes can form a large part of the traffic in the corridor, building facilities that prevent conflict between cars and bikes is essential. It not only benefits cyclists who pass through the area but also benefits people who use biking as their primary form of transport. Beyond this, the reduction of vehicular travel lanes to create biking facilities also calms traffic within the street, making the area safer for pedestrians as well.

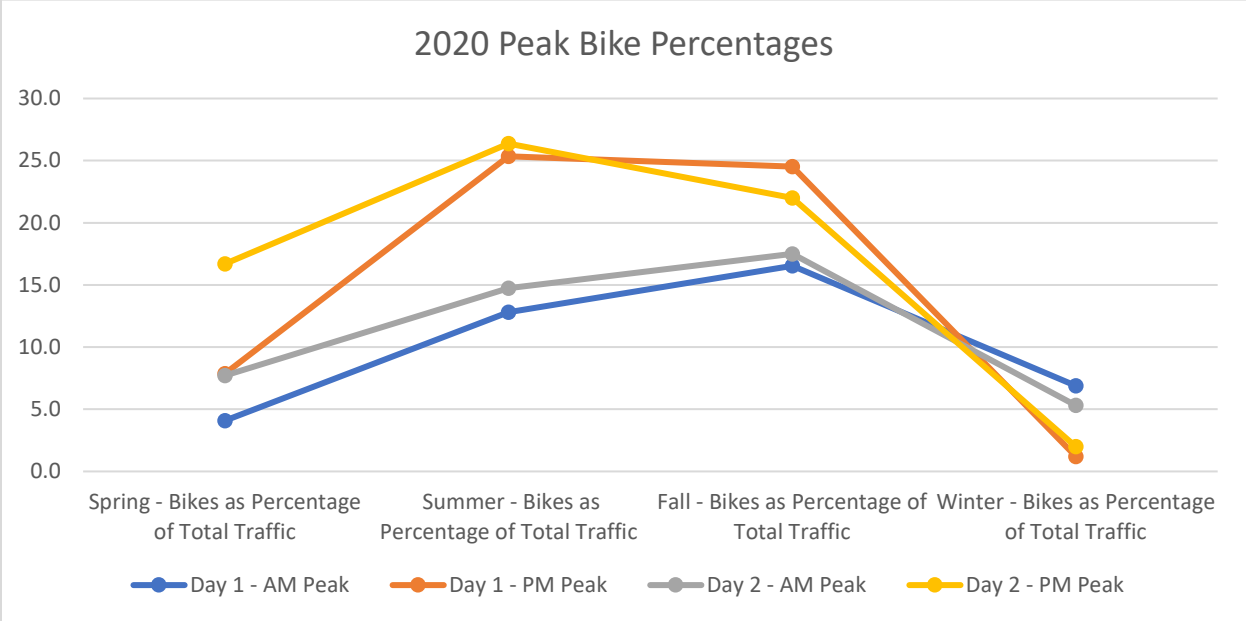

Figure 12: Bike counts during peak hours in 2020 on Charles Street. (Source: Boston Transportation Department.)

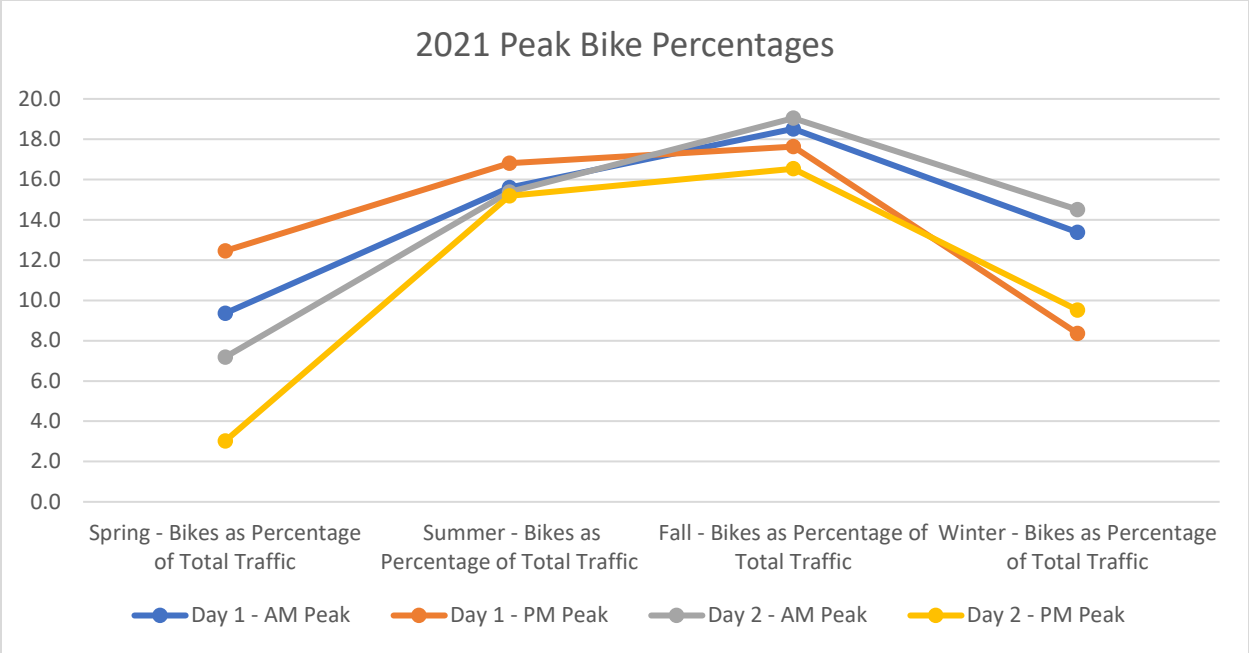

Figure 13: Bike counts during peak hours in 2021 on Charles Street. (Source: Boston Transportation Department.)

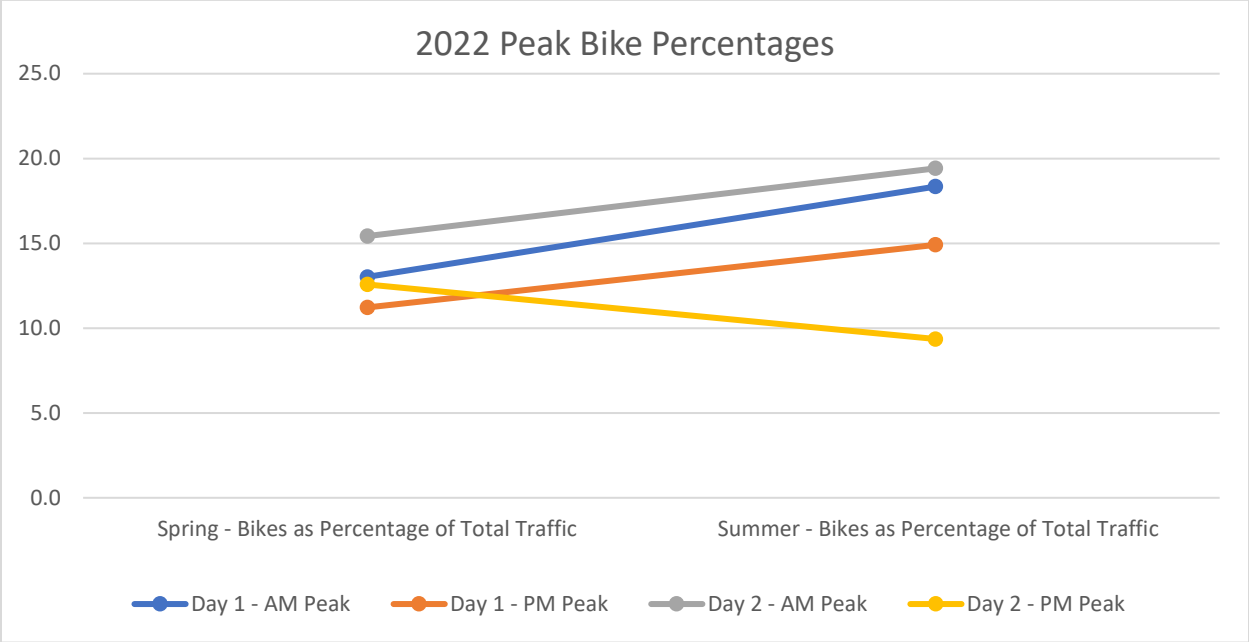

Figure 14: Bike counts during peak hours in 2022 on Charles Street. (Source: Boston Transportation Department.)

The History of Bike Lanes on Charles Street (2016-2022)

In 2017, under Mayor Martin J. Walsh (also known as Marty Walsh), the City of Boston published its transportation master plan called *Go Boston 2030*. The plan's aim was to highlight the city's transportation-related goals for the next decade and to focus on important transit and active transportation projects in the city. One of these active transportation projects was the completion of the Southwest (SW) Corridor Bike Path Extension. It involved installing bike lanes around the Public Garden in Downtown Boston and extending a bike lane onto Charles Street in Beacon Hill all the way to Charles Circle to create a connection to Mass General Hospital (MGH).

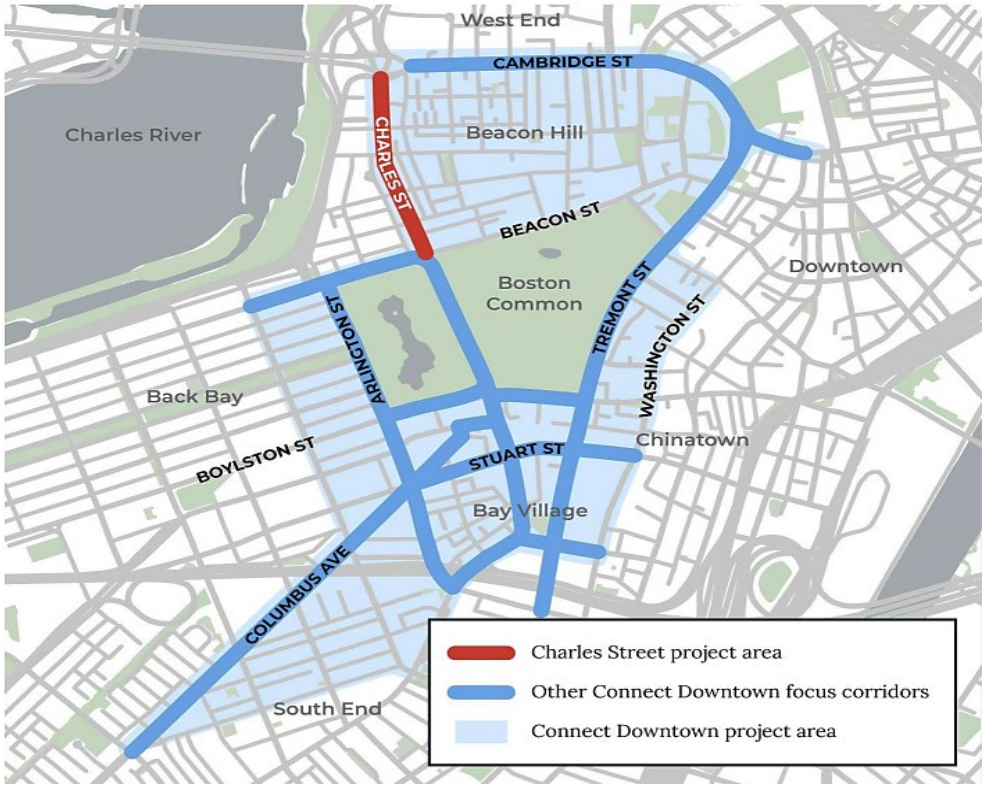

Figure 15*:* Charles Street project area. Since 2019 when Boston's Downtown Connect project was launched, Charles Street has been a focus corridor for design changes. (Source: Understanding Charles Street, slide 2. https://www.boston.gov/sites/default/files/file/2023/02/202302%20Understanding%20Charles%20Street.pdf)

The decision to include this project as a short-term one – to be completed over the next 5 years, or by 2023 – does not exist in a vacuum. Boston's transportation vision, expressed in its master plan, aims to reduce car commuting by half while increasing biking commutes fourfold by 2030 (City of Boston, 2017a, p. 61). This falls in line with the city's plans to create a sustainable and resilient Boston with accessible and reliable transportation (City of Boston, 2016; City of Boston, 20017a, City of Boston, 2017b). Beyond this, the extension of the SW Corridor aims to better connect the city's neighborhoods, which is also a goal of the master plan (City of Boston, 2017b). Currently, the bike lanes around the Public Garden have been completed after work started in 2020. The extension of this bike lane into Charles Street on Beacon Hill is where there is contention.

Biking on Charles Street has been a point of debate for some time. The local newspaper *Beacon Hill Times* published letters to the editor that mention "a serious accident when a pedestrian, legally in the crosswalk, with the walk light on, was hit by a bicyclist" and express the opinion that, "While there is nothing new in these bicyclists or skateboards going down the wrong way on Charles St. or for that matter on Bowdoin Street, action needs to be taken as there is an accident waiting to happen" (Hill, 2016). In the former instance, the resident talks about the need to have cyclists be held to higher standards and be penalized for breaking laws such as not stopping at a red light.

Another letter writer brings attention to the safety concerns that exist because of cyclists riding against the one-way direction of the street (Charles Street, 2016). But the author also supports biking because of its larger benefits.

> "*We are all in favor of bicycling for economic, traffic and environmental reasons […]. Evidence of the community embracing bicycling in Boston is seen by the number of bike lanes that have been made and the number of bicycle rental sites."* – Charles Street 2016, Anonymous letter to the Editor, *Beacon Hill Times.*

Essentially, what these two pieces show is that the conversation about bikes and bike infrastructure on Charles Street predates *Go Boston 2030* and other plans. With *Go Boston*'s release in 2017, the bike lanes on Charles Street were made a near reality.

In 2019, the Boston Cyclists Union (BCU) held a protest bike ride through Charles Street, South Bay Harbor, and other sites to call attention to the lack of bicycle facilities promised as part of the *Go Boston 2030* plan (Kauffman, 2019). This came right after Marty Walsh's announcement of a Bike Program series that not only made a strong financial commitment to the growth of bike infrastructure in the city but also introduced a series of programs to encourage biking (Kauffman, 2019; City of Boston, 2019).

Then, in 2020, the first part of the SW Corridor Extension was installed around the Public Garden as part of Walsh's Healthy Streets Initiative (Walsh Announces Second Phase of 'Healthy Streets' Transformation, 2020). The installation of the bike lanes around the Public Garden began a formal conversation about bike infrastructure on Charles Street. In 2020, a Joint Charles Street Committee consisting of the Beacon Hill Civic Association (BHCA) and the Beacon Hill Business Association (BHBA), was established to discuss the future of Charles Street – specifically to make it safer for pedestrians (Murphy, 2020a). The plan was to take away one travel lane to make more space for sidewalks.

In defense of the plan, BHCA's Traffic and Parking Committee chair Ben Starr explained that "We don't see too much car traffic there so two lanes should be plenty"

(Murphy, 2020a). He also added that there were no plans for bike lanes and that cars and bikes will share the same lanes (Murphy, 2020a). This was also thought of during the height of the COVID-19 pandemic when outdoor dining was rising in popularity throughout the world.

In June 2020, both the Joint Charles Street Committee and the Boston Transportation Department released conceptual sketches of what the street could look like (MilNeil, 2021; Murphy, 2022).

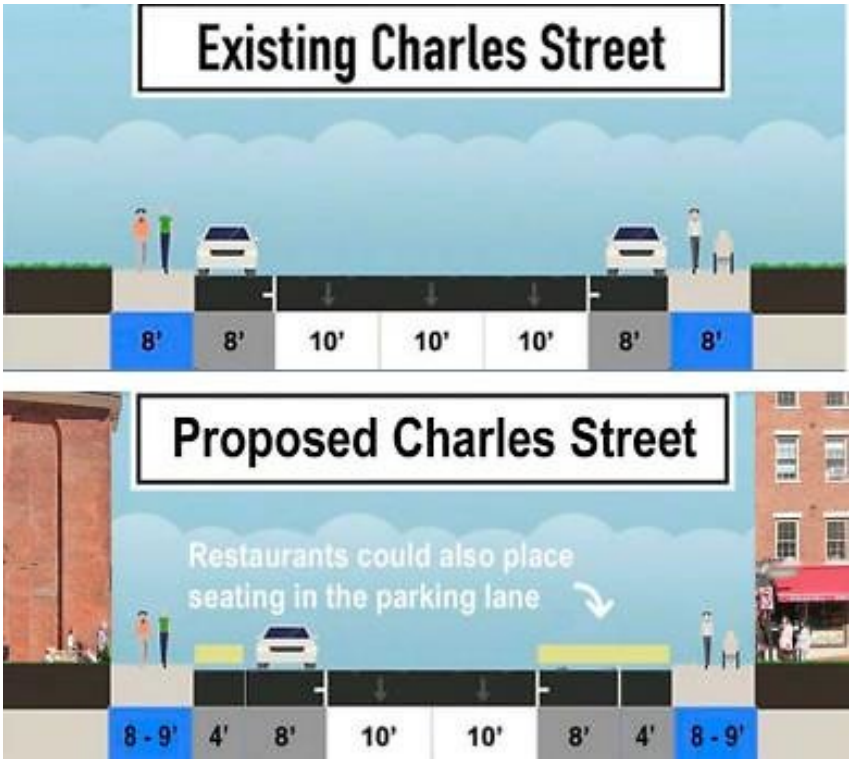

Figure 16: The Beacon Hill Civic Association and the Beacon Hill Business Association unanimously endorsed this June 2020 BTD proposal to reconfigure Charles Street to create more space for pedestrians and outdoor seating. (MilNeil, 2021).

The Committee, instead of adding wider sidewalks, added 4-foot parking-protected bike lanes on both sides of the street (MilNeil, 2021). The city's redesign eliminated parking on one side of the street to extend the sidewalks and create outdoor dining space

(MilNeil, 2021). Both of these were met with resistance from the Beacon Hill Business Association (BHBA) as they believed that in both these situations businesses on the street would be negatively affected (MilNeil, 2021; Murphy, 2022). The BHBA suggested that either Storrow Drive or Mugar Way be used for bikes instead of Charles Street (Murphy, 2022).

The case for bike lanes on the street was made stronger in 2020 with the release of the city's 2019 bike counts (MilNeil, 2020). According to the bike counts, 32% of the street's morning traffic was made up of bikes and yet there were no bike lanes on the street. This further built the case for the city's installation of bike facilities on Charles Street, which was now also part of the Connect Downtown plan for the city – citing both high pedestrian and bike volumes as reasonable causes.

In 2021, four years after the release of the *Go Boston* plan that promised a Charles Street bike lane in five years, the Boston Cyclists Union (BCU) released a petition asking the city to install bike lanes by specifically stating:

> *"Currently, Charles Street between the Charles/MGH T station and the Public Garden/Boston Common represents a significant gap in the bike lane infrastructure in Boston. South-bound cyclists must contend with three lanes of car traffic to pass through the neighborhood, while north-bound riders have no safe route through Beacon Hill—especially with the closure of Fiedler Footbridge—and must either bike against traffic or circumnavigate the neighborhood altogether. This link is key to connecting downtown Boston to the Longfellow Bridge, which was recently redesigned to accommodate a protected bike lane, and Cambridge beyond."* – Boston Cyclists Union, 2021.

The BCU argued for installing pop-up bike lanes before the end of 2021 so that the city could meet the goals that it had stated earlier.

Figure 17: Example of pop-up bike lane proposed by Boston Cyclist Union as part of their petition campaign. (BCU. https://bostoncyclistsunion.org/strategic-plan)

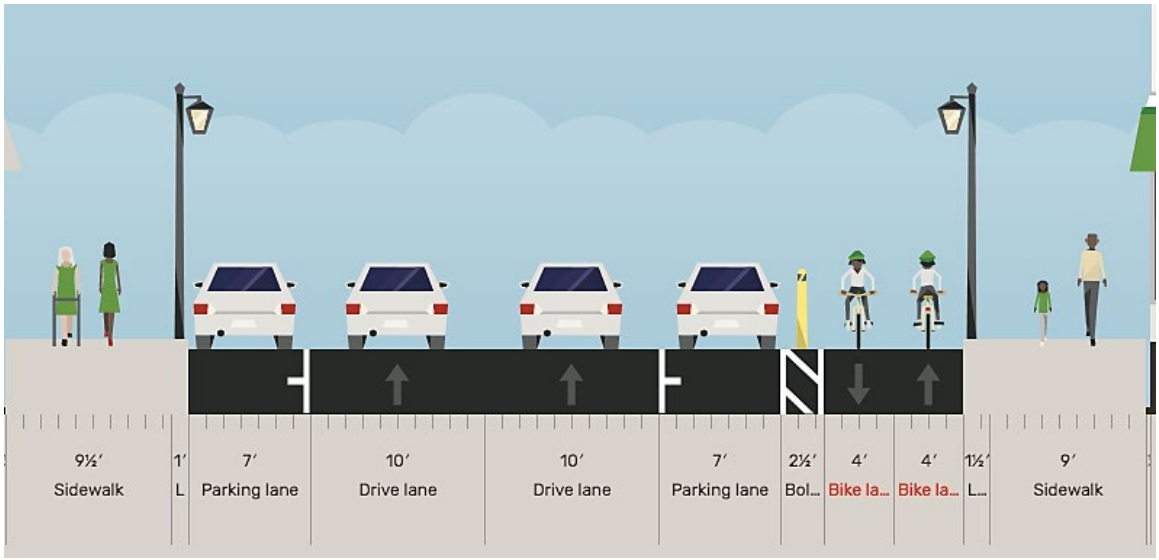

Figure 18: Boston Cyclist Union's proposed design for Charles Street, included in their petition campaign. (https://secure.everyaction.com/vpelc2mfUEWNwBFiBhNXjw2)

Figure 19. Boston Cyclist Union's vision for a safe two-way bike lane. The rendering is posted on their website at their Strategic (BCU Strategic Plan) https://bostoncyclistsunion.org/strategic-plan)

The purpose behind the addition of the bike lanes was to make the street feel safer for cyclists (Doucette, 2021). While working on this petition, the BCU also worked with local businesses to talk to them about the benefits of bike lanes and how it would not negatively affect them (Beacon Hill Cycling Community Shows Up for Small Businesses, 2021). As a result of their efforts, they were able to get over 100 local residents to sign their petition and over 1500 Boston Area residents (Boston Cyclists Union, 2021; Neighbors Get Word Out About Petition for Safer Charles Street, 2021). The BCU design of the street maintains the parking and adds a parking-protected and buffered two-way bike lane on one side of the street to accommodate a flow of bikes in either direction (Boston Cyclist Union, 2021).

While all of this was happening, in the fall of 2021, Michel Wu was elected as the mayor of Boston on a platform of a Green New Deal for the city of Boston – a plan that prioritized transportation justice and access to multimodal transport (Planning for a Boston Green New Deal, 2020). Calling out the city on its past plans, the BCU held another protest

on Charles Street in August of 2022 where they formed a human chain bike lane on the street (Murphy, 2022; White, 2022). The idea behind the protest was to demonstrate the need for faster action on bike lanes in the city. In response, Jascha Franklin-Hodge, the Chief of Streets at the City of Boston, said in an interview with the advocates, "be patient; it's coming" while Jay Livingstone, the state representative for the area, called the situation "…complicated" (Dolven and Platoff, 2022).

Figure 20: The Boston Cyclists Union held a protest bike ride on Charles Street in 2019 and another in 2022. (Top: White, 2022); bottom: Fortin, 2022)

After this protest, in September 2022, Mayor Wu announced that the city was planning on getting 50% of the city's population within 3 minutes of a protected bike lane (MilNeil and White, 2022). This announcement came during the annual NATCO conference where transportation officials from all over the country gathered to talk about major issues that cities face with planning for streets. This announcement also came at a

time when only 9 miles of the 31 miles of priority bike lanes from the Go Boston Plan had been constructed.

The story of the bike lanes on Charles Street shows that there is a desire on the part of the city and the biking advocates to create a complete street in the corridor. This would accommodate cyclists and allow them to move safely through the city. Conversely, business owners oppose this idea because it might, for them, cause harm to their livelihoods. All stakeholders involved have a particular vision of how the street should be transformed and interact with each other, the space, and the municipality to make that vision a reality. The main conflict here is between the biking advocates and the business owners while the city acts as a mediator for the opposing demands of the mentioned parties. This mediating role allows them to work towards creating tangible physical change in the future while also ensuring that the change represents the desires and needs of both parties.

3. Literature Review

Complete Streets

What are complete streets?

Complete Streets, as defined by Smart Growth America, are streets for everyone: pedestrians, bicyclists, motorists, and transit riders of all ages and abilities (Complete Streets, n.d; McCann and Rynne, 2010). Planners consider the many uses of a street and incorporate them into their design to ensure safety. This relies on framing streets as multi-dimensional spaces that have functions that extend beyond moving people between two points (Hui et al., 2015). Hence, the aim of complete streets is to design urban environments that both move people and enhance the lives of urban residents.

This concept is more popular in North America and other car-centric cultures than in other global contexts and is defined differently in other places. Complete Streets are variously called Living Streets, Home Streets, and Home Zones in the UK, Woonerf (Woonerven) in The Netherlands, Calles Completas in Mexico, and Ruas Completas in Brazil. Shared Streets in the US is a similar concept. Many countries do not have a name for them because their urban streets are already complete.

Definitions of infrastructure draw from their uses. Streets act as places where different users negotiate space for themselves. These negotiations, and the politics of these negotiations, are context-specific nuances. That is why complete streets, in their physical form, will look different in different parts of the world.

What are the effects of complete streets?

The literature evaluates complete streets through the lenses of use, safety, and economic value. When centering safety, in urban areas, the focus is usually on bike and pedestrian infrastructure. Studies in the literature predominantly focus on separate components of complete streets rather than on the whole of the street. Meaning that most of the studies are evaluations of infrastructural and design changes that help a street be "complete".

When centering street safety, MacLeod et al. (2018) argue that complete streets are part of vision zero, a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all (Vision Zero Network, 2023). This is because physical changes in a street alter the behavior of drivers and, when well-designed, pedestrians and create safer environments. Safety is defined as a reduction in crashes that lead to serious injuries or fatalities, which is the aim of vision zero. In the same vein, Tolford, Renne, and Fields (2014) looked at high crash areas in New Orleans. They argue that:

"...some pedestrian behaviors will not improve until infrastructure changes. For example, the study findings supported the inference that many collisions may have occurred because of lack of safe, convenient crossings across major arterial corridors. Some crashes attributed to pedestrian actions may have indicated areas where deficiencies in the provision of such crossings (e.g., long pedestrian delays, limited visibility, or obstructions) resulted in risky behaviors." – Tolford, Renne, and Fields, 2014. Development of Low-Cost Methodology, p. 34.

Like MacLeod et al.(2018), they believe that physical changes in the street signal to drivers and pedestrians to alter their behavior. In a well-designed street, drivers can slow

down on streets and pedestrians can avoid desired lines that lead to crossing in undesignated and exposed paths.

Both of the above groups of authors talk about the importance of physical changes within the street to make it safer. But as Jen et al. (2017) point out, a safe and walkable street doesn't equate to physical additions such as sidewalks and crosswalks. Walkability goes beyond the addition of infrastructure. It requires setting up a complete environment. In their study of walkability, Jen et al. (2017) argue that women feel safer in complete streets as compared to streets with pedestrian-only infrastructure. This is because complete streets with landscaping, biking lanes, and other infrastructure create a perception of safety for pedestrians.

Cyclists are also affected by complete streets through safety. Mooney et al. (2018) compared the growth of bicycling resulting from complete streets policies in 183 counties between 2000 and 2015, with the growth of bicycle fatalities. They showed that the establishment of safe streets led to an increase of 2.4% in cycling but produced only a 0.7% increase in cyclist fatalities, therefore overall decreasing biking fatalities. They did not describe the kind of street changes that lead to streets being qualified as complete streets. If they had differentiated or broken down their analysis by how different kinds of complete street changes lead to different outcomes, the results would have been more nuanced.

Vasilev et al. (2022), in a study of reactions to a complete streets project in Norway, argue that people's perceptions of safer biking infrastructure are not determined by age or sex. People unanimously rank the most protected options as the safest options for biking.

This study is interesting because it was an experiment in getting people's reactions to street infrastructure to understand how people conceptualize safety in streets.

Transit is also a consideration when thinking of the completeness of streets. Babb and Watkins (2016), in their study of complete streets, use transit-related facilities to study completeness. They developed a 12-point scale to determine the completeness of a street in the US. Very few cities exceeded 8 points in their study. This draws attention to how streets, to be complete, need to focus on both active transport and public transit.

Research shows mixed reviews on the economic benefits of complete streets As they promote walkability and transit-oriented development (TOD), complete streets fall under new urbanist planning (Song and Knapp, 2003; Bartholomew and Ewing, 2011). Song and Knapp (2003), looking at Portland, Oregon, note that:

> *"...residents are willing to pay premiums for houses in neighborhoods with more connective street networks; more streets, shorter dead-end streets; more and smaller blocks; better pedestrian accessibility to commercial uses; more evenly distributed mixed land uses in the neighborhood; and proximity to operating light rail stations*". – Song and Knapp, 2003. New urbanism and housing values, pp. 235-236.

Similarly, Bartholomew and Ewing (2011) conduct a meta-analysis of the literature on the effects of New Urbanist and TOD developments and report that:

> "*…the hedonic price literature confirms that the market shifts in favor of pedestrian- and transit-designed development indicated by survey data and demographic analyses are, indeed, being capitalized into real estate prices.*" – Bartholomew and Erwin, 2011. Hedonic Price Effects, p. 32.

Easier walking and transit access in cities can be prioritized through the implementation of complete street policies. Their exact effect is debated. Vandergift and Zanoni (2018), looking at complete street policy implementation in New York and New Jersey, find that these policies do not increase housing values. Because of this, the authors conclude that complete streets do not provide economic benefits for cities. These infrastructure projects require a large upfront investment that doesn't translate into more tax revenue for the city. Conversely, Yu et al. (2018) find that such policies in Orlando, Florida, allowed property values to stay high even through the 2008 economic crisis. Their analysis points to how complete streets can build a form of economic resilience within neighborhoods.

Even though these results might be conflicting, most of the literature does argue that complete streets lead to gentrification and privilege. Stehlin (2015) looks at the transformation of the Valencia Street corridor in the city of San Francisco. He argues that the addition of biking infrastructure to make a complete street led to higher property values. This led to the displacement of working-class communities and to an influx of higher-income tech employees. There is a perception that active transport-oriented street changes have this effect in other parts of the country too. Lubitow et al. (2016) look at Chicago and argue that street changes that involved installing bike lanes were opposed by people due to a fear of gentrification. In this way, complete streets, and their economic effects, can create displacement and loss.

The Right to the Desirable City

> "*And thus, the city is an oeuvre, closer to a work of art than to a simple material product*"
> – Henri Lefebvre (1968, *The Right to the City*, p. 27)

In this line from *The Right to The City*, French philosopher and urbanist Henri Lefebvre (1968) refers to the city as a work of art that is made by the people who inhabit it. They shape it according to their desires to create a place that fulfills their needs. In doing so, not only does he center people as the drivers of urban politics and development, but he also coins his idea of the right to the city. This right, according to Lefebvre, is a "cry and a demand" to create a city that fulfills the needs of life for those who live in it.

In centering people in his discourse on the city, he is also critical of the planning profession in France in the 1960s. For him, planners and architects inscribe their own codes onto space, ignoring how people inhabit space in the city. This means planners and architects plan according to how they think space is to be inhabited rather than how space is actually inhabited. For this reason, the right to the city focuses on the latter, giving power to people to construct space that reflects the context and actuality of life rather than having the city be a product of science that very well may be disconnected from how life is lived in the city. People who inhabit the city are the creators of the future desirable city.

This concept very strongly features in his idea of the production of space (Lefebvre, 1992). For Lefebvre, space is produced in cities by spatial practice, representation of space, and representational space. Spatial practice is described as perceived space and refers to how people mentally think about space and their place within it. Representation of space, also called conceived space, refers to the physical organization of space – how space exists

physically. Representational space, also described as lived space, is the idea of how people live in space and ascribe certain meanings. All three of these exist as a triad, interacting with each other to construct space. All of this is dependent on how people and their mental notions of space interact with physical space to create a city that reflects their needs and practices.

British scholar of planning and architecture Michael Buser (2012) argues that the production of space, the triad, allows us to think of cities within a context. It centers the lived experiences of people and their practices, linking it to how the expansion and growth of cities are related to them. For British political scientist Monica Degen (2018), the production of space has an additional temporal aspect to it. This temporal aspect is one that exists alongside the mental and physical and interacts with them – thus the triad has an additional third dimension added to it which further contextualizes and explains how and why cities exist as they do. As she states

> *"…while the working of time is intangible, it is framed through social and institutional practices and its ordering effects can be grasped by focusing on technologies of time, discourses of time, and experiential symptoms of time.* […] *Lefebvre describes the urban […] a palimpsest, composed of different temporal modes: past, present, and future which are socially constructed and interconnect. I suggest that if we are to expand our understandings of temporalities in and of the street and how they shape power relations, we need to revisit Lefebvre's well-known triptych of the lived, the perceived, and the conceived from an explicitly temporal perspective. These three 'scapes' were conceived by Lefebvre as analytical spaces that contribute differentially to the social production of space, varying according to local conditions that frame and embed place within temporal constellations or 'timescapes'."* – Monica Degen, 2018. Timescapes of urban change, pp. 1076-1078.

From this, we can understand that the right to the city, for Lefebvre, is one that is deeply linked to the creation of cities and their existence. This idea has been further expanded in the literature to link to the contemporary experiences of people. AbdouMaliq Simone (2005) writes about this from the post-apartheid city in South Africa. For him the right to the city is for residents to use it as an arena to work towards their aspirations. It revolves around defining a flow that suits city residents rather than having one imposed by the forces of capital and technocrats. City makers thus should focus on helping people achieve their aspirations and desires while trying their best to make sure that marginalized populations aren't further oppressed. Simone wants us to embrace the chaos of the city and use it to create a space where we can fulfill our dreams and desires.

On the other hand, American geographer David Harvey (2008) builds more on Lefebvre's idea of focusing on people.

> *"The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization* – David Harvey. 2010. *Social Justice and the City*, p. 315.

He argues that cities are built and developed through a process of creative destruction where cities are destroyed so that surplus capital be reinvested in them. This phenomenon, for Harvey, prevents the crises of capital because having a large amount of surplus can lead to economic crises. This also means that the city, at the current moment, is produced by the elite that has surplus money to invest. Thus, the right to the city here is

to have control over the money that rebuilds and develops the city. The democratization of control over this resource means that the right to transform the city extends to people and is not just limited to a select few. And in doing so, not only are we breaking the hegemony of the elite over the production of space but also creating room for the oppressed and the marginalized to create the cities of their dreams.

The above highlights different interpretations of the right to the city, but this still leaves a lot to be answered. The problem is that as an abstract idea, the right holds symbolic value but what really does it mean for people in the city? Attoh (2011) investigates what the right to the city is and argues that the concept of the right is too vast to offer any guidance. Going back to Harvey's (2008) argument, he asks what democratization really means and how can it be done. For Attoh, the breadth of this concept means that there are a lot of questions we need to focus on and answer before this right can be practiced effectively. This points to the importance of continuing to define what the right to the city means in particular contexts for this framework to be useful. Through specificity, the framework can allow planners, citizens, and other stakeholders to understand contentious issues in urban development.

Marcuse (2016) goes on to ask even more fundamental questions about this. For him, whose right is the right to the city, what is this right, and what is the city? He argues that the right to the city is a cry for the oppressed and a demand of the alienated to be able to practice their legal and moral rights within the city. It is a cry and demand that is borne out of the necessity that comes out of marginalization. The city here is defined as the desired city of the future, which changes according to contexts and according to what the people want to see.

Beyond understanding what the right to the city is, there is also the question of how it is practiced within the city. For Shields (2013), the practice of this right is directly linked to protesting in the city. Through this process, citizens not only reoccupy space but also create room for others in the city to practice rights that systems of power may deny them. Essentially, this approach focuses on a certain type of practice within space which creates room for practicing other rights and for others to practice their own rights and freedoms in the city. Alternatively, Duff (2017) conceptualizes practicing the right to the city using the performative theory assembly, developed by American philosopher and gender theorist Judith Butler, which locates "*...the body and its performative and expressive capacities at the center of political demands*" (cited in Duff 2017, p. 511). The right to the city, for Duff (2017), is an affective right that focuses on bodies and actions within space to reveal how people create space for themselves in the city. Duff conducted ethnographic research among homeless people in Melbourne and observed how they occupied space in the city to practice their rights to the city. The study presents an approach toward the concept which is closely linked to how Lefebvre talks about lived space and how people construct space through living in it.

The concept of the right to the city might not even be one that truly captures what it means to claim ownership of the city and its development. Merrifield (2011) argues that the concept was introduced by Lefebvre as an experiment to think about creating a desirable city, and if it does not work anymore, we should let it go. It actually may be too vast to comprehend and if it does not help organize people towards making the city space encapsulate their dreamworlds, then, as Lefebvre even argues, the concept should be discarded and a new one developed.

One consistent theme throughout the conversation about the right to the city is the focus on the desirable city – but what is the desirable city? In the simplest terms, as put forth by Ash Amin (2006), the desirable city, or the good city, is a city that meets four criteria which are repair, relatedness, rights, and re-enchantment. Repair alludes to the idea that the city should have systems that function and meet the needs of everyday life. Rights refer to the basic rights and freedoms that residents need to feel happy and secure. Relatedness refers to the duty of care that exists between the state and citizens, and between people, while re-enchantment is the need to experience the city's public spaces, and their capacity to build social connections. These four criteria are similar to many of the conditions mentioned previously when defining the right to the city. This then begs the question, is the desirable city the one that people have a right to?

Given the above context, conversations about the right to the city barely exist in the literature about transportation in the city. Keblowski et al. (2016) recognize this lapse in the literature to argue that transportation in cities is usually thought of through the lens of best practices or as a problem of the individual. The right to the city approach applied to transportation can allow us to think of frameworks that focus on co-producing urban space while understanding the multiple inequalities that exist within it. For Keblowski et al., addressing these inequalities through a focus on transport can tangibly create positive results through infrastructural changes.

On a similar note, Coggin and Pietersen (2015) talk about the need to use the same approach in public transit in the city. By using this framework, we can think about how public transit can help achieve socio-economic equality in the city. This also changes the way we think about transit by problematizing the need to see who is using transit so that

everyone can reap its benefits in the city. Thus, the right to the city here is the focus on creating better socio-economic outcomes for urban inhabitants. In the same vein, Foster and Newell (2021) look at desire lines (informal walking paths) in Detroit and argue that the use of such paths is people practicing their right to the city. It is a practice of creative space-making where people – mostly minorities – make their lives easier. They create an efficient city, which for them is the desirable city. Thus, if the city formalizes these paths for people to use, it will be seen as a bottom-up process of planning where people's needs materialize into physical reality.

In the realm of cycling specifically, work is rarer still. Mayers and Glover (2021) look at cyclists and how they create their own space (and often, their own rules) within the city. This creation of space is based on not feeling safe in existing infrastructure leading cyclists to construct new alternatives for themselves. This involves creating informal paths and using sidewalks, shortcuts, and property edges to get to locations. Cyclists essentially create a city for themselves by claiming, using, and establishing space for themselves. For Mayers and Glover (2021) this process is a way that the right to the city is being practiced. Cyclists are appropriating the space they need to feel safe, problematizing their own need to travel within the city, something that the municipality fails to provide. Jones (2005) beautifully argues that through the practice of biking, cyclists make the city they desire. They perform a particular vision of the city into being because of their lived experience. This vision then helps cyclists think about the physical changes that need to be made for them to feel safe in the city.

But how do cyclists ensure that their needs are met and that they feel safe in the city? In his study of Copenhagen, Larsen (2017) argues that biking practices can only be

produced and reproduced in the city when physical infrastructural changes are accompanied by cultural changes. Larsen looks at the Dutch process and mentions how biking is not seen predominantly as sustainable or healthy, nor is it is not positioned in opposition to cars, but rather is adopted as a legitimate way of traveling under given conditions. And this is how biking reproduces itself in the city.

In the end, it is important to note that changing the city street to problematize anything that is not a car is indeed radical (Bertolini, 2020). The car's domination of the street needs to be challenged, not to delegitimize it as a mode of travel but to center other street users within planning. The right to the city essentially calls for the centering of people within the creation and expansion of the city, a process that can create a city that people like and appreciate. Caveats to this do exist. People can definitely opt to create cities that are unfriendly to the marginalized and to those who are alienated. In that case, as Harvey (2008) and Simone (2005) note, city makers need to ensure that practices that shape the city do not only give voice and action to just one set of people, but to everyone. In that way only can we construct a city that allows everyone to be happy.

4. Analysis and Discussion

This section focuses on analyzing how the right to the city operates in the context of the Charles Street redesign process and how space is produced there. In doing so, the thesis aims to add to the literature about streets and the right to the city, understanding the relationship between city inhabitants and streets – which, based on my literature review, is severely understudied.

In doing so, the first step is to identify the major political actors that are part of the conversation of shaping the future of the corridor. They are the Boston Transportation Department (BTD), the business association represented by the Beacon Hill Civic Association (BHCA) and Beacon Hill Business Association (BHBA), and various transportation activists of which the most vocal is the BCU. The latter two actors primarily consist of citizens, or inhabitants as Lefebvre would call them. They have a particular idea of how they want to see the street exist in the future and are working to make that a reality. Before talking about the actions of these stakeholders, it is important to focus on the role of the BTD, the actor that has the power to actually transform the street physically.

The BTD in this context, currently, is the chief mediator. They work with both activists and business owners to come to a solution by constantly reaching out to the two parties and listening to their concerns about the space. The BTD also reaches out to Beacon Hill residents, directly through surveys and indirectly through the Beacon Hill Civic Association (BHCA) but residents are not identified here as a separate party. Most business owners in Beacon Hill are also residents of the neighborhood.

Lefebvre might have called the process with which the BTD operates "scientific". This is because the way the planners work involves studying the context of Charles Street in great detail, collecting data, and then making decisions based on that data. The release of the Understanding Charles Street (2023) document is part of this process of collecting and analyzing data to bring to the people a detailed study of the issues that surround Charles Street. This is also representative of the city's dedication to creating a city that fulfills the desires and needs of all and doesn't create or exacerbate antagonisms between various parties.

But one could also see this process less as a "scientific" one and more of a bottom-up approach to planning, which is a way through which municipal governments allow people to practice their right to the city to co-produce space. In trying to mediate between different parties, the BTD isn't trying to implement a solution that they believe is the "best" or the most "efficient". Instead, they are seeking a resolution that addresses the problems of different groups of people and are gleaning information from what people present to them. This is why they engage in extensive community outreach. The mediation is still carried out with the aim to meet goals that were set by various published city masterplans, but those goals are to be met in a way from which the people don't feel alienated.

If the aim was to meet the goals without considering the conflicting needs and wants of different groups, the Charles Street Bike Lane would have been built before the end of 2022, meeting *Go Boston 2030*'s goal, published in 2017, of getting it done in five years. In addition, plans such as *Climate Ready Boston* (2016) and *Imagine Boston 2030* (2017) have continuously called for creating a sustainable city, in which biking and pedestrian infrastructure are a big part. If the BTD were to build the green city, they would have

respected those goals much more than interacting with different groups of people to come up with solutions that serve them well.

The city's role as a stakeholder in this process is very interesting. Not only are they trying to work towards the values that have been established by previous long-term plans, but they are also trying to build the city that the inhabitants want to live in and mediate among competing interests with different needs. They have to work with both the desires of the people and the larger goals that were set by various administrations, past and present. Hence, their work revolves around mediating between the values, goals, needs, and desires of various parties. In doing so, they are trying to translate the various perceptions of space to develop one harmonious infrastructural reality. The city, as an organization, produces space through physical change rather than through living it or through perceiving it. Living and perceiving is done by the actors who are advocating for or against the bike lanes.

Given the city's role, how do the people, or the inhabitants of Boston, practice their right to the city and produce space? This involves focusing on the actions of the businesses and the biking community/advocates. The next section analyzes how advocates practice their right to the city. First by looking at cyclists' perspectives, and then examining voices from the business community.

To understand how the biking community/advocates work towards their desired city, the protest on Charles Street in August 2022 can be analyzed (Murphy, 2022; White, 2022). The protesters essentially made a human bike lane on one side of the street, demonstrating the streetscape changes that they were advocating for. The demand for the bike lane was driven by the need to create a safe environment for cyclists in this part of the

city (Murphy, 2022; White, 2022). The idea of safety is the key value to analyze here because it forms the base of both how the right to the city is practiced and how the future city is imagined.

Creating a makeshift human bike lane on a busy downtown artery is an example of how cyclists practice their right to the city. The BCU created informal infrastructure for a particular period of time to lay claim to a space where they had none. This allowed them to be seen – drawing attention to their cause and to the need to have a right to safe mobility in the city. By making this human bike lane, they presented to the world not only their demands but also a vision of the desirable city. The cyclists want to perform into reality the city that they want to see (Jones, 2005). This performance is deeply embedded in the need and desire to safely navigate the city.

The right to the city in this scenario is the right to safe mobility in the city – through a means of travel other than by car. The addition of the human bike lane to the street is the physical manifestation of that right. To ask for this to be done is indeed a radical act because the advocates and cyclists are asking the municipality and other residents to center the design of the street on pedestrians and cyclists of all abilities and not on cars (Bertolini, 2020).

The other instance of when the BCU practiced their right to the city was when they presented a petition for people to sign. This petition not only analyzed past data in relation to bike counts but also presented a redesign of the street. By including a redesign of the street in the petition, the BCU presented to the petition signers a vision of the street and also showed that they were practicing their right to reimagine space according to the values

they hold as important. The BCU essentially appropriates space on a mental plane and presents to people an image of what can be possible in the physical world.

But how do biking advocates play a part in producing the city? As mentioned before, a key idea for the protestors was safety in the city and that is the basis of how the reimagined city is performed into existence. The perceptions of space they have are ones that are based on this idea. The language used by the protestors, as mentioned in earlier sections, is one of safety and of not being subjected to the immediate danger of passing motor vehicles. This then translates into how they conceive the physical reality of space. When the BCU started collecting signatures for a petition to add bike lanes on Charles Street, they presented in it their redesign for the street. The redesign included a two-way protected bike lane that would connect Charles Circle and the Public Garden. This design was based on safety needs bike counts published by the city, and the experience of biking in the city.

The design is similar to other protected bike lanes, like in the Public Garden, where the biking level of traffic stress (LTS) is 1, which is the lowest level of stress urban cyclists can experience (City of Boston, 2022). Currently, the cyclist LTS on Charles Street is 4, the highest on the scale. In this way, the lived experience of biking in places where the LTS is lower influences the way the BCU produces space.

Table 1. Levels of Traffic Stress (LTS) for Cyclists by Facility Type.

Segment Type	Level of Traffic Stress
Stand-alone paths	LTS = 1
Segregated paths (sidepaths, cycle tracks)	LTS = 1
Bike lanes	LTS can vary from 1 to 4; see Tables 2 and 3
Mixed traffic	LTS can vary from 1 to 4; see Table 4

Source: Peter Furth, 2012. Levels of Traffic Stress (LTS) Criteria Tables..
https://peterfurth.sites.northeastern.edu/level-of-traffic-stress/

Lefebvre's triad of the production of space operates here in imagining a particular reality of Charles Street from the perspective of the biking community. It generally centers on the right to have safer mobility. The way space is reimagined by cyclists and advocates is also deeply representative of how they frame their right to the city, demonstrating that the two concepts are linked to each other.

Business owners' interaction with space is very different from that of the BCU. Business owners want to protect the status quo and seek to preserve Charles Street in its current configuration – without the bike lanes. Their practice of the right to the city is deeply embedded in speaking out against the bike lanes which is based on their belief that the addition of bike lanes will "kill their businesses" (MilNeil, 2021; Murphy, 2022a; business owner communication with author). Most of these businesses, like others around the world, suffered losses during the pandemic when foot traffic to stores disappeared. For them, any changes in the street would negatively affect how they conduct business – especially in relation to deliveries – thus leading to a loss in revenue. In their interactions with planners, they highlighted these points multiple times. Hence, their practice of the

right to the city is one where they work with planners and organize together to prevent bike lanes. Their right to the city is to preserve the space in a way that allows them to be financially profitable.

The space they seek to produce – or protect – then is the one that exists currently. Charles Street, right now, is perceived as a space where they believe they can run their business efficiently and profitably. It allows them to have access to delivery services, allows their customers to have parking space, and also prevents complications that may come in through adding new infrastructure. As a BHBA board member said

> *"I get here at 7 o'clock in the morning, and there's a line going into the garage, and trucks making deliveries on the other side of the street, so with a bike lane, where is everybody supposed to go?"* Murphy, 2022a. Latest Proposal for Two-Way, Protected Bike Lanes on Charles Street Meets With Strong Community Response.

Hence, the space that is perceived is one that does not hamper already existing behaviors and flows. Conceived space in this instance is what the corridor is currently, and the lived space is linked to activities and experiences as they are organized currently. For businesses, the production of space is the protection of the status quo. It is guided by the need to protect themselves and their revenue and this will not change unless they see proof of how other models can work to their benefit.

For business owners, the rationale of practicing the right to the city and producing space in a particular way is deeply dependent on how they center profit. This is deeply linked to their ability to survive in the city and earn a livelihood. In their lived experience as inhabitants, they prioritize their needs. If the space needs to be changed to add bike

lanes, there needs to be more outreach from the BCU and/or the city, building on their previous efforts, to show how the addition of this infrastructure would not harm businesses in any way.

For both transportation advocates and business owners, one common thread is the idea of the desirable city and that the right to the city is driven by values that are linked to people's experience of the city. The way people live in a city shapes their meaning of the right to the city. This brings us back to the question of what the right to the city is. Accepting the subjectivity and breadth of this right is acknowledging that the experiences of people within the city are diverse and vibrant. The city is formed based on the diverse experiences and aspirations of its inhabitants. Learning from the BTD, planners in other contexts should also understand and accept that the process of bottom-up planning is a process of mediation that seeks to allow everyone to practice their right to the city. Coming up with solutions that consider the various needs of various people can create a desirable city..

It is also important here to focus on infrastructure. The right to the city and the idea of producing the desirable city on Charles Street is very strongly linked to the production of biking infrastructure. Kooy and Bakker (2015) look at Jakarta's water supply infrastructure to argue that the desirable city is imagined through a lens of having access to particular kinds of infrastructure within the city. They argue that

> "*…the investments of the first postcolonial government into Jakarta's urban water supply were intended to remind the nation (and Jakarta's residents) not of what they currently were, but what they (and the kinds of modern identities) they should aspire to*". – Kooy and Bakker, 2015. (Post) Colonial Pipes, p. 79.

Essentially, the city of dreams is a city with an infrastructural setup that meets the needs of people. This holds true for Charles Street as well where both major parties have a particular type of infrastructural arrangement in mind that can help meet their needs and their image of a desirable city. And hence, the right to the city is one that produces the infrastructure that people think will meet their needs and desires. This is not to forget that municipal governments have the duty to actively seek out and listen to marginalized populations as well to produce a city that meets their needs, demands, and desires. The desirable city should not be limited to those who occupy space the loudest, but to all who inhabit the city.

Limitations and Concerns

Through this thesis, I have shown how biking advocates, business owners, and the municipal government work together to reshape the city through infrastructure. Newspapers, planning documents, and petitions have been used to highlight their needs and desires about what the city should look like. Given this, there needs to be an acknowledgment that the sources used to tell the above story do not include the voices of all stakeholders. These are people that live and work around Charles Street but are not biking advocates, business owners, or city officials.

This is a limitation of using archival resources. Archives tend to record the voices of those who are the most active in engaging with certain issues. In doing so, they overlook other parties that have a strong stake in the process of urban development, especially when it may affect them and their surroundings directly. This issue can be avoided through the use of ethnographic research where one can talk directly to people, making an active effort to bring non-mainstream voices to the forefront.

On another level, it is also important to understand that the right to the city, as a framework, has historically been used to advocate for marginalized people in urban areas. Lefebvre, Simone, and Harvey collectively focus on the need for those without access to money and power to be involved in the process of planning cities. Business owners on Charles Street represent a demographic that has access to both power and money because of their class. Their status as part of a privileged section of society does raise the question of whether their practice of the right to the city is more important than that of other more marginalized people in the city. In the case of this thesis, is the right to protect profit more important than protecting the right to safe mobility? This is a question that needs to be analyzed further. It is not to say that those with money do not have a right to the city, but it is to think about whose right to the city should be prioritized within the process of transforming urban space.

5. Conclusion and Future Work

The aim of this thesis was to use the right to the city framework to think about transportation infrastructure in the city. To do so, the focus is drawn toward the conflict on Charles Street, in Boston, where complete street advocates and local business owners have been at odds over the desirability of bike lanes on the street. Being an important desire line and major biking corridor, the street can be a major part of the city's bike network.

This thesis essentially shows that the different parties involved in this conflict have distinct imaginations of what the city should look like. These ideas about what the street should look like extend from their experiences of the city and how they think the changes in infrastructure will affect them. Thus, the practice of the right to the city is then a practice of producing space that will support the needs and desires of each party. Within this conflict, the city acts as a mediator and problem solver, trying to practice a bottom-up approach to planning to ensure that no one party loses out. The city acts to ensure that both parties get to practice this right. The end result might not be the utopia each stakeholder wants, but it can advance stated city goals and the broader needs of a just and sustainable city.

Given this, there is still room for more work on the subject. As mentioned in earlier sections, academic research and papers on the right to the city and transportation infrastructure are scarce. This is especially true in the realm of biking and pedestrian infrastructure. This thesis explores the conflict over street infrastructure to talk about how the right to the city is practiced, which can also extend to other parts of transportation infrastructure such as the installation of transit-related infrastructure or new modes not yet

imagined in cities. Essentially, there is a need to revisit human-infrastructure relationships to think about how cities develop. By analyzing the conflicts over infrastructure, we can uncover the different types of cities that people want. Doing so can help planners think of solutions that can effectively lean on bottom-up planning, a way through which the right to the city is practiced within existing structures of governance.

An additional area to explore would also be to re-examine the role of planners as mediators within larger planning processes. The planner, as shown within this thesis, mediates various needs and desires to create a city that people want to inhabit. Examining in more detail the process and outcomes of this mediation will create literature that sheds light on how urban infrastructural production is a result of negotiation between various parties, and guide planning practices that actualize the right to the city.

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