



DOWNTOWN FREDERICK STREETSCAPE STUDY

FINAL - DECEMBER 9, 2021

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Executive Summary

The following study is graciously funded by the Ausherman Family Foundation and The City of Frederick.

The primary purpose of the Downtown Frederick Streetscape Study is to outline creative, thoughtful, and achievable solutions for addressing streetscape challenges and opportunities along Market Street and Patrick Street. The current streetscape, now 30 years since its implementation, has numerous deficiencies that have become apparent in recent years as downtown has experienced strong revitalization. Limitations, such as accessibility, safety/tripping hazards, narrow sidewalk widths, limited opportunities for outdoor dining, and parking, have been further magnified during the pandemic and as downtown continues to experience more foot traffic. The success of recent street events, festivals, street closures, and outdoor dining/parklets suggests that now is the time to establish the next 30-year vision for downtown's streetscape.

The following report observes existing land use patterns, pedestrian circulation patterns, parking conditions, sidewalk conditions, transit patterns, open space and existing tree conditions and placement. Each pattern was analyzed to understand potential opportunities and constraints that exist in the Downtown Frederick streetscape study area that may inform how future improvements best address streetscape limitations. For example: restaurant locations informed where outdoor dining may be needed; locations where trees and stoops crowded the sidewalk informed where sidewalks need to be widened.

This analysis and observation phase was followed with a listening phase, designed to engage stakeholders, reach residents, business owners and the public. Stakeholder input was solicited to understand varying perspectives that rely and contribute to the vibrancy of both Market Street and Patrick Street. Frederick County and City residents, government agencies, restaurants and the craft beverage industry, retail and personal service businesses, professional businesses

and property owners, youth, education and civic stakeholders and community organizations were all engaged to obtain their unique perspective. Key observations from each group have been documented. In addition, a 20-question survey was released to the public garnering 1,932 survey responses. The survey explored general attitudes toward several challenging site considerations, including bike lanes, parklets, lane reductions, parking reduction and street closures, in addition to providing an open-end response to address primary concerns.

The design team used a robust public engagement process to gather information and reassess streetscape priorities with the intent of respecting all participant voices, weighing the often-competing needs and developing design concepts that balance the needs of many.

Analysis of streetscape deficiencies throughout the downtown study area reveal that current sidewalk conditions require repair of uneven pavement due to tree roots, inconsistent repairs over the years, buckling, and other similar hardscape conflicts. Walking areas consist of unnavigable and often narrow sidewalks due to conflicts (and pinch points) with tree placement, stoops, railings, cellar doors, and other obstacles. Increased pedestrian traffic downtown and greater demand to dine outdoors, as observed during the pandemic, has revealed sidewalks are too narrow to accommodate pedestrian crowds. Further analysis reveals the streetscape provides preference to traffic and parking that is used to support local retail and provide necessary trash, recycling and emergency service access while providing limited area for pedestrians and dining. As a result, it was determined a simple repaving plan will not reconcile the many issues at hand and a holistic review of the entire 60' street section, from building face to building face, is needed to reprioritize uses within the streetscape.

The design team considered the many unique needs and perspectives of all participant groups, as well as our own observations, analysis, and best practices, in crafting two primary

streetscape typologies. The first streetscape typology, applied to the blocks that include mostly retail, restaurants, and small businesses, suggests wider sidewalks by removing some parallel parking. This approach will support current and future pedestrian volumes, provide opportunities for more outdoor dining, and enable a more robust pedestrian/sidewalk experience, while maintaining limited parking and service needs as downtown's revitalization continues. The second streetscape typology, applied to the blocks with residential and more limited retail and restaurants, suggests wider sidewalks in strategic areas by removing only limited parallel parking. This approach will balance resident and commercial business needs, mitigate pedestrian pinch points, and continue to address parking, service, and pedestrian considerations equally. Importantly, these two streetscape typologies are flexible and could be applied to any block within the overall streetscape study area. It's important to note that although each option considered varying perspectives, the limited streetscape section and many competing demands did not allow for a solution that could accommodate all needs and desires. However, both concepts prioritize the need for enhanced pedestrian accessibility, safety and wider sidewalks and balanced these with the need to maintain trash, recycling and emergency service to all businesses and residents in the study area while accommodating convenient parking that supports local businesses to the maximum extent practicable given the competing goals.

The tree canopy was often cited as a positive contributor to the overall character of downtown. Maintaining a healthy, shady, and robust tree canopy is important to the downtown streetscape. A closer look, however, reveals that tree placement and tree size (many tree root systems impact adjacent sidewalks and cause heaving and/or cracking concrete) result in frequent pinch points, tripping hazards, limitations for outdoor dining, and unnavigable sidewalks. Moreover, the trees are reaching the end of their healthy life, some are already in decay, and all of them have inadequate soil volumes. 30 years ago, the need for planter areas,

soil volumes and aeration in challenging urban environments was not adequately addressed. Both streetscape typologies address these important needs by selectively replacing the existing tree canopy, strategically relocating new trees, and providing adequate soil volume and planting area for a future robust tree canopy that is designed to avoid the physical limitations and many maintenance challenges faced today.

Both streetscape typologies were met with public support when presented in Workshop 2, with a small subset of participants concerned about impacts to convenient parking and traffic. Although a point of concern, the tree relocation strategy was met with general support, once the benefits were presented to the group.

The limited scope of study brought to light questions and concerns that need further review including a streetscape traffic impact analysis, streetscape parking impact analysis and detailed study of utility upgrades needed in the study area. Each of these items will influence the current design concepts and reveal necessary modifications or alternative strategies to parking and traffic downtown. The utility analysis will provide insight into the extent of upgrades necessary to accompany any streetscape improvements.

The report concludes with recommended next steps including regulatory recommendations, recommended additional design studies that will inform the proposed design concepts, short-term actions that can be considered in the interim to address parklet aesthetics, and ballpark cost estimates that will help the City plan for these streetscape improvements.

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Downtown Frederick - First Saturday
Credit: Bill Adkins

observe

INTRODUCTION

1.1 PURPOSE & GOALS

1.2 PANDEMIC - SOLUTIONS & RESULTS

1.3 EXISTING CONDITIONS

1.1 PURPOSE & GOALS

Overview

In January 2021, Downtown Frederick Partnership and The City of Frederick engaged Design Collective and RK&K, to study the streetscapes of Market and Patrick Streets within Downtown Frederick (see study area identified on adjacent page).

The goal of this study was to create thoughtful design solutions, set priorities, and determine a framework for future streetscape improvements for the many users (pedestrians, bicyclists, motorists, etc) and uses (shopping, dining, events, city services, etc) of the downtown streets.

Purpose

Frederick has an opportunity to use the experiences and data collected during the ongoing pandemic to reimagine the downtown public streetscape and reinforce long-term recovery and continued growth. Downtown Frederick is the hub of culture, commerce, and government in The City of Frederick and attracts more than 2 million visitors annually (pre-pandemic). In the early 1990s, when the city moved utilities underground, the existing streetscape was implemented and served the community well for many years. However, streetscape deficiencies have recently become apparent as downtown has experienced substantial revitalization and the current facilities have aged. Throughout the study area, current sidewalk conditions require repair of uneven pavement due to tree/hardscape conflicts and reflect unnavigable sidewalks due to physical constraints resulting from conflicts with tree placement, stoops and other obstacles. Increased pedestrian traffic downtown, coupled with these constraints results in sidewalks that are too narrow to accommodate the crowds. As a result, a simple repaving plan will not resolve the issues at hand and a holistic review of the entire 60' street section is needed to evaluate and reprioritize uses.

COVID-related needs (social distancing) and overall trends toward Complete Streets (supporting multi-modal transportation, accessible pedestrian routes, outdoor dining, and friendly parking) have further magnified limitations in the current streetscape.

Community Engagement

Public participation helps ensure the plan addresses community concerns and ideas, fosters an inclusive

and transparent planning process, identifies key opportunities and priority areas, and builds momentum to move a planning process towards adoption and implementation. Stakeholder input and feedback were critical to creating a community supported vision for the Downtown Frederick streetscape.

A critical component throughout the planning effort was to gather stakeholder input on existing conditions and feedback on proposed concepts. This engagement was conducted using a variety of outreach methods. City residents, businesses, property owners, staff and elected officials, neighborhood and community organizations, and other stakeholders contributed and provided feedback that informed a series of design recommendations. During this process, it is essential to note that opportunities were given for stakeholders to dialogue and hear from each other, allowing participants to appreciate different perspectives. This process also strived to obtain equitable, meaningful, and productive input. Although in-person workshops are generally preferred methods for engagement, these events were held virtually due to the COVID-19 pandemic.

In addition to facilitating two Public Workshops, the consultant team conducted a survey, which received over 1900 responses (See Section 2.4 of this document for more details on the survey results).

Design Concepts

The consultant team used information gathered through the public process to generate preliminary Design Concepts, exploring Short, Mid, and Long-term solutions for physical improvements within the study area. These concepts are intended to be the first step toward future improvements to the Downtown Frederick streetscape. Significant additional work is needed to refine these concepts and create documents that can be used for future implementation.

It's important to understand that the concepts developed strive to "balance" the varying ideas and opinions within the community. The limited 60' right of way available for improvement is pressured to accommodate an incredible list of needs. Changes proposed considered opportunities to simplify, share and reposition the streetscape to improve the pedestrian charm of downtown while being cognizant of traffic and parking needs.



Downtown Frederick Streetscape
Credit: Bill Adkins



Downtown Frederick In The Streets Festival
Credit: Bill Adkins



East St.

South St.

Seventh St.

Market Street

Patrick Street

STREETSCAPE STUDY AREAS:
MARKET STREET - BETWEEN SOUTH ST. AND SEVENTH ST.
PATRICK STREET - BETWEEN BENTZ. ST. AND EAST ST.
EAST ST. - FUTURE STUDY

Bentz St.

Downtown Frederick Streetscape Study Area - Aerial
Credit: Michael Demattia

1.2 PANDEMIC - SOLUTIONS & RESULTS

The 2020/2021 global COVID-19 pandemic resulted in The City of Frederick, Downtown Frederick Partnership and downtown businesses scrambling to find and implement low-cost, quick solutions to support business operations.

The most dramatic change to the streetscape became visually apparent when parklet* dining solutions were implemented, adjacent to restaurants in the study area. The existing streetscape was already limited by many obstacles, including but not limited to light poles, trees/tree pits, stoops/stairs, basement access vaults and parking meters. These constraints were further complicated when outdoor dining was expanded.

The Short-Term solutions during the pandemic included:

- » Reclaimed parking spaces as outdoor dining; including reduced parking accompanied by water filled jersey barriers for pedestrian protection.
- » At Isabella's Taverna & Tapas Bar, a boardwalk was installed adjacent to the street, maintaining a clear pedestrian circulation zone at the curb/ parking and dining adjacent the building.
- » A similar solution to Isabella's was installed in front of Firestone's shifting sidewalk traffic to the parklet.
- » Expanded use of public and private space for outdoor dining.
- » Temporary street closures allowing expanded dining in the street, during the pandemic.

These solutions, as time has gone on, have sparked debate. Many stakeholders enjoy outdoor dining, support the replacement of some on-street parking with parklets, and support keeping or even expanding the festival-like atmosphere of street closures and have advocated for these to stay. Others have lobbied for fewer parking reductions/parklets and shorter street closure durations. Almost all have recognized the unattractiveness of the water-filled barriers and requested more aesthetic solutions.

**A parklet is a small seating area or green space created as a public amenity on or alongside a sidewalk, especially in a former roadside parking space.*



Downtown Frederick - Temporary Dining (adjacent to street)
Source: Design Collective



Downtown Frederick - Temporary Water Filled Barriers
Source: Design Collective



Downtown Frederick - Isabella's Outdoor Dining + Boardwalk
Source: Design Collective



Downtown Frederick - The Cellar Door, Outdoor Dining
Source: Design Collective

OUTDOOR DINING CONDITIONS DURING THE COVID-19 PANDEMIC

1.3 EXISTING CONDITIONS

Overview

The study area encompasses the streetscape zone from building face to building face on Market Street and Patrick Street, the two primary roads of Downtown Frederick.

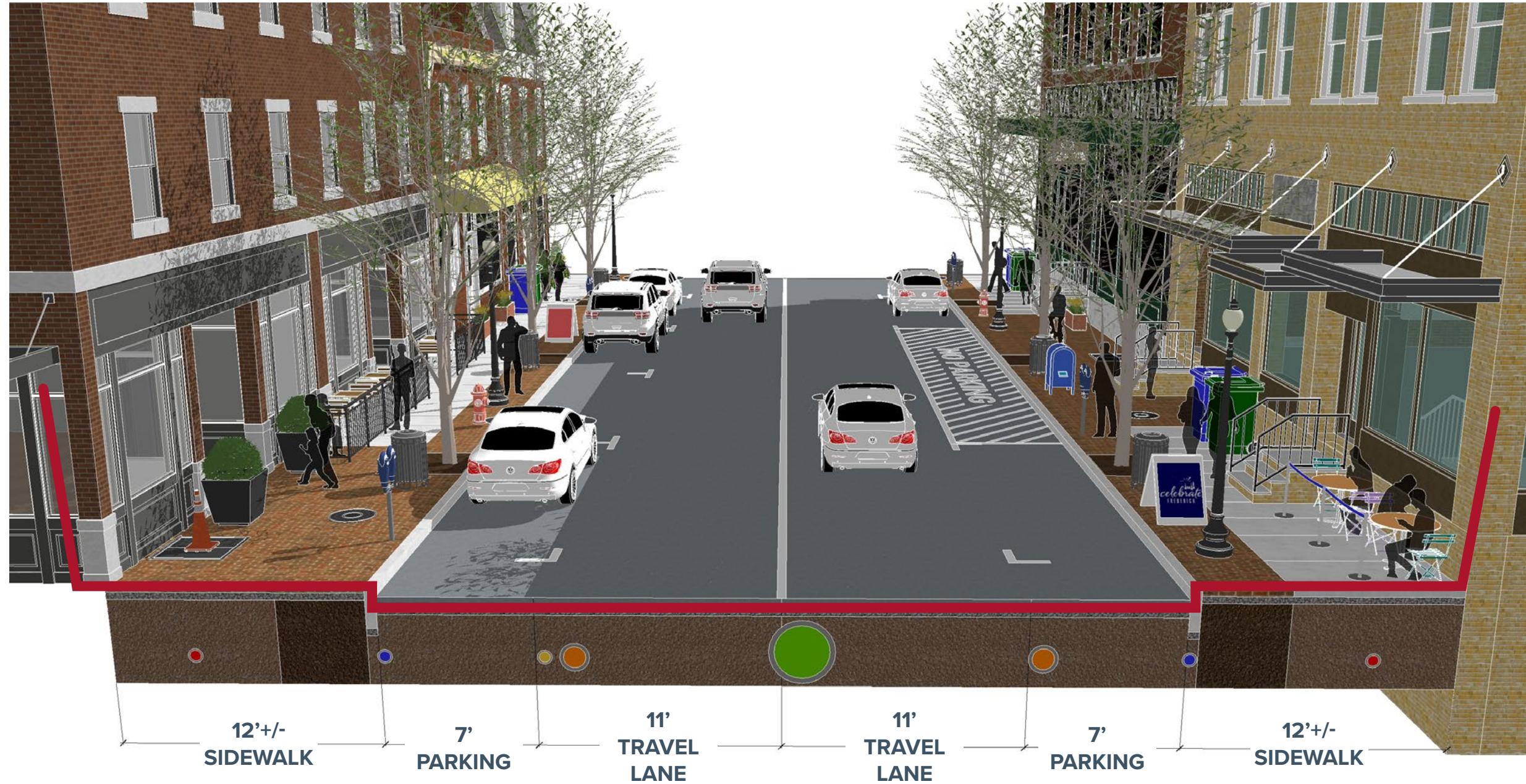
The Market Street boundary extends from South Street to 7th Street. The Patrick Street boundary runs from Bentz Street to East Street.

The Downtown Frederick Streetscape Study and this document do not include analysis or recommendations for the building facades but rather assumes that the recommendations would complement any existing land uses in the area. East Street, a key downtown corridor, is part of another study and was not included as part of this project.

Near the study area, Carroll Creek Park provides an incredible pedestrian-focused open space experience for residents and visitors of Downtown Frederick. The study aims to connect to this asset and help advance the overall pedestrian and bicycle network of Downtown Frederick.



STREETScape STUDY AREA MAP



Source: Design Collective, Inc.

**60' EXISTING STREET SECTION
(BUILDING FACE TO BUILDING FACE)**

STUDY AREA - EXISTING CONDITIONS

“Businesses and commercial entities have evolved, the physical streetscape has not.”

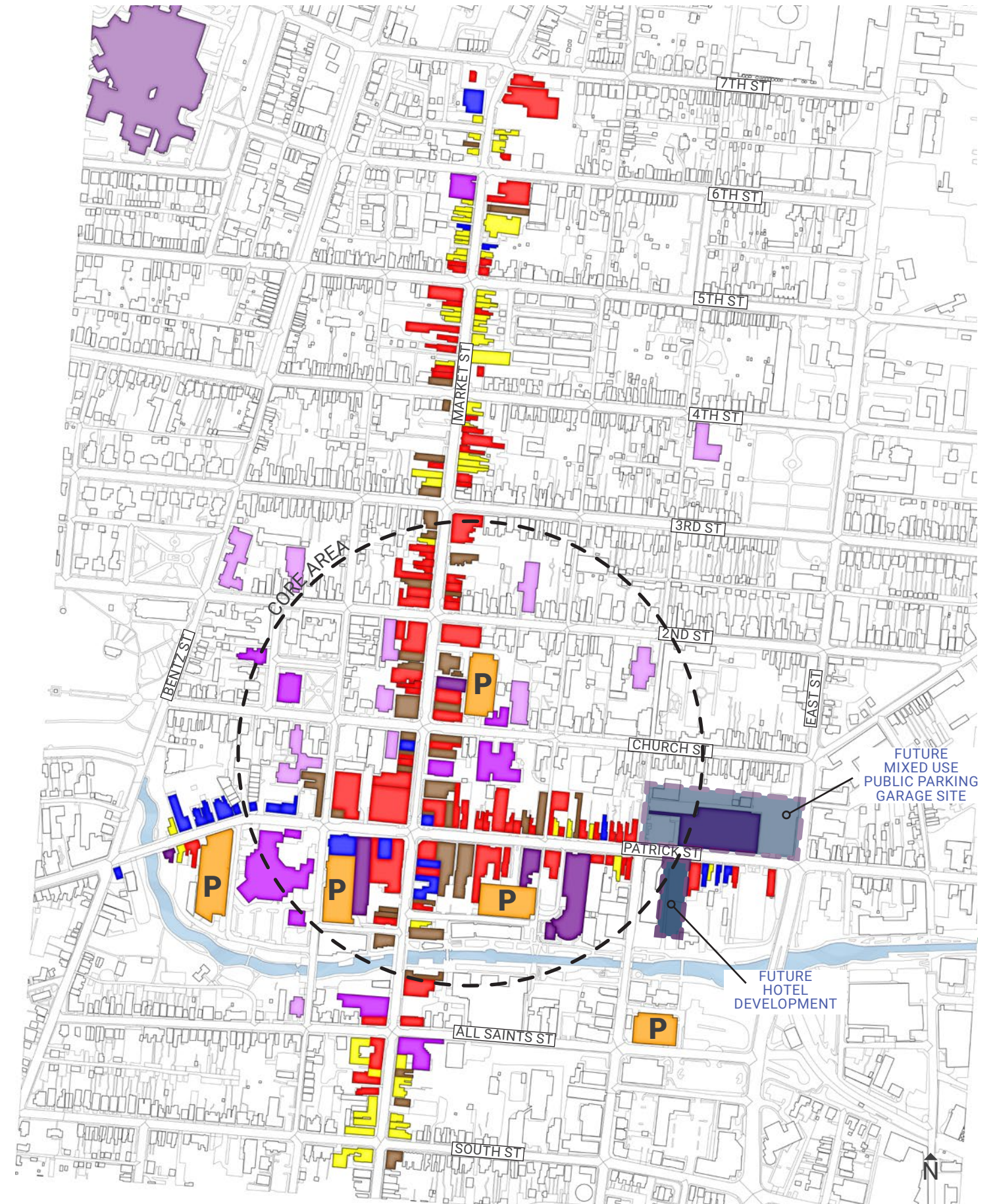
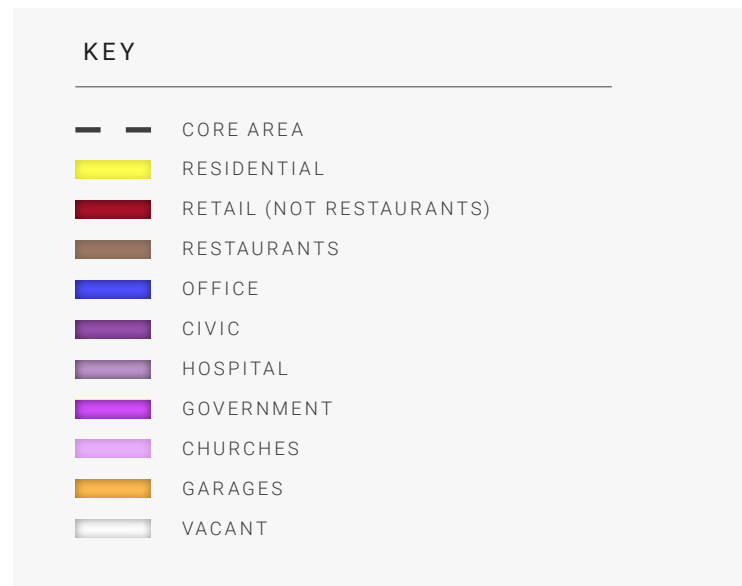
Resident of Downtown Frederick
Public Workshop Feedback

Existing Land Use

The land uses in Downtown Frederick along Market Street and Patrick Street include a mix of residential, retail, restaurants, office, civic, and other uses. These uses create clusters as seen on the following pages/diagrams. An analysis of this plan can be used to inform future streetscape improvements.

In general:

- » Residential uses are primarily clustered to the far north and south on Market Street
- » Retail and restaurant uses are clustered toward the center or "core" area - shown by the dashed circle in the diagram.
- » Governmental uses are clustered near the "Core Area"
- » Four out of five Downtown parking structures are located within or near the "Core Area"
- » Future development includes:
 - Hotel development along Carroll Creek and near the intersection of Patrick Street and Carroll St.
 - Future Post Office Block Mixed-Use development located at the intersection of Patrick Street and East St.



EXISTING LAND USE DIAGRAM



Downtown Frederick - Existing Land Uses
Source: Design Collective



Downtown Frederick - Existing Land Uses
Source: Design Collective



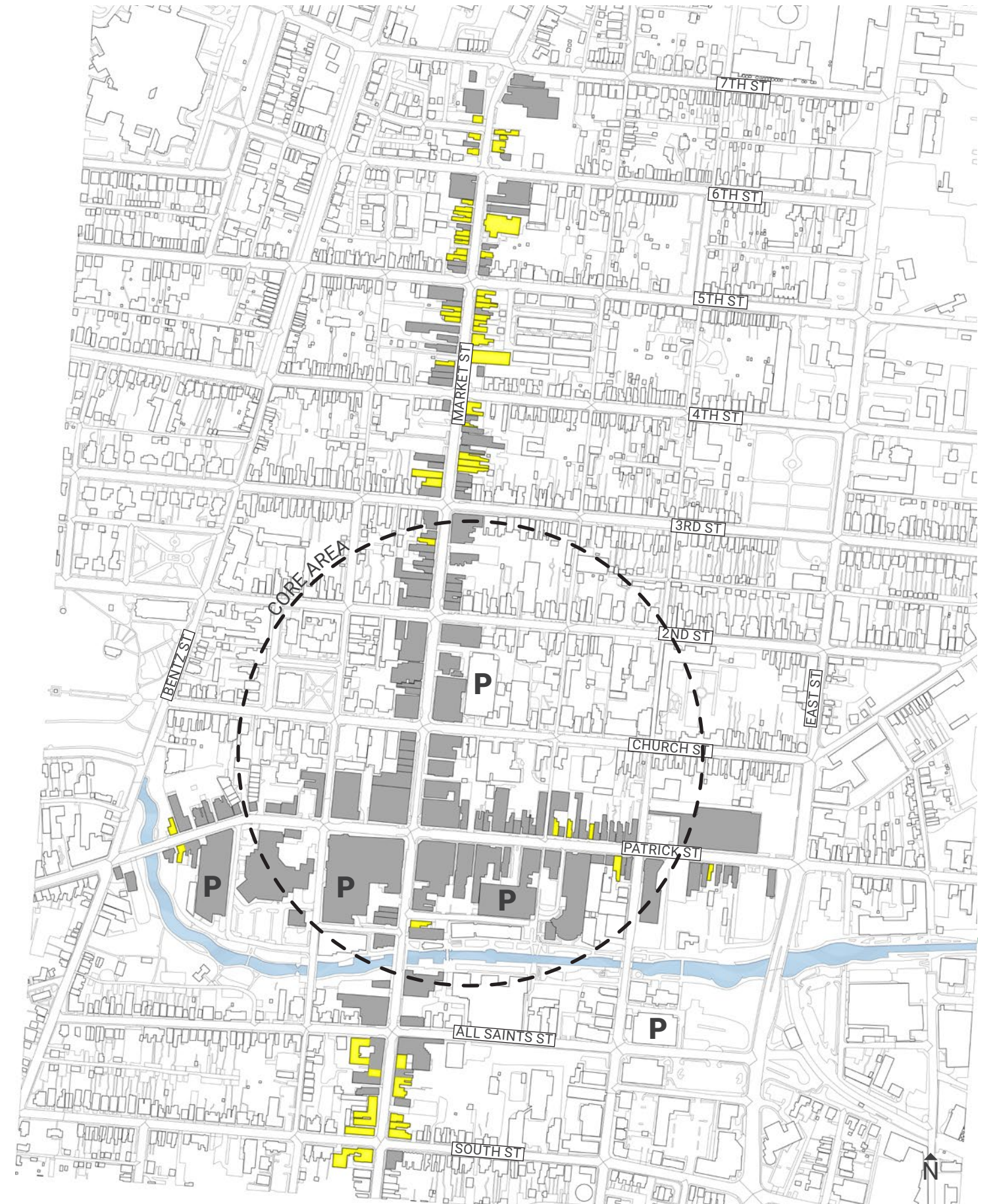
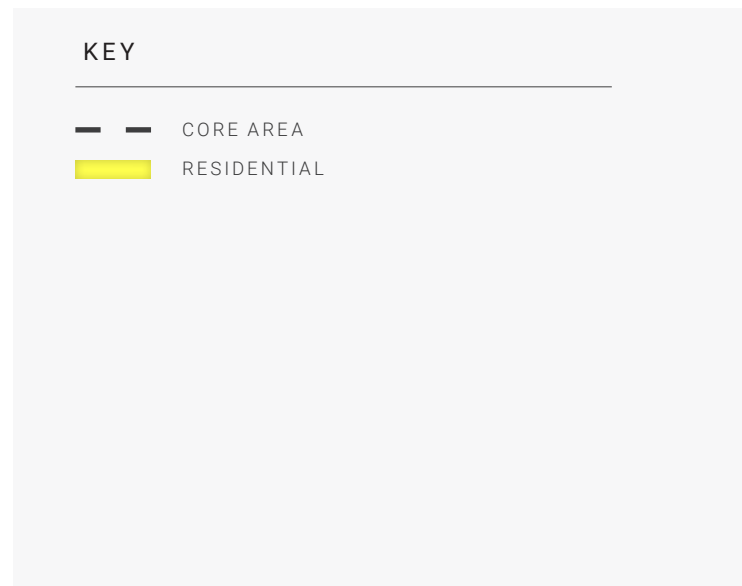
Downtown Frederick - Existing Land Uses
Source: Design Collective



Downtown Frederick - Existing Land Uses
Source: Design Collective

Residential Uses

Residential uses are primarily located to the far north and south on Market Street. Intermittent housing is also seen at the East and West ends of Patrick Street



RESIDENTIAL LAND USE DIAGRAM



Downtown Frederick - Existing Residential
Source: Design Collective



Downtown Frederick - Existing Residential
Source: Design Collective



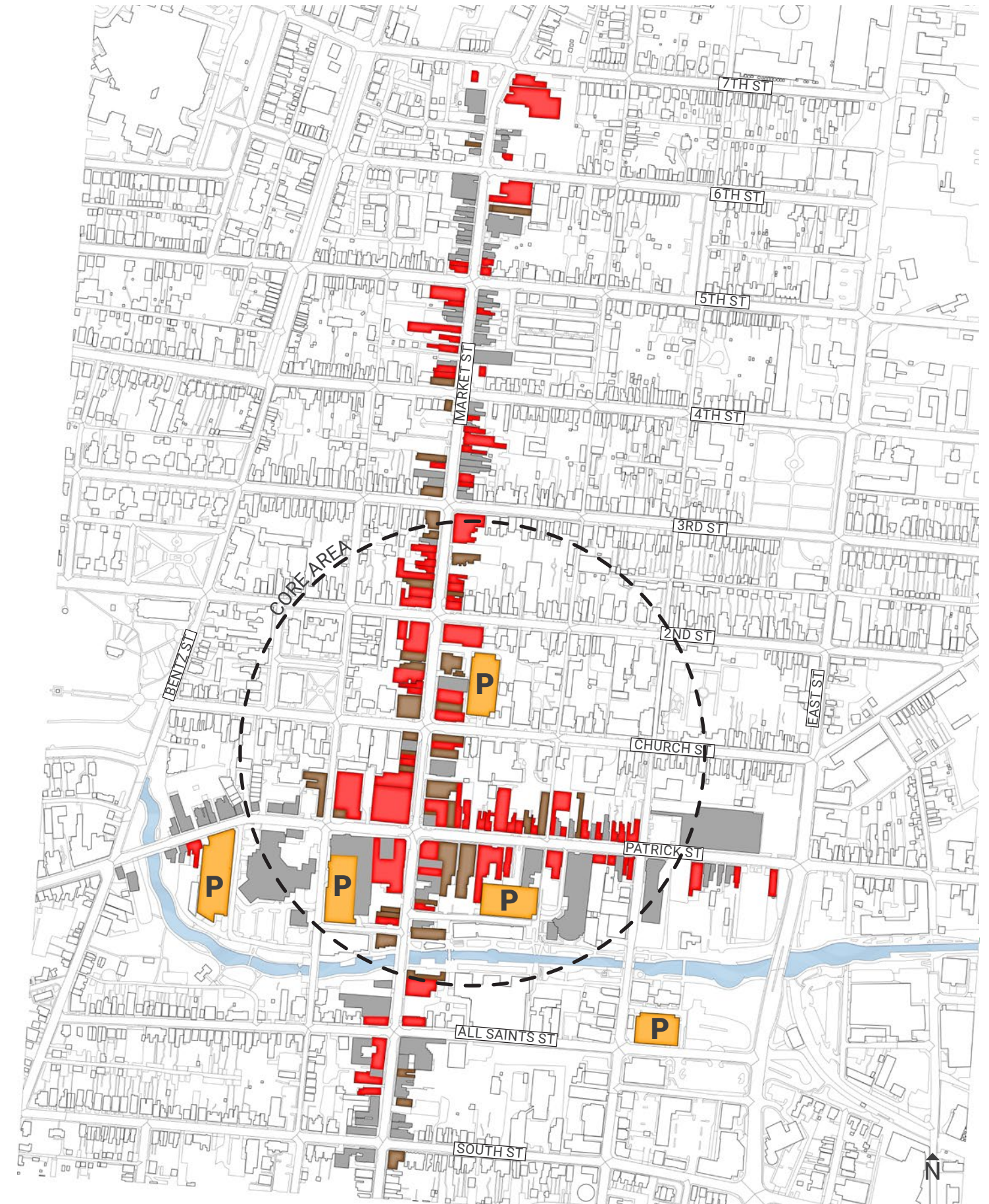
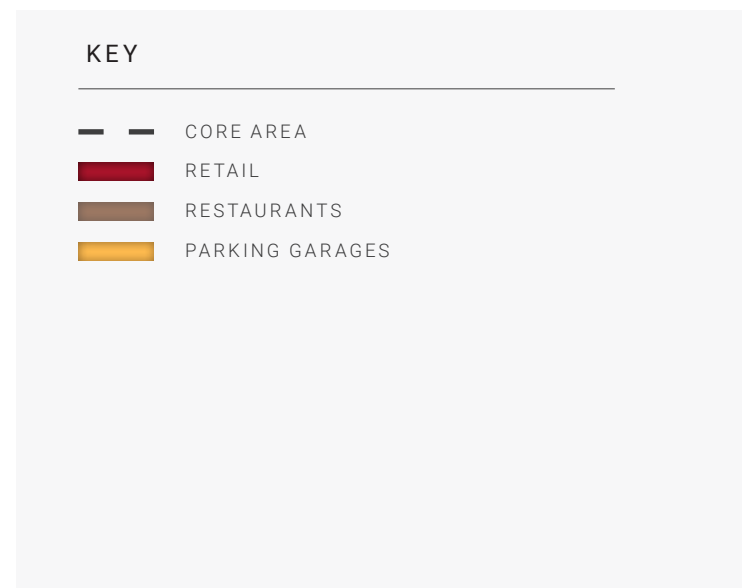
Downtown Frederick - Existing Residential
Source: Design Collective

Commercial Uses

Retail and restaurants are located throughout the study area. A higher concentration of retail and restaurant land use can be seen in the "Core Area," closest to the intersection of Patrick Street and Market Street.

Restaurants are mostly clustered in the Core Area, where there is an ample supply of garage parking within a few minute's walk. Street closures were typically located in the same Core Area.

Although retail and commercial uses (non-restaurants) are more densely associated within the Core Area, they are located throughout the study area.



COMMERCIAL LAND USE DIAGRAM



Downtown Frederick - Existing Retail/Restaurant
Source: Design Collective



Downtown Frederick - Existing Retail/Restaurant
Source: Design Collective



Downtown Frederick - Existing Retail/Restaurant
Source: Design Collective

EXISTING COMMERCIAL - DOWNTOWN FREDERICK

Parking

Existing parking structures are concentrated in the lower half of the study area, near Carroll Creek Park. A 2.5 minute (1/4 mile) walking radius can be seen centered on each parking structure.

It is important to note that the Church Street Public Parking Garage is scheduled for replacement (design is anticipated to begin in July 2022 - replacement is expected to be approximately 4 years from the time of this study). There is potential for this replacement garage to include additional parking (more than is currently provided).

The 2020 City of Frederick Downtown Parking and Circulation Study revealed 266 parking spaces available at peak time, not including the East All Saints Garage (see summary table below). When accounting for an industry standard of 10% reduction in capacity for inefficiencies and perception, the study suggests there is a peak surplus of 57 spaces in the study area at the time of study. During non-peak hours, the surplus is even greater.

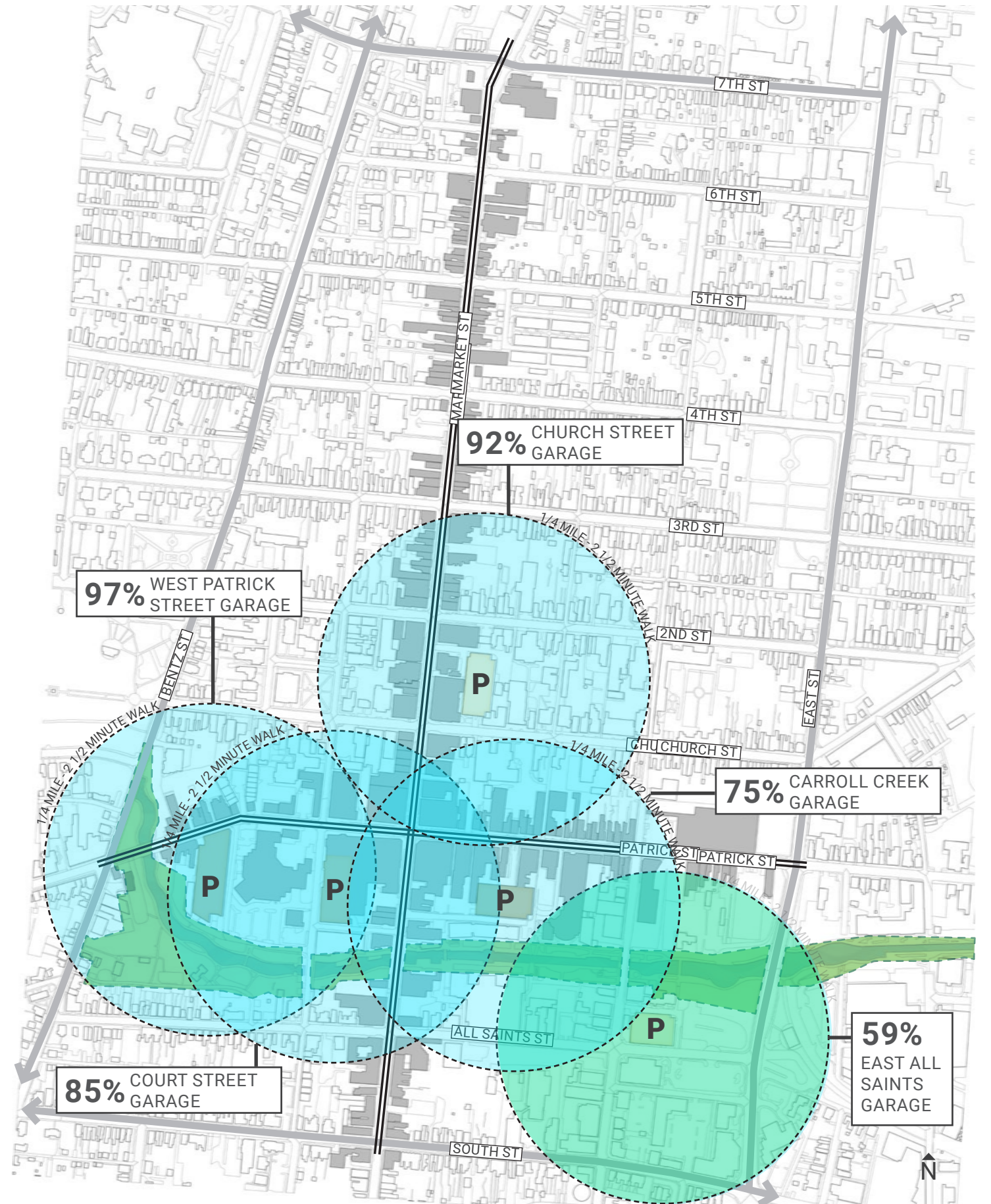
Additional parking is located in the East All Saints Garage, which has a surplus of 157 spaces (119 if accounting for 10% reduction).

In addition to the parking garages, there are currently 311 parallel parking spaces located along Market Street and Patrick Street

The parking study was done based on peak hours during work days only and did not account for use of parallel parking spaces. The consultant team recommends an additional parking study to be completed. For more details, see the recommendations section.

Facility	Location	Capacity	2019 Peak Utilization	Full Spaces	Available Spaces	10% R
A	Carroll Creek	545	75%	409	136	82
B	Church Street	393	92%	362	31	-8
C	Court Street	531	85%	451	80	27
D	East All Saints	383	59%	226	157	119
E	West Patrick Street	622	97%	603	19	-44

Source: City of Frederick Downtown Parking and Circulation Study



EXISTING PARKING USE DIAGRAM

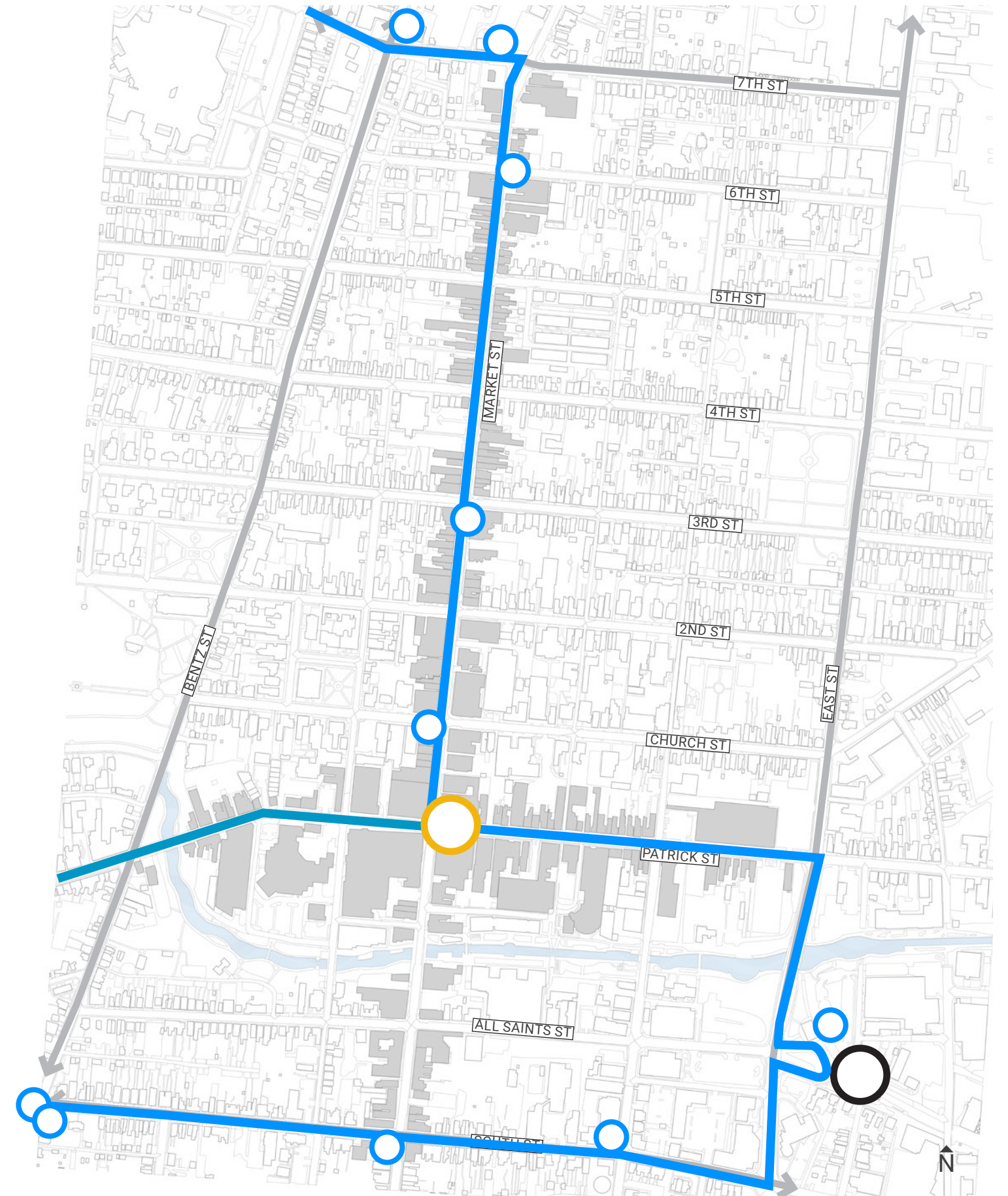
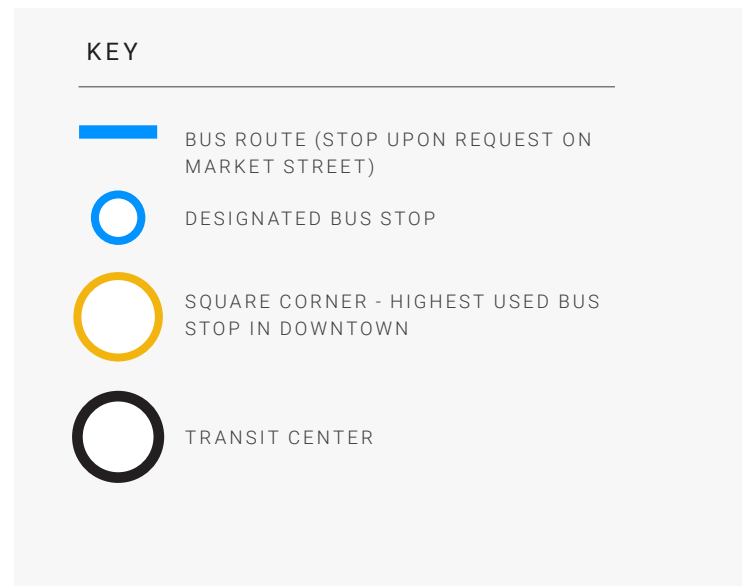
Transportation

Frederick County TransIT currently runs through Downtown Frederick, providing transit connections. The bus stops at each intersection within the study area, with "stop upon request" locations in between.

The most active transit stop is at Patrick and Market Streets, known locally as the Square Corner. Prior to the pandemic, there were more than 30 boardings per day at this location. The following recommendations should be considered for a new bus stop at this location:

» Transit requirements

- Accommodate buses (102" wide)
- Maintain two thru lanes at bus stops
- ADA appropriate
- Discharge at curb height

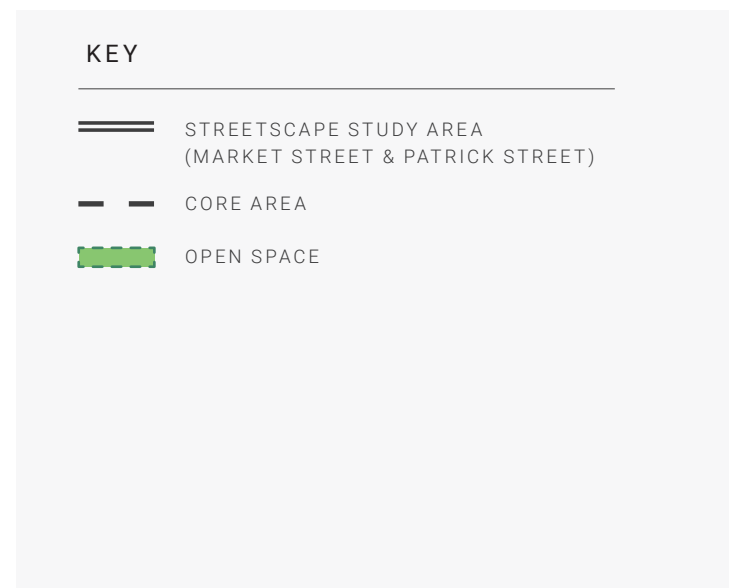


EXISTING TRANSPORTATION DIAGRAM

Existing Open Space

Downtown Frederick has an abundance of existing green spaces, including recent investments in Carroll Creek Park. The Streetscape Study aims to connect and complement this network of green spaces.

- » Carroll Creek Park is the largest downtown open space used to host events. The park is a part of the City's Shared Use Path System and is a critical east-west connection for pedestrians and cyclists connecting to Market Street and Patrick Street
- » Streetscape improvements should build off the success of Carroll Creek Park and capitalize on previous investments in the park
- » Connections to and from Carroll Creek Park should be celebrated; especially where the park intersects with Patrick Street
- » The streetscape itself should serve as a critical component in the open space of Downtown Frederick. The streetscape should also accommodate stormwater management, provide shade and a large tree canopy, as well as serving as a safe and enjoyable circulation route for pedestrians



EXISTING OPEN SPACE DIAGRAM



Laboring Sons Park - Credit: Visit Frederick



Bonita Mass Park - Credit: City of Frederick



Mullinix Park - Credit: Bill Green/Frederick News Post



East 3rd Street Park - Credit: Google/Clifford Cumber



Carroll Creek Park - Source: Design Collective

Existing Trees Diagram

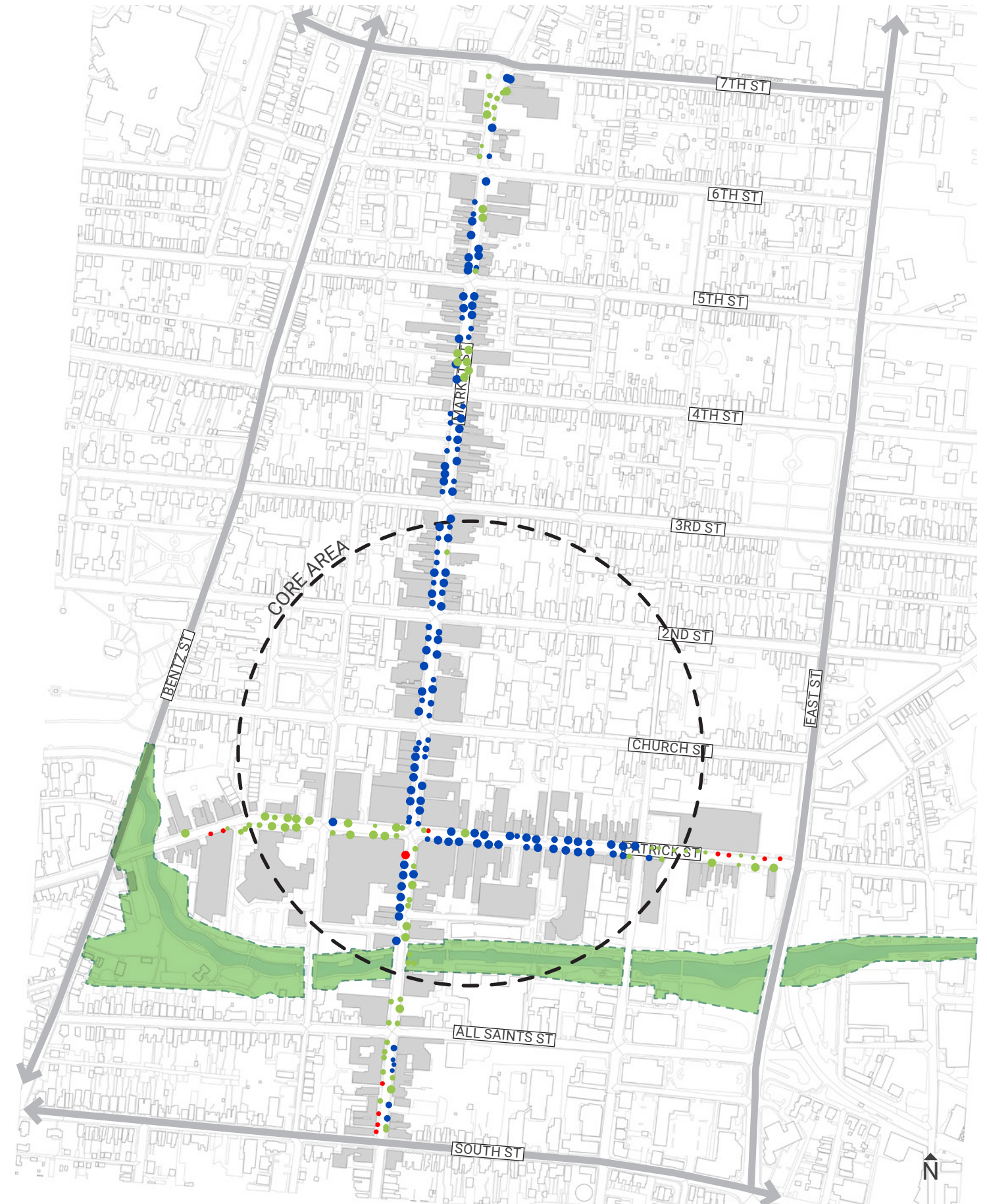
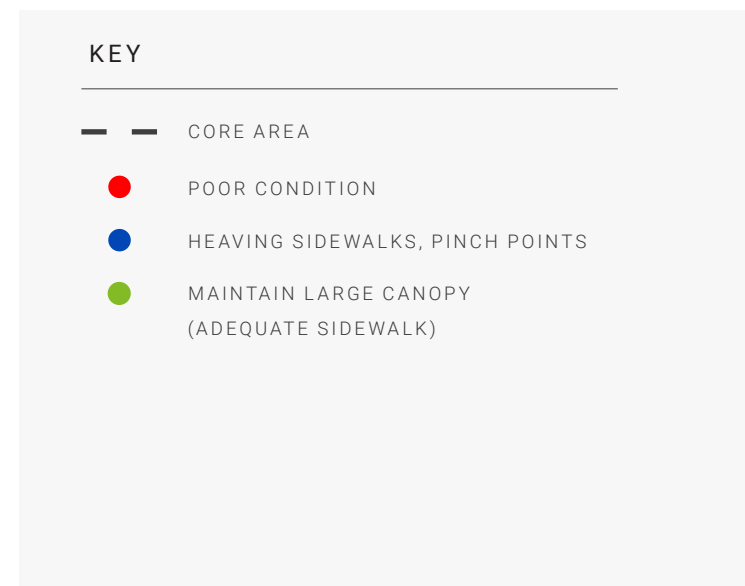
An important aspect of evaluating the streetscape of Patrick Street and Market Street was documenting and understanding the location and condition of existing trees.

- » According to industry standards for streetscape design, the minimum required space for any two people to walk side-by-side together, or for two people to pass each other is 5'-0" unobstructed.
- » Trees identified in red are in poor condition and need replacement.
- » Trees identified in blue are causing pinch points (less than five feet; in some cases only a few feet) in both residential and retail blocks. These pinch points are making it difficult for pedestrians to pass someone on the sidewalk or walk side-by-side with another pedestrian. The narrow sidewalk space is also limiting outdoor dining within the sidewalk zone.
- » Trees identified in green should be considered to remain and be integrated into future streetscape upgrades.
- » Many trees in the study area are exceeding the life span of a typical urban tree and may experience future decline.

The above analysis was done through a visual assessment by the design team and is not an arborist's evaluation of tree health. Trees identified in poor condition are identified due to significant visual distress or damage.

Care should be taken to study the best method for replacement of current trees, being respectful of Frederick's Tree City Designation and the desire to keep a tree canopy in place throughout the transition period. It is recognized that there will be concern for removal of trees, however the majority of stakeholders were in support of the proposed recommendations, realizing that the long term benefit of tree replacement will outweigh the cons.

For more details on tree replacement strategies, see Section 3.0 Envision for recommendations.



EXISTING TREES DIAGRAM



Source: Design Collective

EXISTING TREES IN THE DOWNTOWN FREDERICK STREETScape STUDY AREA



Downtown Frederick - First Saturday
Credit: Bill Adkins

listen

PUBLIC ENGAGEMENT SUMMARY

2.1 OVERVIEW

2.2 STAKEHOLDER INTERVIEWS SUMMARY

2.3 VIRTUAL WORKSHOP 1 SUMMARY

2.4 ONLINE SURVEY INPUT SUMMARY

2.5 VIRTUAL WORKSHOP 2 SUMMARY

2.1 OVERVIEW

Stakeholder input and feedback are critical to creating a community-supported vision for the Downtown Frederick streetscape. Participation ensures that the vision addresses community, business, resident and stakeholder concerns and ideas, fosters an inclusive and transparent planning process, identifies supportable (and non-supportable) opportunities and priority items, and builds momentum to move the vision towards adoption and implementation. One of the many goals was to develop a concept framework that could be applied to the streetscape study area addressing concerns brought forward through this effort. This framework would identify viable opportunities for future improvements and identify additional areas of study needed to move design forward.

In March 2021, the consultant team led by Design Collective, Inc. was engaged by The City of Frederick and Downtown Frederick Partnership to begin public engagement and design concepts for a Downtown Frederick Streetscape Study.

The public process was structured to include three types of public engagement:

- » Ten stakeholder interviews (each interview included a group of key stakeholders);
- » Two public workshops open to the public (held virtually due to the COVID-19 pandemic), and
- » An online survey that included over 1900 responses



Screenshot from one of the Stakeholder Interviews

2.2 STAKEHOLDER INTERVIEWS SUMMARY

Overview

Stakeholder input and feedback are critical to creating a community-supported vision for the Downtown Frederick streetscape. Over a two week duration, Design Collective and RK&K engaged in 10 separate interview sessions with a diverse range of participants. These sessions allowed the consultant team to understand the needs and desires of businesses, residents, property owners, youth, education, art and civic organizations, and government services, including City Department of Public Works and Fire and Emergency Services.

Each stakeholder group had a varying and specific interest in the downtown study area's success and viability, ranging from business viability to parking access and convenience to safety and operations (given limited access to buildings) and general character. The following represent key observations taken from each stakeholder engagement session.

Key Observations from Frederick City/County Residents:

- » Create designs that are in keeping with the historic charm of downtown;
- » Address any proposed reduction in parking;
- » Change focus of streetscape from vehicular focus to pedestrian focus;
- » Concern regarding noise from vehicles;
- » Biking improvements are important - Alleys are defacto bike lanes; and
- » Open to street closures and parking reduction

Key Observations from Government Group 1 + 2:

- » Maintain adequate emergency access for emergency vehicles - limited to the front of buildings only - maintain 12' clear path during street closures. Consider intersection control updates to improve emergency access/flow downtown;
- » Sewer is aging 120+/- years old - will need replacement with streetscape upgrades
- » Flooding in area is a concern. The Army Corp. is conducting a study (results pending). Storm drain infrastructure upgrades, reduction in impervious surface, and green infrastructure options will need to be studied to address flooding;
- » Water lines on Patrick Street are new; water lines on Market Street were installed in the 1930s and will need replacement;
- » Maintain loading access and delivery pickup - limited to front of buildings only and critical to business viability of operations;
- » Maintain sanitation (trash and recycling) access, limited to front of buildings only. Trash is collected six days a week (Monday - Saturday), recycling is collected three days a week (Monday, Wednesday, and Friday). Sanitation operates from 2 am - 7 am to avoid conflicts with parked cars and traffic. Trash and recycling totes brought to curb-side for pickup;
- » Replace underground utilities at the same time as above ground improvements to avoid ripping up new work in future;
- » Snow removal needs to be considered. If 10" or more of snow, snow is hauled away;
- » Street sweeping occurs five days a week;
- » Most trees in the study area are old and have overgrown their tree pits - Historic Preservation Commission approval is required to remove any tree over 10" in diameter - City must follow MD Roadside Tree Guidelines;
- » Future improvements should consider electrical to accommodate tree lighting;
- » Cellar access doors - many need repair;
- » Balance pedestrians + bicycles + vehicles (traffic);
- » Events at Carroll Creek Park spill into downtown, and sidewalks are not wide enough;
- » Reduction in parking needs to be accommodated elsewhere;
- » Visually impaired have issues with inconsistent sidewalk materials and accessible sidewalk widths;
- » A comprehensive bike plan is in the works; accommodating bikes on both streets is an important to idea of Complete Streets;
- » Cigarette butt receptacles keep trash off streets;
- » Interest in EV charging stations, not sufficient infrastructure to support on street; and
- » Increase amount of walkable space for pedestrians.



- FREDERICK CITY/COUNTY RESIDENTS
- GOVERNMENT STAFF GROUP 1
- GOVERNMENT STAFF GROUP 2
- RESTAURATEURS/FOOD/CRAFT BEVERAGE BUSINESSES
- RETAIL/PERSONAL SERVICE BUSINESSES
- PROFESSIONAL BUSINESSES/PROPERTY OWNERS
- YOUTH/EDUCATION/CIVIC
- CIVIC/COMMUNITY ORGANIZATIONS
- EXTRA FOCUS GROUP (CATCH ALL)
- YOUTH ADVISORY COUNCIL (YAC) MEMBER

Key Observations from Restaurateurs/Food/Craft Beverage Businesses:

- » Have benefited from parklets. Would like to see permanent outdoor dining. Preference for dining at storefront: gets customers closer to building, less heating is needed, building is a windbreak, lighting is better, easier with Liquor Board, less distance for staff to navigate;
- » Would like ability to expand outdoor dining;
- » Better signage would get vehicles off the street and into garages;
- » Trolley service is helpful;
- » This group has accepted limitations with being downtown in a historic area;
- » Events are a big boost for business (First Saturday's, Arts + Beer Festival, Scavenger Hunts, etc.);
- » Need to balance outdoor dining with curbside pickup;
- » Events result in not enough parking options;
- » Biggest obstacle is people afraid of change; and
- » Mixed reaction to street closures - some in favor, some against

Key Observations from Retail/Personal Services Businesses:

- » Short term parking/pick up zones beneficial for some shops (furniture store, etc.);
- » Mixed feelings regarding street closures and Parklets. Some retailers believe impact of these elements have a negative impact on their businesses, others appreciated parklet dining as a tool to support restaurants during covid but seek to reclaim parking;
- » Some retailers placed strong importance on street parking and conveyed that close convenient parking is important for their business, especially during a typical business weekday. Weekends make it more difficult to access close parking. The internet allows patrons to shop online if parking is inconvenient. Easy access to parking is desired. Concern regarding loss of parking;
- » Condition of sidewalks a concern; and
- » 6' spacing (social distancing) and limitations to capacity allowed in stores resulted in patrons standing and waiting outside. As a result, it became more apparent that the many obstacles on the sidewalks were a challenge for businesses including tree placement

Key Observations from Professional Businesses/Property Owners:

- » Traffic flow and accessibility important to tenant;
- » Treescape and tree canopy importance to downtown character;
- » Many unique stores and restaurants;
- » Easy to drive to work during week, traffic is a hassle on weekends;
- » Tables and chairs cut down on pedestrian accessibility during weekends and periods of high pedestrian volumes;
- » Access to city government is a benefit for some businesses;
- » Pedestrian experience is the reason people come downtown; and
- » The pandemic magnifies need for curbside parking

Key Observations from Youth/Education/Civic:

- » History and unique businesses are Downtown Frederick's biggest asset.;
- » Tree grates are damaging the trees and not allowing accessibility for wheelchairs and strollers;
- » Street lights, flowers, tree lighting give charm to Downtown Frederick;
- » A-frame (sandwich board) signage creates additional pedestrian conflicts;
- » Wayfinding study wasn't fully implemented. Some signage wasn't installed; and
- » Trees are critical, concerned about longevity of trees

Key Observations from Civic/Community Organizations:

- » Integrate art into early design process. Look for opportunities to engage performing arts;
- » Ensure equitable access to all in the community;
- » Having people downtown benefits church growth;
- » Would like to see more lively retail/growth on North Market Street without changing character/gentrification;
- » Seasonal lighting unifies downtown;
- » Parklets are a benefit, but barriers unattractive;
- » Do not create "annoying uniformity" of a typical streetscape project;
- » Don't trap us into one time period; and
- » Times of high pedestrian traffic on weekends gets uncomfortable

Key Observations from the Extra Focus Group:

- » Provide more aesthetic solutions to the water filled barriers;
- » Find ways to tie in pedestrian focused Carroll Creek Park;
- » Outdoor dining has been a positive improvement to downtown;
- » Parking is always an issue due to amount of visitors to Downtown Frederick;
- » Nowhere to sit, rest and enjoy Downtown Frederick;
- » Clear pedestrian sidewalks an issue, sometimes as narrow as 1.5' between tree and stoop or other obstacle; and
- » Spread energy out and draw more pedestrians/activity to North Market Street

2.3 VIRTUAL WORKSHOP 1 SUMMARY

Overview

In early May 2021, the consultant team, Downtown Frederick Partnership and The City of Frederick hosted Virtual Workshop 1 to create a vision for the future of the Downtown Frederick streetscape with stakeholder input and guidance. This workshop provided the first opportunity for all stakeholders (residents, businesses, organizations, and others) to engage and provide feedback on the study.

Breakout Rooms were utilized to give participants the opportunity to ask questions, give input, and listen to other stakeholders. Each breakout room was facilitated by a member of the project team. The Breakout Rooms complemented the online survey, by providing opportunity for qualitative dialogue, discussion among participants, and evaluation of precedent images.

This workshop was designed to be open ended and allow stakeholders to engage and provide valuable feedback to the design team. Participants were asked a range of questions focused on current attitudes and perceptions, character, strengths and assets, challenges and concerns, preferred streetscape uses and priorities for the study area. Given the diverse backgrounds of participants from each breakout room, each group covered a variety of issues. 65 community members participated in Virtual Workshop 1.

Key Observations:

- » Market Street is dangerous to cross.
- » Downtown has more of an emphasis on cars. Could do more for pedestrians.
- » Concern potential traffic and/or parking changes push traffic and parking into residential areas. Don't want to move the issue one block over.
- » Pay more attention to sidewalks and ADA concerns.
- » Different surfaces in sidewalk are an issue.
- » Poor condition of sidewalks is a concern, hardscape repair ordinance is not enforced.
- » Not enough bike infrastructure.
- » Parking capacity in area is a concern. Concern for parking capacity when Church St. Garage is closed for future rebuild and expansion.
- » Address drainage in an environmentally sustainable way.
- » Improve wayfinding to garage parking.
- » Install upgraded infrastructure such as fiber optic cable.
- » Painted bicycle lane is not effective.
- » Post Office site should be a gateway to downtown.
- » Increase space given to pedestrians.
- » Parklets are difficult to navigate - Curb presents issue, pedestrian traffic conflicts with service to parklet.
- » Noise ordinance is not enforced downtown.
- » Elderly have difficulty navigating the sidewalks downtown.
- » Tree pits lack proper soil volume.
- » Parklet solutions are great, but look temporary.
- » Mixed feelings about bike lanes. Some concerned bike lanes create additional competition on Market and Patrick Street
- » Many concerned about tree roots impact on adjacent paving/material selection and the continual maintenance needed for brick sidewalks.
- » Consider bumping out trees to move the tree pits into the parking lane to increase sidewalk area.
- » Positive response to existing art and Carroll Creek Park.
- » Two opposing views to street closures and parking reduction - One camp interested in prioritized parking and cars, the other interested in prioritizing pedestrians and favors street closures.
- » Most participants in favor of streetscape improvements that prioritize the pedestrian.
- » Two opposing views to outdoor dining - Most participants in favor of outdoor dining and the ability to enjoy Downtown Frederick. Smaller minority of participants concerned that outdoor dining unfairly favors the restaurant.
- » Narrow and busy sidewalks create spatial challenges for the deaf community to sign.



2.4 ONLINE SURVEY INPUT SUMMARY

Overview

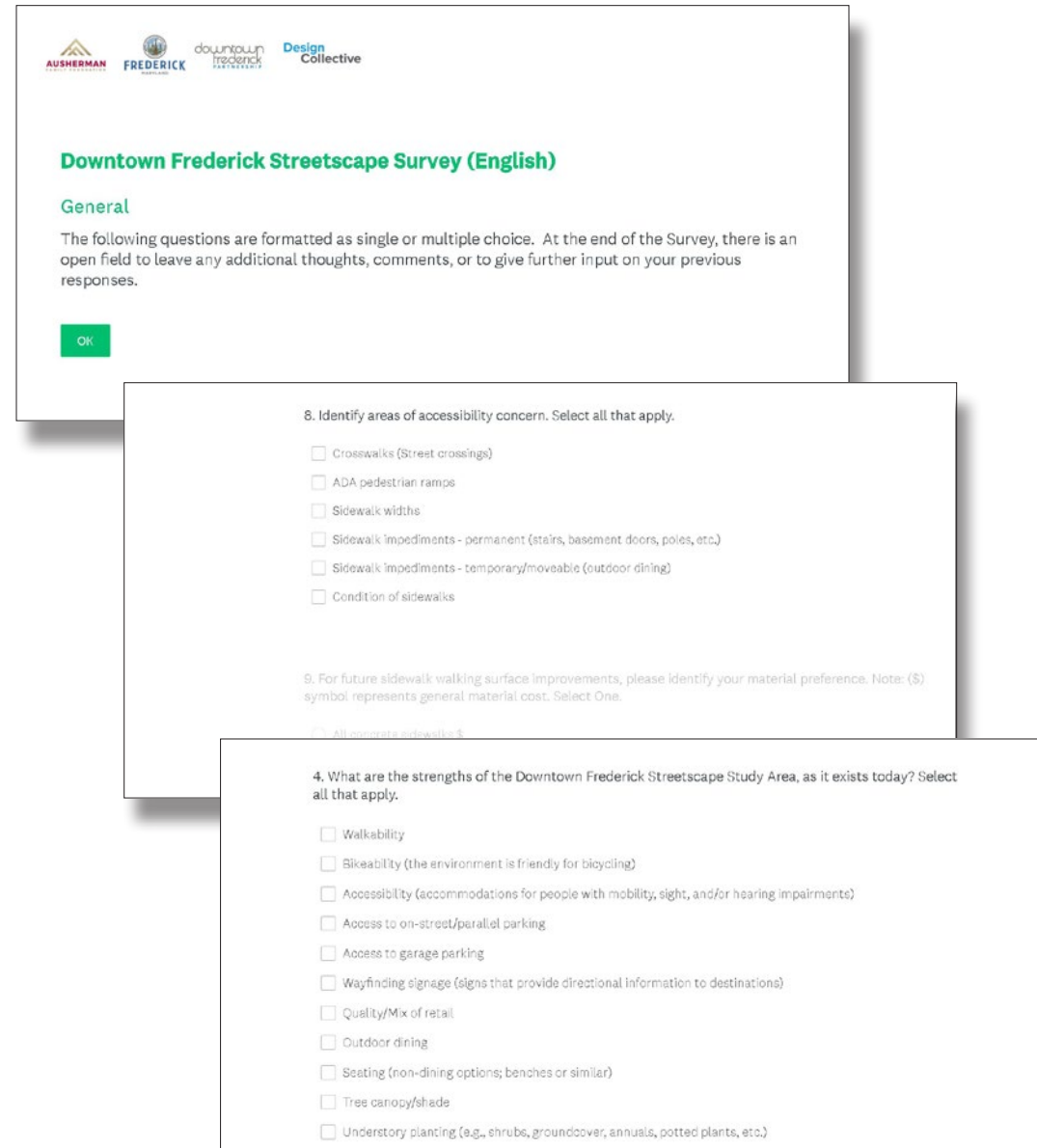
As part of a larger outreach strategy, a survey was made accessible to the public using the online platform Survey Monkey. A 20 question survey was crafted to understand why users are frequenting the area, how often they are visiting, identify perceived strengths and weaknesses and capture desired future improvements. In addition, a series of questions were presented to gauge general public sentiment toward a number of items including the potential for lane closures, reduced on-street parking, the addition of dedicated bike facilities and support for or against parklets and street closures. Surveys were provided online in both English and Spanish and printed copies were made available at City Hall. In addition, the Centro Hispano assisted with survey distribution to the Spanish speaking community.

The following pages summarize the feedback received as a result of the Survey

It is important to note that the survey captures general sentiment toward the existing conditions and functionality without the benefit and full discussion of critical operations needed for a viable and well functioning streetscape. Therefore, although the survey results may be in favor of one improvement over another, these desires need to be weighed against safety (fire and rescue), operations (trash and recycling) and other needs. Survey results, therefore must be combined with stakeholder engagement and qualitative public engagement to establish a full understanding of viable downtown streetscape improvements.

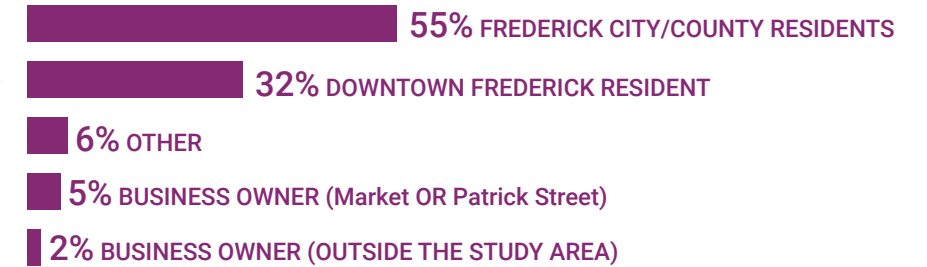
Of the 1,932 Survey respondents, 87% or 1,682 participants identified as a resident of Downtown Frederick (within the downtown limits bounded by Bentz St. to the west, 7th St. to the north, East St. to the east and South St. to the South) or Resident of Frederick County, 4% or 80 participants identified as

a business owner on Market St. and Patrick St. and 6% or 121 participants identified as None of the above.



1,932

1,932 SURVEY RESPONDENTS



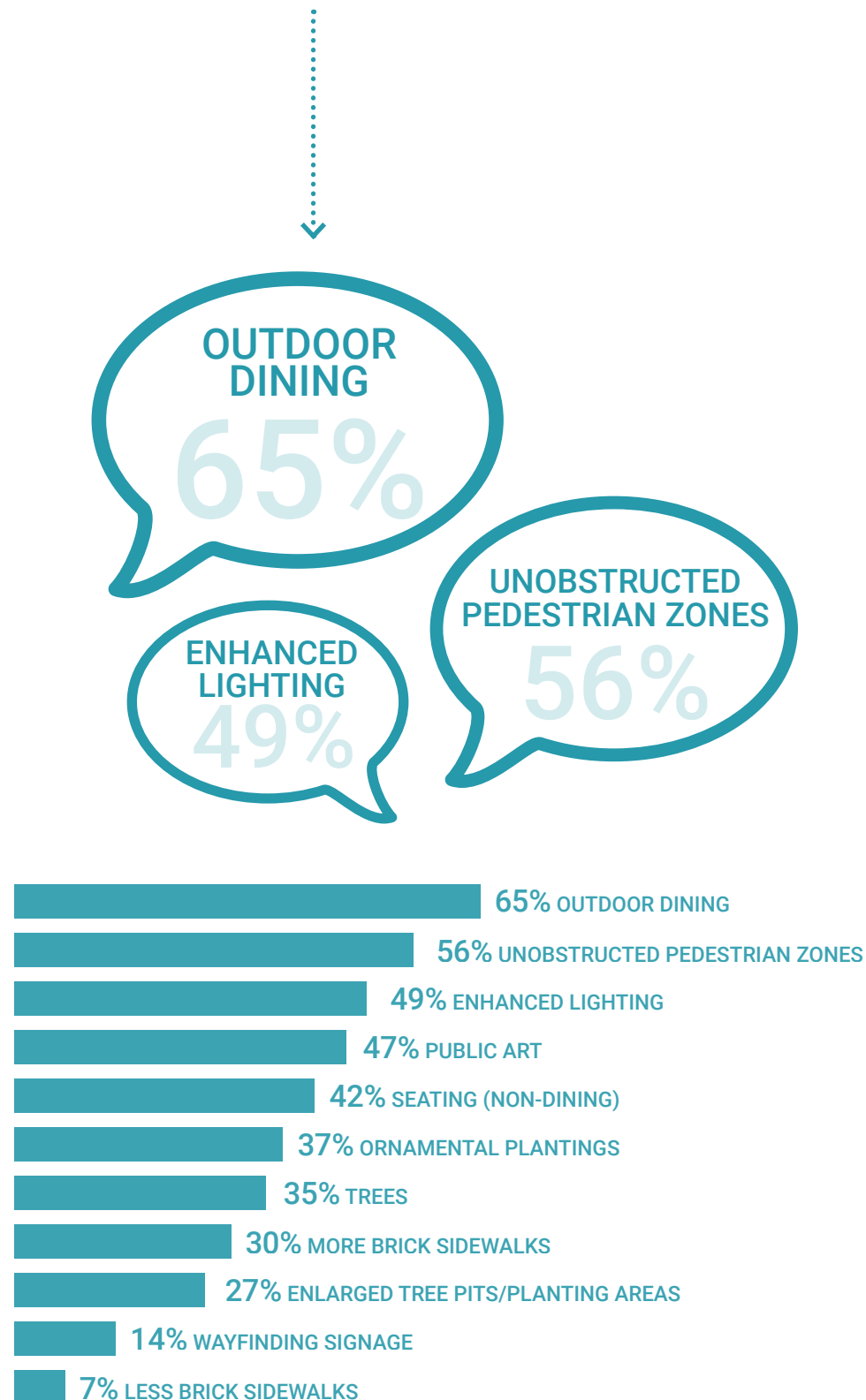
HOW MANY TIMES A WEEK DO YOU FREQUENT MARKET STREET AND/OR PATRICK STREET?



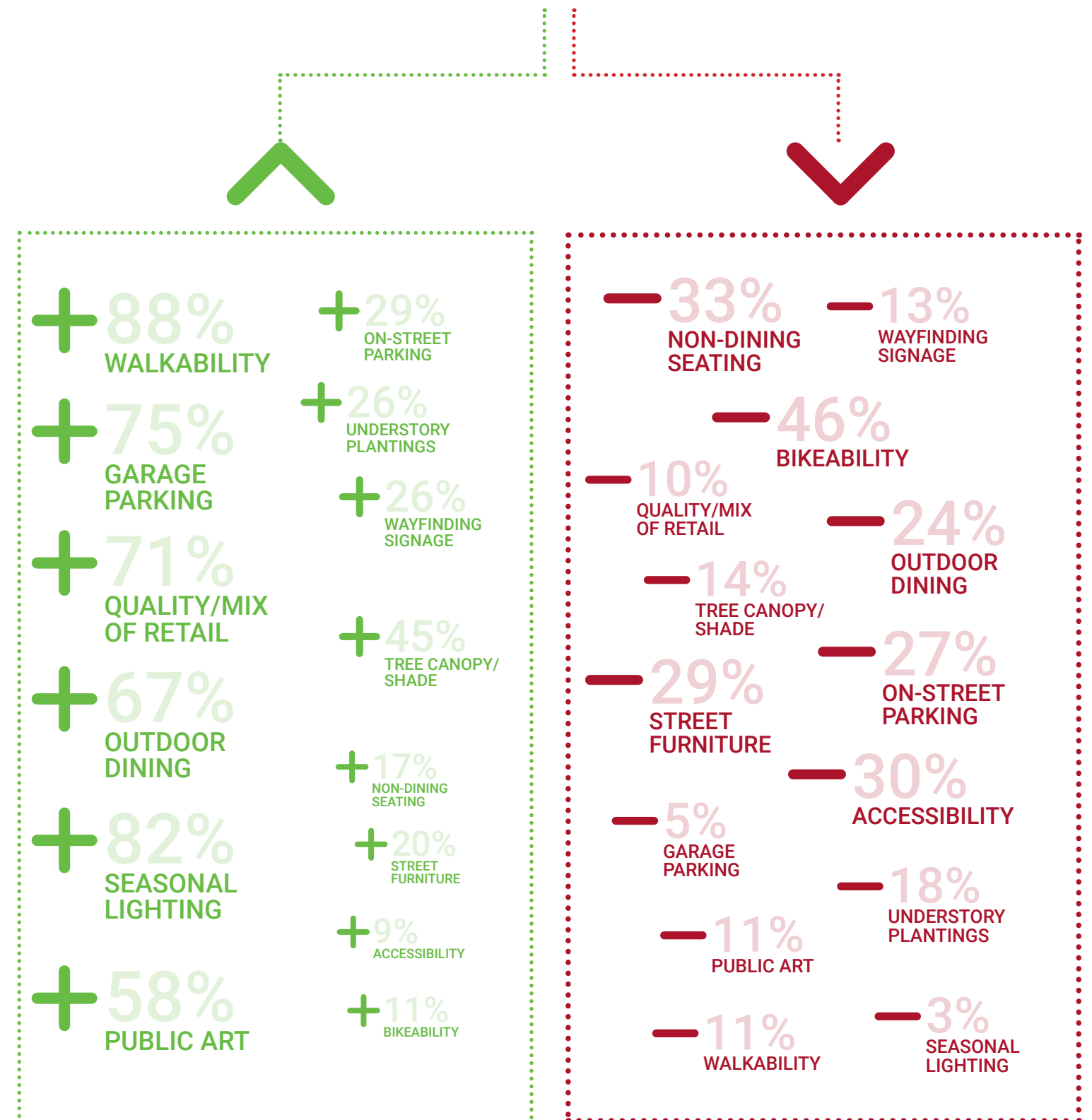
WHY DO YOU FREQUENT MARKET STREET AND/OR PATRICK STREET?



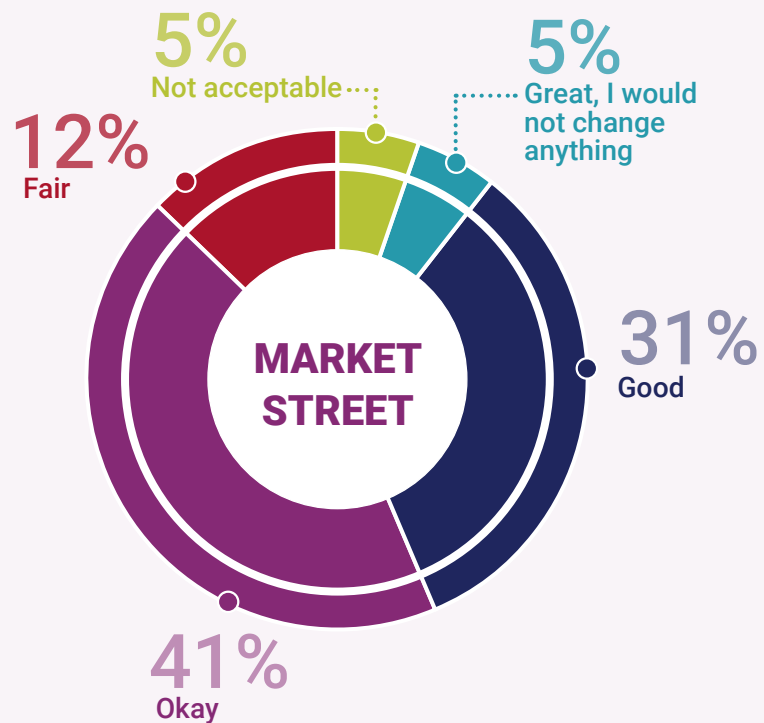
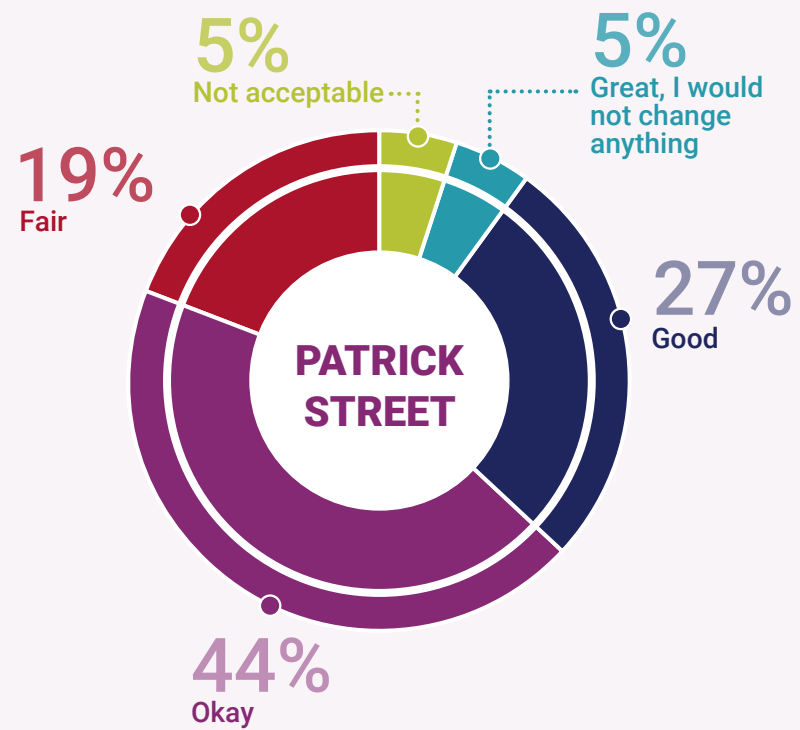
WHAT WOULD YOU LIKE TO SEE (MORE OF) IN THE DOWNTOWN FREDERICK STREETScape STUDY AREA?



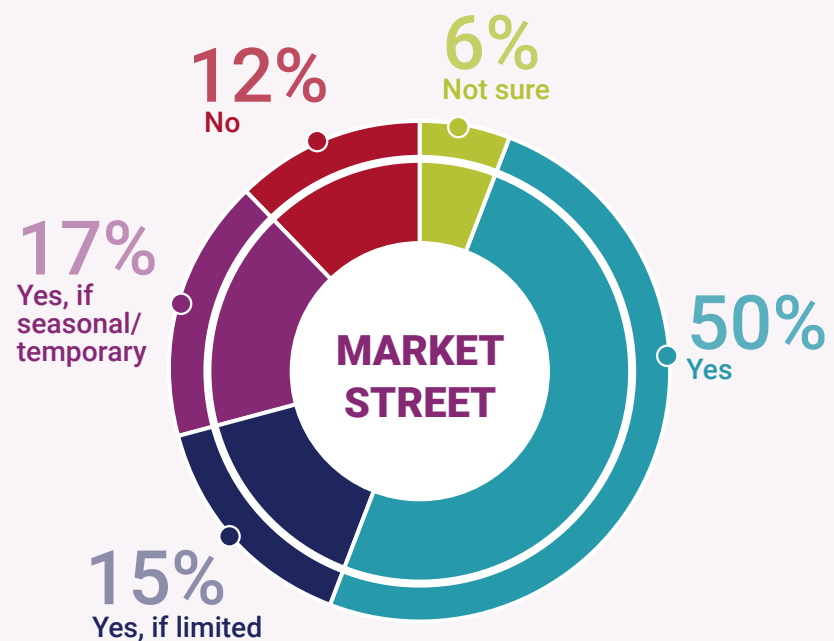
WHAT ARE THE **STRENGTHS** AND **WEAKNESSES** OF THE DOWNTOWN FREDERICK STREETScape AS IT EXISTS TODAY?



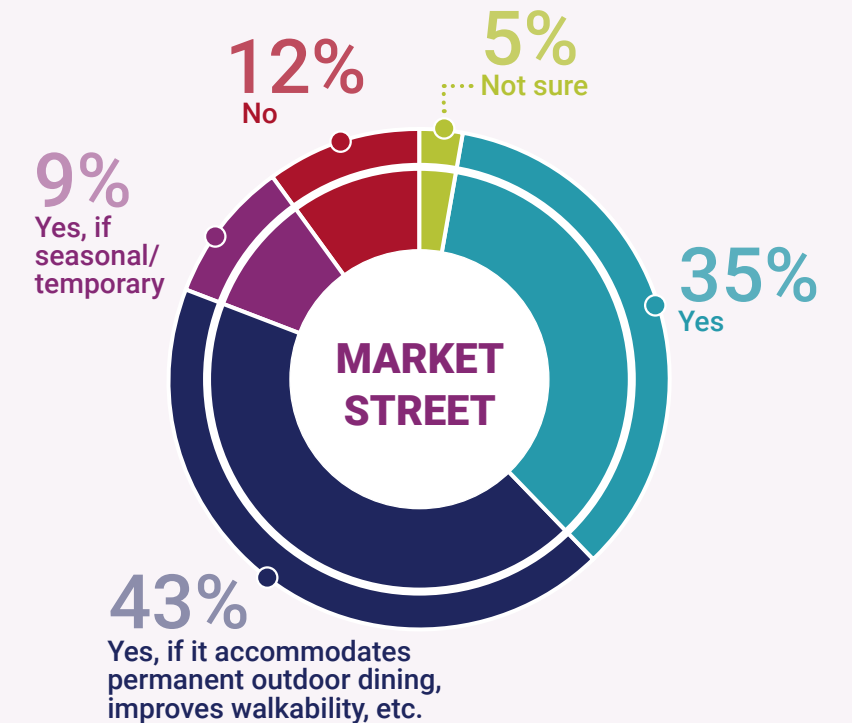
Please rate the **QUALITY OF THE CURRENT SIDEWALK** (brick and concrete walking surfaces) materials along...



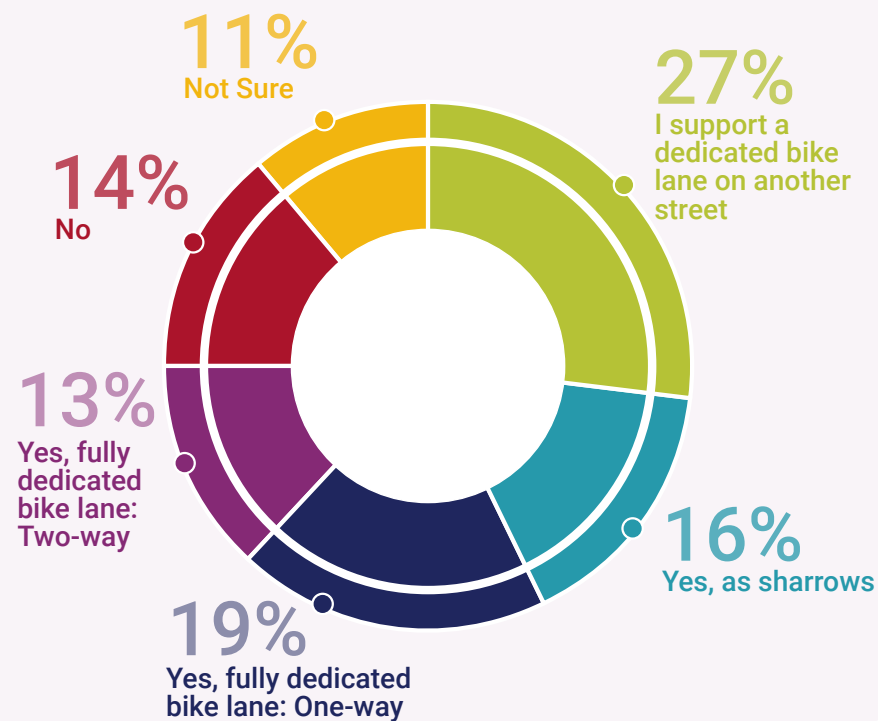
In order to accommodate additional uses/amenities along the streetscape, Do you support **LANE REDUCTIONS** along...



In order to accommodate additional uses/amenities along the streetscape, do you support **REDUCED ON-STREET PARKING** along...

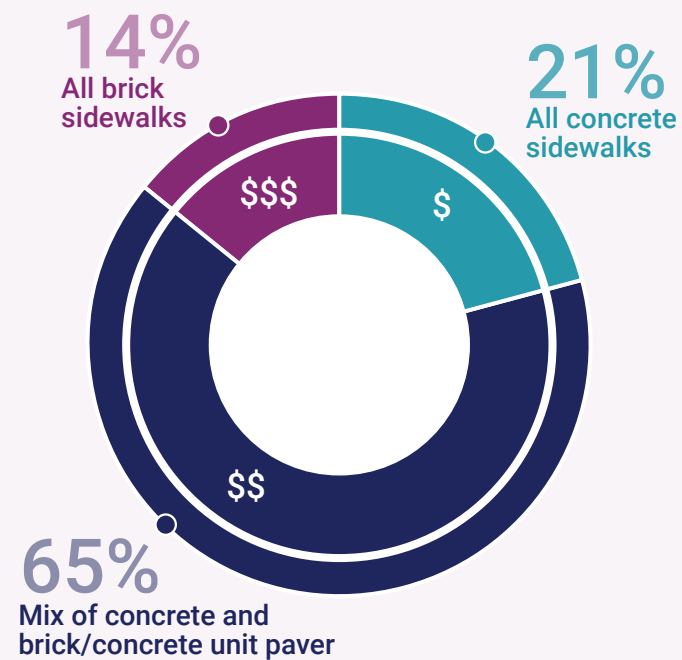


Do you support a **DEDICATED BIKE FACILITY** along Market Street?

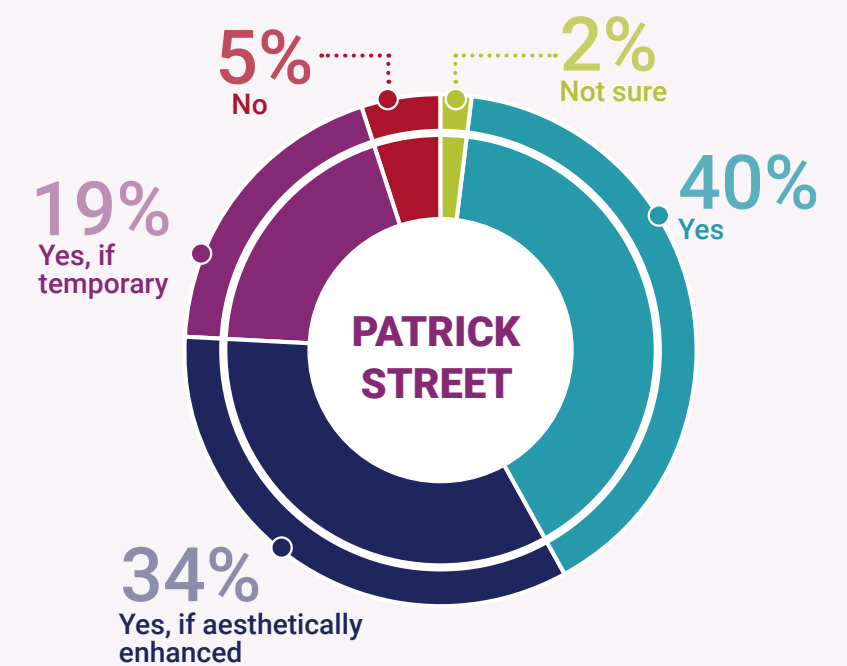


For future sidewalk surface improvements, please identify your **MATERIAL PREFERENCE**.

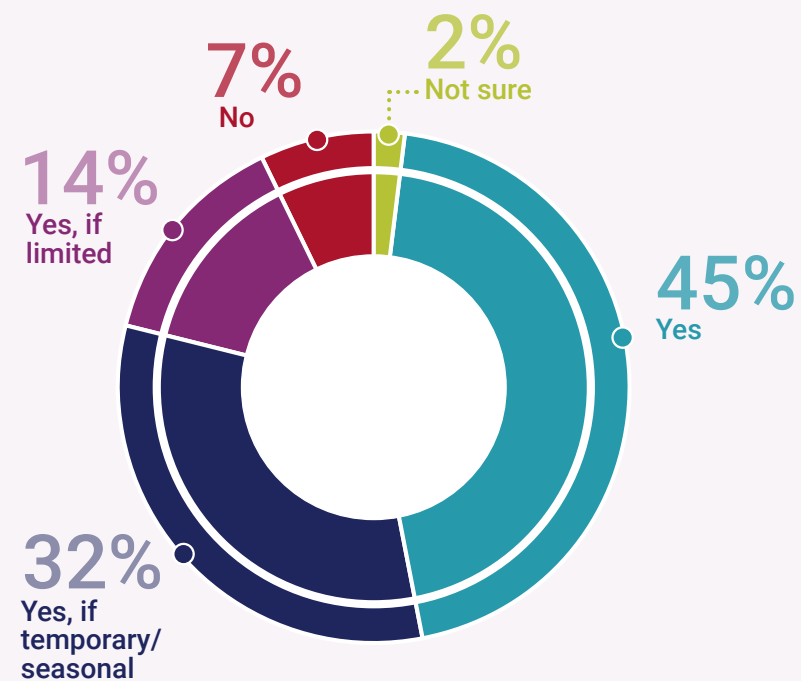
Note: (\$) symbol represents general material cost



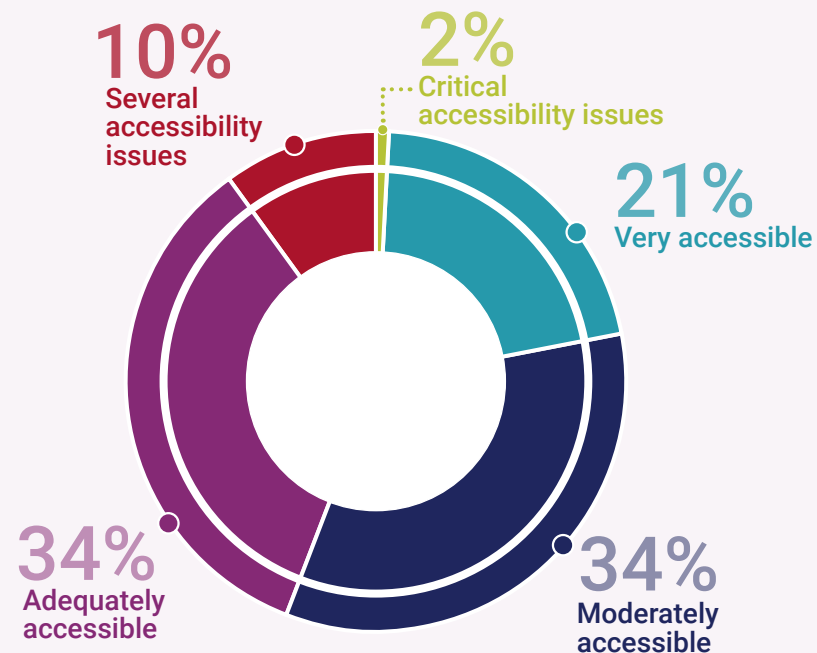
Do you support **POP-UP DINING (PARKLETS)** used to accommodate and support businesses during Covid-19?



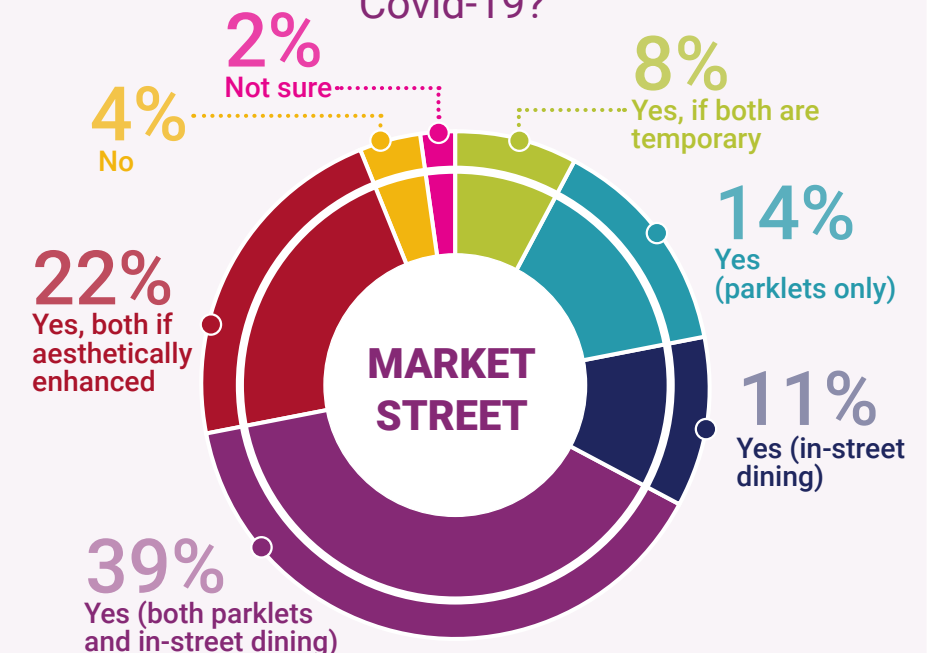
Do you support **STREET CLOSURES** along Market Street?



Do you find the Downtown Frederick Streetscape **ACCESSIBLE**?



Do you support **POP-UP DINING*** used to accommodate & support businesses during Covid-19?



Note: *Includes parklets & in-street dining

2.5 VIRTUAL WORKSHOP 2 SUMMARY

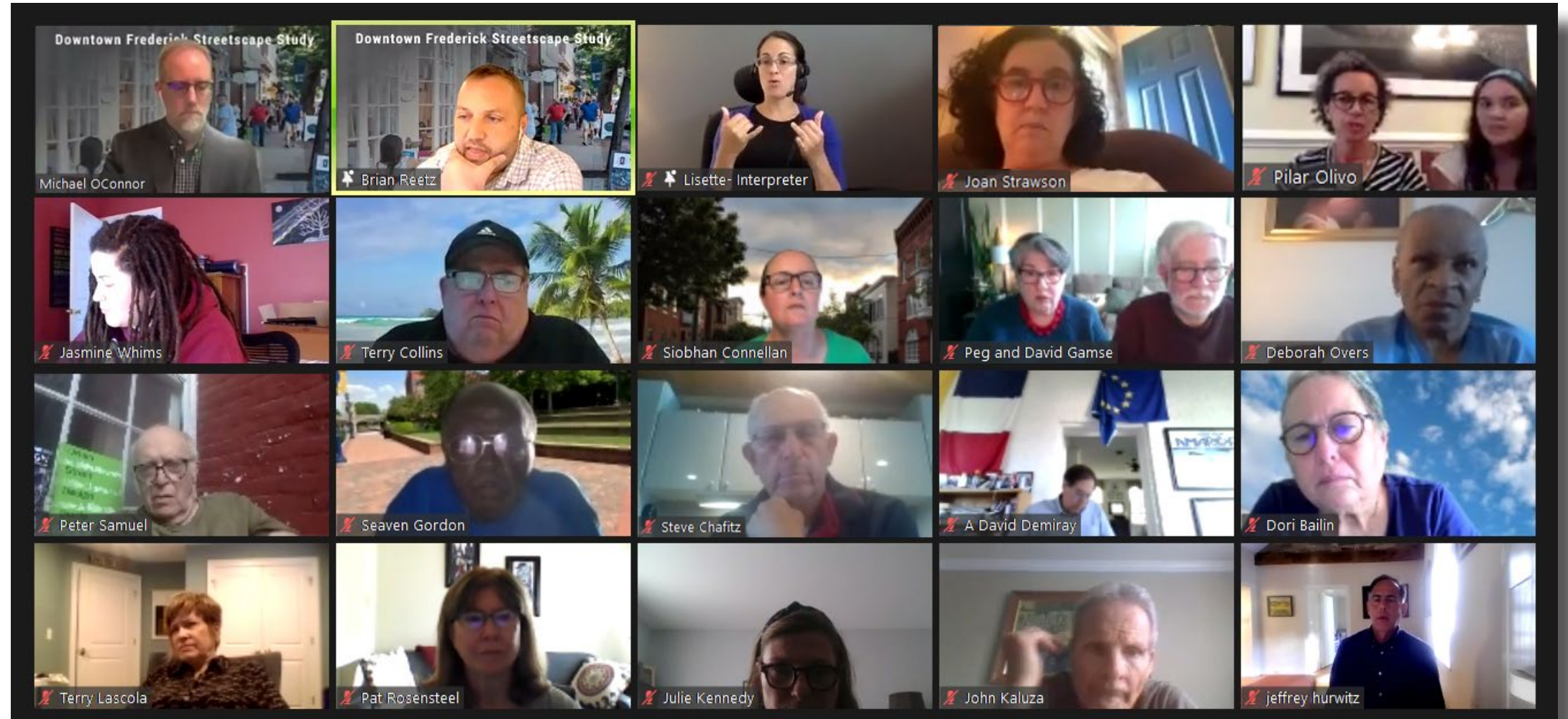
Overview

Based upon feedback received from Workshop 1, stakeholder interviews and the surveys, the Design Collective and RK&K team prepared multiple design concepts for short-, mid-, and long-term solutions. These concepts were shared with participants during Virtual Workshop 2. Similar to Workshop 1, breakout rooms allowed participants to provide feedback to the design team in a small group setting of 4-8 participants.

After a brief presentation, participants were asked several questions during the breakout sessions crafted to encourage dialogue about each presented design concept. These questions focused on major design considerations, as portrayed in the concepts that included: wider sidewalks, relocation of street trees, strategic limited removal of on-street parallel parking, introduction of a flex lane (a lane that has flexible use and changes at specified times i.e. travel lane or parking lane), raised intersections prioritizing pedestrians, temporary street closures, the integration of bicycles, tree health and the integration of stormwater management strategies.

Each participant was asked to consider how these potential improvements balanced the needs for enhanced walkability and accessibility, a future tree canopy, convenient on-street parking, loading/service, outdoor dining, emergency services, traffic and bicycles.

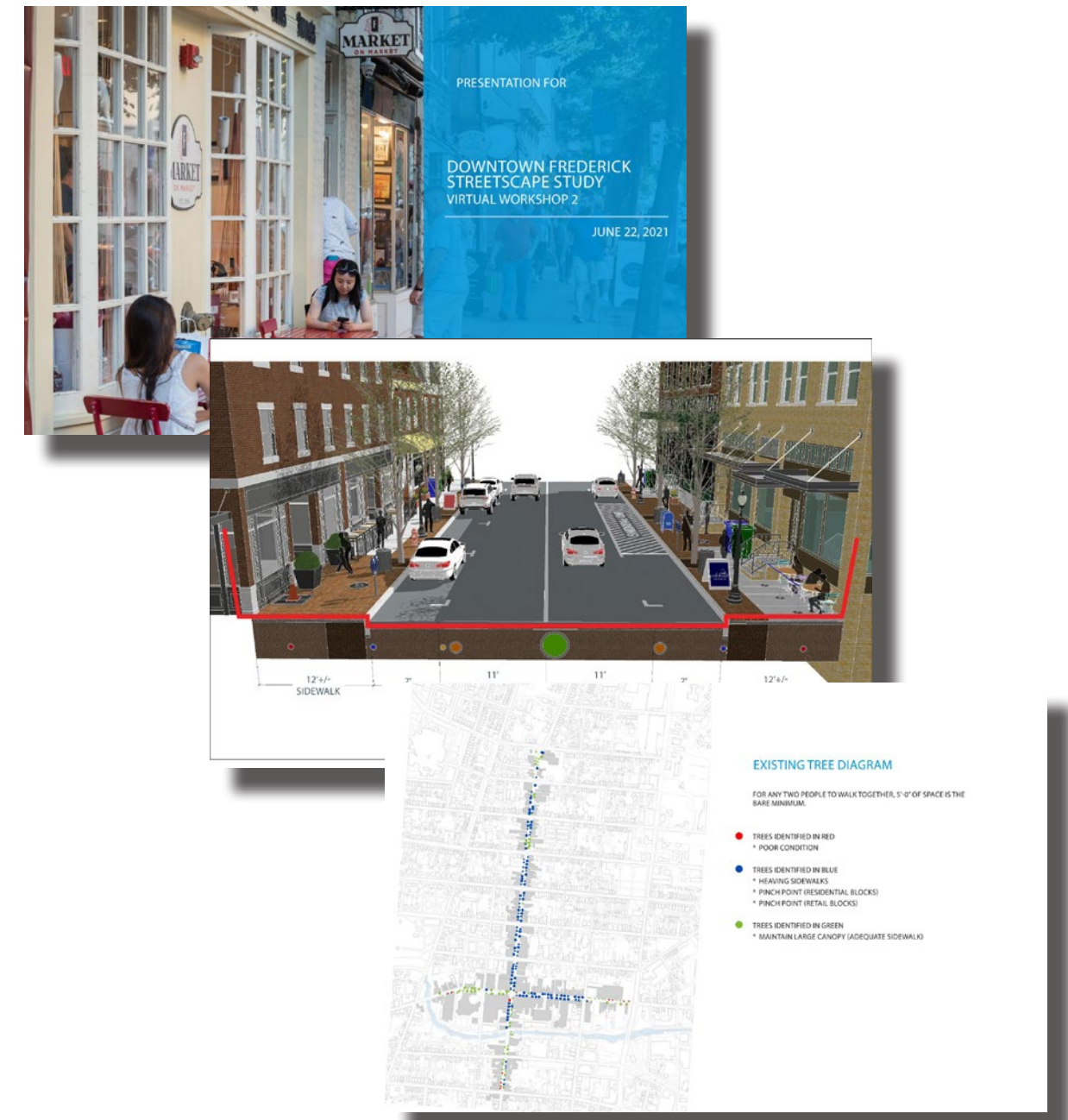
For context, readers of this document should refer to section 3.0 Envision for proposed design concepts.



Screenshot from Virtual Workshop 2

Key Observations from Virtual Workshop 2

- » Supportive of wider sidewalks
- » Supportive of removing and/or reorganizing obstacles on the sidewalk including trees, parking meters (consolidated parking stations), mailboxes and light poles and similar.
- » Supportive of moving trees to free up sidewalk zone, eliminate sidewalk pinch points, make sidewalks more accessible and give more sidewalk to retailers and restaurants. It was noted that there was concern regarding the removal of large trees, however the long term benefits outweighed the negative. New trees to be limbed up to 6' min. Larger trees recommended at time of install.
- » Interest in wider sidewalks and curb realignment extending North of 3rd St., on Market Street, to promote business growth in this area.
- » Mixed reaction to flex travel lane in Zone 2 (Red). Positives include street calming and flexibility of use to allow for wider sidewalks. Concern regarding delivery trucks blocking traffic, impact to bus service. Will require changes in current practice and enforcement. May require scheduled deliveries. Concern regarding signage necessary to convey change in pattern. Consider one lane for parking, one lane for travel, one lane for loading.
- » Some participants concerned regarding loss of on-street parking. Current concepts need to be reviewed against a new parking study that identifies where parking can be replaced. Offset potential loss in on-street parking through addition of alternative parking solutions. Zone 2 (Red) loss of parking impacts retailers more. Zone 1 (Blue) loss of parking impacts residents more.
- » Generally in favor of raised intersections for pedestrian safety, accessibility, improved accessibility and traffic calming.
- » Convenient loading needs to be accommodated and worked into proposed concepts to support varying business needs.
- » Consider expanding "temporary" street closures north of the 300 block on Market Street. This test may inform limits of Red Zone improvements.
- » Short Term improvements need to "dress up" the white jersey barriers. Preference for plant material to be integrated into Parklets.
- » Maxwell Ave as a bike lane discussed as a dedicated north/south bike route with limited vehicular access. Concern that local traffic only can not be enforced. Need to maintain access for residents.
- » Paving materials should differentiate pedestrian from vehicular zones, surface should be safe to avoid tripping concern. Desire for a nice material that maximizes mobility.
- » Some desire for informal public seating areas to allow gathering/engagement of the streetscape beyond serving only as a path of travel.
- » Multiple participants likes the bollard approach to temporary street closures.
- » Supportive of more planting opportunities along the streetscape.
- » Coordinate potential stormwater strategies with Army Corp. of Engineers stormwater management plan.
- » Concern regarding construction phasing and duration.
- » Support for dining along building face in lieu of curbside.





Downtown Frederick - Dining in the street - pandemic related street closure
Credit: Bill Adkins

envision

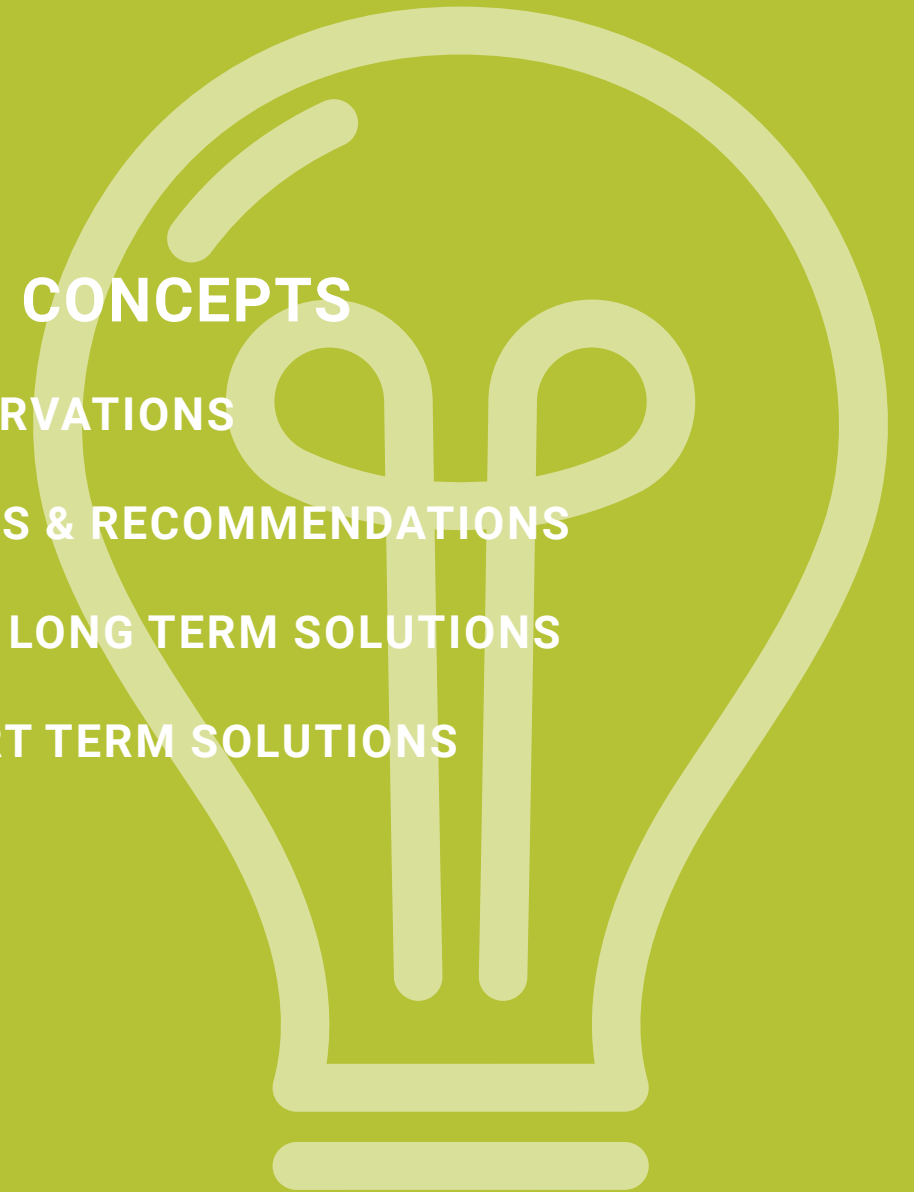
DESIGN CONCEPTS

3.1 OBSERVATIONS

3.2 GOALS & RECOMMENDATIONS

3.3 MID - LONG TERM SOLUTIONS

3.4 SHORT TERM SOLUTIONS



3.1 OBSERVATIONS

Overview

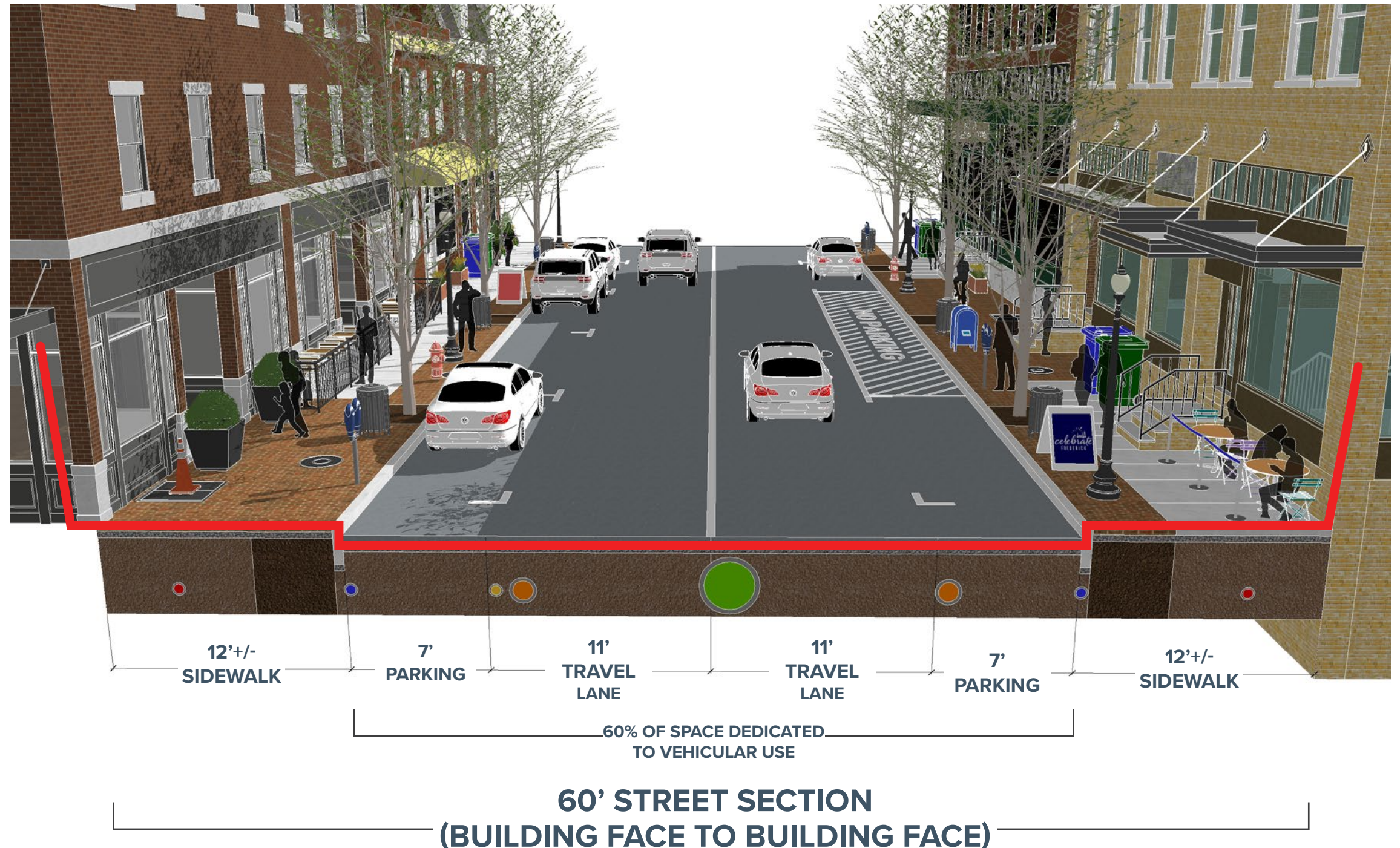
The streetscape along Market Street and Patrick Street consists of a limited 60' wide street section (on average), from building face to building face. This section comprises two 12'+/- sidewalks, two 7' on-street parking lanes (also serving as loading zones), and two 11' travel lanes. Many features are competing for space within the 12 foot-wide sidewalk zone, including but not limited to parking meters, street lights, trash/recycling receptacles, fire hydrants, tree pits, basement access panels, outdoor dining, signage, and sandwich boards. In addition, the sidewalks accommodate large pedestrian volumes on weekends and during events. Together these items create obstructions to clear pedestrian circulation, sometimes resulting in non-accessible stretches of the streetscape.

On-street parking provides convenience to business patrons, especially during weekday business hours. Travel lanes accommodate traffic volumes and often accommodate deliveries blocking one lane of travel. Together parking and travel lanes account for 60% of the street section.

The combined pedestrian and vehicular pressures are a true challenge for Downtown Frederick given its limited street width.

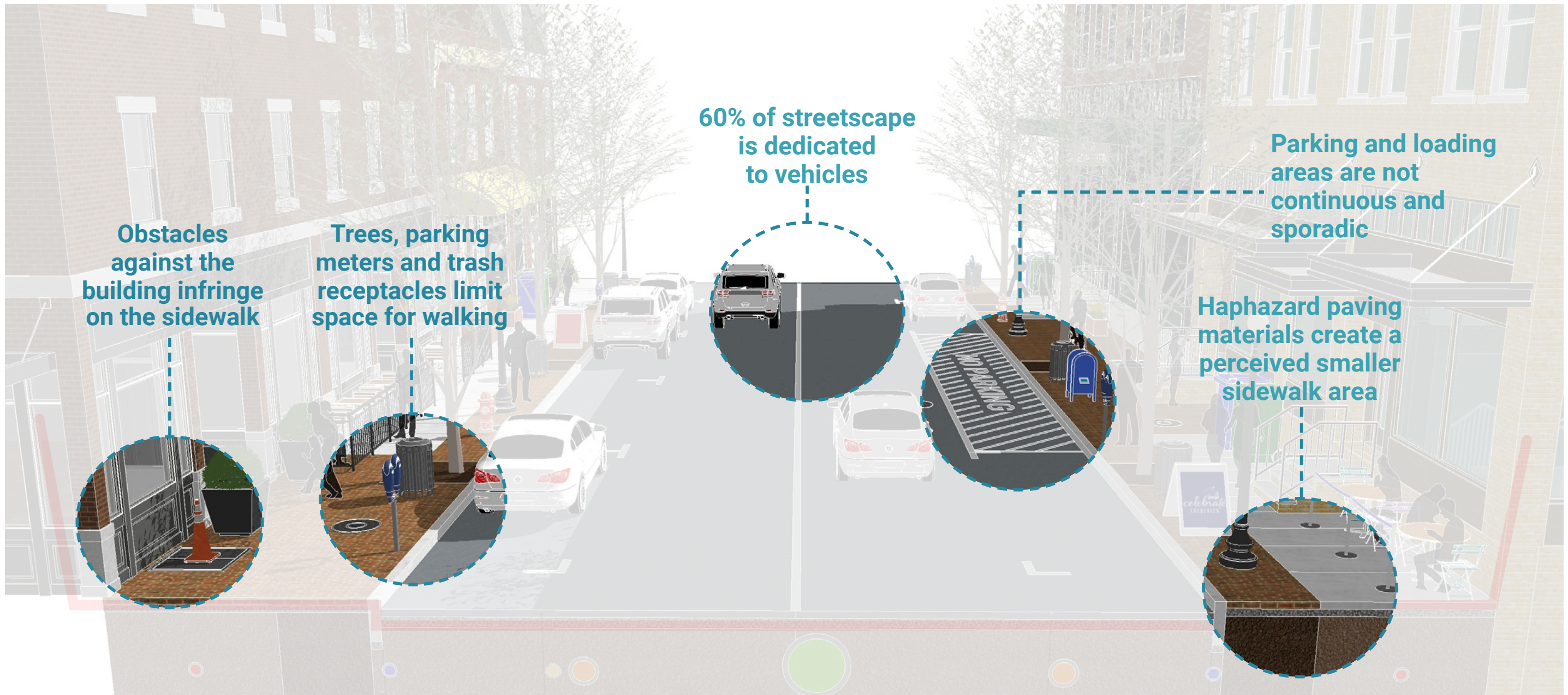
KEY OBSERVATIONS

- » Vehicles dominant the streetscape by occupying 60% of dedicated width;
- » Sidewalks are overburdened with obstacles;
- » Sidewalks widths are frequently too narrow;
- » Haphazard placement of paving materials results in unnavigable sidewalks for the visually and physically impaired;
- » The condition of the sidewalk is greatly impacted by large trees and their roots creating unsafe walking conditions for all users; and
- » The quality of the streetscape does not match the quality of architecture and retail. Streetscape lacks identity.



This rendering is illustrative only and subject to change. Source: Design Collective, Inc.

TYPICAL EXISTING CONDITIONS



This rendering is illustrative only and subject to change. Source: Design Collective, Inc.

ANALYSIS OF EXISTING CONDITIONS + CONSTRAINTS

3.2 GOALS & RECOMMENDATIONS

Gateways

A broader look at the study area reveals four key potential gateways. These gateways provide a sense of arrival to the downtown, marking the entry into the primary retail environment.

The East Street gateway is vital as East Street is the primary entry to the city from I-70. Redevelopment of the Post Office site and the future hotel will be a part of this gateway, which could include branding, signage, and wayfinding.

The West Patrick Street gateway can serve as a more substantial visual connection (wayfinding, branding, signage) from Carroll Creek Park to the Core Area. Currently, no visual clue indicates to pedestrians and cyclists that the primary retail environment is accessible via Patrick Street.

The South Street gateway marks the transition from residential to commercial. Branding, signage, and wayfinding will attract eastbound Route 144 traffic and northbound Market Street traffic. The South Street gateway has the potential to incorporate a more permanent message board for temporary street closures.

The 7th Street gateway is the location of the fountain, park, and transition from commercial to primarily residential. 7th Street is currently a critical east-west bike route. The 7th Street gateway can be an essential branding, signage, and wayfinding location, particularly for pedestrians and cyclists, as Market Street is one-way northbound at this point.

KEY CONSIDERATIONS

- » Gateways provide an opportunity to welcome residents and visitors to downtown.
- » Post Office site provides an opportunity for short term mural and a future permanent gateway into Downtown Frederick.
- » Patrick Street - Provides opportunity for improved pedestrian and bicycle connection to/from Carroll Creek Park
- » North Market Street - Future fountain improvements will help beautify and provide a terminus to the downtown as visitors leave via the north.

KEY

-  STREETScape STUDY AREA (MARKET STREET & PATRICK STREET)
-  CORE AREA
-  GATEWAYS



STREET ANALYSIS DIAGRAM

Street Typology

Analysis of the study area (including land uses, tree health, parking structure locations, primary bus stops and sidewalk conflicts) reveal two distinct zones in the study area. These zones suggest different, but complementary solutions for each typology which are described below.

For the purposes of this study, these 2 zones are indicated as Zone 1 (noted in blue) and Zone 2 (noted in red).

For both zones, recommendations are to focus on the following:

- » Trees and shade;
- » Improved and similar/consistent walking surfaces/materials;
- » Wider and less obstructed sidewalks;
- » Consistent lighting;
- » Flexibility in the design approach to accommodate varying/changing business needs;

Zone 1 (Blue) has less restaurants and, therefore, may need less outdoor dining (or Parklets). Maximizing on-street parking will likely remain important. With time, land uses and outdoor dining and/or parking needs may change; the streetscape should be designed to be flexible.

Zone 2 (Red) has a concentration of restaurants that desire outdoor dining. Maximizing opportunities for Parklets and outdoor dining, and encouraging garage parking for restaurant patrons, will be important.

KEY CONSIDERATIONS

» ZONE 1 (Blue)

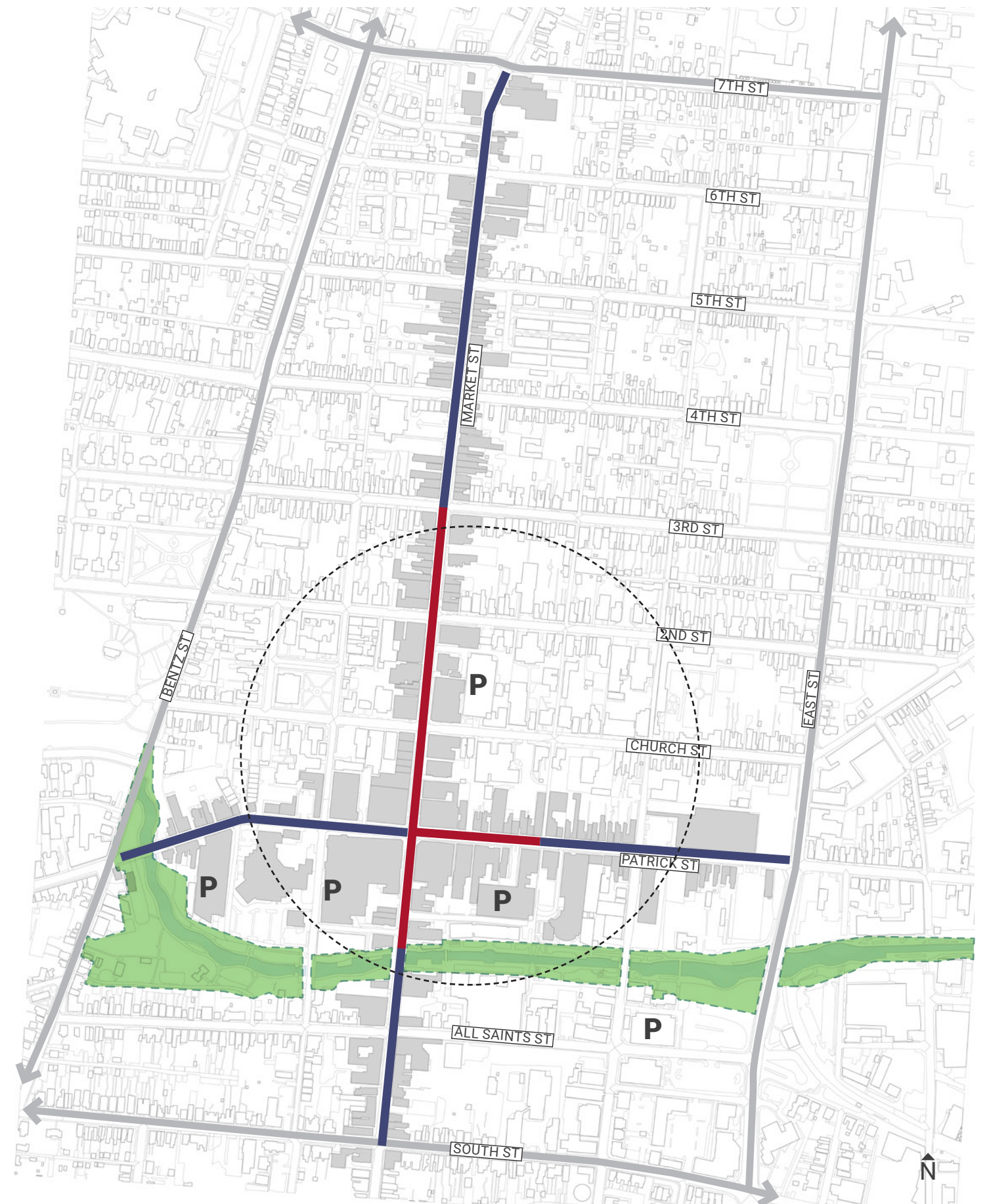
- Higher concentration of residential.
- Many obstacles (trees/stoops/other) creating narrow and obstructed walkways
- Focus on tree placement to address pinch points
- Sidewalks already wide enough (some areas)
- Upgrade materials
- Maximize parallel parking
- Smaller pedestrian volumes - Requires a min. 6' clr. sidewalk, typ. (5' Min.)

» ZONE 2 (Red)

- Higher concentration of restaurants/retail
- Concentration of parking structures within 2 1/2 min walking radius
- Location of temporary street closures during the pandemic
- Location of the primary bus stop
- Primary connection to Maxwell Ave (future bike facility)
- Larger pedestrian volumes - Requires a min. 8' clear. sidewalk, typ.

KEY

- █ ZONE 1 (BLUE)
- █ ZONE 2 (RED)
- P** PARKING



STREET TYPOLOGY DIAGRAM

Temporary Street Closure

Recurring temporary street closures have been successful, are highly desirable and should continue to exist as a temporary measure to accommodate special events in Downtown Frederick on select weekends. Although there was some support for permanent street closures, these were not recommended by the consultants due to potential impact to businesses and traffic.






The consultant team recommends implementing design improvements from the Frederick Square Corner ReDesign Study developed by Mahan Rykiel Associates and RK&K, subject to further stormwater studies. Proposed improvements suggest raising the pedestrian intersection to sidewalk level creating flush walking conditions for pedestrians. This simple measure gives visual priority to the pedestrian, helps define downtown and serve as a traffic calming feature. Recommendations from the Frederick Square Corner ReDesign Study should be implemented at additional intersections (See green circles on the map to the right).

In addition to raising the sidewalk grade and material upgrades, the consultant team recommends adding retractable or removable bollards, adequate for withstanding vehicle impacts, to Market Street at each (green) intersection to assist with temporary street closures. Current challenges include the capital expense needed to place manned trucks/barriers at the intersections for traffic control and safety during large events. In addition to the cost, the trucks detract from the pedestrian experience. Traffic flow would continue east and west through the street closure zone. Finally, as a means to distinguish this zone, we recommend decorative vertical pylons at each intersection. Decorative pylons provide an opportunity for art and lighting to compliment the Core Area.

KEY CONSIDERATIONS

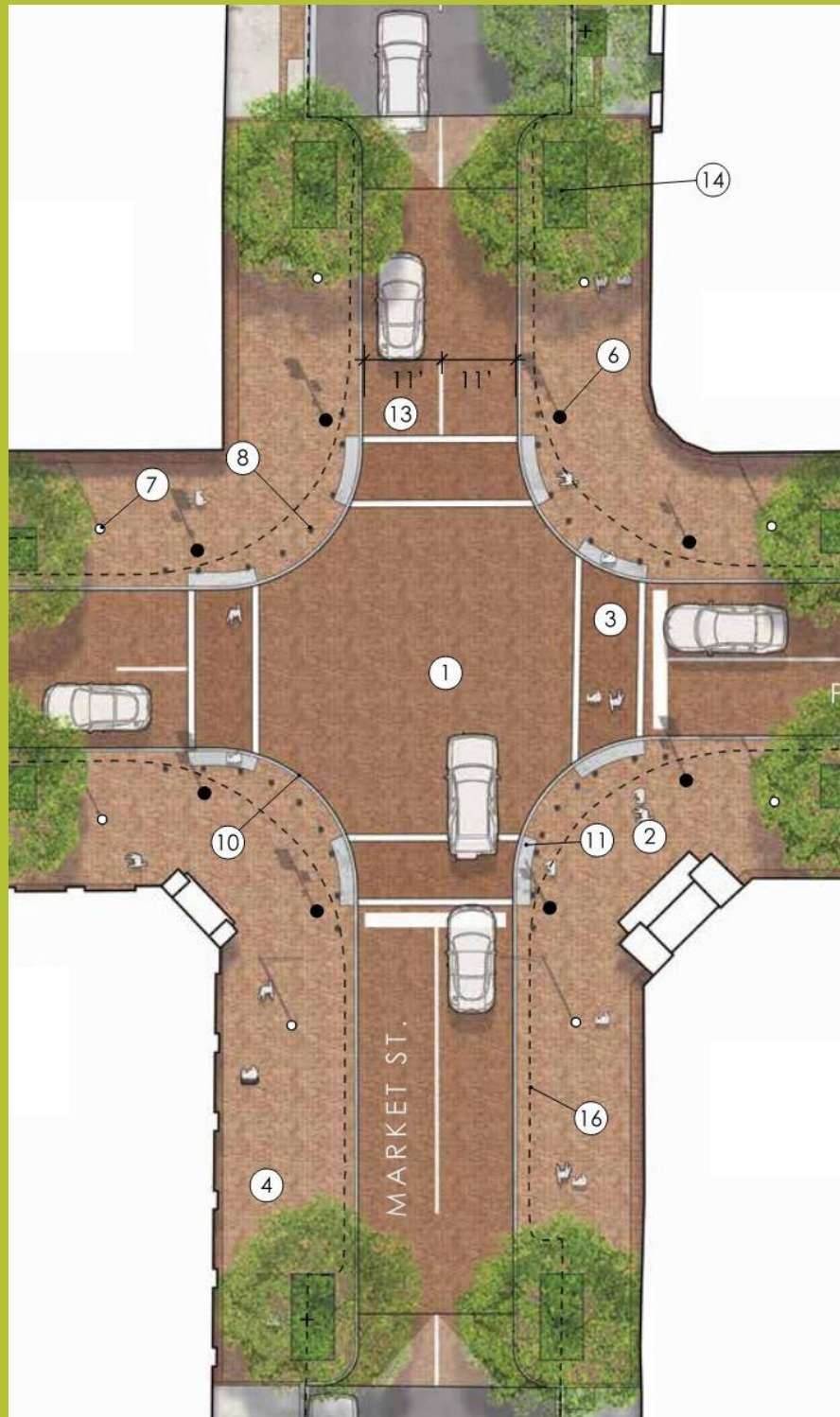
- » Raise intersections to sidewalk elevation creating a flush walking condition that prioritized pedestrians.
- » Provide retractable bollards at each block (as identified below) along Market Street to simplify execution of street closures and provide a more attractive solution.
- » Consider Art Pylons that mark the street closure zone.
- » Frederick Square Corner improvements recommended at additional intersections including Market St and All Saints St., Church St., 2nd St., and 3rd St.

KEY

-  STREETScape STUDY AREA (MARKET STREET & PATRICK STREET)
-  CORE AREA
-  LIMIT TEMPORARY STREET CLOSURE TO MARKET STREET (ALL SAINTS TO 3RD ST.)
-  STREETS TO REMAIN OPEN (EAST/WEST)
-  PYLONS / ART
-  TEMPORARY STREET CLOSURE / RAISED INTERSECTION



TEMPORARY STREET CLOSURE DIAGRAM



Frederick Square Corner ReDesign Study
 Credit: Mahan Rykiel Associates



Charles Village - Gateway Signage
 Source: Design Collective



Retractable Street Bollards for Street Closures
 Credit: Concentric Security

PRECEDENTS - INTERSECTION IMPROVEMENTS, SIGNAGE, AND BOLLARDS

Bicycle Network

A Complete Streets approach to the streetscape should accommodate bicyclists and provide more frequent bike parking. Many in the community have advocated for an improved bicycle network and bike facilities were advocated for during stakeholder meetings and the virtual workshops. In addition, The City of Frederick is studying a more robust bicycle network.

A review of the study area, reveals that the limited 60' streetscape section is already challenged by existing pedestrian and vehicular needs and the design team does not recommend dedicated bike lanes in this area due to conflicts with on-street parking and frequent loading. The goal is to provide bicycle connections without creating additional conflict or safety concerns.







Short term bike parking options on Market Street and Patrick Street should consider reclaiming a single parking space at strategic locations (See precedent images on adjacent page).

Alternative solutions to be studied by The City of Frederick.

KEY CONSIDERATIONS

- » Sharrows on Market Street and Patrick Street provide shared lane options for more experienced riders.
- » Add bike parking on Market Street and Patrick Street
- » Connect to the existing dedicated bike facility at 7th St. to 9th St.
- » Accommodate bicycle use in the alleys, such as Maxwell Ave. Alleys are currently used as defacto bike lanes to avoid traffic on busier streets and should be considered in the City of Frederick bike study.
- » Promote connections to/from Market Street to Maxwell Ave.

KEY

-  STREETScape STUDY AREA (MARKET STREET & PATRICK STREET)
-  CORE AREA
-  MARKET STREET AND PATRICK STREET (SHARROWS)
-  PROMOTE CONNECTIONS TO/FROM MARKET STREET AND PATRICK STREET
-  EXISTING BIKE FACILITY
-  EXISTING SHARROWS



PROPOSED BICYCLE NETWORK DIAGRAM



On-Street Bicycle Parking
Credit: NYC DOT



On-Street Bicycle Parking
Credit: City of Tucson



On-Street Bicycle Parking
Credit: Seattle.gov



On-Street Bicycle Parking
Credit: Madrax

3.3 MID-LONG TERM SOLUTIONS

Proposed Street Improvements

Mid - Long Term Zone 1 (Blue) Concept

Trees and stoops create numerous obstacles in the study area. A simple walk down Market Street or Patrick Street reveals that random tree placement, irregular tree pit sizes and tree to stoop conflicts exist on every block, resulting in a walkway that is almost un navigable and certainly not accessible to all.

Strategic tree placement provides the best opportunity to improve walkability and it provides wider zones to accommodate pedestrians. Without relocating the trees, only marginal improvements can be made to sidewalk accessibility, such as pavement upgrades.

The Zone 1 street typology is recommended at the following locations:

- Market St. - North of 3rd St.
 - Market St. - South of Carroll Creek Park
 - Patrick St. - West of Market St.
 - Patrick St. - East of Maxwell Ave.
- (* As identified on Page 41 Street Typology Diagram)

This concept proposes removal of existing trees from the current back of curb location and considers replacing with new trees (5" caliper at install) in the on-street parking lane. Trees should be placed strategically, between parking spaces, to minimize parking impact. This simple change frees up 4-5' of walkable sidewalk for improved accessibility, reduces hardscape damage that often results in broken concrete and heaved paving sections, provides for a future tree canopy that is supported by larger soil volume, beautifies the streetscape through ornamental plantings (shrubs, perennials, grasses and groundcovers) and provides opportunities to

reduce impervious surface and accommodate stormwater. In addition, the tree relocation creates a perceived narrowing of the streetscape section providing traffic calming.

As expected in a narrow street section, every change impacts another use within the streetscape. Tree relocation will result in the reduction of on-street parking. Trees are proposed to be placed, on average, every two parking spaces in planted islands, approximately 62' on center, resulting in a potential loss of 5-6 parking spaces per block. Given that every block is unique, some parking spaces can be gained back pending further study.

Between tree pits, opportunity exists for protected parklet dining for seasonal use by restaurants outside the Core Area. This also allows for dining to be located adjacent the building facade, if a minimum 5'-clear walkway can be maintained.

Light poles, consolidated parking meters, trash/recycling containers can remain at back of curb occupying a 2-3' zone off the back of curb. Utilities will need to be evaluated and relocated around proposed tree wells.

Sharrows (bike lane markings on the roadway pavement) are recommended to encourage bicycle use and demarcate a shared travel lane.

Sidewalk materials are recommended as a unified material from back of curb to building face. Given the narrow sidewalk available, a single material provides visual simplicity to the sidewalk aiding the physically and visually impaired and it provides a perceived wider sidewalk. Two 11' lanes provide a 22' of emergency access through this zone.

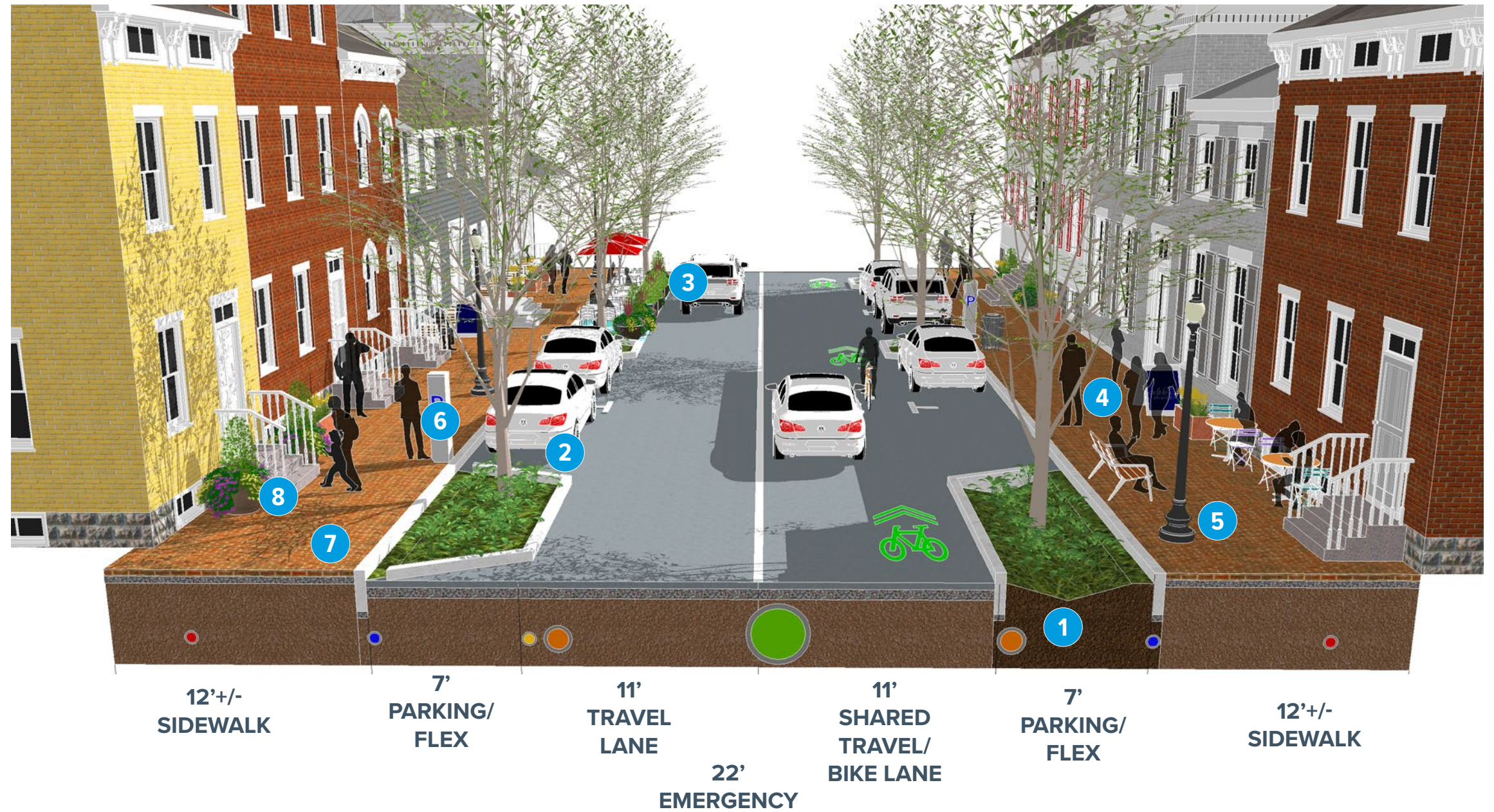


Stormwater Management
Credit: Low Impact Development (LID)



Enhanced Planting Areas
Credit: D. A. Horchner/Design Workshop, Inc

- 1** FUTURE TREE CANOPY/ENLARGED TREE PITS WITH ORNAMENTAL PLANTING AND NEW CURB
- 2** ON-STREET PARKING
- 3** PARKLET (PROTECTED BY TREE ISLANDS)
- 4** SITE FURNITURE - BENCH/TRASH/ SIMILAR
- 5** ORNAMENTAL LIGHTING
- 6** CONSOLIDATED PARKING METERS
- 7** PAVING SURFACE (ONE CONTINUOUS MATERIAL)
- 8** EXISTING STOOPS



This rendering is illustrative only and subject to change. Source: Design Collective, Inc.

ZONE 1 (BLUE): MID-LONG TERM CONCEPT

Proposed Street Improvements

Mid - Long Term Zone 2 (Red) Concept

The downtown core experiences large pedestrian volumes and has higher demand for outdoor dining, given the larger concentration of restaurants and businesses. Expanded sidewalks and strategically placed trees in this area will provide additional space to walk, dine, and shop, locations for signage and displays that support businesses, ornamental planters, lights and seating. The need for additional sidewalk space needs to be offset with either an on-street parking reduction and/or a reduction in travel lanes.

The Zone 2 street typology is recommended at the following locations:

- Market St. - North of Carroll Creek Park and South of 3rd Street
- Patrick St. - East of Market St. and West of Maxwell Ave.
- (* As identified on Page 41 Street Typology Diagram)

This approach:

- » Relocates existing curbs to gain additional sidewalk width;
- » Removes on-street parking (limited permanent parking may need to remain; appropriate locations should be explored)
- » Strategically places trees to eliminate sidewalk conflicts;
- » Considers a flex travel lane to accommodate parking and deliveries during non-peak hours (when there is a single thru lane) and through traffic during peak hours (when 2 thru lanes are needed). This approach needs to be refined as a

part of a future traffic study;

- » Provides dining opportunities curbside (between parking) or building side (only if min. 6' clear);
- » Provides integrated stormwater management beneath the paving (Silva Cell System, or similar - Ref. Page 50);
- » Light poles, consolidated parking meters, trash/recycling containers can remain at back of curb occupying a 2-3' zone off the back of curb.
- » Bike accommodations in the form of Sharrows is recommended to encourage bicycle use and demarcate a shared travel lane.

Sharrows Definition: A shared lane marking in the form of two inverted V-shapes above a bicycle, indicating which part of the road should be used by cyclists when the roadway is shared with motor vehicles.

- » Sidewalk materials are recommended as a unified material from back of curb to building face. Given the narrow sidewalk available, a single material provides visual simplicity to the sidewalk aiding the physically and visually impaired and it provides a perceived wider sidewalk.
- » Maintains 15' available for fire and emergency services; for limited blocks. Improvements would need to be paired with emergency control of intersections to allow traffic to move freely.



Outdoor Dining Along Building
Credit: David Betts

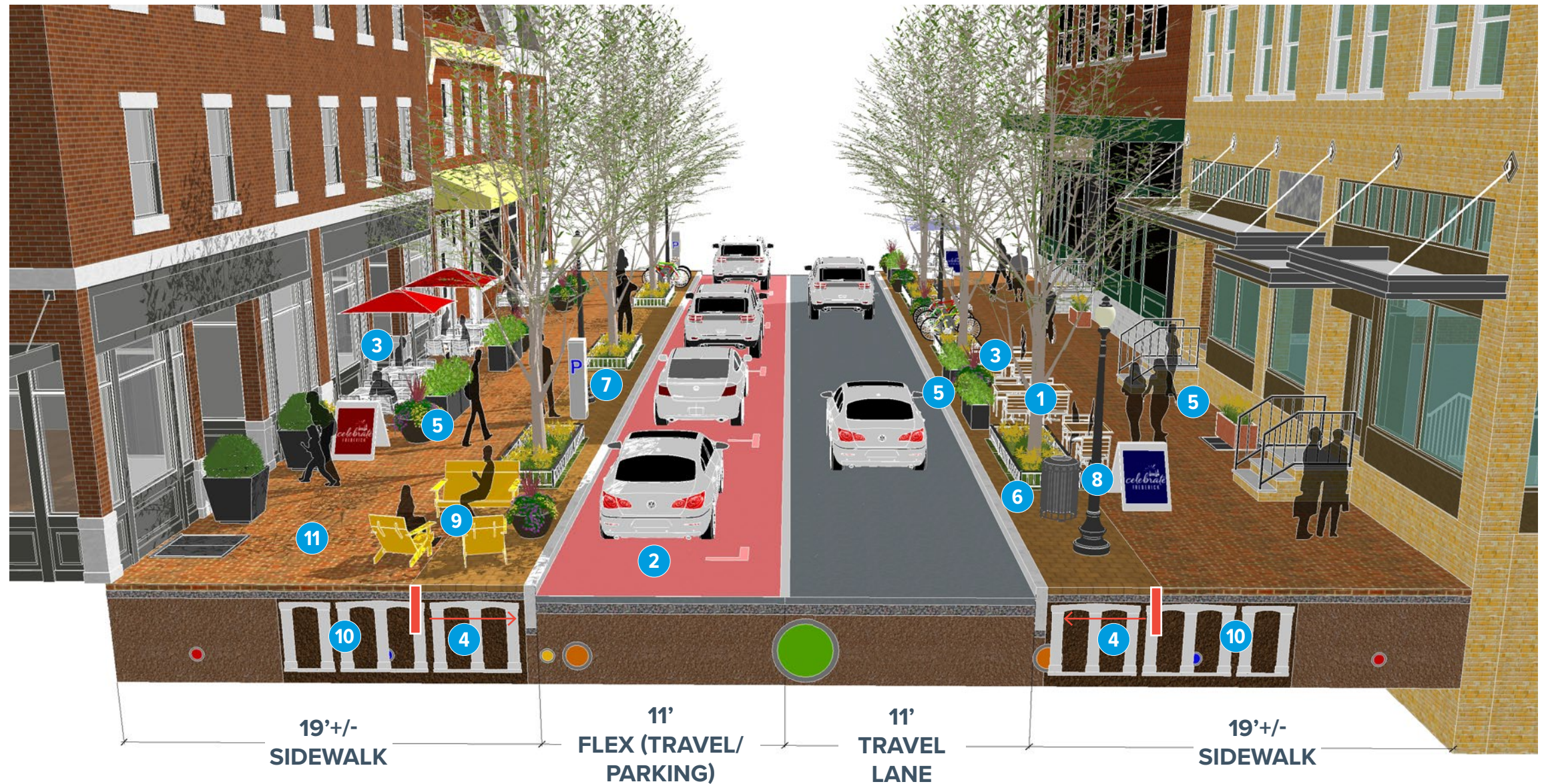


Outdoor Dining Along Curb
Credit: Santana Row



Ornamental Pots and Flexible Site Furniture
Credit: Pike and Rose

- 1 FUTURE TREE CANOPY W/ ORNAMENTAL PLANTING AND DECORATIVE GUARDRAIL
- 2 FLEX TRAVEL/PARKING LANE
- 3 OUTDOOR DINING (CURBSIDE OR BUILDING SIDE)
- 4 RELOCATED CURBLINE
- 5 ORNAMENTAL PLANTERS
- 6 SITE FURNITURE - BENCH/TRASH/ SIMILAR
- 7 CONSOLIDATED PARKING METER
- 8 ORNAMENTAL LIGHTING
- 9 FUN FLEXIBLE SITE FURNITURE
- 10 SILVA CELL SYSTEM
- 11 PAVING SURFACE (ONE CONTINUOUS MATERIAL) POROUS PAVING - 5' ZONE



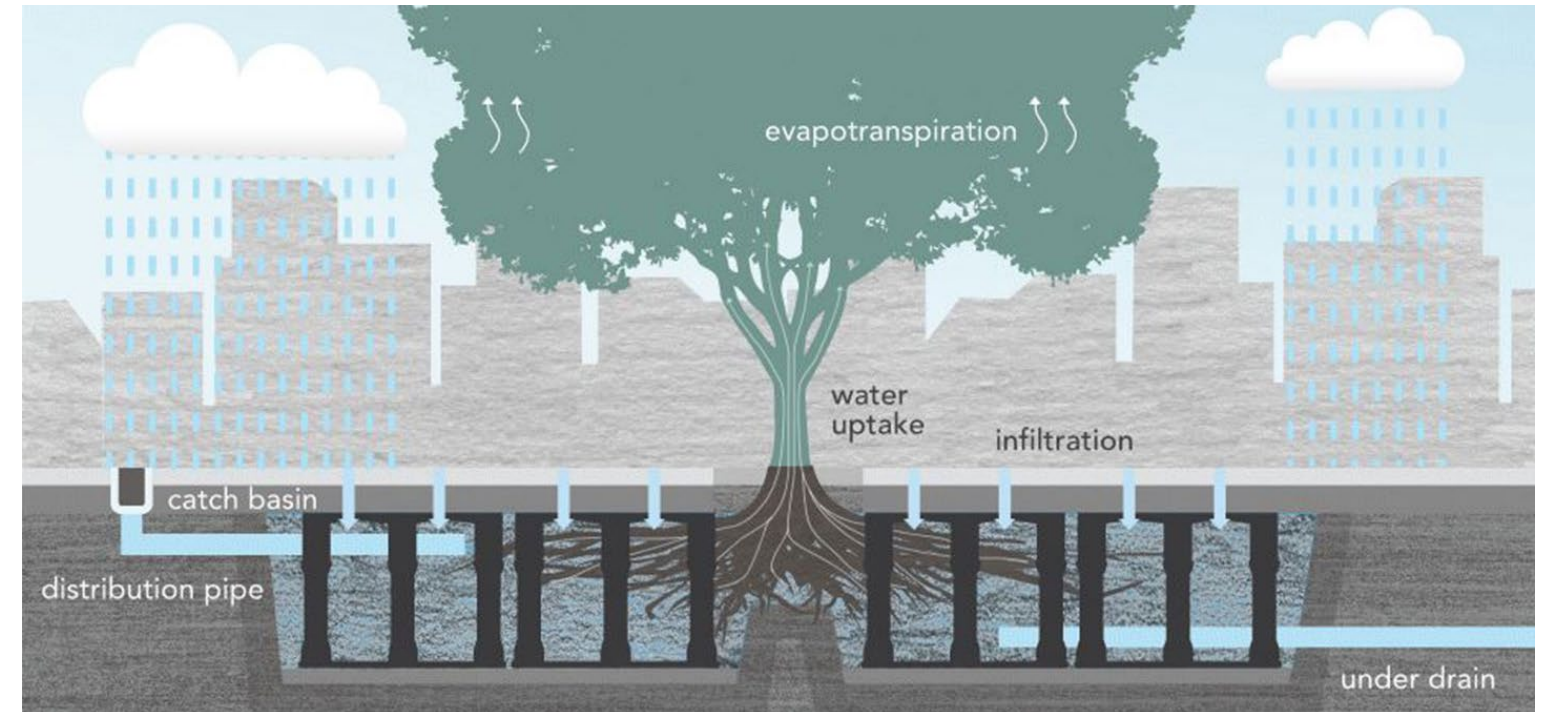
This rendering is illustrative only and subject to change. Source: Design Collective, Inc.

ZONE 2 (RED): MID-LONG TERM CONCEPT

Mid - Long Term Tree Strategy

A well planned street tree strategy must include accommodations for ample soil volume. Using Silva Cell, or an equivalent system, provides opportunity to eliminate compacted soils, capture and infiltrate stormwater and reduce runoff, providing a healthier environment for street trees, in lieu of undersized tree pits. The images to the right and on the adjacent page illustrate how a Silva Cell system can be integrated into the sidewalk benefitting the trees long term health while also harvesting stormwater. Furthermore, the uncompacted soil volumes are a proven method to ensure immediate and vigorous tree growth. Proper investment allows for healthy trees while minimizing potential conflicts between tree and hardscape, that often result in future maintenance costs in the form of hardscape replacement.

Page 61 images illustrate two comparable projects, where tree and hardscape placement needed to coexist. Both examples utilize Silva Cell, beneath the pavement. As illustrated in the images, tree growth in both examples has outperformed the typical urban growing condition.



Silva Cell System - Promoting large tree growth and stormwater treatment
Credit: DeepRoot



Silva Cell Sytem - Stormwater interception, evapotranspiration, and infiltration
Credit: DeepRoot



Vancouver Streetscape - Street Trees after 2 years in Silva Cell System
Credit: DeepRoot



Vancouver Streetscape - Street Trees after 4 years in Silva Cell System
Credit: DeepRoot



Toronto Waterfront - Trees after 2 years in Silva Cell System
Credit: DeepRoot



Toronto Waterfront - Street Trees after 4 years in Silva Cell System
Credit: DeepRoot

Proposed Street Improvements

Mid - Long Term Red Concept (Alternate)

Improvements in the downtown core can go one step farther. Raising the street grade and paving the street section provides maximum flexibility of the streetscape, creating a fully usable street section for events without the grade transition at the curb. This approach maintains emergency, service and sanitation uses and eliminates parking within the four blocks of Market Street.

This approach is often referred to as a Woonerf.

Woonerf Definition: A road that is designed with special features to reduce the amount of traffic using it, or to make the traffic go slower. A woonerf is sometimes called a "lining street" and refers to a new way of designing streets to be people-friendly open spaces.

Further analysis of stormwater conveyance and flooding would be required to advance this alternative. The street between the curbs is part of the existing storm water conveyance system and it acts as a channel to carry water flow during extreme events. Raising the street would result in a greater risk of flooding without additional infrastructure to replace this conveyance capacity. As a result, larger box culverts would be needed beneath the street to accommodate stormwater conveyance.



Brightleaf Square in Durham, North Carolina
Credit: HistoricBrightleaf.com



Santana Row in San Jose, California
Credit: [SWA Group](http://SWAGroup.com)

- 1 RAISE STREET GRADE TO CREATE A FLUSH STREET SECTION
- 2 USE SPECIAL PAVING TO SLOW TRAFFIC AND ENCOURAGE PEDESTRIAN USE
- 3 INSTALL BOLLARDS TO PROTECT SIDEWALK FROM VEHICLES
- 4 INSTALL CATENARY (BISTRO) LIGHTING ABOVE SIDEWALK AND STREET



This rendering is illustrative only and subject to change. Source: Design Collective, Inc.

ZONE 2 (RED): LONG TERM CONCEPT

3.4 SHORT TERM SOLUTIONS

Parklets

DEFINITION: Parklets are public seating platforms that convert curbside parking spaces into vibrant community spaces. They also can serve to provide seating, greenery, bike facilities and other uses that accommodate demand for public space on thriving streets. (Source: NACTO)


- » Parklets (dining):
 - Parklets are in operation for the summer months to promote vibrancy of the streetscape and allow residents and visitors to enjoy the outdoors and Downtown Frederick's unique and eclectic character. These parklets should accommodate shade when needed and promote the arts.
 - Duration: warm months only.
- » Parklets (social)
 - Social parklets promote vibrancy of the streetscape, allowing residents and visitors to engage in the outdoors. These parklets should promote opportunities for socialization and promotion of the arts, consider integrated bike facilities and provide locations for pedestrians to rest and enjoy downtown.
- » Locations should be managed by the Partnership and The City of Frederick and be dispersed throughout the study area to bring interest to north and south ends of Market Street, the east end of Patrick Street
- » The diagram to the right is suggestive in its attempt to illustrate social parklets as a means to enliven areas other than outside restaurants.
- » The City should consider sponsoring a limited number of Parklets for business use to kickstart the process. For more information on short-term solutions for Parklets, see the Recommendations section of this document.

KEY CONSIDERATIONS

- » Protect ends of parklets.
- » Include vertical elements to make parklets visible to traffic.
- » The parklet should not prohibit the drainage of stormwater runoff.
- » Parklets should include a flush transition from sidewalk to curb.
- » Parklets should avoid corners and are best placed one parking space from an intersection.
- » The sub-structure of the parklet must accommodate slope in the street.
- » Railings should be able to withstand at least 200 feet of horizontal force
- » Parklets should be slip resistant and accommodate 100 lbs per sf.

Above recommendations per NACTO Guidelines <https://nacto.org/publication/urban-street-design-guide/interim-design-strategies/parklets/#footnotes>

KEY

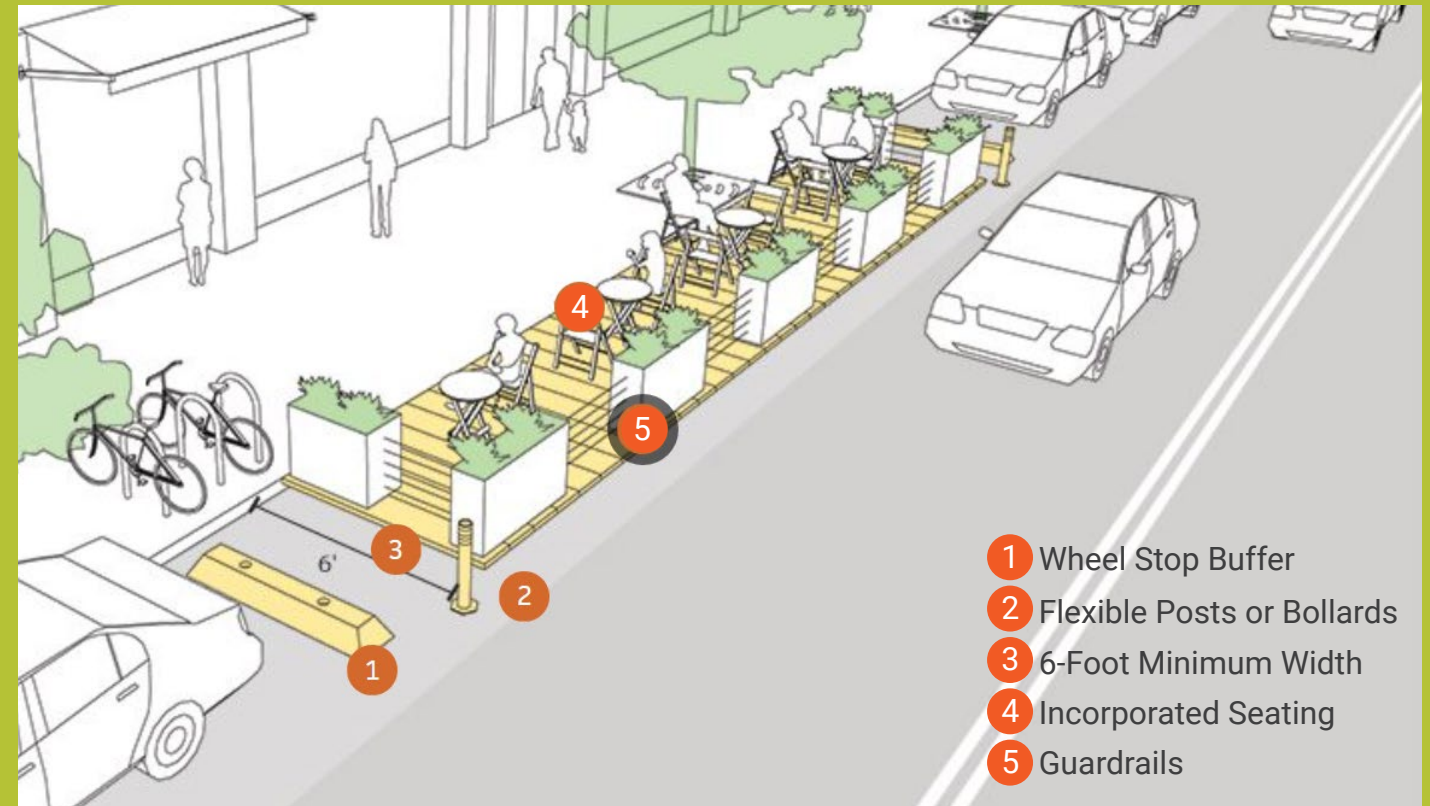
-  STREETScape STUDY AREA (MARKET STREET & PATRICK STREET)
-  CORE AREA
-  PARKLETS (SOCIAL)
-  PARKLETS (DINING)



PROPOSED PARKLET CONCEPT DIAGRAM



Dining Parklet
Credit: Downtown Partnership of Baltimore



NACTO Parklet Guidelines
Credit: NACTO



Dining and Social Parklet
Credit: Yuzhu Zheng Photography

3.4 SHORT TERM SOLUTIONS

Parklets

Short Term MUTCD

Existing white water filled barriers were purchased to provide a quick solution to support restaurants during the COVID-19 crisis. Although useful as a short term solution, they lack visual interest and create a "hodge podge" appearance downtown. These white barriers were originally selected to meet MUTCD standards for safety, protecting pedestrians from adjacent vehicular traffic.

If MUTCD guidelines must remain, either in the short-term or permanently, simple solutions may include:

- » Integrating planters, graphics, or artwork onto the barriers to improve aesthetics and create visual and physical separation between the street and the dining area;
- » Adding decking to raise the street grade

These solutions will visually enhance the Parklets at minimal cost while working with the already approved white jersey barriers. It's important to note that enhancements made to existing water filled barriers must be attached in a manner that is secure and prevents flying objects in the event the barrier is struck by a vehicle.

Although these ideas represent an improvement and should be considered, alternative strategies and more attractive strategies exist if MUTCD guidelines were to be replaced where appropriate.



Outdoor Dining Parklet in Downtown Brattleboro, Vermont
Credit: Kristopher Radder



Parklet in Downtown Tampa, Florida
Credit: Tampa Downtown Partnership

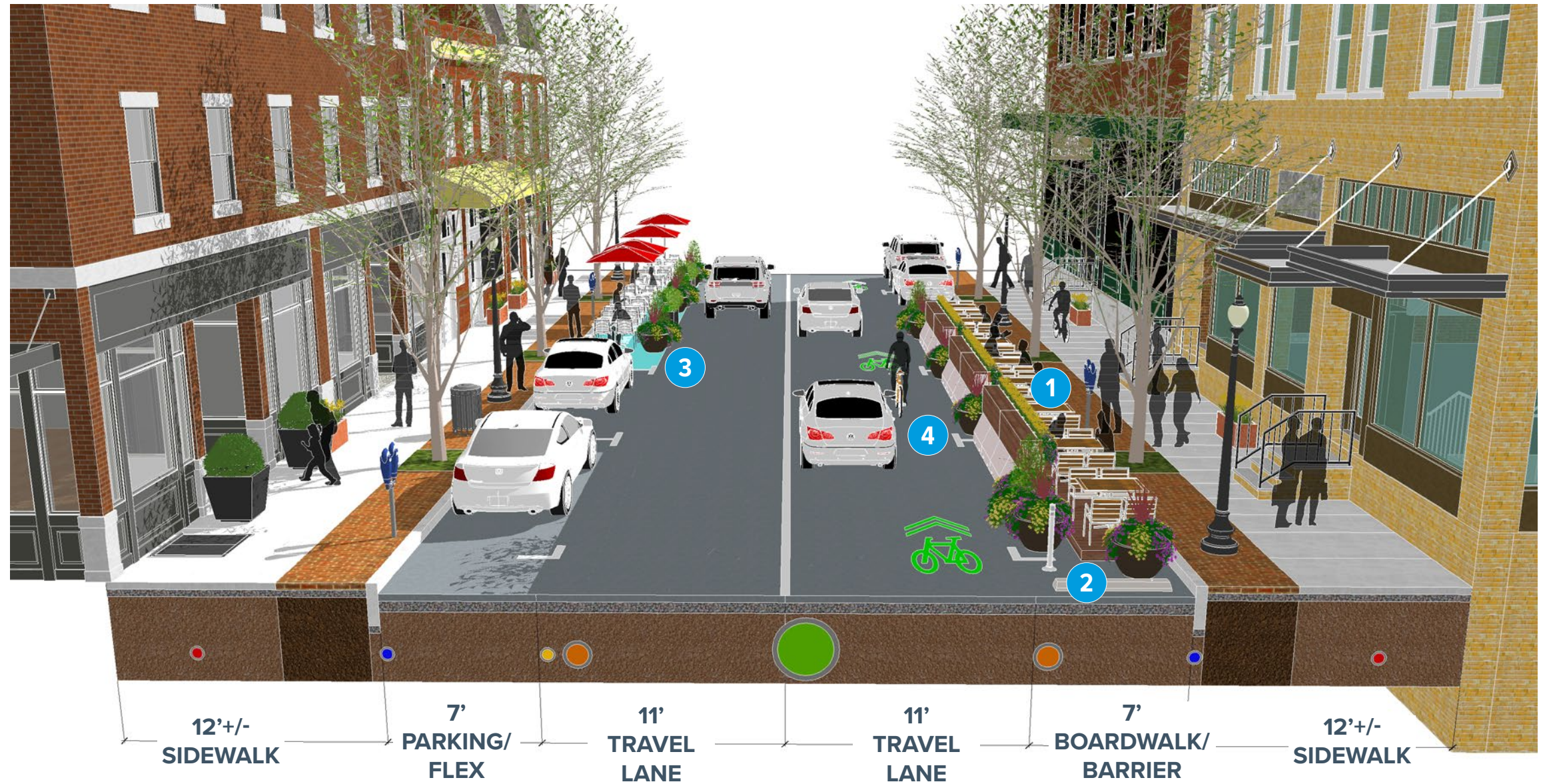


Parklet buffered by planter pots
Credit: Parkade



Parklet in Vancouver, Canada
Credit: Brent Toderian

- 1** INTEGRATE ARTWORK ON THE BARRIERS
- 2** ADD DECKING TO RAISE STREET GRADE FOR OUTDOOR DINING
- 3** PAINT THE PARKING SPACES AND ADD BOLLARDS AROUND BIKE PARKING
- 4** ADD PLANTERS TO SOFTEN BARRIERS



This rendering is illustrative only and subject to change. Source: Design Collective, Inc.

PROPOSED CONCEPT: SHORT-TERM MUTCD COMPLIANT OPTION 1

Parklets

Short Term MUTCD

As an alternative, outdoor dining could be accommodated building side, similar to the solution, previously installed, at Isabella's in downtown. In order to accommodate pedestrian circulation, a boardwalk was utilized in the parking lane. This approach could be used elsewhere and tends to work best when grouping of restaurants exist allowing longer stretches of uninterrupted walking surface. Similar to the previous concept, white water filled barriers can be visually enhanced by integrating planters and art to define the edge between pedestrian and vehicles and serve as traffic calming.



Parklet buffered by honeycomb wall in Salem, Massachusetts
Credit: Jaime Campos

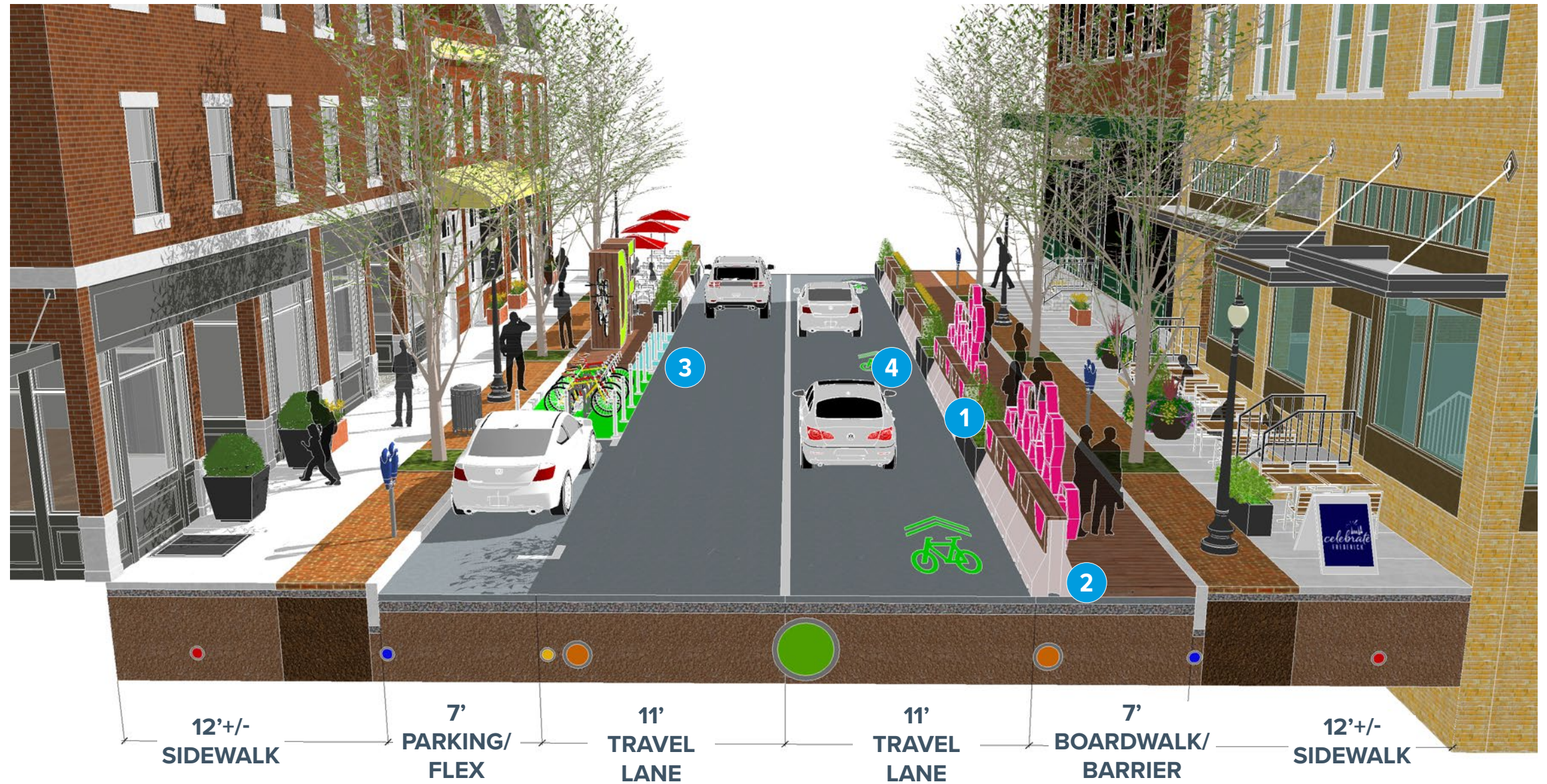


Parklet in Baltimore, Maryland
Credit: Downtown Partnership of Baltimore



Boardwalk at Isabella's in Downtown Frederick
Source: Design Collective

- 1** INTEGRATE ARTWORK ON THE BARRIERS
- 2** ADD DECKING TO RAISE STREET GRADE TO SERVE AS AN EXTENDED SIDEWALK
- 3** PAINT THE PARKING SPACES AND ADD BOLLARDS AROUND BIKE PARKING
- 4** ADD PLANTERS TO SOFTEN BARRIERS (PENDING DPW APPROVAL)



This rendering is illustrative only and subject to change. Source: Design Collective, Inc.

PROPOSED CONCEPT: SHORT-TERM MUTCD COMPLIANT OPTION 2

Parklets

Short Term NACTO Guidelines

The National Association of City Transportation Officials (NACTO) provides recommendations for the design, placement and safety standards of parklets. The consultant team recommends that The City of Frederick adopt NACTO guidelines, giving the City and the Partnership the flexibility to use new parklet solutions. The inclusion of planters and simplified barriers continues to provide necessary protection for the pedestrian and diner from adjacent vehicles while creating an attractive asset downtown. Parklets provide opportunity for local artists to contribute to the vibrancy and character of downtown through the creation of custom parklet solutions.



Public Parklet in Spokane, Washington
Credit: Scott Long



Parklet in Boston, Massachusetts
Credit: Landezine

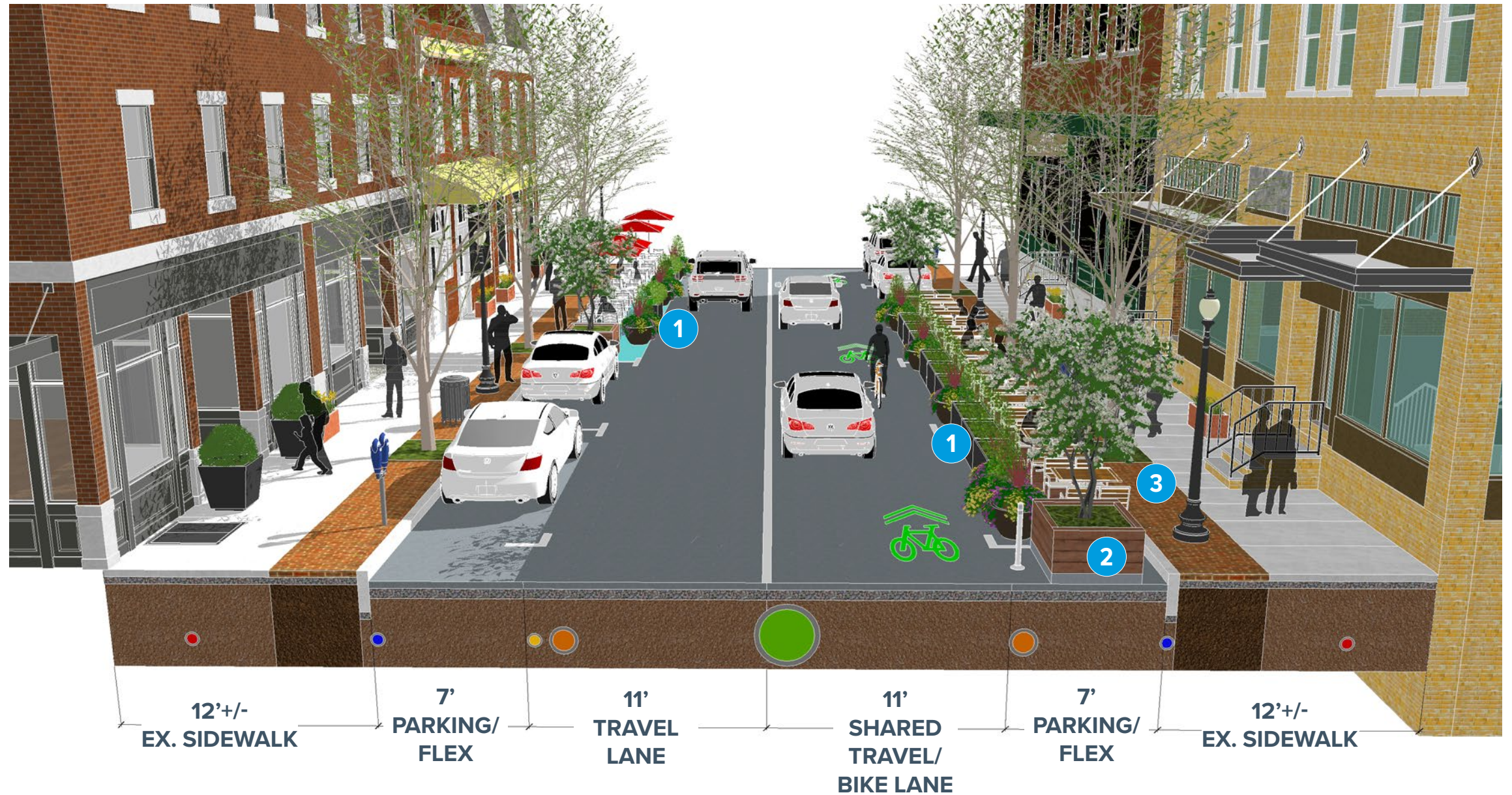


Social Parklet
Credit: Shift Space Design



Parklet in San Francisco, California
Credit: Jeremy Shaw

- 1** REPLACE BARRIERS WITH PLANTERS AND DECORATIVE RAILINGS AND WALLS
- 2** PLACE PLANTERS OR WHEEL STOPS AT THE ENDS OF THE Parklets
- 3** ADD DECKING TO RAISE THE STREET GRADE TO CREATE A FLUSH OUTDOOR DINING SURFACE



This rendering is illustrative only and subject to change. Source: Design Collective, Inc.

PROPOSED CONCEPT: SHORT-TERM NACTO COMPLIANT

Parklets

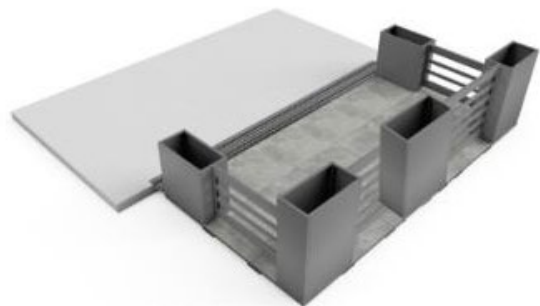
Short Term Prefab Parklets

Prefabricated Parklets solutions also exist, providing kits that can be customized to the requirements of any site. Kits such as the Archatrak's Street Deck system is designed locally in Jessup, MD and provides a system that meets NACTO requirements for safety while providing a refined simple aesthetic that compliments the historic character of Downtown Frederick.



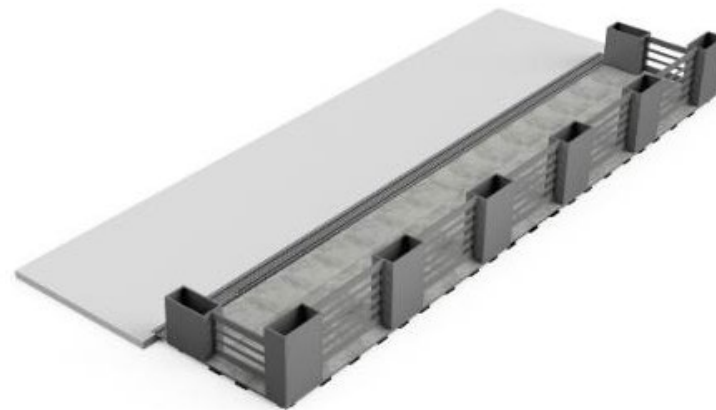
1-SPACE KIT

6' x 12'



2-SPACE KIT

6' x 32'



Proposed Street Improvements

Short Term Aesthetic Solutions

Painted Crosswalks

Painted crosswalks provide a low cost solution to enhance and visually distinguish pedestrian crossings. Working within DOT standards, art can be used to make an immediate impact and signal that change is coming. Subject to approvals, currently not permitted under MUTCD.

Artist installations

Aging sidewalks, in need of repair as a result of heaving pavement (freeze/thaw cycle) or damage from aggressive tree roots need to be considered as a short term improvement. Tripping hazards are littered throughout the study area and could be temporarily improved with simple art solutions. Small areas of broken or heaved pavement can be selectively demolished, ground down and/or removed in lieu of replacing with new concrete or pavers.

Until the city is able to commit to major streetscape investments, these simple, artistic, cost-effective solutions may be appropriate. Replacing with brick and/or concrete that will be soon demolished may not be the right approach. The city may consider design competitions, the use of local artists/craftsman, and/or student design ideas.



Downtown Frederick Existing Crosswalk
Source: Design Collective



Downtown Frederick Existing Streetscape Conditions
Source: Design Collective



Painted Crosswalk
Credit: Rafael Perez Martinez



Streetscape Art Installations
Credit: FunAlive





Downtown Frederick - In the Streets Festival
Credit: Bill Adkins

next steps

RECOMMENDATIONS

4.1 ADDITIONAL DESIGN STUDIES

4.2 REGULATORY RECOMMENDATIONS

4.3 IMPLEMENTATION & FUNDING STRATEGIES

4.4 COST ESTIMATE



4.1 ADDITIONAL DESIGN STUDIES

Next Steps

Design Concepts revealed a need for additional design studies, not included in the original scope. These studies, a streetscape traffic impact analysis, a streetscape parking impact analysis and a detailed study of utility upgrades are an important and necessary next step in confirming and refining the proposed design concepts for the Downtown Frederick Streetscape Study.

ADDITIONAL DESIGN STUDIES		
1	STREETSCAPE TRAFFIC IMPACT ANALYSIS	<p>A streetscape traffic impact analysis should be conducted to evaluate what impacts to traffic are created by the streetscape recommendations and what solutions should be implemented. The Streetscape Traffic Impact Analysis should assess impacts, identify mitigation strategies to local streets and evaluate posted speeds downtown with consideration for a reduction in speed to 25mph. The Streetscape Traffic Impact Analysis should evaluate times of week/day that may support temporary lane closure for the shared/flex parking/travel lane proposed for Market Street. Proposed concepts that originated from the streetscape study were limited in scope and intended to begin to identify viable improvements. Results of the Streetscape Traffic Impact Analysis may result in modifications to the concepts.</p> <p>As it relates to street closures for events, the Streetscape Traffic Impact Analysis should assess how to best reroute traffic and outline strategies for signage and message boards needed to facilitate rerouting; reflecting the times of year/week/day for desired street closures for events.</p>
2	STREETSCAPE PARKING IMPACT ANALYSIS	<p>Parking is a point of concern in the study area and within Downtown Frederick, generally. A successful and vibrant downtown is equally active during the workday as it is in the evening, on weekends, and during holidays and events. Parking demand, therefore, is not limited to peak working hours, 9-5. Although many in the community are in favor of reducing parking in the study area to create wider sidewalks to accommodate robust pedestrian circulation and to support outdoor dining and other sidewalk activities, businesses rely on-street parking for patron convenience. A Streetscape Parking Impact Analysis should be conducted to evaluate what impacts to parking are created by the streetscape recommendations and what solutions should be implemented. The analysis should consider a parking strategy for alternative parking solutions to offset the proposed reductions and consider future demand. The analysis should evaluate the use of garage (surplus) parking for long term users and restaurants so that on-street parking remains available for short term and convenience needs, consider signage as a way to maximize and encourage the use of garage parking, address parking fees, the use of pay stations, and duration as a means of optimizing parking, evaluate long term parking needs with consideration for continued growth and redevelopment of key properties, and determine an appropriate replacement strategy for the Church Street Public Parking Garage. Considerations may also include an additional parking structure to accommodate demand on North Market Street as well as alternative transportation options to remote parking outside the study area.</p>
3	DETAILED STUDY OF UTILITY UPGRADES	<p>The proposed streetscape improvements considered impact to utilities at a high level only. A detailed review and analysis of existing utilities with the intent of identifying necessary utility upgrades that should be completed with proposed streetscape enhancement should be undertaken. This should include an understanding of what utilities need to be upgraded/replaced due to age, condition, or obsolescence versus those that need to be relocated due to the streetscape recommendations. Future utility capacity for infill development should also be considered.</p>

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4.2 REGULATORY RECOMMENDATIONS

Overview

The following regulatory recommendation have been identified by the design team for further review and discussion by the City of Frederick. These items have been identified as items needing refinement in order to support future streetscape improvements, as identified in this document.

REGULATORY RECOMMENDATIONS		
#		ACTION
1	PARKLETS	<p>To address community concerns regarding parklet aesthetics (white water filled barriers), the consultant team recommends that The City of Frederick adopt NACTO (National Association of City Transportation Officials) guidelines in addition to MUTCD. Retain the MUTCD as the governing document and allow for flexibility to utilize NACTO guidelines where deemed safe and appropriate. The application of NACTO guidelines would be based upon best engineering practices and at the approval of the Director of DPW or their designee. NACTO guidelines address both safety and aesthetics, providing attractive curb side dining solutions, while MUTCD regulations are more focused on highways and higher speed roadways that are not present in the downtown area. The City will need to engage their insurance company for review of the NACTO guidelines as well as request approval from the Board of Alderman.</p> <p>https://nacto.org/publication/urban-street-design-guide/interim-design-strategies/parklets/#footnotes</p> <p>Revenue loss from loss of parking is a community and City concern. The City should consider strategies for offsetting loss of parking revenue by creating a fee for parklet use. The City will also need to identify the duration of parklet use in the warmer months, addressing the issue of equity and access to parking spaces for retailers during the peak holiday shopping season. The City should reach out to stakeholders as part of developing the new parklet approach.</p>
2	NOISE ORDINANCE	<p>Frequent requests were made in the public engagement sessions to address noise pollution in downtown resulting from altered vehicles (often motorcycles). Noise directly impacts the quality of the downtown experience and potential solutions should be reviewed by The City of Frederick, including the City Police as well as other stakeholders, to help mitigate noise in the study area (or downtown generally) and/or enhance enforcement.</p>
3	TREE POLICY	<p>Existing trees in Downtown Frederick provide shade, contribute to the ambiance of downtown, and improve air quality. These same trees are responsible for heaving and creating unnavigable sidewalks, mostly due to the small planter areas and compacted soils. In addition, tree placement, in conjunction with stoops and other obstacles, make many of the sidewalks downtown too narrow and inaccessible. The City of Frederick, Maryland is a Tree City and therefore is continuing a 40-year streak with its 2020 Tree City USA recognition. Although removing trees should never be taken lightly, the existing trees (many of which are in decline and /or near the end of their lifespan) in the study area need to be re-imagined to address future improved walkability downtown. Removing and replanting trees provides the opportunity to create the proper soil volume, increase the size of the tree planters, implement strategies that prevent or minimize root compaction, and create an enhanced planting condition. Removing and replanting trees at a 1:1 replacement (or as near to 1:1 as practical) in the study area addresses many of the physical constraints that currently exist.</p> <p>A well planned and environmentally appropriate design approach will result in a future tree canopy supported by adequate soil volumes, with attention to adjacent paving (to avoid paving and tree conflicts) and that promotes a healthy and sustainable future tree canopy. Proper steps will need to be investigated and planned for to maintain the Tree City USA designation and other requirements by the City and reviewing agencies for tree removal. A comprehensive plan for replacement trees, outside the study are, may be required. Tree replacement in the study area is expected to include large tree replacement at 5-6" caliper size.</p>
4	HARDSCAPE REPAIR ORDINANCE	<p>Existing ordinances place the responsibility of sidewalk repair, including costs, on the property owner which has resulted in inconsistent repair. The public engagement process identified sidewalk conditions, tripping hazards, accessibility issues, and impacts to walkability as a major concern of a significant majority of workshop and survey participants. In addition, encouraging walking in Downtown Frederick is critical to business health and the overall vitality of downtown. The consultant team recommends that the current policy be reviewed for potential, appropriate revisions that will ensure fair, timely, and consistent repairs when required. Explore the fiscal feasibility of additional city cost sharing in maintenance and repair for sidewalks that carry above a certain number of pedestrians per week. It is important to note that any change in enforcement policy will require adequate staffing by The City of Frederick. A sidewalk/hardscape assessment to determine priorities and capital project needs should also be considered. Going forward, the City should conduct a sidewalk/hardscape survey assessment on a regular (5 to 10 year) basis.</p>

REGULATORY RECOMMENDATIONS

#		ACTION
5	CLEAR PEDESTRIAN CIRCULATION	In the near term, the City should continue enforcing the current requirement of a minimum 5' wide clear pedestrian circulation, minimum 7' clear pedestrian circulation if the business is associated with a parklet. After future streetscape improvements are made, minimum clear pedestrian circulation should be increased to 6' width, minimum 7' clear if the business is associated with a parklet and/or has outdoor dining.
6	PARKING METERS	Removing streetscape clutter and unnecessary obstacles is an important step to increasing the walkability of downtown. It is recommended that centralized pay stations be implemented with future streetscape improvements.
7	STREET CUT/REPAIR - PROACTIVE COORDINATION	The City should proactively work with utility providers to upgrade utilities in advance of, or simultaneously with, major streetscape improvements. Every effort should be made to avoid street cuts/repairs following this major investment. This approach may require a multiple year moratorium of street cuts (other than emergencies) after the streetscape improvements have been implemented, or other creative strategies or incentives. The intent is to preserve new streetscape enhancements and minimize, after the fact, repairs or utility upgrades. The moratorium should be crafted in a manner not to disincentivize development or negatively impact adaptive reuse investments by owners.

4.3 IMPLEMENTATION & FUNDING STRATEGIES

SHORT TERM ACTIONS (To Be Completed Within 1 Year)	
#	ACTION
1	Conduct a review of the existing outdoor dining ordinance and consider adjustments based on the lessons learned from the immediate actions taken to deal with the pandemic.
2	<p>Select an interim parklet implementation strategy for 2022</p> <ul style="list-style-type: none"> » Complete NACTO review » Investigate a standard(s) (off the shelf or easily constructed) parklet ideas for use. Consider purchasing (constructing) 1 or more parklets for immediate use to convey the vision immediately. » If the water-filled barriers will be used, investigate cost-effective ideas for adding graphics, planters, signage/branding, artwork, and the like to improve attractiveness. » Devise a method for placing the water-filled barriers to allow for planters at intersections and occasionally along the barrier edge, to improve attractiveness. » Develop proposals for fees for use and dates of installation
3	Identify funding and conduct the streetscape traffic, parking, and utility analyses
4	Identify funding and conduct a sidewalk assessment to determine repairs and priorities.
5	Develop a strategy for painting crosswalks, intersections, and/or parking stalls – consider hiring a local artist, design competition, or school project

4.4 COST ESTIMATE

Zone 1 (Blue) - Price Per Block (Estimate 11 Blocks)			
Streetscape Improvements	%	Low	High
Demolition	13%	\$99,000	\$121,000
Curbs & Paving	54%	\$406,800	\$497,200
Trees Pits, Planters	17%	\$126,000	\$154,000
Street Furniture, Fixtures & Signage	16%	\$118,800	\$145,200
Total Cost:		\$750,600	\$917,400

Zone 2 (Red) - Price Per Block (Estimate 5 Blocks)			
Streetscape Improvements	%	Low	High
Demolition	6%	\$186,300	\$227,700
Curbs & Paving	20%	\$621,000	\$759,000
Trees Pits, Planters	26%	\$801,000	\$979,000
Street Furniture, Fixtures & Signage	28%	\$868,500	\$1,061,500
Lighting & Signals	20%	\$603,900	\$738,100
Total Cost:		\$3,080,700	\$3,765,300

Utility Replacement - Price Per Block			
Streetscape Improvements	%	Low	High
Water Service	18%	\$365,400	\$446,600
Gas Service	13%	\$270,000	\$330,000
Conduit (Electrical & Telecom)	33%	\$662,400	\$809,600
Storm Drain	18%	\$365,400	\$446,600
Sanitary Sewer	18%	\$374,400	\$457,600
Total Cost:		\$2,037,600	\$2,490,400

Additional Study			
Task		Low	High
On-Street Parking Assessment		\$75,000	\$125,000
Traffic Study		\$200,000	\$300,000
Utility Study		\$75,000	\$125,000
Survey & Subsurface Utility Locating		\$100,000	\$150,000

Assumptions & Exclusions
<ol style="list-style-type: none"> 1. Pavers may include brick paving, pre-cast concrete or scored cast-in place concrete. 2. Include curb replacement for entire block. 3. Assumes two new parking kiosks per block. 4. Excludes replacement of street lighting. 5. Off-site tree mitigation is excluded.

Assumptions & Exclusions
<ol style="list-style-type: none"> 1. Pavers may include brick paving, pre-cast concrete or scored cast-in place concrete. 2. Include curb replacement for entire block. 3. Assumes asphalt paving for roadway. 4. One new traffic signal per block is included. 5. Includes new intersection & pedestrian lighting. 6. Assumes 400 LF of silva cell per block. 7. Street furniture is assumed to include bike racks, trash and recycling cans, benches, parking kiosks. 8. Off-site tree mitigation is excluded.

Assumptions & Exclusions
<ol style="list-style-type: none"> 1. Excludes replacement of electrical wire, electrical transformers, telecom wire and fiber optic wire. 2. Assumes signal re-work would be included in the signals price and is not reflected in this estimate. 3. Cost is for replacement in-kind of known infrastructure and does not include capacity upgrades for existing infrastructure. 4. Surface restoration is excluded.

Assumptions & Exclusions
<ol style="list-style-type: none"> 1. Survey & Subsurface Utility Investigation includes topographic surveying and horizontal utility locating only. Test holes to determine vertical location of utilities is excluded. 2. On-Street parking assessment is assumed to analyze on-street parking capacity/demand and identify impact of displaced parking spaces. 3. Traffic study is assumed to require detailed vism modeling to analyze effects of road closures/lane reconfigurations on the downtown traffic network. 4. Utility study is anticipated to include assessment of water and sewer network for condition and capacity. Also may include limited storm drain assessment building off work previously completed by the Army Corps.

Note: This following estimate is based on average per block costs (based on average block length in the study areas) for the Zone 1 (Blue) and Zone 2 (Red) concept options, presented in the attached study. This structure is intended to provide decision making flexibility, allowing for the Zone 1 (Blue) and Zone 2 (Red) blocks to be applied as needed with final design direction. Although this design study makes recommendations for where to apply each block type, it was noted that through this process, that either block type can be expanded or retracted pending further development and study. Given unknowns regarding utility conditions and capacity, a "worst case" estimate was prepared for consideration. "Worst case" refers to the estimate including pricing for replacement of all known utilities in the study area at their current size and capacity. At the time of this study, a full utility condition and capacity assessment was not available to determine which utilities may need replacement.

Note: This estimate of probable cost is based on the engineer's experience and qualifications and represents the engineer's best judgement as a qualified professional experienced with the industry. However, since the engineer has no control over services furnished by others in a competitive bidding environment engineer cannot and does not guarantee that actual construction costs will not vary from opinion of probable cost.