KIT 2
ACTION KIT FOR LAND USE + PARKING
An outgrowth of the Manchester Multimodal Transportation and Land Use Planning Study (named Manchester Connects), generously funded by the New Hampshire Department of Transportation (NHDOT) and overseen by the Southern New Hampshire Planning Commission (SNHPC), Manchester Connects begins with this plan. The goal and priorities developed through the planning process, coupled with the plan’s vision and recommendations, will propel Manchester Connects into the future.

As much as Manchester Connects is a planning process, it’s also a framework for future action. The planning process itself was a model for how community leaders, businesses, public agencies, institutions, and residents can come together to dream, deliberate, and determine priorities. Supported by a group of active and involved residents and business people who are committed to a vibrant and thriving 21st Century Manchester, Manchester Connects is about action. Over the course of more than a year, many stakeholders have put in many hours to help move the planning along and to discuss the best way to move forward. At its core, Manchester Connects recognizes that many things are possible with collaboration, determination, and a pinch of creativity.

Furthermore, a core principle of this initiative has been, and will continue to be, that it is good to plan, and even better to act!

While there are certainly large-scale, expensive, bricks and mortar solutions and recommendations included in this plan, Manchester Connects takes an incremental approach that prioritizes action while the large-scale projects work their way through the funding and permitting processes.

That is why these four action kits are presented separately. Each kit is the result of hours of meetings, phone calls, interviews, and research to ensure that the Manchester Connects recommendations are not generic planning solutions sitting in silos. Each kit represents the political, economic, and social environment in which things must be possible.

The kits provide the what, who, and how of the plan’s priorities and major recommendations:

1. The Loop + Riverwalk
2. Land Use + Parking
3. Placemaking
4. Organization

These kits are meant to be used separately and in conjunction with one another to move Manchester toward the shared vision of a vibrant, economically-thriving, and welcoming community that serves as the northern New England hub of technology and innovation.

These kits are not set in stone but are meant to be flexible. They serve as a “kick-starter” to move from planning to action. Their content is based on deep discussions about political realities, funding sources, local capacity to act, and what is most needed.
# Case Study Location Kit

## Number

## Relevancy to Manchester Connect Recommendations

### Loop + Riverwalk

### Land Use + Parking

### Placemaking

### Organization

## Table of Case Studies

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Location</th>
<th>Kit Number</th>
<th>Loop + Riverwalk</th>
<th>Land Use + Parking</th>
<th>Placemaking</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Portsmouth</td>
<td>Portsmouth, NH</td>
<td>1</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amsterdam Light Festival</td>
<td>Amsterdam, Netherlands</td>
<td>3</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armory Reuse</td>
<td>Various</td>
<td>2</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
</tr>
<tr>
<td>Butler Trail</td>
<td>Austin, TX</td>
<td>1</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Portland</td>
<td>Portland, MD</td>
<td>4</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detroit Creative Corridor Center</td>
<td>Detroit, MI</td>
<td>4</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discovery Green</td>
<td>Houston, TX</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamilton Canal Innovation District (HCID)</td>
<td>Lowell, MA</td>
<td>2</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
</tr>
<tr>
<td>Iconic Placemaking</td>
<td>Various</td>
<td>3</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larkinville</td>
<td>Buffalo, NY</td>
<td>2</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metcalfe Park</td>
<td>Sydney, Australia</td>
<td>3</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
</tr>
<tr>
<td>Parking and Investment</td>
<td>Portsmouth, NH</td>
<td>2</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
</tr>
<tr>
<td>Paths to Pier 42</td>
<td>New York City, NY</td>
<td>3</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riverwalk and Waterplace Park</td>
<td>Providence, RI</td>
<td>1</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schuylkill River Trail</td>
<td>Philadelphia, PA</td>
<td>1</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spruce Street Harbor Park</td>
<td>Philadelphia, PA</td>
<td>3</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>StreetsAlive!</td>
<td>Moorhead, MN</td>
<td>1</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Church Street Marketplace</td>
<td>Burlington, VT</td>
<td>3</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
</tr>
<tr>
<td>Three Rivers Revitalization</td>
<td>Pittsburgh, PA</td>
<td>1</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unified Parking Districts</td>
<td>Various</td>
<td>2</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
</tr>
<tr>
<td>Unusual Passages</td>
<td>Quebec City, QC</td>
<td>1</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walkway over the Hudson</td>
<td>Poughkeepsie, NY</td>
<td>1</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wintertime Public Space Activation</td>
<td>Buffalo, NY and Philadelphia, PA</td>
<td>3</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
THE BIG PICTURE

One of the top three priorities chosen by participants in this planning initiative is addressing parking challenges in the Millyard. Issues centered on parking have spurred ongoing discussions between Millyard owners and the City of Manchester. Current Millyard tenants resort to varied means to secure the parking necessary to accommodate their students, employees, and visitors. Some tenants rent spaces from various lots and garages throughout the Millyard and Downtown. Others, such as SNHU, lease remote lots and run shuttles to their Millyard facility. The search for parking has resulted in large expanses of the Millyard being asphalt paved, contributing little to the vibrant public realm that employees, residents, and visitors desire in the places they live, work, and play. Indeed, parking is closely linked to:

- Economic vitality
- Local business health
- Tourism
- Pedestrian environment
- Traffic patterns
- Development potential
- Bicycling accommodations
- Signage and wayfinding

The overall theme of connectivity and vibrant public spaces (the other two top priorities of this initiative) is heavily dependent on land uses. What are we connecting to? What activates this public space? What makes it enjoyable to walk or bike to the Riverwalk? This Land Use and Parking Action Kit explores ways to address parking challenges within the context of parking strategies and land use regulation to ensure that a coordinated approach to these challenges serves the short and long-term goals of the City, property owners, and the Manchester Connects initiative.

WHY THIS KIT? – THE DETAILS

Land use and transportation are intrinsically linked. The mix of uses in the Millyard and Downtown, the availability (or lack) of multiple modes of transportation, and land use and other City policies that contribute to existing conditions cannot be separated; cities succeed or fail based on their land uses and whether they align (or don’t) with community desires, needs, and economic trends. Parking challenges and the competitiveness of the Millyard and Downtown as a regional economic engine can be approached through a combination of land use changes, improving connectivity, ensuring that there are transportation options available, and focusing on parking in the Millyard specifically.

The Millyard parking problem is a frustrating symbol of success and reflects the desirability of the Millyard in particular. Parking is not an end to itself; it instead should underpin economic development and overall mobility. However, this frustration has led employers, tenants, and landowners alike to see decision-making in the Millyard through one lens – the availability of parking.

There are currently more than twenty different parking management and pricing structures within the Millyard alone. In addition to traditional on-street parking, the City maintains and issues permits for its lots. Individual property owners also manage their parking with a variety of pricing, signage, access, and other regulatory measures. Some businesses have parking built in to their lease while others have to negotiate with other property owners to obtain parking for their employees. Businesses are in a perpetual state of uncertainty as they work to secure
enough parking for their employees. The combination of multiple owners, spotty information, a culture of reduced price parking, and lack of knowledge of who pays for what create a web of challenges.

The result is that parking concerns drive all decisions, and when decisions about land use, development, open space, and connectivity are driven by parking concerns, the outcomes may not align with the broader goals of the City and property owners. One action, one policy, one regulation, affects all other things in this ecosystem. With a range of potential solutions to address parking challenges, this kit addresses the need for accurate and complete information upon which to base actions and presents a range of strategies to address these complex challenges. In addition, a coordinated look at addressing parking challenges and providing a healthy mix of land uses can ensure the Millyard is competitive as a modern-day innovation center that can attract educated knowledge-workers to the firms that locate here.
GOALS

There are multiple goals for this Action Kit, beginning with near-term strategies. The goals below are separated into parking and land use categories for ease of implementation.

1. Encourage a mix of land uses wherever possible:
   - Understand that changing trends include Millennials and empty nesters returning to urban living.
   - Competing with the surging popularity of innovation districts will be crucial to the Millyard’s continued status as a major economic engine for the city and region.

2. Address parking challenges to ensure that parking is in service of larger goals:
   - Vitality
   - Placemaking
   - Economic development

3. Ensure costs and benefits of parking are visible

4. Unlock the value of land so that it may be utilized for larger goals

WHAT CAN BE DONE?

PARKING STRATEGIES

The multiple ownership structures and lack of a unified parking policy for the Millyard and Downtown require a multipronged approach to parking management.

This Action Kit presents a continuum of strategies ranging from near-term and fairly easy to implement to longer-term and capital-intensive. Shown in the chart to the left, these recommendations are additive in nature and, beginning with 1. Expand existing initiatives, build on one another to improve parking and mobility.

The Case for Collaboration

All of the strategies presented in this Action Kit require one common element — collaboration. The first step toward any action will be to gather stakeholders together – The City (as a property owner, parking regulator, planner, and general regulatory body), Millyard property owners, tenants, and others – to create a working group that makes a commitment to gathering data, sharing resources of all kinds, and collaborating where possible on solutions to the parking challenges. Everyone has something to gain by collaborating on parking.
1. Expand existing initiatives

There are many mobility-related initiatives, programs, and improvements in place in the Millyard and greater Manchester already. Capitalizing on these will help to mitigate parking demand.

a. The Green Dash today provides relatively frequent service to the Millyard, but may be underutilized. Expanding its use through service improvements and marketing could not only be a part of marketing the Millyard to current and future employers, but would mitigate parking demand.

b. Many employers already make arrangements for remote parking and/or provide shuttle services from these facilities to their front door. A coordinated approach (see Strategy #2 on the next page) could expand and streamline these services.

c. Today’s bicycle facilities are limited; expanding them to and through the Millyard will provide potential cyclists with a safe, reliable means to get around.

d. Similarly, expanding street design to accommodate all users rather than vehicles only will mitigate parking demand by encouraging people to park remotely and walk/take transit to a final destination, or to not drive at all.

e. Build on the momentum of the Manchester Connects process to and advance ideas to improve mobility and connectivity in the Millyard and Downtown.

Potential service improvements:

- Create a more direct route for the Green Dash
- Avoid transport loops that circle back and add trip time that discourages riders
- Utilize clock-face timing (for example, “every 15 minutes”)
- Provide visible and accessible information
- Boldly mark the route
- Improve facilities for riders including seating, weather shelter, and free Wi-Fi on board
- Explore sharing of resources with other shuttle services. Currently, SNHU runs a remote parking shuttle service that costs more than $500k per year. Is there a way to combine resources to create a legible and user-friendly system that serves all?

ON-STREET BIKE FACILITIES

- Shared-lane/ “Sharrow”
- Bike lane
- Buffered bike lane
- Bollard-protected bike lane
- Sidewalk-level bike lane

PROPOSED BICYCLE INFRASTRUCTURE

Features like sculptural bike racks draw people’s attention and can generate further activity.

Sources, top to bottom: www.tinaspngler.files.wordpress.com/2013/09/dscn6486.jpg, www.canterbury.gov.uk

Source: Manchester Bicycle Master Plan DRAFT, DPW
2. Coordinate approach to parking

The Millyard does not have a transportation-related group that meets regularly. A group comprised of those with diverse interests but similarly invested in Millyard access would be able to pursue common goals. This Mobility Group would include tenants, employees, landowners, SNHPC, MTA, employers, and the City.

a. The group can identify common goals and top priorities to meet those goals. It can then take a systematic approach to working toward solutions to those goals. City and regional (MTA, SNHPC) membership in the group is crucial here as funding, regulatory, and grant-making roles rest with these entities and these things will be needed in addition to information sharing and collaborative problem solving to advocate for investment.

b. Currently, any employers/tenants that provide free or discount parking to their employees are providing an employee benefit, but likely not framing it as such. These entities should consider that the money they put into parking (leasing, maintenance, security, construction, debt service, etc.) is paid toward a significant benefit for employees. Developing this understanding helps reveal the true cost of parking to employees, and can eventually shift into providing a suite of transportation benefits beyond parking.

c. This Millyard Mobility group may also be able to identify parking efficiencies. For example, if the Millyard was managed as a system, price could match demand to create remote parking options that alleviate pressure on more central parking areas.

A coordinated approach is particularly important because of the range of typical challenges for parking management, that can include:

- Conflicts: employee vs. customer parking
- Perception of **low parking availability** and **high pricing**
- Unfriendly **time-limits**
- Lack of **clear information** and signing
- Lack of user-friendly **payment structure** and technology
- Inefficient & unfriendly **parking enforcement**
- Need **event parking/management**
- **Restricted spaces** can be underutilized
- Need better **walking and biking** environment
- **Financial sustainability** of parking management structure

Better signage and shared parking policies to recognize peak demand times and off parking periods can help alleviate some parking challenges.

Source: CivicMoxie
3. Transportation Demand Management

Transportation demand management (TDM) seeks to: (1) shift the time of travel from peak hours, (2) shift the mode of travel away from single occupancy vehicles, and (3) shift the route traveled.

a. The first step for TDM is often to reveal the true cost of parking to users through price. By asking users to pay a fee that covers the cost of parking provision, it becomes apparent that cheaper, more efficient choices may exist.

b. Other TDM components include improving bicycle and pedestrian access, subsidizing transit passes and improving transit, or even preferential carpool parking. For more on TDM, see the “TDM Encyclopedia” at www.vtpi.org/tdm.

c. The Mobility Group can work to provide common TDM options, such as pooling money to make transit passes available, advocating for improved Green Dash routing, or creating an incentive program for those who bike, take transit, or carpool to work.

TDM includes strategies to integrate bicycle facilities into the overall multimodal strategy. In addition to these traditional modes of travel, young adults and others are turning to new technologies that provide additional options for transportation. Ride-sharing programs, bike shares, ride-hailing services, and car shares are all now part of the overall menu of transportation choices in urban areas.

——

BENEFITS OF SHARED PARKING DISTRICTS

<table>
<thead>
<tr>
<th>Attract tenants</th>
<th>Control parking costs</th>
<th>Promote shared efficiencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure easy access</td>
<td>Minimize traffic</td>
<td>Use other modes &amp; make a place</td>
</tr>
<tr>
<td>Control spillover</td>
<td>Benefit the community</td>
<td>Use existing off-site resources</td>
</tr>
</tbody>
</table>

Source: Nelson\Nygaard

EXPANDING TRANSPORTATION OPTIONS

Bike Share  Complete Streets  Pedestrian Infrastructure

Bike Infrastructure  Car Share

UNIFIED PARKING DISTRICTS
SHARED PARKING DISTRICT PRINCIPLES

The benefits of shared parking districts are many and there is flexibility in how they can be organized and managed:

Parking districts may include the following elements:

- Coordination/management of neighborhood transportation programs (with residents, tenants, owners, and neighbors)
- Construction, operations, and maintenance
- Monitoring of on-street and off-street parking
- Administration and communication of transit program information and benefits
- Coordination with bike share and car share systems
- Coordination and monitoring of other recommended tools, including valet parking, interim construction parking, and wayfinding systems

Parking districts can be managed by one or several partners, such as:

- The city, a development authority, a BID, a master developer, private association representing property owners, or a TDM organization

The diagram below displays examples of parking management districts on a spectrum from public to private.
UNIFIED PARKING DISTRICTS
SHARED PARKING DISTRICT EXAMPLES

PUBLIC

Development Authority: Ann Arbor, MI
Goal: Promote physical and economic development growth in key business districts, typically in downtown areas.

- Overview: Authority promotes multimodal transportation and controls on- and most off-street downtown parking
- Parking Inventory: ~7,100 spaces
- Primary Builders/Owners: City of Ann Arbor; Downtown Development Authority (DDA)
- Financing: Tax Increment Financing (TIF), Parking fees, ~1/3 of tax revenues generated within District
- Transit Access and TDM Programming:
  a. 27 bus routes and Park and Ride lots
  b. Universal Transit Pass program; get Downtown program; Zipcar sponsorship with UM

Enterprise Fund: Montgomery County, MD
Goal: Enterprise funds generally mandate that developers in a certain district pay fees to a dedicated financing program in lieu of fulfilling municipal parking minimum requirements.

- Overview: Developers pay in-lieu of building spaces to the Parking Lot District (PLD) program. PLD operates more than half of the parking in three major areas.
- Parking Inventory: ~20,000 spaces
- Primary Builders/Owners: Montgomery County DOT
- Financing: Each District’s PLD is funded by the Ad Valorem tax (~25%), parking services (~60%), and parking fines (~15%)
- Transit Access and TDM Programming:
  a. Three of the four PLDs are located within a half-mile of a Metrorail station
  b. Contributes revenue to County’s Mass Transit Fund and Transportation Management Districts

PUBLIC OR NON-PROFIT

Transportation Management Association
MASCO, Boston, MA
Goal: TMAs generally operated by member institutions or businesses, and are designed to mitigate local congestion, manage parking, and operate travel demand programs in a specific area.

- Overview: Non-profit that serves medical area with variety of services, including transportation
- Parking Inventory: ~2,000 off-site and 750 on-site parking spaces
- Primary Builders/Owners: MASCO
- Financing: Parking and transportation revenues, rent, telecommunications center fees, purchasing/contracting, investments
- Transit Access and TDM Programming:
  a. Heavy rail, bus, and commuter rail
  b. Walk/bike incentives, ERH, CommuteSwap, ride share, Carpool/Vanpool

Mueller, Austin, TX
Goal: The 700-acre Mueller site in Austin, Texas, is owned and managed by the master developer, Catellus; on-street parking is controlled by the City of Austin.

- Overview: Master developer and City partnership of former airport site
- Parking Inventory: 1,300 – 1,500 spaces (Phase 1)
- Primary Builders/Owners: Catellus and City with some private support
- Financing: Common area charges, developer payments, Catellus/Austin;
- O&M from tenants and users
- Transit Access and TDM Programming:
  a. Local bus service, future commuter rail station proposed
  b. Coordination of shared parking, wayfinding, signage, bike-share programs, electric vehicle charging stations, employer trip reduction program

For more information, see www.muelleraustin.com/

Arlington County, VA
Goal: The private sector provides most of the publicly available off-street parking in Arlington. County planning staff is reluctant to develop stand-alone public parking facilities, in part, as a response to decades of minimum parking requirements that have created a consistent surplus of parking in most of its transit and mixed-use, commercial corridors.

- Overview: County uses market opportunities, zoning code, and incentives to rely on privately-owned parking supply in-lieu of public supply
- Parking Inventory: 60+ private garages
- Primary Builders/Owners: Private developers
- Financing: Private developers; user fees; in-lieu fees
- Transit Access and TDM Programming:
  a. Metrorail, Metrobus, Arlington Transit
  b. Limit the amount of parking spaces reserved for individual users to no more than 20% of the total parking supply

Kendall Square, MA
Goal: Kendall Center’s parking facilities are owned and operated by Boston Properties, a real estate investment trust. The goal is to provide centralized parking facilities for Kendall Square employees and visitors.

- Overview: Three shared garages in larger district owned/operated by real estate investment trust
- Parking Inventory: 2,748 spaces
- Primary Builders/Owners: Boston Properties
- Financing: Private development; land purchased from Cambridge Redevelopment Authority under Urban Renewal Program
- Transit Access and TDM Programming:
  a. Red Line heavy rail, buses, TMA funded buses, private shuttles
  b. TMA membership, car share/ bike share, on-site daycare, on-site showers and lockers, parking cash out

4. Expand and improve parking supply
Improved and expanded parking supply will help alleviate pressure on the most desirable facilities.

a. The Mobility Group should lead this task so that additional Millyard supply can serve multiple users.
b. The Arms Lot, Gateway Lot, and Bedford Lot would be suitable sites for structured parking.
c. Any additional parking should incorporate ground-level retail, dining, and “third places,” so that it does not take away from the pedestrian environment. People much prefer to walk along active storefronts over blank garage faces, and this activity will help parking feel less “far away.”
d. Improvements to existing lots, particularly any that are underutilized, can help users feel safe and less frustrated. For example, real-time availability would mitigate frustrating hunts for parking, while improved lighting would help alleviate pressure to find a spot “right out front,” particularly in Manchester’s cold and dark winter months.
e. Expansion of parking should include an exploration of brownfield restoration. It may be less intensive to redevelop a brownfield to support parking than other uses.

5. Implement remote parking
Remote parking would allow Millyard landowners and developers to use prime, walkable real estate for more livable uses while shifting parking to less valuable remote sites. Re-purposing existing parking areas for uses that contribute to a mixed-use environment and the overall competitiveness of the Millyard as an economic engine can make good economic sense in the long run.

a. With parking on the periphery, the Millyard could become a walkable destination with active streets.
b. Creating a trolley/shuttle within the Millyard to remote parking creates an attractive option for employees who don't have to hunt for parking and can get dropped off close to their front door - see the information about a Millyard Trolley on the next spread.
c. If parking is managed in common and price is adjusted to match demand, the District may start to have additional parking revenue. This revenue could fund the trolley/shuttle, or improvements such as bicycle facilities and remote parking construction.
This chart and diagram show that the amount of parking needed by each of the uses shown peaks at different times. Partnering complementary uses decreases the total number of spaces needed. Today, the Millyard is predominately a single-use district. The businesses in the Millyard are all competing to use the same spaces at the same time, creating a scarce resource. If the Millyard transitioned to a mixed use district with offices, restaurants, residences, and other uses, it could alleviate some of the parking challenges.

Source: Nelson\Nygaard
As demand grew in the Millyard, Dean Kamen and his associates began to think big about how to address the problem. Mr. Kamen and his team have been working with an engineering firm to develop concepts for a Millyard Trolley that would travel between a remote parking lot (ideally at both ends of the trolley route) and the Millyard to improve access for residents and businesses. A trolley like the one envisioned would also serve as a tourist attraction, bringing even more people and exposure to the Millyard, its businesses, and Manchester as a whole.

The proposed pathway of the trolley is along the Riverwalk. Infrastructure enhancements necessary to achieve this would serve a dual purpose: provide a space for the trolley to run and the cantilevered section of the route would also provide the access way for a pedestrian Riverwalk, overcoming the current obstacle of no land available between buildings and the Merrimack at key points along the riverfront.

This solution is on the long-term capital-intensive end of the parking strategy spectrum but it would open up considerable land for other uses in the Millyard, enabling the creation of a vibrant, mixed-use destination that would compete strongly with innovation districts in the larger region.
WHAT CAN BE DONE?
LAND USE STRATEGIES

The Millyard is primarily a single-use district, but trends point to the importance of mixed-use districts that provide opportunities for people to live, work, and play without ever getting in a car. The Millyard's true competition are the innovation districts sprouting across the northeast and the country. With a mix of uses, vibrant public spaces, and multimodal choices, these districts are the place of choice for entrepreneurs, high-tech and knowledge companies, and the workers they employ.

- Empty nesters and Millennials want much the same things in their living environments: walkable neighborhoods with nearby services and amenities such as grocery stores, dining spots, and gathering places.
- Mixing uses creates new opportunities without necessarily increasing the parking demand. Mixed-uses make sharing parking easier and reduce the overall total demand for spaces.
- The Capitol Corridor Commuter Rail project may be a long way off, but thinking about TOD now is simply good city-building. The walkable, dense mix of uses that are at the core of transit-oriented development are good for vibrancy and economic health with or without commuter rail service.

In addition to a general preference for mixed-use urban districts, the types of businesses that are already located in the Millyard would thrive in a true innovation district, a place where people both live and work surrounded by urban amenities and services. These districts are popping up throughout New England and across the globe as the way we work and live changes. These changes are especially evident in the high-tech world where businesses focus almost entirely on creative activities that may not fit the standard 9 to 5 window. Diversifying land uses within and adjacent to the Millyard provides the kind of environment businesses and knowledge workers are looking for while also supporting multimodal transportation options and high quality of life for all.

Land use strategies are closely tied to parking policies. Parking is real estate. It costs money and a space used for parking isn't being used for something else that could be contributing higher economic value for property owners and/or quality of place amenities for the Millyard and Downtown.
LAND USE STRATEGIES

This map highlights possible redevelopment sites in and adjacent to the Millyard. The pedestrian radius circles start from the potential site for a future Capitol Corridor Commuter Rail stop to show what is within easy walking distance (5-10 minutes). While there are environmental concerns regarding redevelopment, the Millyard was a much denser area during its heyday. Parking supply can be addressed simultaneously with mixed-use development strategies if projects are phased correctly.

The City-owned property at Arms Park(in)g Lot is shown as a development site. Mixed-used development potential with active ground floor uses wrapping a major parking deck would give people a reason to come to the Riverwalk. New public space would frame a river view and design guidelines can ensure that the view corridor to the river is preserved. Far from impeding on riverfront space, thoughtful development can enhance access and visibility.

Source: CivicMoxie
1. Support new mixed-use development in and adjacent to the Millyard
   a. New development can provide a much-needed mix of uses to the mostly office/educational tenants of the Millyard to provide a more vibrant 24/7 environment.
   b. Mixed land uses also support parking sharing that can reduce the overall demand for parking.

2. Use parking land uses more efficiently
   a. “Park once” development encourages walking, supports local businesses, and provides a sense of security by creating more foot traffic and “eyes on the street.”
   b. Promote site design standards on all new development that encourages an emphasis on active street uses, hides parking behind buildings, and promotes a mix of land uses that creates parking sharing opportunities that lower overall peak demand load.

Mixed-uses encourage shared parking. The chart on the left shows the parking needed for each use in an unshared parking lot. Below, the uses are mixed and the parking supply is shared. At its peak, a shared parking supply requires almost 40% fewer spaces!

Source: Nelson\Nygaard
Inefficient vs. efficient use of parking:
Above, an inefficient land use pattern requires multiple vehicle trips between parking lots to complete the same errands.
Below, a “park once” land use strategy reduces the number of vehicle trips to one. In this example, all the same uses as above are located in a way that encourages people to park their car once and walk between the various destinations. Not only does this reduce traffic in the area, it encourages the type of vibrant community that people desire.

Source: Nelson\Nygaard
The Hamilton Canal Innovation District is a 15-acre redevelopment site with 17 parcels of land that serves as a primary gateway to Lowell. When developed, the City hopes this newly-branded district will reinvent the area as a vibrant, mixed-use neighborhood that connects Lowell’s downtown to its commuter rail station. The Gallagher Terminal provides regular commuter rail service to Boston’s North Station. The Hamilton Canal Innovation District is located near Lowell’s Arts District and multiple event venues.

The City launched this re-branding effort and development plan in June 2017, with an open house and site tour. Lowell is actively recruiting Boston-area commercial developers that will lure high-tech and other knowledge-sector businesses, spurring economic development.

This $800 million project was always envisioned as a public-private partnership. Lowell’s Comprehensive Master Plan identified the area as ripe for redevelopment and it is the largest single project included in the City’s Jackson/Appleton/Middlesex Urban Revitalization Plan. The Lowell Plan, Lowell National Historical Park, and the JAM Business and Residents Association have worked closely with the city and others throughout the project.

The Hamilton Canal Innovation District is projected to generate $4 million in new annual tax revenue for the City and create almost 2 million square feet of new development.

By promoting TOD and canal waterfront sites, the City is catering to the preferences of businesses and skilled workers by creating a place to live, work, and play.

Similar to Manchester, Lowell has academic institutions in the area of the new Innovation District. In fact, the UMass Lowell Innovation Hub is a key asset that will help attract both commercial and residential development that will enliven downtown and support existing businesses.

Stakeholders and members of the public participated in meetings and working sessions to inform the final plan for the district with their feedback. The project’s focus is job creation and economic development, but the plan will address a variety of concerns including: market feasibility of various development options, bridges, building scale and location to limit impact on existing development, land uses, parks and public spaces, pedestrian connectivity and infrastructure, street design and layout, traffic concerns, transit circulation into and through the district, and utilities. The final proposal will also ensure that the Hamilton Canal Innovation District supports redevelopment in other Downtown locations and throughout the city.

In addition to spurring economic development and providing a significant increase in net tax revenues, the Hamilton Canal Innovation District will create a new connection to Downtown and provide a viable, safe, and comfortable pedestrian link from the MBTA Commuter Rail Terminal to Downtown. It will also create a signature site with a variety of housing options that appeal to people who want to live in a vibrant, urban area, and provide opportunities for active first-floor uses with ample pedestrian amenities such as inviting walkways, street trees, pedestrian-scaled lighting, and destinations along pedestrian walkways.

The project aims to acknowledge and reflect the historic canals as the significant urban amenity that they are, improve livability and quality of life for residents in Downtown Lowell, and increase sustainability by using green building techniques to construct energy efficient buildings.

Source: www.iconarch.com/hamilton-canal-district-master-plan
3. Explore the redevelopment of Arms Park (ing) Lot to create a mixed-use destination that supports more active use of the Riverwalk and provides hidden parking wrapped with active ground floor uses

   a. Solving parking challenges in the Millyard can also provide other amenities such as a more robust mix of uses and “third places.” Relocation of surface parking to a parking garage can address multiple urban design issues if the parking is wrapped with active uses.

   b. Development of Arms Park should preserve and enhance the view corridor from Elm Street to the Merrimack River and frame public space to create a vibrant public destination.

Use brownfield funding through SNHPC and other sources to fund early phaseing of Arms Park/parking lot and other Millyard sites that offer development potential. SNHPC currently administers a brownfield grant and could be the source of funding for early phase investigation of the Arms Park parking lot to determine the extent and nature of any environmental contaminants. Potential funding mechanisms are discussed later in this kit. See the section on Funding and Implementation Options.
4. Pursue adaptive reuse/redevelopment of the Amory site to create a strong gateway and anchor for Downtown and the Millyard and potential remote parking for the Millyard

a. As a seven-acre site that sits at the northern entry to the Downtown and Millyard, the Armory parcel has extraordinary potential to provide mixed-use development and significant parking supply for the area.

b. Parking can be wrapped and hidden within a redevelopment scheme.

c. This site can provide a multimodal spot with links to transit, parking, and bicycle facilities, as well as any parking shuttles.

d. This parcel has potential to be the northern terminus for any future remote parking/shuttle/light train service for the Millyard and Downtown.

ARMORY REUSE

As state military buildings have fallen into disuse, or locational needs have changed, the redevelopment of armory sites has become increasingly common throughout the United States. When armories are redeveloped, many projects continue to serve as community spaces; some armories have been redeveloped into recreational spaces, wellness centers, and/or offices. Other redevelopment projects have converted armory space into offices, cultural centers, or housing. Some armory redevelopment projects have been more creative, creating indoor farms and rooftop green spaces.

Former armory buildings are typically very large, so developers often turn to a mix of uses to ensure that the project is financially feasible and sustainable. Many of these facilities are physically obsolete and are difficult to modernize in cost effective ways. For this reason, there are a range of redevelopment projects that highlight partial reuse or demolition and complete redevelopment of armory properties for new economic active uses.

The Manchester Armory sits on eight acres of highly visible land at the northern edge of the Millyard. This ideally situated parcel could be a dense, mixed-use project that would provide workforce housing within walking distance of Downtown and the core of the Millyard. Additionally, the project could provide additional parking (wrapped by other uses) for Millyard use. Here are some examples of other armory projects across the country.

The Armory sits at the northern entrance to the Millyard and can be a key component of a strategy to provide more living choices within walking distance to the core of the Millyard and Downtown while also providing remote parking for employees further south in the district.

country that have employed or plan to employ either complete demolition and new construction or a mix of selective demolition and new construction to achieve vibrant new development that enhances the surrounding community:

The redevelopment of the armory in Boulder, CO will provide housing units with an additional goal of retail and office space. The historic mess hall will be converted into a community center. This portion of the project was recently awarded historic site approval, which enables it to obtain historic tax credits. In this case, the developer purchased the site from the city for $10.5 million. In addition to the historic tax credits, the developer is using affordable housing tax credits. The first units are expected to be available in 2018.

The armory in Midtown, St. Louis is being transformed into an office facility with floating conference rooms built into the original atrium, offering stunning views of the historic, 90-foot high interior space. Other highlights include a rooftop green space, spa and wellness center, and nearly 200 parking spaces on the building’s basement level. This project will generate revenue from renting office and parking spaces. A large tenant has already leased 30,000 square feet. This redevelopment project is expected to create 700 jobs and bring $33 million into the local economy. This redevelopment project is expected to create 700 jobs and bring $33 million into the local economy. In addition to the armory redevelopment, there are plans to construct a new building across the street that will house a hotel, microbrewery, and more parking.

Though this is a private development, it is being funded through a combination of public funds (in the form of more than $10 million in tax increment financing, federal tax credits, Brownfields tax credits, and tax abatements) and private funds. The City has created a community improvement district and transportation development district to support the project.

Funding for armory redevelopment projects is diverse. Some projects are completed as public projects, others are public-private partnerships and some are purely private development. The reality is that the majority of private projects, including those by a for-profit developer or a non-profit organization, benefit from tax abatements or other public support.

In Peterborough, NH, a combination of funding from the government and a local non-profit, The Cornucopia Project, facilitated the transformation of the Peterborough Armory into a multi-use community facility that includes a community center, food pantry, community kitchen, and recreation space. The community center is heavily focused on food activities including nutrition programs for children; the particular focus on food and nutrition comes from one of the project’s biggest advocates, The Cornucopia Project, a local non-profit. This was a true public-private partnership, with support from the town, local non-profits, fundraising, and donations.

All of these examples provide possibilities for the Manchester Armory. This site is owned by Amoskeag industries and if the National Guard vacates the property, Amoskeag has reverter rights. The core mission of Amoskeag is economic development in Manchester and this is an ideal project to demonstrate how public and private collaboration, with a larger plan in mind, can yield transformational results for the city.

DISCOVERY GREEN
Houston, TX

Discovery Green is a 12-acre park located in downtown Houston that helped jumpstart development in the area. Several Houston philanthropists came together to envision and create this catalytic project, a successful public-private partnership that has completely transformed the area. Since its opening in 2008, Discovery Green has served as the catalyst for $625 million in development, attracting housing, office, hotels, and a magnet high school. There is an estimated $1 billion in future office, hotel, and housing projects around Discovery Green in the pipeline. Many developers, companies, and residents have said they chose their project, office location, or residence because of its proximity to this park.

The park is managed and maintained by the non-profit Discovery Green Conservancy. Originally expected to attract 500,000 visitors a year, Discovery Green reached that goal in its first six months. As of 2014, that number had grown to more than 1.2 million visitors annually. The park hosts more than 600 free events each year and is home to a number of permanent art collections. Discovery Green has helped locals and tourists re-imagine downtown as a destination for living, working, and playing. What was once an "undeveloped, concrete eyesore" has become one of the city’s greatest assets.

Source: www.houstonpress.com
LARKINVILLE
Buffalo, NY

The Larkinville neighborhood, formally known as Buffalo, New York’s Hydraulics District, has successfully transformed an underutilized public space and abandoned buildings from rags to riches. The ten-year, $50 million project, revitalized empty warehouses and vacant parcels, turning the neighborhood into a vibrant public space that breathes new life into this area of the city. A main factor influencing the successful revitalization of Larkinville was the creation of Larkin Square, an open public space featuring moveable furniture, whimsical architecture, a covered canopy, food, music, and fun. A visitor to the space described it as “striking in its uniqueness and its eye appeal, aesthetically attractive, and it also holds a diversity of use and purpose.”

Larkin Square is not only comprised of open public space, it also includes offices, residences, restaurants, and retail that draw people to the area. Howard Zemsky, of the Larkin Development Group, spearheaded the project. With the support of First Niagara Bank, he was able to bring his idea to life. Larkin Square hosts numerous public events ranging from Food Truck Tuesdays to Live at Larkin Wednesday night concerts. People are even able to rent out the space for their own private events. The square draws more than 116,000 visitors a year and continues to grow.

Larkin Square and the events it hosts enable residents to connect to their community in a way they never had before. As one resident put it, “we put our house up for sale because of the neighborhood’s long decline, but we took off the sign when we discovered Larkin Square.” The Square has been a key catalyst for the revitalization of sub-standard housing around the development. In 2006, LISC helped to form a private non-profit partnership between Larkin Development, First Niagara Bank, the Old 1st Ward Community Association (O1W) and South Buffalo Neighborhood Housing Services (SBNHS) that resulted in nearly 80 owner-occupants receiving rehab assistance. LISC also supported the redevelopment of the historic U-Building with an $8.5 million allocation of New Market Tax Credits, which now houses more than 200 First Niagara employees.

Sources: www.flickr.com, www.larkinsquare.com
FUNDING + IMPLEMENTATION OPTIONS

The strategies presented in this Action Kit require a range of financing and funding sources as well as other resources such as shared information and regulatory changes. Because of the City tax cap, there are also some unique constraints to the usual financing tools that might be used to fund parking strategies and other improvements in the Millyard. This section of the Tool Kit outlines strategies that might be used to fund parking and other improvements. These options are not mutually exclusive and could be combined based on financial needs and stakeholder support.

A note about parking garage financing:
Given the large capital costs and long useful life of a parking garage, long-term debt financing is often used to cover much of the cost to build a parking garage. The use of debt requires a predictable and sustained source of revenue to convince lenders that their loan will be repaid. User parking fees will provide revenue to repay debt but they need to be supplemented by other financing means for two reasons. First, uncertainty about the garage's use and associated fee revenue may lead lenders to require other revenue sources to ensure debt repayment. Second, the parking fees needed to fully cover the development costs for a garage exceed the amount that parking customers currently are willing to pay but area businesses and Manchester's economic vibrancy still depend on being able to attract and accommodate the parking needs of employees, customers and visitors.

1. Create an assessment district that is exempt from the tax cap
Property owners in the Millyard District would agree on an assessment district and establish a new fee or assessment that is paid to fund specific services or projects. In this case, a new assessment could be levied on Millyard property owners to finance the parking garage. New Hampshire state law allows for the levying of assessments (Title XX, Chapter 31, Section 231:120). Manchester has an existing assessment district, Intown Manchester (a Central Business Services District under New Hampshire law), that funds downtown activities, improvements, and maintenance. The Millyard could become a special assessment district, much like the Central Business Service District that is served by...
Intown Manchester. The Downtown BID is exempt under the tax cap legislation and the Millyard District could also be exempt. One option, in lieu of creating a new assessment district plan, would be for Intown Manchester to increase its assessment or add a new assessment dedicated to financing a new parking garage. This assessment could generate funding for a parking garage, Riverwalk enhancements, and other improvements to the area. The property owners would need to be willing to pay the assessment and the City needs to be supportive of, and approve, the assessment district. The City might also provide additional funding to complement the assessment revenue, particularly for improvements to the Riverwalk.

2. Create a tax increment financing (TIF) structure to fund parking and other improvements in the Millyard

With TIF financing, the incremental tax revenue from new development and property assessment growth in the Millyard District would be set aside and used to repay debt to build a parking garage. This would require establishing and securing city approval for a TIF District area in which current property taxes would continue to be paid to Manchester and all or a portion of the increase in property taxes for a set time period would go to the TIF district to repay debt. This is a common financing tool used in many cities. It has been used in several New Hampshire cities to financing parking garages including the Keene Wells Street Parking Structure and the Capital Commons Parking Garage in Concord. This option works best when the parking garage helps to generate new development projects that provide increased property taxes. Given the City’s ownership of Arms Park parking lot in the Millyard, additional parking provided in a structured parking facility could open possibilities for redeveloping a portion of this lot, further providing revenue for the City (understanding that recognizes environmental issues must be addressed for this to occur).

Similar to the exception given the Central Business Service District in the tax cap legislation, the Millyard could become an exception for a specified period of time to enable public investment in the improvements to grow the economy and the long-term tax base of the city. The Millyard could become a special district that is designated a Tax Increment Financing District. Additional tax revenue projections from infrastructure improvements such as parking garages, public open space, lighting, and multimodal enhancements would be used to pay debt service until commitments are satisfied. The exception could have a sunset clause at that time.

3. Employ a user fee, self-funded strategy to finance a new parking garage

Millyard property owners could employ a self-funded strategy that could take a variety of forms. The Millyard owners and other users (such as SNHU) could sign long-term leases for parking spaces and the lease revenue could finance the debt raised to build the garage:

a. If the availability of parking allows property owners to raise rents, the additional rent revenue would cover the cost of the parking leases.

b. Alternatively, landlords can add a parking rate to the lease to charge tenants directly for parking.

However, the feasibility of both of these options will depend on market demand for the Millyard space and tenants’ willingness to pay more for the location. Portsmouth, NH landlords currently get much more for
rents than Millyard landlords. However, it would be erroneous to argue that rents in the Millyard will increase to an amount close to Portsmouth just based on the availability of parking--there may be a number of factors that make Portsmouth more desirable and a higher rent location. Manchester has the highest availability of vacant space and this large supply may be keeping rents down--if a lot of this available space comes with free parking, there may be less room for the Millyard owners to charge for parking. There is a connection here with the quality of place. The Millyard is competing with other areas of Manchester and the region on more than simply price, particularly for knowledge-based companies and workers. There is a case to be made that placemaking improvements, the creation of even a temporary Riverwalk, and the addition of other urban amenities including multimodal transportation choices can make the Millyard a more desirable district that can command higher rents.

4. Use City Parking Fund revenue to finance a parking garage

Manchester has a dedicated parking fund that receives revenue from the city's parking meters and municipal public parking facilities and funds maintenance and operations for these parking assets. Recently, the parking fund has operated with a surplus of more than $3.1 million in FY2015 and $3.6 million in FY2016. These funds are currently transferred to the City general fund. However, the parking fund is exempt from the provisions of the tax cap. If the parking fund is expected to continue to experience surpluses of this size, the City could choose to pledge some or all of the Parking Fund revenue to help finance a new parking garage.

If a new parking garage is City-owned and all the parking fees generated by the new garage go into the fund, this would not affect the tax rate or tax limitations. The new garage could be financed by:

- Pledging city Parking Fund revenue—it would be easier to finance if all the fund revenue is pledged not just the revenue from the garage. Parking spaces would be leased just as spaces throughout the City are now leased either by property owners or by tenants.
- Raising parking rates in the highest demand areas and increasing enforcement measures. Portsmouth, NH has done this to increase revenue.

5. Finance a Garage Through a Larger Development Project

If a parking garage is incorporated into a larger project that the garage partly serves, all or part of the garage’s cost could be included in the project’s overall financing and repaid largely from the project’s revenue. This would likely require a fairly large, high value project such as a hotel, Class A office building, or large mixed-use development. It would also require a good size site that can accommodate the buildings, dedicate project parking, and surplus parking to serve other Millyard properties. One such option is the National Guard Armory which is large enough to house a major development project and parking garage. This would require working with the National Guard to identify an alternative site and secure a federal government funding commitment for the new facility. With federal budget authorization, Manchester could consider providing bridge funding to accelerate the new facility and reuse of the current site and then be repaid once the federal funds are released. It should be noted that this site is actually owned by Amoskeag Industries and is subject to reverter rights. Clear economic development purposes on
A SUGGESTED WORK PLAN AND NEXT STEPS

1. Convene the mobility working group
   a. Short term: Signage and pricing information
   b. Long term: Parking supply and remote parking
2. Develop a comprehensive understanding of existing parking supply and demand including pricing, usage, etc.
3. Determine funding and grants available through SNHPC for brownfield studies and eventual remediation for potential development sites. This is a long-term project and it is suggested that action begin now.
4. Assess zoning and incentives to ensure mixed uses and active ground floor uses are required and encouraged.

SUMMARY

Critical first steps in addressing the Millyard’s parking challenges involve the formation of an ongoing mobility working group that involves all property owners, major tenants, and all relevant City agencies and departments including finance, parking, planning, and parks. Solving parking challenges is very closely related to other goals including walkability and activating the public realm.

The following pages spotlight the tools and techniques that Portsmouth, NH has used to increase parking in its downtown.
Manchester and Portsmouth have some important similarities—both are urban economic centers for their region with a downtown economic center and major business investment connected to air transportation assets (Manchester airport and the Pease Trade port). Both cities have a well-diversified economic base with a significant share of higher-paying knowledge based sectors. Manchester and Portsmouth are experiencing growth, increased visitor activities, and development pressures that are creating new transportation needs and stretching existing parking capacity.

POPULATION COMPARISON

The two cities also differ in important ways. First, Manchester is a much larger city with a population of 110,139, which is more than five times Portsmouth’s population of 21,426. Beyond size, the demographics of each city are different:

- Portsmouth’s population is generally older with a median age of 41.2. 17% of the population is 65 or older. Compare this to Manchester’s median age of 36.9 and the share of residents 65 or older at 12.8%;
- However, Portsmouth has a larger share of millennials: almost 20% of its population is 25 to 34 years old, versus 16% in Manchester; and
- Portsmouth has a higher median household income ($71,392) than Manchester ($54,282) and significantly higher educational attainment among its residents. Almost 58% of Portsmouth’s residents 25 and older have at least a bachelor’s degree. In Manchester it is only 27%.

Key Demographic Characteristics for Manchester and Portsmouth, 2015

<table>
<thead>
<tr>
<th>Population Characteristic</th>
<th>Manchester</th>
<th>Portsmouth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>110,139</td>
<td>21,426</td>
</tr>
<tr>
<td>Median Age</td>
<td>36.9</td>
<td>41.2</td>
</tr>
<tr>
<td>Percent of Population, 25 to 34</td>
<td>16.2%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Percent of Population 65+</td>
<td>12.8%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Households</td>
<td>45,145</td>
<td>10,262</td>
</tr>
<tr>
<td>Labor Force</td>
<td>62,703</td>
<td>13,391</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>54,282</td>
<td>71,392</td>
</tr>
<tr>
<td>Percent of Population 25 and over with Bachelor’s Degree of Higher</td>
<td>27.4%</td>
<td>57.7%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau 2011-2015 ACS 5-year estimates
EMPLOYMENT COMPARISON

Both cities have a modest share (13% and 17%) of blue-collar jobs (construction, manufacturing, warehouse and transportation), retail and hospitality sectors that together represent one-fifth of employment, and significant knowledge-based economy comprising close to 40% of jobs and inclusive of the Information, Finance, Professional and Technical Services, and Education and Health Care sectors. However, the mix of knowledge-based industries differs: Manchester has a very large Education and Health Services sector (23.5% of jobs, 1.6 times that of Portsmouth) while Portsmouth has larger concentrations of Finance, Professional, and Technical Services, and Information Industries. Portsmouth is particularly strong in Finance and Insurance, with 3.5 times the share of Manchester and more total jobs in this sector, despite Manchester’s much larger employment base.

Another difference is that Manchester accounts for a larger share of the regional employment base (65%) than Portsmouth (45%). Therefore, Manchester has more people commuting into the city and a greater need for parking to accommodate commuting workers. However, this may be partially offset by the city’s much larger labor force, which is almost equal in size to its job base, and thus increases the potential for in-city commuting without a car. Portsmouth’s employment base, on the other hand, is almost 2.4 times its city’s labor force and is necessarily more reliant of bringing in workers from outside the city.

<table>
<thead>
<tr>
<th>Employment Sector</th>
<th>Manchester City</th>
<th>Portsmouth City</th>
<th>Ratio of Manchester to Portsmouth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>68,591</td>
<td>31,735</td>
<td>2.16</td>
</tr>
<tr>
<td>Total Private Employments</td>
<td>61,725</td>
<td>29,884</td>
<td>2.07</td>
</tr>
<tr>
<td>Construction &amp; Manufacturing</td>
<td>10.7%</td>
<td>8.4%</td>
<td>1.28</td>
</tr>
<tr>
<td>Wholesale and Transportation</td>
<td>6.1%</td>
<td>5.0%</td>
<td>1.22</td>
</tr>
<tr>
<td>Retail</td>
<td>11.2%</td>
<td>11.6%</td>
<td>0.96</td>
</tr>
<tr>
<td>Information</td>
<td>4.0%</td>
<td>6.0%</td>
<td>0.67</td>
</tr>
<tr>
<td>Finance and Real Estate</td>
<td>5.1%</td>
<td>13.2%</td>
<td>0.39</td>
</tr>
<tr>
<td>Professional &amp; Technical Services</td>
<td>7.0%</td>
<td>10.0%</td>
<td>0.70</td>
</tr>
<tr>
<td>Administration and Waste Services</td>
<td>6.0%</td>
<td>7.6%</td>
<td>0.79</td>
</tr>
<tr>
<td>Education and Health Services</td>
<td>23.5%</td>
<td>14.5%</td>
<td>1.62</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>8.7%</td>
<td>11.9%</td>
<td>0.73</td>
</tr>
<tr>
<td>Government</td>
<td>10.0%</td>
<td>5.8%</td>
<td>1.72</td>
</tr>
<tr>
<td>Other</td>
<td>7.5%</td>
<td>5.9%</td>
<td>1.26</td>
</tr>
<tr>
<td>Ratio of Employment to Labor Force</td>
<td>1.09</td>
<td>2.37</td>
<td>2.17</td>
</tr>
</tbody>
</table>
DEVELOPMENT AND MARKET CONDITIONS

Portsmouth has seen considerable new development over the past decade and has southern New Hampshire’s strongest office real estate, characterized by the region’s lowest vacancy rates and highest asking rents. Based on Colliers International First Quarter 2017 New Hampshire Office Trends report, Portsmouth had 3.9 million square feet of office space with a very low vacancy rate of 3.9%—far lower than all other submarkets and well below Manchester’s vacancy rate of 13.2%. Moreover, Portsmouth’s asking rents of $23.74 per square foot were well above all other markets—42% above Salem, which had the next highest rent level and almost twice that of Manchester ($12.28 per square foot).

Portsmouth’s industrial real estate market is also strong with a total supply of 12.6 million square feet during the first quarter of 2017. It offers the second largest supply of space in Southern New Hampshire and is almost equal in size to Manchester’s inventory of 13.9 million square feet. Similar to the office market, Portsmouth’s industrial vacancy rate is very low (2%) and its rent was the second highest at $9.31 per square foot, second only to Salem at $11.17. Manchester, by contrast, had a 4% vacancy rate and asking rents of $6.58 in the first quarter of 2017.

Portsmouth has experienced considerable new development over the past decade with several downtown mixed-use projects and a particularly strong housing development market. In April 2016, almost 1,000 units were either recently completed (149), under construction (56), approved (246), under permitting review (118), or being proposed (395). Downtown Portsmouth has benefited from the city’s strong economy and development market. Over 250 new housing units were built downtown from 2005 to 2014 and several mixed-use projects have been completed. The most significant new development has been Portwalk Place, a 400,000 mixed-use project completed in three phases that includes three hotels, 149 housing units, 50,000 square feet of office and retail space, and a parking garage.
### Southern New Hampshire Office Market Supply and Rents - First Quarter 2017

<table>
<thead>
<tr>
<th>Submarket</th>
<th>Total Building SF</th>
<th>Vacancy SF</th>
<th>%</th>
<th>Occupancy SF</th>
<th>%</th>
<th>Total Available SF</th>
<th>%</th>
<th>Direct Available SF</th>
<th>%</th>
<th>Sublease Available SF</th>
<th>%</th>
<th>Avg. Asking Rate (NNN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>1,667,784</td>
<td>198,405</td>
<td>11.9</td>
<td>1,469,379</td>
<td>88.1</td>
<td>203,717</td>
<td>12.21</td>
<td>198,405</td>
<td>11.9</td>
<td>5,312</td>
<td>0.32</td>
<td>$11.33</td>
</tr>
<tr>
<td>Manchester</td>
<td>6,276,895</td>
<td>827,691</td>
<td>13.19</td>
<td>5,449,204</td>
<td>86.81</td>
<td>827,465</td>
<td>13.18</td>
<td>769,559</td>
<td>12.26</td>
<td>57,906</td>
<td>0.92</td>
<td>$12.28</td>
</tr>
<tr>
<td>Nashua</td>
<td>3,555,209</td>
<td>477,952</td>
<td>13.44</td>
<td>3,077,257</td>
<td>86.56</td>
<td>477,952</td>
<td>13.44</td>
<td>452,945</td>
<td>12.74</td>
<td>25,007</td>
<td>0.70</td>
<td>$12.81</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>3,951,097</td>
<td>153,542</td>
<td>3.89</td>
<td>3,797,555</td>
<td>96.11</td>
<td>153,542</td>
<td>3.89</td>
<td>139,553</td>
<td>3.53</td>
<td>13,989</td>
<td>0.35</td>
<td>$23.74</td>
</tr>
<tr>
<td>Rochester</td>
<td>637,269</td>
<td>112,847</td>
<td>17.71</td>
<td>524,422</td>
<td>82.29</td>
<td>36,192</td>
<td>5.68</td>
<td>54,780</td>
<td>8.6</td>
<td>0</td>
<td>0.00</td>
<td>$10.50</td>
</tr>
<tr>
<td>Salem</td>
<td>1,263,774</td>
<td>123,802</td>
<td>9.8</td>
<td>1,139,972</td>
<td>90.2</td>
<td>123,802</td>
<td>9.8</td>
<td>123,802</td>
<td>9.8</td>
<td>0</td>
<td>0.00</td>
<td>$16.67</td>
</tr>
<tr>
<td>TOTAL</td>
<td>17,352,028</td>
<td>1,894,239</td>
<td>10.92</td>
<td>15,457,789</td>
<td>89.08</td>
<td>1,822,670</td>
<td>10.50</td>
<td>1,739,044</td>
<td>10.02</td>
<td>102,214</td>
<td>0.59</td>
<td>$14.55</td>
</tr>
</tbody>
</table>

### Southern New Hampshire Industrial Market Supply and Rents - First Quarter 2017

<table>
<thead>
<tr>
<th>Submarket</th>
<th>Total Building SF</th>
<th>Vacancy SF</th>
<th>%</th>
<th>Occupancy SF</th>
<th>%</th>
<th>Total Available SF</th>
<th>%</th>
<th>Direct Available SF</th>
<th>%</th>
<th>Sublease Available SF</th>
<th>%</th>
<th>Avg. Asking Rate (NNN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>4,065,988</td>
<td>110,716</td>
<td>2.72</td>
<td>3,955,272</td>
<td>97.28</td>
<td>110,716</td>
<td>2.72</td>
<td>110,716</td>
<td>2.72</td>
<td>0</td>
<td>0.00</td>
<td>$6.68</td>
</tr>
<tr>
<td>Manchester</td>
<td>13,869,708</td>
<td>567,256</td>
<td>4.09</td>
<td>13,302,452</td>
<td>95.91</td>
<td>418,980</td>
<td>3.02</td>
<td>412,980</td>
<td>2.98</td>
<td>6,000</td>
<td>0.04</td>
<td>$6.58</td>
</tr>
<tr>
<td>Nashua</td>
<td>18,487,314</td>
<td>1,325,977</td>
<td>7.17</td>
<td>17,161,337</td>
<td>92.83</td>
<td>1,325,977</td>
<td>7.17</td>
<td>1,305,477</td>
<td>7.06</td>
<td>20,500</td>
<td>0.11</td>
<td>$5.36</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>12,582,159</td>
<td>249,424</td>
<td>1.98</td>
<td>12,332,735</td>
<td>98.02</td>
<td>249,424</td>
<td>1.98</td>
<td>240,458</td>
<td>1.91</td>
<td>8,966</td>
<td>0.07</td>
<td>$9.33</td>
</tr>
<tr>
<td>Rochester</td>
<td>4,767,156</td>
<td>524,566</td>
<td>6.67</td>
<td>7,342,590</td>
<td>93.33</td>
<td>524,566</td>
<td>6.67</td>
<td>387,038</td>
<td>4.92</td>
<td>137,528</td>
<td>1.75</td>
<td>$6.10</td>
</tr>
<tr>
<td>Salem</td>
<td>4,767,156</td>
<td>524,566</td>
<td>6.67</td>
<td>7,342,590</td>
<td>93.33</td>
<td>524,566</td>
<td>6.67</td>
<td>387,038</td>
<td>4.92</td>
<td>137,528</td>
<td>1.75</td>
<td>$6.10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>61,908,706</td>
<td>3,291,647</td>
<td>5.32</td>
<td>58,617,059</td>
<td>94.68</td>
<td>3,143,371</td>
<td>5.08</td>
<td>2,870,377</td>
<td>4.64</td>
<td>272,994</td>
<td>0.44</td>
<td>$7.53</td>
</tr>
</tbody>
</table>

Source, top and bottom: Colliers International New Hampshire Office Trends
PARKING MANAGEMENT AND INVESTMENT

Portsmouth has faced increased demand for downtown parking with increased residential, hotel and office development and a strong tourism economy. A recent news article reported the prime time downtown parking spaces are occupied over 90 percent of the time and three free parking lots are full over 94 percent of the time. A number of strategies and approaches have been used to address this growing parking demand:

- Shared parking arrangements: Portsmouth maintains shared-lot agreements with a number of private company owners to make long-term parking available in close proximity to the downtown. Two examples include parking lots owned by the St. John’s Masonic Association and the Connect Community Church.
- Remote parking: A satellite parking lot exists close to the I-95 downtown Portsmouth exist with free shuttle service to downtown.
- Demand pricing: Increased meter parking fees and rates tied to level of demand. Parking meter fees in high demand area are $2.00 compared to $1.50 in standard metered parking areas. Portsmouth also recently increased the parking rate in its large downtown garage from $1.25 to $1.50 per hour.
- Bike and complete street transportation improvements: The City completed a 2014 Pedestrian and Bike Plan with multiple projects to improve safety and expand pedestrian and bike connections to different parts of the city. One project is a “complete streets” improvement to a ¼ mile stretch of downtown Maplewood Avenue; $250,000 of the $1.167 million dollar project is being funded by abutting developers;
- City investment in new parking: Municipal parking options are expanding, including a new 600 space downtown municipal parking garage approved in May 2015, expected to cost $23 million or almost $39,000 per space.
DETAILS ON THE MUNICIPAL PARKING GARAGE

In a June 2017 interview with the Portsmouth’s parking manager, he stated that there was widespread agreement on the need for more parking—on-street parking utilization in recent years had grown to 85%. Growth in the tourism season to almost year round meant businesses that strongly felt their sales depended on more parking. Residents were also frustrated by the difficulty in finding parking spaces downtown. There was a small amount of opposition from a small group of residents who wanted to pursue other options first--such as more satellite lots with a shuttle--but there was strong support from the chamber of commerce, businesses, and city councilors.

The result was that the City decided to finance a new garage with general obligation bonds because Portsmouth’s finances are very strong--they have a AAA rating--and current low interest rates made this bond low cost. The City expects the parking fee revenue will fully cover the cost of the garage and there will be no impact on taxes. A parking “enterprise fund” has been established to receive city parking revenue and use it to pay the costs of operating and improving existing municipal parking infrastructure and for debt service for the new downtown garage. If parking revenue falls short of their projections, they will have to use general revenue so there is some risk that taxes/general revenue will be affected. However, parking revenue has been high and currently provides $2.4 million a year for the general fund. Garage parking fees are now $1.50 per hour. They may charge a slightly lower fee to incentivize use of the new garage as it is less centrally located.

The City has completed the design process. The new garage will have 613 spaces, of which 58 are guaranteed to the property owners/developer from whom they acquired the site. These dedicated spaces will pay the market rate parking fee. Total cost for the garage is expected to be $21 million or $34,258 per space. There is significant road and utility work for the site, including moving a sewer line, bringing in new utilities, etc. The garage structure itself is $16 million ($26,101 per space) with an additional cost of $5 million for the site and utility improvements.