



Parking Authority of the Borough of Metuchen

Downtown Parking Study

Existing Conditions Report



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BACKGROUND

THE BOROUGH OF METUCHEN

With a current population just shy of 14,000, Metuchen has been an incorporated borough within Middlesex County since 1900. The borough is fully surrounded by Edison Township, itself measuring less than three square-miles in area. The borough is also located less than 30 miles southwest of New York City, offering rail connections to Manhattan of less than an hour. As such, it largely developed as a rail-commuter community.

When the New Jersey Railroad was extended to New Brunswick in 1836, Metuchen was included in the new set of stops. The easy commute to Manhattan has been a prime asset drawing new residents ever since. The current station, built in 1888, became a focal point for the community and its emerging Downtown district.

In the late 20th Century, Metuchen became one of several New Jersey rail-commuter towns to attract the interests of planners and developers sensing an opportunity to return to transit-centered growth and development. Metuchen was designated a “Town Center” by the New Jersey State Planning Commission in 1997, and a “Transit Village” by the New Jersey Department of Transportation (NJDOT) in 2003.

THE PARKING AUTHORITY

The Parking Authority of the Borough of Metuchen (MPA) was established in 1966. Its mission is to provide adequate parking for the needs of residents, merchants and commuters and to collaborate with the Mayor, Council, Planning and Zoning Boards in providing for future parking needs.

The MPA's most prominent asset is the large park-and-ride lot at Pearl and New streets. Its most prominent activity is managing this

and several other lots that are dominated by park-and-ride activity. This includes setting permit rates, managing permit sales, and enforcing lot restrictions and requirements.

However, the MPA is actually tasked with managing nearly all public parking within the downtown, including on-street parking.

The responsibilities of the MPA include the following.

- Maintenance of MPA lots and property.
- Debris and snow removal.
- Sale of parking permits and meter collection from lots and street meters.
- Enforce parking regulations, subject to the supervision of the Chief of Police.
- Engage professional and other services in support of the MPA's mission.
- Provide an annual financial contribution to the Borough of Metuchen in lieu of taxes.
- Disseminate MPA records and keep the public informed of Authority business.

ZONING AND PARKING REQUIREMENTS

For the most part, there is no reduction in standard, borough-wide minimum-parking requirements for projects within the downtown. The ratios used to determine these requirements for common downtown land uses are presented in the following table.

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Figure 1 Parking Requirements for Common Downtown Land Uses

Residential Uses (type/size)	Required Spaces per Dwelling Unit
1- and 2-family	2
Apartments	
One bedroom	1.5
Two bedrooms	2
Three bedrooms	2.25
Townhouses	
One bedroom	1.75
Two and three bedrooms	2.25
Nonresidential Uses	Required Spaces
Food and Drink	1 per 200 SF
Offices	1 per 250 SF
Retail uses (less than 2,000 SF)	1.0 per 180 SF
Retail uses (2,000 SF or more)	1 per 200 SF

Mixed-Use Neighborhoods

The one exception is for residential uses within the Downtown Development District. For these uses a slightly different set of minimum parking requirement ratios is substituted for those identified above. These ratios are taken from the State's "Residential Site Improvement Standards NJAC 5:21", the residential-use ratios for which are identified in the following table.

Figure 2 Parking Requirements for Common Downtown Land Uses

Residential Uses (type/size)	Required Spaces per Dwelling Unit
1- and 2-family	
Two bedrooms	1.5
Three bedrooms	2.0
Four bedrooms	2.5
Five bedrooms	3.0
Apartments	
One bedroom	1.8
Two bedrooms	2
Three bedrooms	2.1
Townhouses	
One bedroom	1.75
Two bedrooms	2.3
Three bedrooms	2.4

This appears to miss an opportunity to identify a significant reduction in parking requirements in this or other downtown districts. The Mixed-Use Neighborhood code does, however, define a discretionary opportunity for the Borough to reduce parking requirements on a case-by-case basis, as described below.

The Planning Board shall entertain reductions in the required number of both non-residential and residential parking spaces if the applicant can demonstrate through expert testimony and technical documents that the proposed application would so warrant, as a result of its mixed-use nature, parking demands of

specific users, proximity to transit options, specific housing demographics, a parking management plan or other special reasons.

PARKING-REGULATIONS ENFORCEMENT

Parking regulations are enforced by both the MPA and the Borough police department. Initial stakeholder input indicates that current enforcement of short-term parking regulations and meter payments is fairly lax.

DOWNTOWN LAND USES

Figure 3 Auto-Oriented Land Uses Define Edge of Downtown



Downtown Metuchen has the typical land use diversity and Main Street scale of a modest-sized railroad suburban community. Main Street is lined with 1-3-story buildings, with sidewalk-oriented storefront retail at street level. Secondary commercial streets, with similar land use patterns include New Street and Pearl Street.

Significant concentrations of retail uses can also be found along Route 27 and Amboy Avenue. These, however, are consistently oriented toward auto traffic and lack the Main Street feel of the other commercial streets. As such, they help clearly define the northern and southern edges of our Study Area, and likely what is generally perceived of as "downtown".

Figure 4 Auto-Oriented Land Uses Define Edge of Downtown



Expected Growth and Development

Pearl Street Lot Project



The Public Space is nestled between two retail edges, one as podium for a 4 story residential building, the other offering the opportunity for a second level amenity space with a landscaped terrace overlooking the Plaza.

View Of Pearl Street Piazza
 Looking South

PEARL STREET PIAZZA METUCHEN, NEW JERSEY
 DEVELOPER QUALITY CONTROL AND RFP RESPONSE: 06/16/2012



The Pearl Street Lot is proposed for redevelopment into a multi-story, mixed-use building + shared-access parking garage. Plans for the development include 250 units of market-rate housing, ground-floor retail, a public plaza at the corner of New and Pearl streets, and a 750-space parking garage.

The parking facility would be operated by Nexus Parking Systems, and is planned to provide short- and long-term hourly parking, as well as monthly parking for both residents and commuters.

Retaining essentially the same overall capacity as the current lot, while adding significant on-site land uses, would no doubt reduce the current park-and-ride capacity at this site. However, it would also place hundreds of new households within walking distance of the train station and all Downtown shops and services.

Other Projects and Trends

There are a few other development projects in progress, including one that is in construction on Main Street, just off of the Highland Avenue intersection. This project, which has been slowed by the economic downturn, will add several high-end condominiums above sidewalk-oriented retail to this location. No on-site parking will be added for this project, which abuts the MPA's New Street Lot.

2009 PARKING STUDY

A downtown parking study commissioned by the Borough of Metuchen was completed in mid-2009 by Timothy Haas & Associates, Inc. Most of the analysis was completed before the economic downturn, which has dramatically reduced commuter-parking demand, the sufficient accommodation of which was a primary focus of the study.

This fact, and the current plan for a mixed-use parking facility on the Pearl Street Lot site, makes many of the study's recommendations regarding the optimum number of spaces for this site moot. Nonetheless, the study produced several findings and recommendations worth considering in respect to assessing current downtown parking conditions.

Utilization Findings

Figure 5 2009 Utilization Findings: Off-Street

Lot	Supply	Parking Occupancy		
		AM	Midday	PM
Penn Plaza (North)	55	100%	96%	89%
Penn Plaza (South)	60	102%	100%	90%
Penn Avenue	81	88%	91%	89%

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Station Place	43	93%	95%	86%
New Street	109	74%	69%	68%
Center Street East A&P	60	77%	78%	77%
Center Street/Senior Center	47	66%	77%	64%
Pearl Street	670	93%	93%	91%
Halsey Street	311	95%	95%	95%
Memorial Parkway	60	67%	68%	68%
South Main	76	50%	54%	49%
Total Surface Lots	1,572	88%	88%	86%

Source: Timothy Haahs and Associates, Inc., 2009

Figure 6 2009 Utilization Findings: On-Street

Location	Supply	Parking Occupancy		
		AM	Midday	PM
Main Street: Downtown	44	82%	100%	95%
Main Street: Boro Hall	10	20%	40%	30%
Main Street: Post Office	18	22%	28%	22%
Highland Avenue	6	83%	83%	83%
Hillside Avenue	23	39%	35%	43%
Station Place	5	60%	80%	80%
Penn Avenue	7	100%	100%	100%
New Street	18	100%	100%	94%
Pearl Street	44	52%	59%	73%
Center Street	21	10%	29%	19%
Amboy Avenue	25	32%	36%	20%
Wernick Place	8	100%	100%	100%
Total On-Street	229	55%	63%	62%

Source: Timothy Haahs and Associates, Inc., 2009

- Peak parking demand was observed between 11AM and 2 PM, with 1,529 vehicles occupying the 1,801 available parking spaces.
 - 144 vehicles occupied the on-street parking areas (63% occupied)
 - 1,385 vehicles occupied off-street parking lots (88% occupied).

- Center Street experienced very little utilization during surveys, with just nine parked cars noted among four surveyed blocks faces, over several survey periods.
- During the peak hour, half of the off-street surface lots were above 90 percent occupied (6 of the 12 facilities).
- At the same time, almost half of the on-street areas were above 80 percent occupied (6 of the 13 areas surveyed).
- Typical evening parking demand is significantly less than the typical daytime demand by at least 50 percent.

Additional Findings

- Daily parking facilities located adjacent to the station are priced similarly to those that are much farther from the station.
- Metuchen contains large surface parking lots that, while critical to access mass transit, do not represent the highest and best use of this valuable property.
- Signage is insufficient for first-time visitors to easily locate the New Street parking lot.
- The Borough of Metuchen recognizes the importance of smart growth, and was officially designated a "Town Center" in 1996 and a Transit Village in 2001 .

Key Recommendations

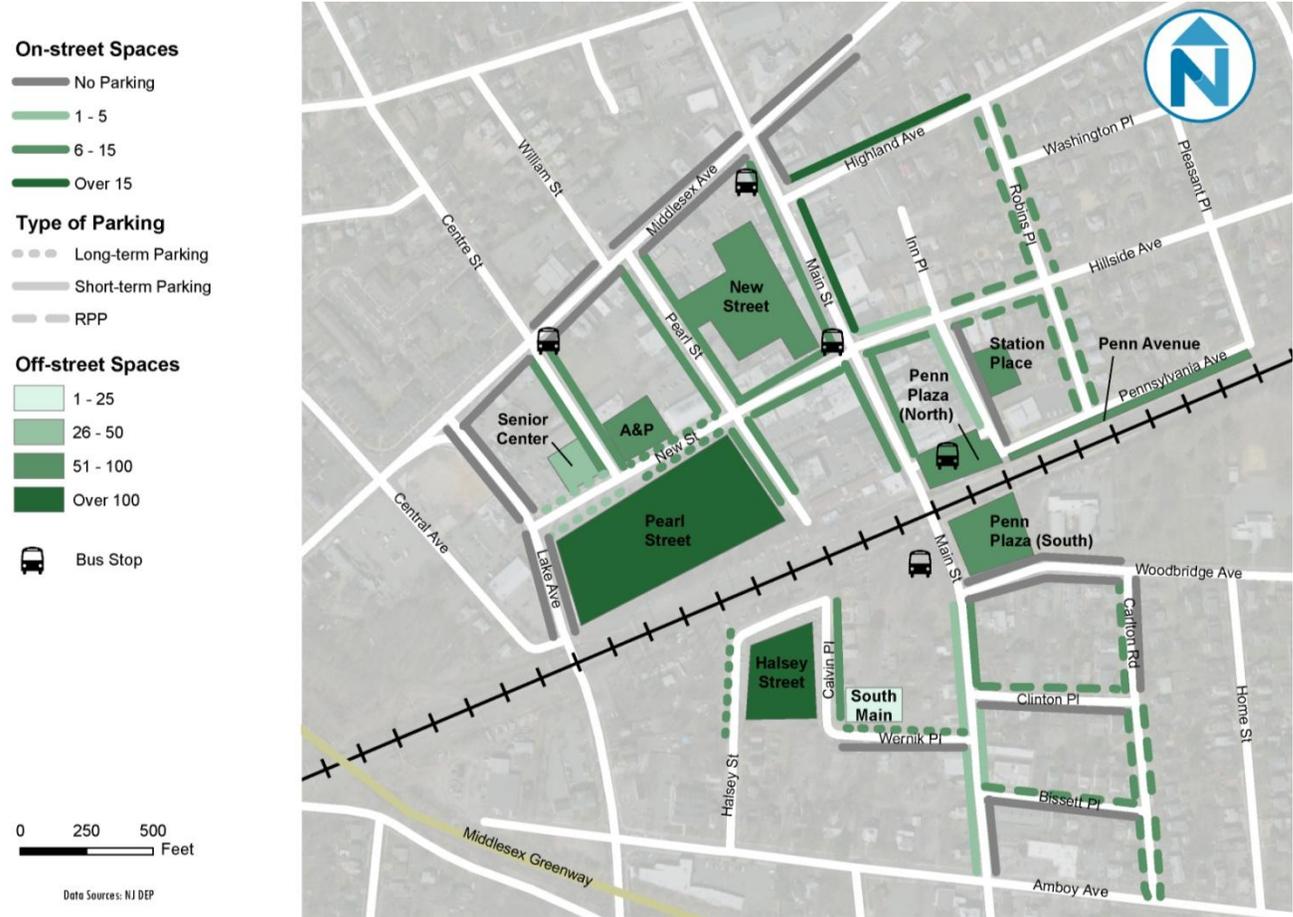
The following were among the recommendations identified by the 2009 study.

- Increase short-term parking rates to a minimum of \$0.50 per hour.
 - Note: Implemented
- Increase daily parking rates and price facilities in close proximity to the station at a higher rate than those facilities farther away.
 - Note: The closest of these facilities are controlled by NJ Transit
- Increase hours of parking enforcement and implement varying enforcement patterns.
- Consider the purchase and implementation of newer parking meters with credit card or smart card capabilities.
- Improve wayfinding and signage throughout the Borough, in particular for visitor and customer off-street parking areas.
- Improve the linkages between parking facilities and destinations in order to create a sense of safety, comfort, and to create a pleasant visitor experience for those new to Metuchen.
 - Note: Partially implemented through the closing of the New Street lot alley to vehicles; and there are plans to improve this now pedestrian-only walkway.

EXISTING CONDITIONS SUMMARY

PARKING SUPPLY

Figure 7 Study Area Parking Supply



On-Street

Downtown Metuchen offers several blocks of on-street parking, along which drivers will find roughly 200 short-term spaces (all but about 10 of which are metered), over 40 long-term, metered spaces, and about 130 spaces controlled by resident-parking permit (RPP) regulations.

Figure 8 On-Street Parking by Space Type

Space Type	Spaces
Short-Term Meter Spaces	191
Long-Term Meter Spaces	41
RPP Spaces	131
Other Spaces	18
All	213

Short-Term Parking

Short-term parking spaces are generally located in the center of Downtown, closest to the concentrations of shops and services along Main Street and New Street. These spaces are intended to support local retail businesses that rely on walk-in traffic and street parking for most of their customer access. Short-term meters are in effect on weekdays and Saturdays, morning through evening.

Long-Term Metered Parking

Long-term, metered spaces are clustered around large, park-and-ride lots, and are intended to complement the park-and-ride capacity of these and other off-street lots throughout the Study Area. This adds just over 40 spaces to the long-term parking supply, and likely makes better use of many spaces too poorly located to attract short-term parking.

RPP

RPP spaces are concentrated within the primarily-residential areas to the east of Main Street. Regulations, which restrict access for those lacking a resident-permit, are in effect mornings through evenings, everyday. RPP is intended to preserve resident access to curb parking along Downtown neighborhood streets. These restrictions either outright prohibit parking without a permit, or limit it to two hours. This partial allowance of two-hour parking is typically afforded to accommodate residential visitors and delivery/ service vehicles.

Figure 9 Most Neighborhood Streets Restrict Non-Resident Parking



Off-Street

The vast majority of the downtown parking inventory is maintained as long-term parking to accommodate park-and-ride demand among NJ Transit customers. All but the 41-spaces of long-term, on-street parking noted above are located in several off-street parking lots located across Downtown. The facilities providing these spaces are managed by either the MPA or NJ Transit. The following table summarizes key capacity and the managing authority of these facilities.

Figure 10 Off-Street Facilities

Lot	Controlling Body	Capacity		
		Long Term	Short Term	All Spaces
Pearl Street	PA	709	40	749
Halsey Street	PA	273	0	273
Penn Plaza North	NJ Transit	51	0	51
Penn Avenue	PA	78	0	78
Penn Plaza South	NJ Transit	56	0	56
Station Place	PA	51	0	51
New Street	PA	45	52	97
South Main	PA	23	0	23
A&P	PA (via lease)	60	0	60
Senior Center	PA (via agreement)	36	0	36
All		1,382	92	1,474

Downtown Commuter Parking

The MPA offers a reduced rate on commuter permits to downtown employees as an incentive for them to use off-street parking, and reduce their use of storefront, short-term parking spaces.

Park and Ride Commuter Parking

The majority of off-street parking provided by the MPA and NJ Transit, however, is provided to accommodate park-and-ride demand near Metuchen Station.

PARKING OCCUPANCY

To best assess occupancy/ availability conditions, the following section organizes the above-described supply into the following three, functionally-comparable categories.

1. Short-Term Spaces (primarily metered, on-street)
2. Long-Term Spaces (primarily off-street)
3. Neighborhood Spaces (RPP on-street blocks)

Short-Term Metered Spaces

Occupancy surveys indicate that, while short-term parking meters are in effect, availability is generally fairly high, and well-above optimal rates for balancing efficiency with convenient access.

Figure 11 Utilization Rates: Short-Term Metered Spaces

Space Type	Weekday	Evening	Friday Night
All Short-Term Meter Spaces	58.6%	61.8%	68.6%

Overall occupancy levels, however, explain very little of what a typical driver experiences while seeking a parking opportunity in

any downtown. Short-term parking searches, in particular, can be very frustrating, even when area-wide availability is high. The reason for this is that the typical search for short-term parking is very narrowly focused on a small subset of on-street parking spaces close to the driver's destination.

This pattern, combined with the typical Main Street development pattern, with dense clusters of popular retail and service destinations along the same blocks, tend to result in a few blocks that attract much higher parking demand than most others. These blocks attract the majority of parking searches, and if they are not sufficiently managed to keep a few spaces open, the result is a common perception that "there's nowhere to park" downtown.

The best way to identify and determine the impact of similar patterns within Downtown is, therefore, to assess via maps that show block-by-block patterns of high and low utilization. Such a map is provided, for each of the three survey periods on the following pages.

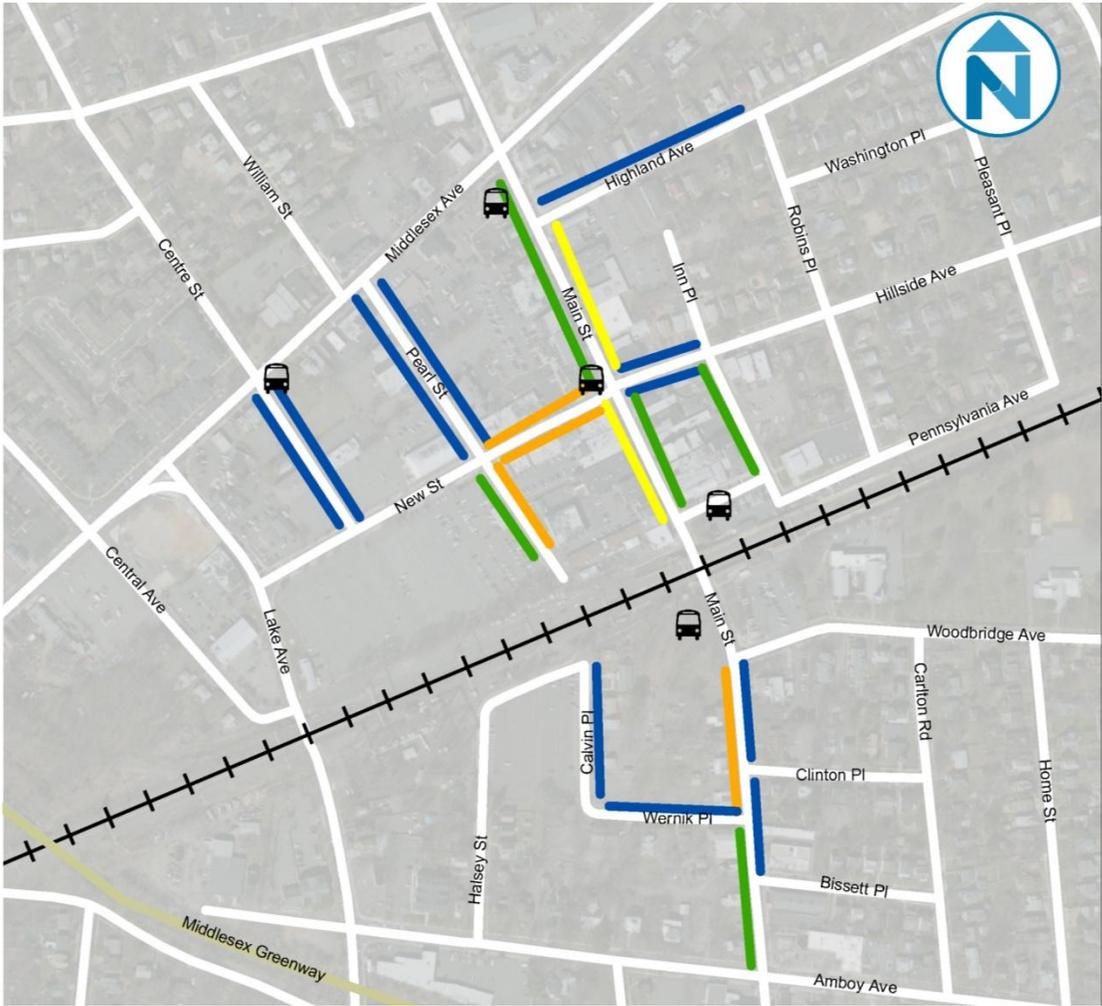
METUCHEN DOWNTOWN PARKING STUDY: Existing Conditions Summary
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Figure 12 Short-Term Parking Occupancy - Weekday

Utilization

- 0% - 50%
- 51% - 80%
- 81% - 90%
- 91% - 100%
- Over 100%

Bus Stop

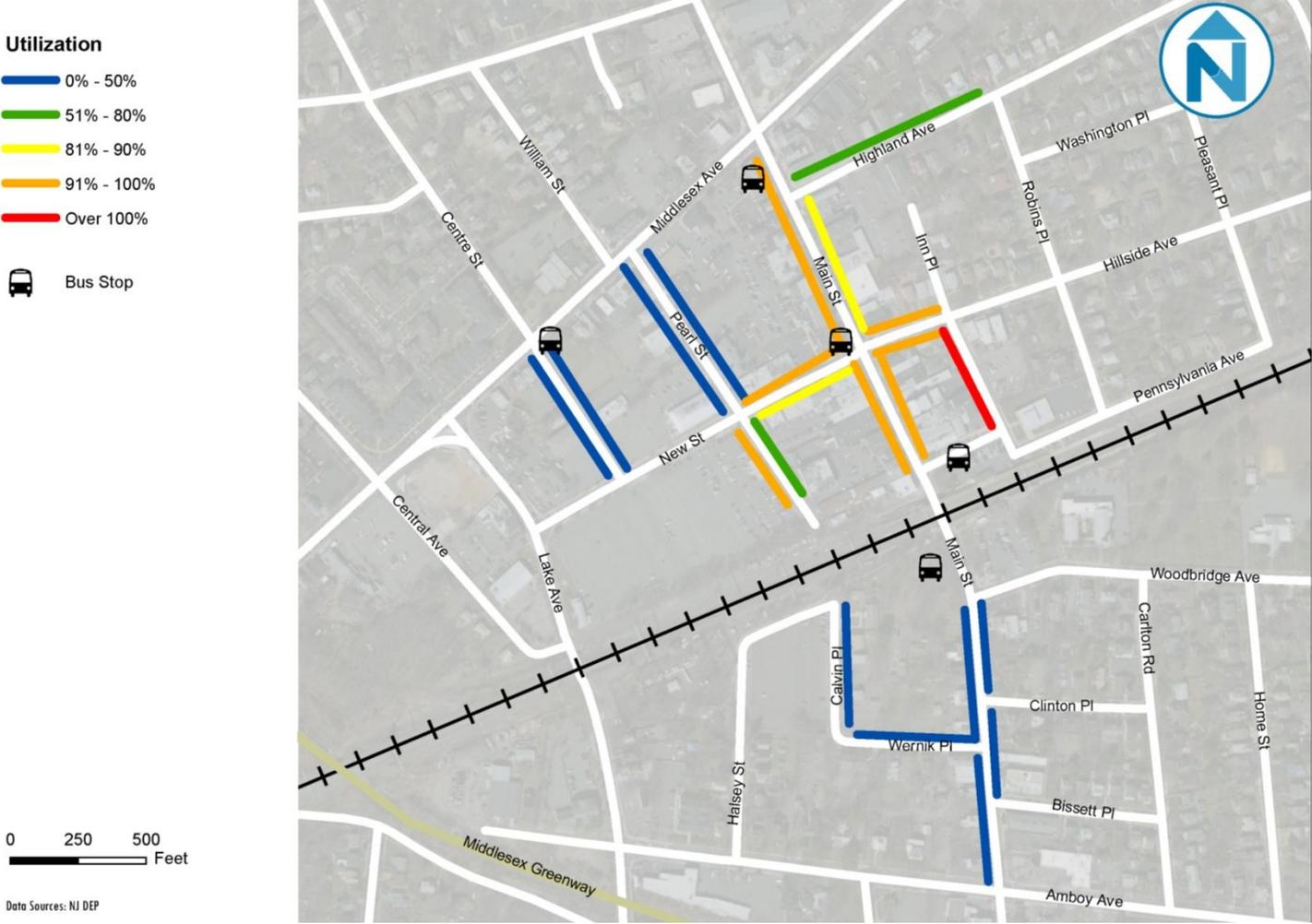


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Data Sources: NJ DEP

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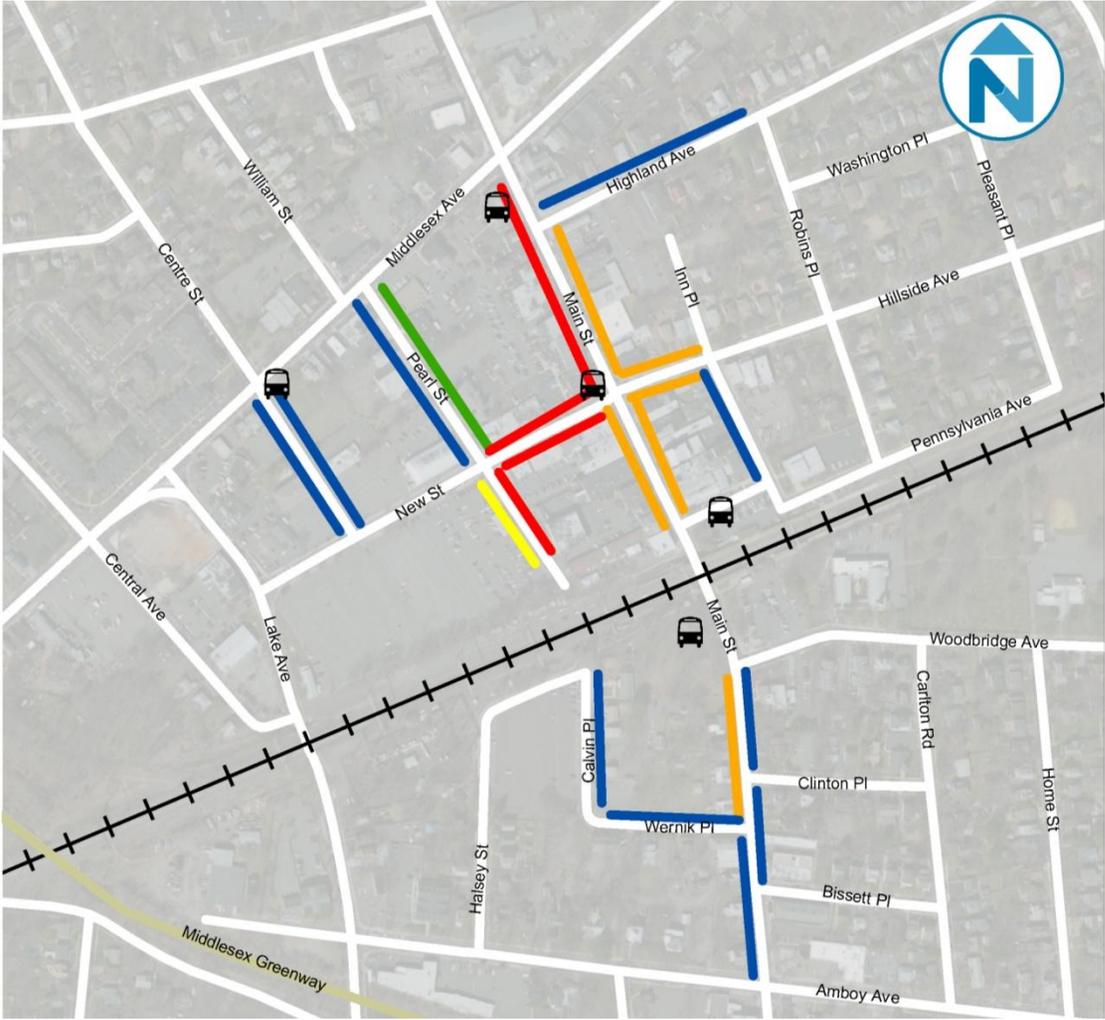
Figure 13 Short-Term Parking Occupancy - Weekday Evening



METUCHEN DOWNTOWN PARKING STUDY: Existing Conditions Summary
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Figure 14 Short-Term Parking Occupancy - Friday Evening

- Utilization**
- 0% - 50%
 - 51% - 80%
 - 81% - 90%
 - 91% - 100%
 - Over 100%
-  Bus Stop



As shown, parking availability near Downtown shops and services is quite good while short-term parking meters are in effect. However, in the evening, when these parking spaces convert to free, unlimited parking, availability drops sharply. Friday evening surveys showed a particularly acute lack of availability along Downtown's busiest shopping and dining blocks.

In contrast, there are several blocks that are metered and restricted to short-term parking that never seem to attract substantial utilization. These blocks include Center Street, Highland Avenue, and Wernik Place.

Long-Term Spaces

Long-term parking options were observed to be near optimal occupancy levels during the weekday period, with utilization dropping off sharply during evening and Friday Night surveys. The table below presents a summary of observed occupancy levels among Downtown's public long-term parking facilities, including on-street metered spaces.

Figure 15 Long-Term Space Supply and Utilization

Parking Facilities	Spaces	Weekday	Evening	Friday Night
Pearl Street Lot	709	86.9%	38.7%	26.8%
Halsey Street Lot	273	89.4%	22.7%	32.2%
Penn Plaza North	51	98.0%	49.0%	68.6%
Penn Avenue	78	73.1%	19.2%	33.3%
Penn Plaza South	56	100.0%	35.7%	76.8%
Station Place	51	68.6%	27.5%	43.1%
New Street Lot	45	63.9%	41.2%	58.8%

Parking Facilities	Spaces	Weekday	Evening	Friday Night
South Main Street Lot	23	100.0%	34.8%	47.8%
A & P	60	70.0%	21.7%	18.3%
Senior Center	36	55.6%	19.4%	11.1%
Long-Term On-Street Meters	41	82.9%	46.3%	43.9%
All	1,423	84%	34%	34%

As was the case with on-street parking, weekday occupancy levels are at or near optimal levels for a peak-demand period. Most facilities are mostly to nearly full, with the exception of one (fairly remote) lot and a few blocks of long-term meters.

During weekday and Friday evening surveys, however, occupancy rates among off-street lots and long-term metered spaces moved in the opposite direction as on-street parking, dropping dramatically across all facilities. Reflecting the impact of park-and-ride commuter demand on parking demand in Downtown, the result is a substantial supply that is available during evenings and weekends to support local businesses.

This is especially encouraging for the Downtown economy, as it is likely to increasingly depend upon meeting a growing demand for dining and other evening-oriented businesses. The significance of the current excess capacity is likely sufficient to accommodate demand from many common, downtown events such as farmers markets, street fairs, etc.. The challenge many cities face in capitalizing on this sort of opportunity, is promoting off-street resources to local parking markets that tend to focus (often exclusively) on on-street parking options.

Details on occupancy at each location are provided in the maps on the following pages.

METUCHEN DOWNTOWN PARKING STUDY: Existing Conditions Summary
 Parking Authority of the Borough of Metuchen

Figure 16 Long-Term Parking Occupancy - Weekday

On-Street Utilization

- 0% - 50%
- 51% - 80%
- 81% - 90%
- 91% - 100%
- Over 100%

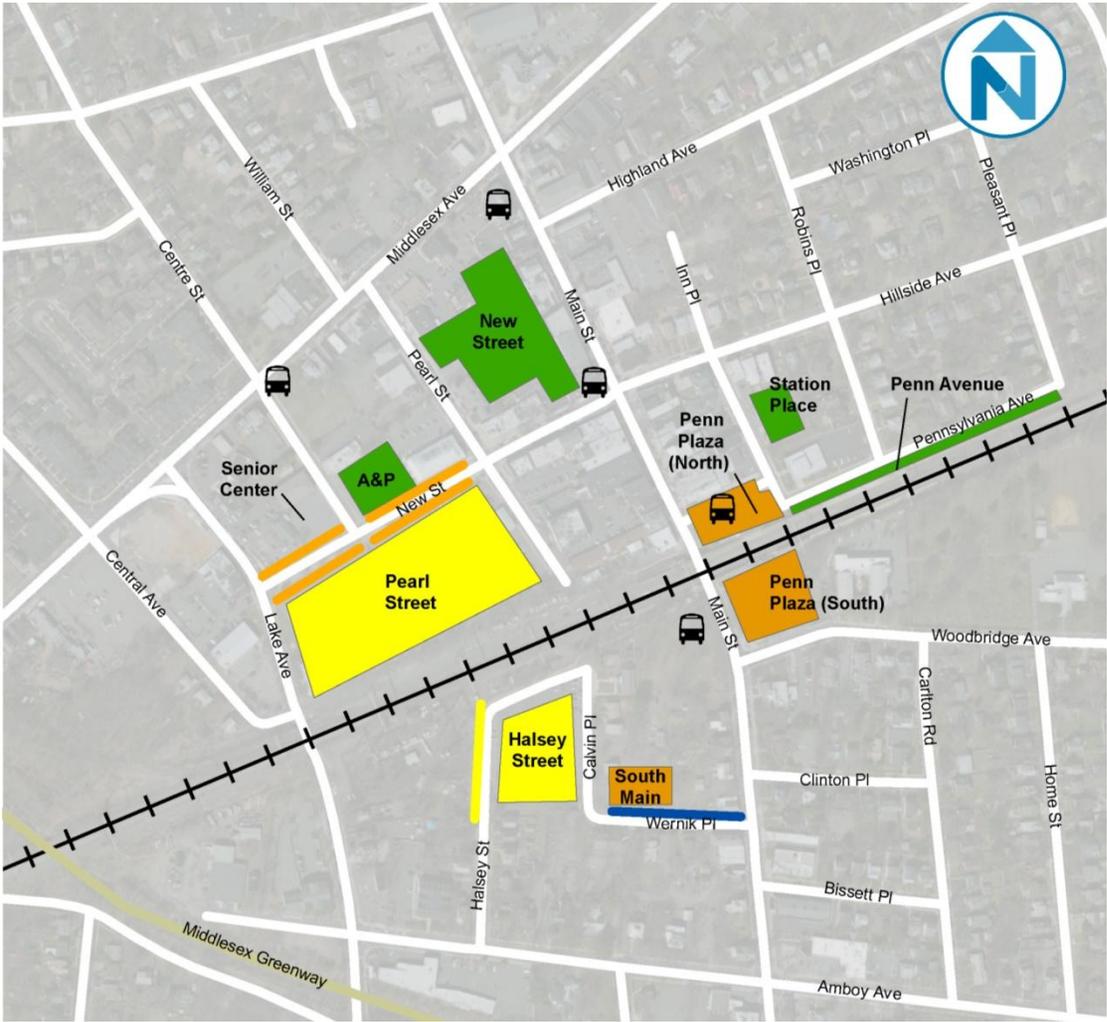
Off-street Utilization

- 0% - 50%
- 51% - 80%
- 81% - 90%
- 91% - 100%
- Over 100%

Bus Stop

0 250 500 Feet

Data Sources: NJ DEP



METUCHEN DOWNTOWN PARKING STUDY: Existing Conditions Summary
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Figure 17 Long-Term Parking Occupancy - Weekday Evening

On-Street Utilization

- 0% - 50%
- 51% - 80%
- 81% - 90%
- 91% - 100%
- Over 100%

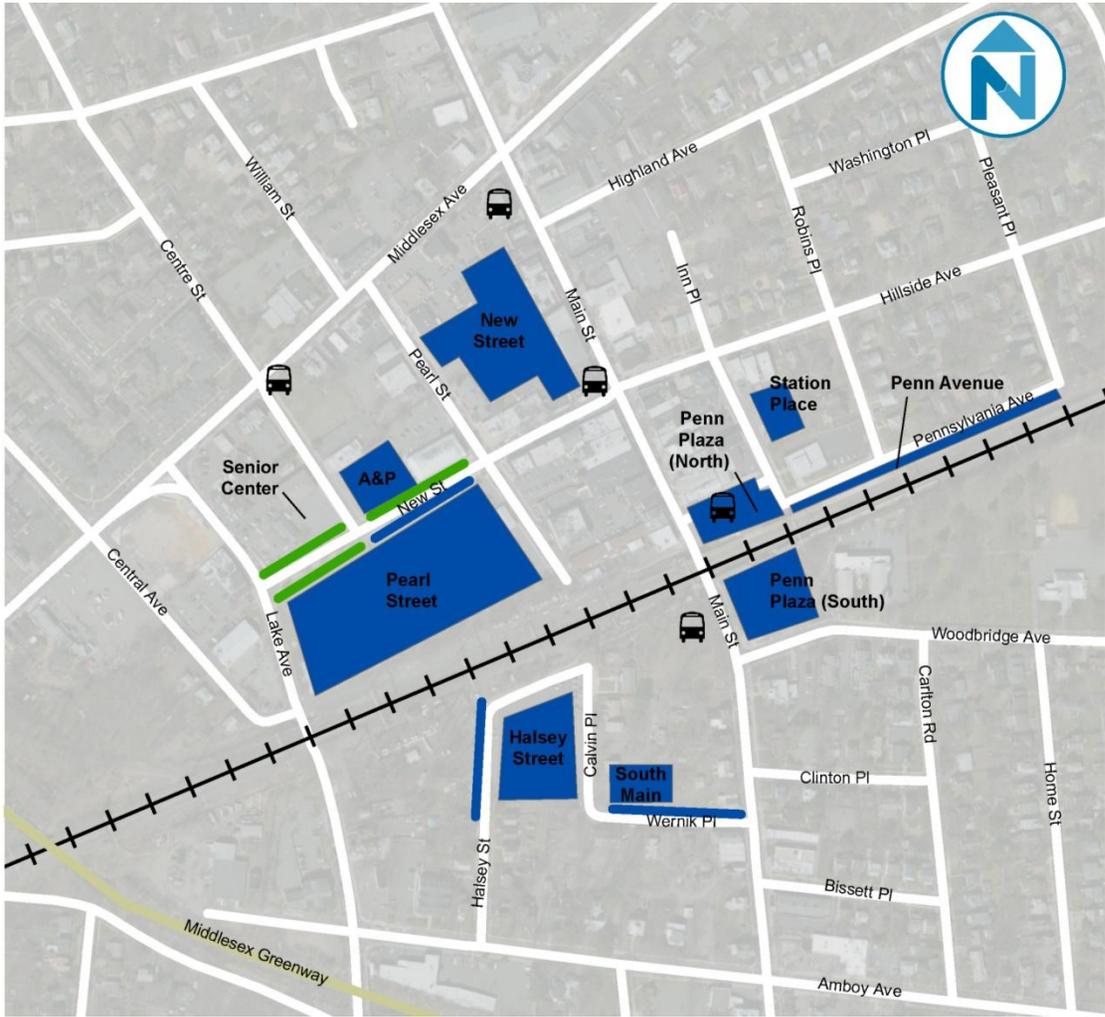
Off-street Utilization

- 0% - 50%
- 51% - 80%
- 81% - 90%
- 91% - 100%
- Over 100%

Bus Stop

0 250 500 Feet

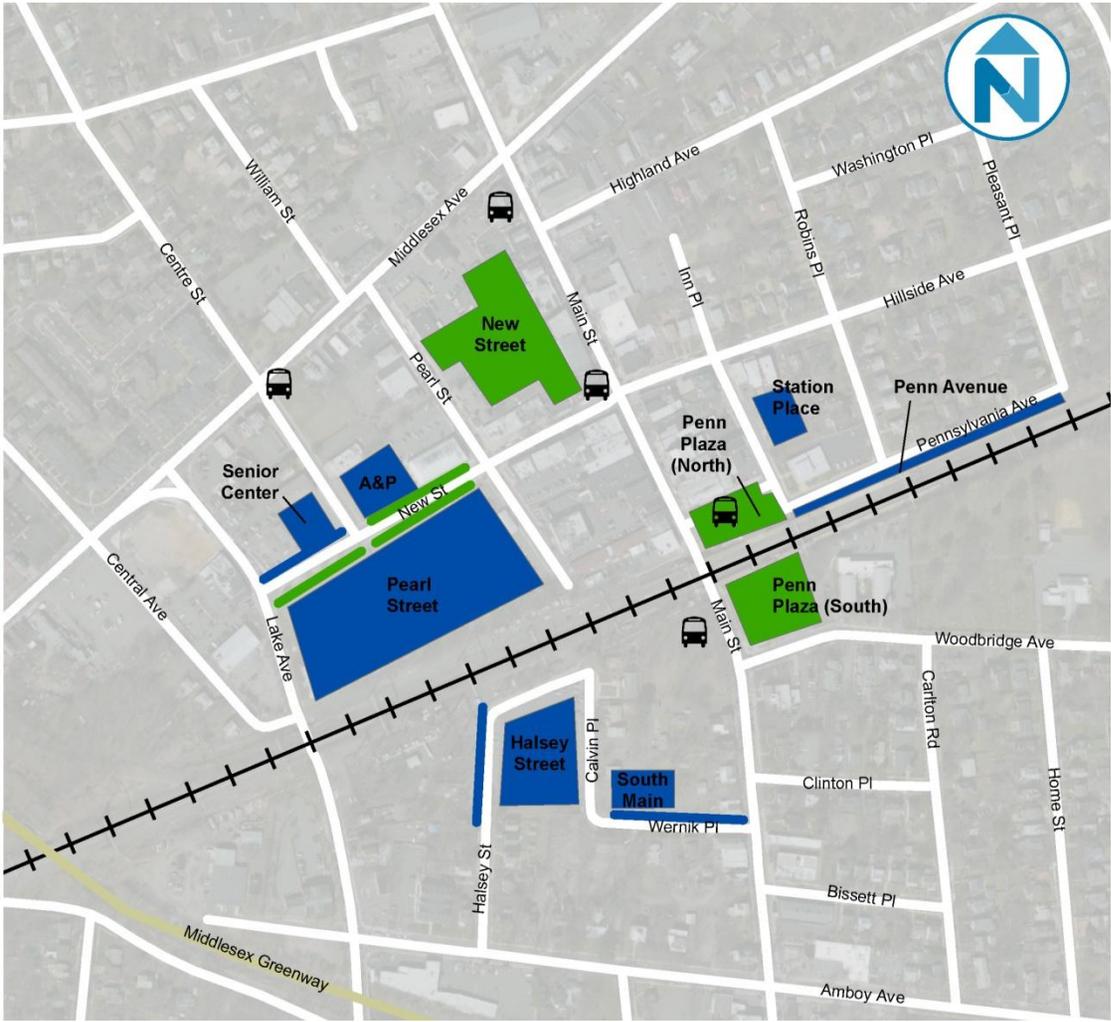
Data Sources: NJ DEP



METUCHEN DOWNTOWN PARKING STUDY: Existing Conditions Summary
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Figure 18 Long-Term Parking Occupancy - Friday Evening

- On-Street Utilization**
- 0% - 50%
 - 51% - 80%
 - 81% - 90%
 - 91% - 100%
 - Over 100%
- Off-street Utilization**
- 0% - 50%
 - 51% - 80%
 - 81% - 90%
 - 91% - 100%
 - Over 100%
-  Bus Stop



0 250 500 Feet

Data Sources: NJ DEP

One opportunity that emerges from the details provided in the preceding maps is the under-utilization of the New Street Lot. This lot uniquely combines convenient Main Street access and short-term parking options. While the Pearl Street Lot provides some short-term meters as well, these spaces are not nearly as convenient to Main Street destinations. The short-term metered spaces within the New Street Lot, by contrast, offer proximity to Main Street that is uniquely supported by a pedestrian-alley pass-through. As shown in Figure 19, improving this alley will be a necessary first step in announcing this unique off-street parking opportunity.

Figure 19 Pedestrian Alley to Short-Term Spaces Off Main Street



Neighborhood Parking

These restrictions appear to be working quite well in terms of maintaining a high level of curbside parking availability on neighborhood streets.

Figure 20 RPP Benefits Include Reduced Neighborhood Traffic



During occupancy surveys, there was ample availability on all surveyed blocks with RPP regulations posted. Overall residential blocks were roughly one-third full during each survey. The highest occupancy rate observed on any block was 75%, for the southern side of Hillside Avenue, between Station Place and Robbins Place.

Figure 21 Observed Neighborhood Street Occupancy Conditions

Resident Parking	Spaces	Occupancy Rates		
		Weekday	Evening	Fri. Eve.
All Spaces on RPP Blocks	131	26.7%	37.4%	36.6%

The maps on the following pages provide a block-level summary of observed conditions on these blocks.

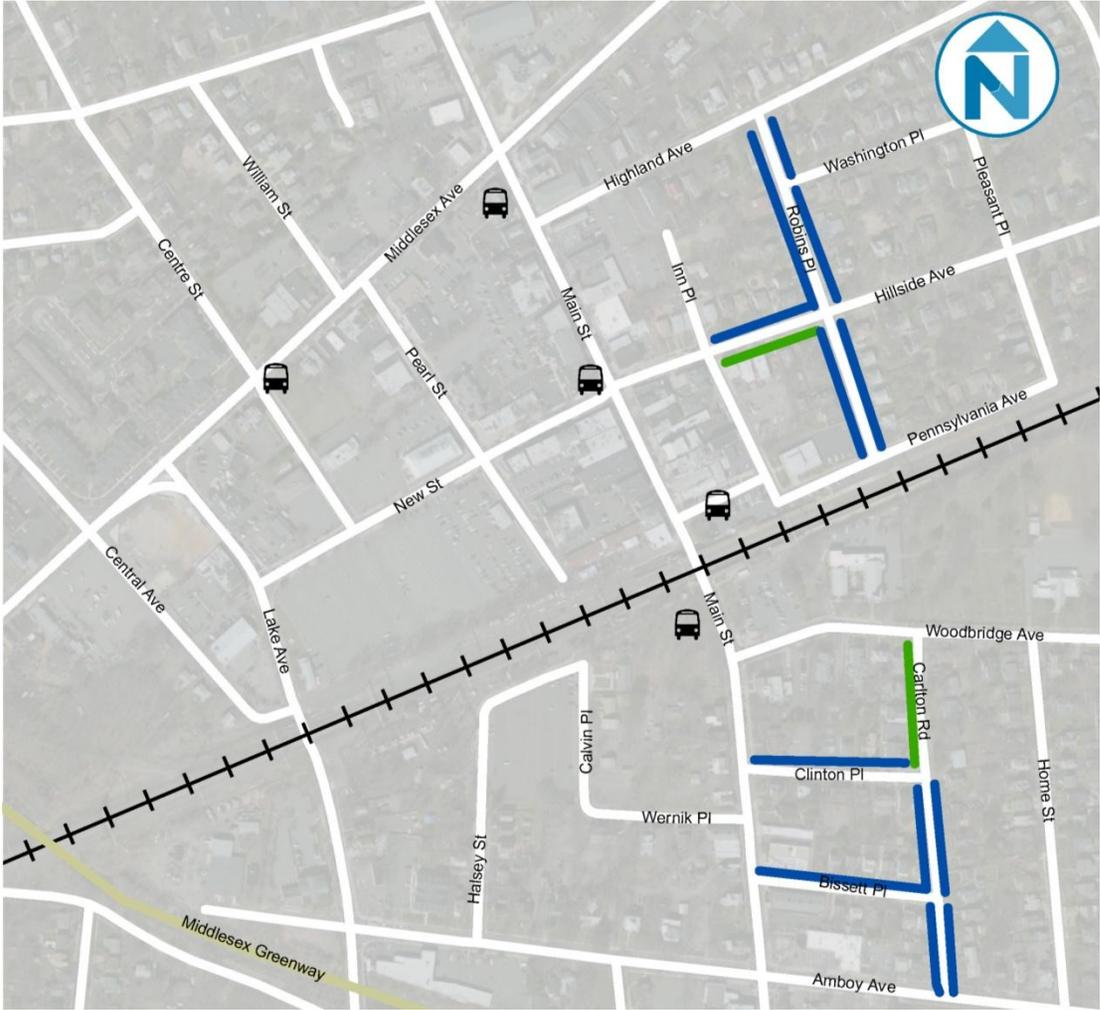
METUCHEN DOWNTOWN PARKING STUDY: Existing Conditions Summary
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Figure 22 Neighborhood Parking (RPP Blocks) - Weekday

Utilization

- █ 0% - 50%
- █ 51% - 80%
- █ 81% - 90%
- █ 91% - 100%
- █ Over 100%

 Bus Stop

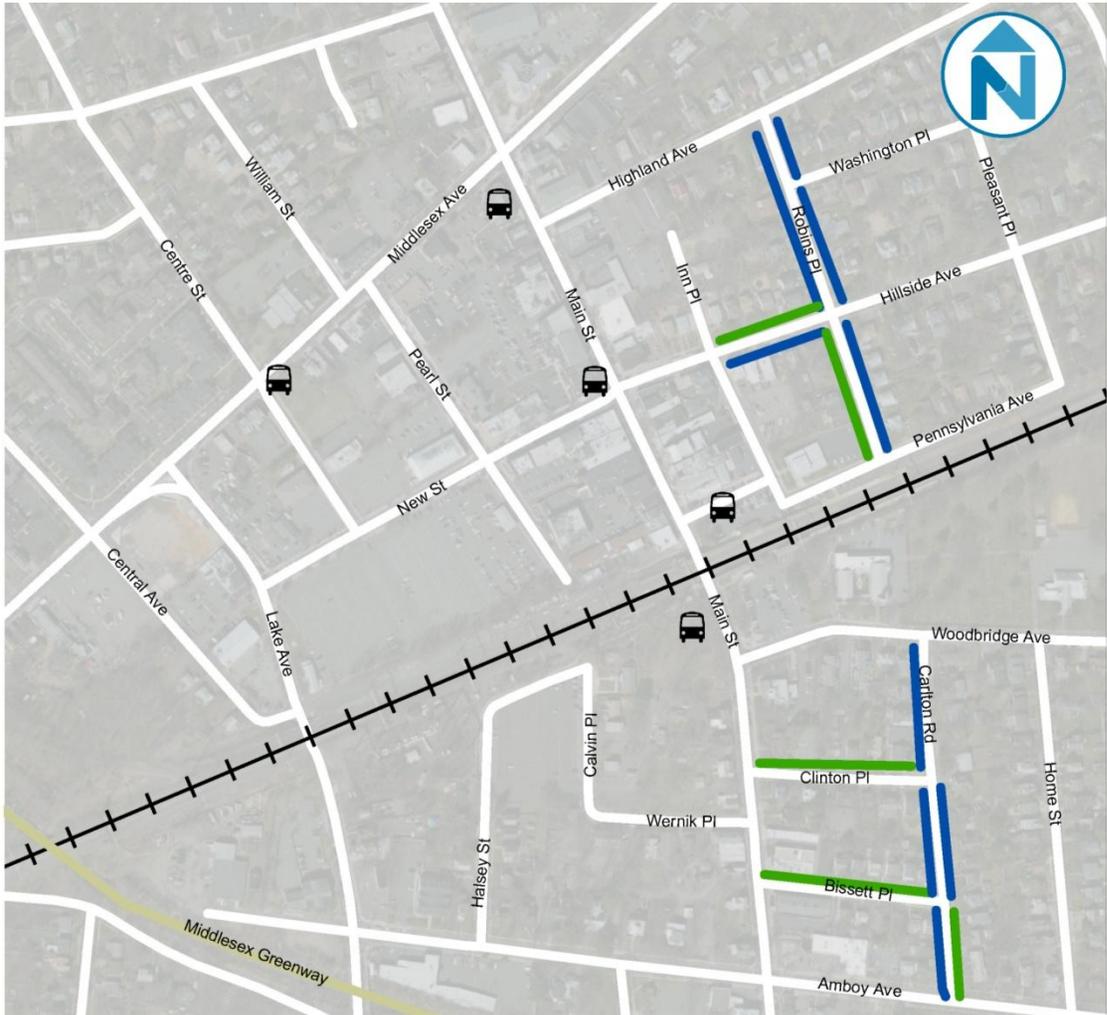


Data Sources: NJ DEP

METUCHEN DOWNTOWN PARKING STUDY: Existing Conditions Summary
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Figure 23 Neighborhood Parking (RPP Blocks) - Weekday Evening

- Utilization**
- █ 0% - 50%
 - █ 51% - 80%
 - █ 81% - 90%
 - █ 91% - 100%
 - █ Over 100%
-  Bus Stop



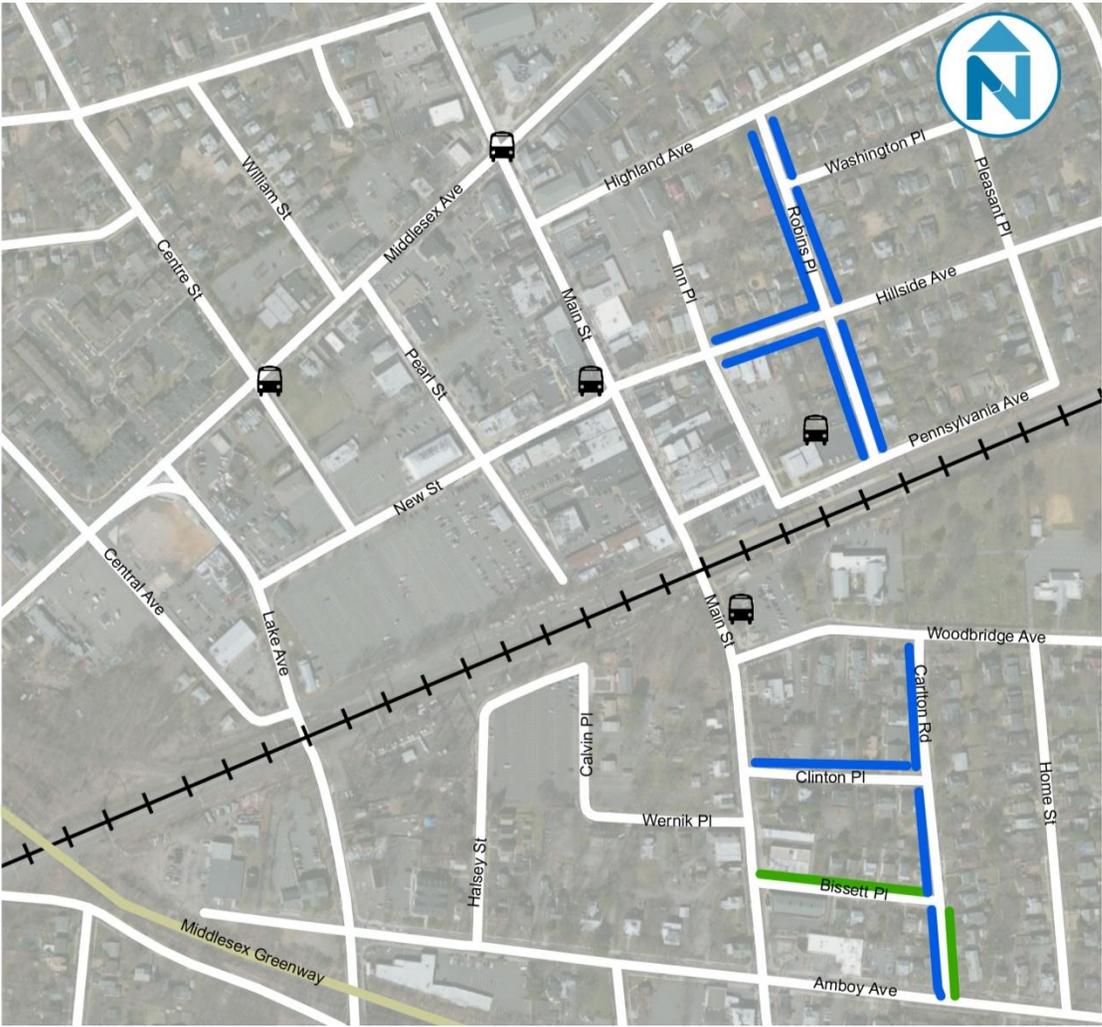
0 250 500 Feet

Data Sources: NJ DEP

METUCHEN DOWNTOWN PARKING STUDY: Existing Conditions Summary
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Figure 24 Neighborhood Parking (RPP Blocks) - Friday Evening

- Utilization**
- No Parking
 - 0% - 50%
 - 51% - 75%
 - 76% - 85%
 - 86% - 95%
 - 96% - 100%
 - Over 100%
- Bus Stop



0 250 500 Feet

Data Sources: NJ DEP

MANAGEMENT AND POLICY

Short-Term Parking

The management of on-street, metered parking spaces in Downtown is fairly typical of most downtowns; a combination of parking meters, modest meter rates, and restrictions on parking longer than two hours. These regulations are in effect, Monday through Saturday, from 8AM to 6PM.

For the most part, these regulations are working fairly well, as indicated by documented utilization conditions when these regulations are in effect. Ideally, on-street parking is about 85% full, with a few spaces empty on most blocks. This means these resources, while being well utilized, have enough open spaces that drivers can find a spot, on their block of preference, upon arriving. This reduces excess traffic from parking searches, while making parking work better for local retail customers.

The two evening-based surveys, however, indicate problematic availability among the most convenient of these spaces. This indicates an opportunity to extend metering and time limits into evening periods to improve access to the many shops and restaurants that remain open. This likely could be offset by starting metering and time limits later, perhaps at 11 AM, as downtown parking constraints rarely emerge before Noon. Additionally, meters could be removed altogether on some blocks, including Center Street and Wernik Place.

Long-Term Parking

Those seeking long-term parking options in Downtown have several options. All customers can purchase:

- Standard monthly permits, at \$200/quarter, useable in designated spaces within most MPA lots;

- Reduced-rate permits, at \$115/quarter, for remote MPA lots (South Main and Memorial Parkway);
- Premium permits, at \$250/quarter, for MPA spaces nearest Metuchen Station (Pennsylvania Avenue); or
- Daily "stickers", at \$7/day, for all available Standard Permit spaces still available after the AM rush.¹

Additionally:

- Anyone can park at an available long-term meter, many of which are located in MPA lots as well as several blocks of New Street, and a portion of Wernik Place; and
- Metuchen citizens and Downtown employees can purchase a reduced-rate permit, at \$115/ quarter, that can be used in all spaces available to Standard Permit holders.

¹ These are only available later in morning, once MPA has had a chance to assess capacity among permit spaces following the morning rush. While not not highly publicized, regular commuters generally know about it.

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Figure 25 Long-Term Parking Options

Permit/ Rate Options	Cost	Notes
Standard Permit	\$200/ Quarter	Provides access to most MPA-managed spaces
Reduced Rate Permit	\$115/ Quarter	Provides access to most MPA-managed spaces for Residents and Downtown Employees. All others limited to remote lots.
Premium Rate Permit	\$250/ Quarter	Access to MPA spaces closest to Metuchen Station
Daily Permit	\$7/ Day	Available to all, provides access to excess Standard Permit spaces.
Long-Term Meters	\$5/ Day	Pearl Street Lot, South P/R Annex, Station Place, Both NJ Transit Lots

Prior to the recent, significant economic downturn, there was a growing wait-list for park-and-ride permits, despite the MPA's use of resident-preference pricing strategies. A management practice common among parking lots serving commuter rail, a monthly-permit wait list can be viewed as a reluctance to price commuter parking based on demand. In essence, a wait list exists when and where parking managers prefer denying access to some customers, to raising the price for all of them. There is no wait list today, however, and none is expected following the redevelopment of the Pearl Street Lot.

Should demand increase again to the point requiring a wait list for monthly permits, raising the Standard Permit is a strategic alternative that would could reduce non-resident demand by just enough to avoid having a wait list.

More problematic in terms of demand management, however, is the mismatch between price and demand at key, station-adjacent parking lots. The high-convenience of the two lots located on-site at Metuchen Station should be reflected in significantly higher daily rates for these spaces.

Figure 26 Standard Pricing/ Premium Location



The lack of a monthly permit option for these lots, does make them more expensive compared to MPA permit options in other lots, but utilization observations indicate that this differential should probably be increased. This is particularly true for the Pennsylvania Avenue lot, the location of which funnels peak-period park-and-ride traffic right onto the heart of Main Street. The fact that under-pricing this lot likely generates excess traffic at these lots (cars in search of spaces well after the lot is filled) should be address through higher pricing.

These lots should also be converted to permits, which would allow MPA and/ or NJ Transit to better manage excess "search" traffic here.

Neighborhood Parking

Perhaps the most uniformly successful area of parking management is the set of RPP regulations applied to neighborhood streets to preserve resident parking opportunities from commuter parking demand. Availability along these blocks was more than sufficient for resident-convenience during all surveys. No doubt, there are other parking-related conditions symptomatic of downtown and station-adjacent neighborhoods that afflict Downtown Metuchen residents — speeding vehicles, elevated morning and evening traffic levels, noise and littering, etc. — but residents appear clearly to be receiving the primary intended-benefit of RPP regulations — consistent access to curbside parking near their home.

MULTIMODAL ACCESS CONDITIONS

Metuchen acts as an important hub along the northeast corridor rail line, but bears an inordinate amount of regional traffic impact. Public support for the Town Center and Transit Village implementation requires solving existing traffic and pedestrian problems.

— *Circulation Plan Element*, Borough of Metuchen, 2009.

Following is a summary of multimodal access conditions — how easy it is to get to and get around Downtown using various transportation modes — with a particular focus on modes that can reduce parking demand and promote an active public realm. This summary is organized around two primary sources of information.

- The 2009 Circulation Element, completed by the Borough of Metuchen with Loony Ricks Kiss Architects
- Direct field observations completed for the current study.

2009 Circulation Element Summary

Following are key findings from the 2009 Circulation Element plan related to access conditions likely to affect parking demand in Downtown.

Plan Goals

Goals identified by the plan include several that are particularly relevant to Downtown access and parking demand.

- Introducing context-sensitive traffic calming along a portion of Rt. 27
- Providing new connector roads for more route interconnectivity and increased in-town mobility
- Creating a consistent streetscape standard for the downtown area of Metuchen

- Helping revitalize the Borough with a focus on making it more friendly and functional for all modes of travel
- Making the entire borough more pedestrian, bicycle and transit-friendly

Past Smart-Growth Efforts

The Circulation Element identified several completed efforts to build upon Metuchen's Town Center and Transit Village designations, and generally promote smart growth for the borough.

- Physical upgrades to the area around the Metuchen train station
- South Main Street and Central Avenue Smart Growth Plan, a Borough plan that combined traffic-calming measures (implemented) recommended urban design and redevelopment interventions in key locations.
- A color-coded system of walking tours through Downtown and adjacent neighborhoods.

Key Access Conditions

Downtown-relevant field observations and findings highlighted within the Circulation Element are presented below.

Auto

- Peak-period trips contribute to congestion in the Borough which, in turn, limits economic development, as the transportation infrastructure has less capacity to accommodate additional trips.
- Metuchen's local road network is placed under greater stress due to the disproportionate volume of pass-thru traffic that filters through the Borough
- The convergence of significant volumes of traffic at six different three-way "T" inter-sections within 1,200 feet of each other, combined with the joint funneling of both Route

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27 and County Route 501 under the Northeast Corridor rail line creates, intolerable traffic congestion detrimental to the healthy function of the Town Center.

- It is important to note that Metuchen bears a greater share of traffic generated by the region, due to its “hub” location at the center of Edison Township, which has grown tremendously during the past 25 years.
- Additional growth in this region will bring growth in “back-ground” traffic traversing Metuchen, whether or not Metuchen experiences any development.
- One of the biggest challenges facing the Borough is the ability to adequately fund transportation-related improvements that have a regional benefit.
- Traffic calming at Station Place has helped conditions on this stretch of Main Street.
 - Problems still occur with increasing speeds as cars ascend to-ward downtown from the Northeast Corridor underpass, difficult crossing and turning movements at some cross streets, and traffic stacking at the bus shelter.
- The need to provide parking for rail commuters has meant the commitment of significant acreage in the downtown for the provision of parking spaces.
- The downtown core of Metuchen is disconnected by surface parking and underutilized land.

Walking

- Better walkway and sidewalk connections and the judicious use of traffic calming measures, along with improved bicycle routes and greenway linkages offer the potential for much greater public benefits in quality of life and circulation than conventional changes in the geometry of roadway intersections.

- The train station is situated within reasonable walking distance of virtually every residence in town.
- The Borough's compact, high-density settlement pattern provides residents and visitors the choice of walking to many destinations within the community
- Metuchen is recognized, by NJ Transit among others, to be one of the more “transit-friendly” communities in its rail system, in terms of land use and design.
- As one of the most dangerous pedestrian intersections in the Borough is Woodbridge Avenue and Main Street.
 - The odd geometry of the intersection, including the drop to the Northeast Corridor underpass, combined with two bus stops, and dispersed, mid-block pedestrian crossings make for a complicated traffic and safety situation.
 - Pedestrian strikes occur particularly from the right turn onto Woodbridge Avenue.

Cycling

- Bicycle use is high and bicycle storage has reached its capacity.
- Promoting more bicycle use at the train station and in Downtown will help to take some of the burden off of the traffic and parking infrastructure.
- Promoting more bicycle use at the station will help to take some of the burden off of the traffic and parking in the station area.

Public Input

The following questions and responses, as highlighted in the Circulation Element, offer relevant insights on multimodal Downtown access. While Downtown is clearly viewed as offering the most comfortable walking streets in the borough, several

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opportunities for improvement in this and other non-driving modes emerge from the responses given.

What are the most problematic vehicular traffic “hot spots”?

- Main Street and Amboy Avenue
- Main Street at rush hour
- Route 27 from Main Street to Lake Avenue
- Main Street and Woodbridge Avenue

What are the most dangerous places for pedestrians?

- Amboy Avenue and Main Street
- Route 27 (Main Street to Grove Avenue)
- Near the train station

What are the most comfortable areas for pedestrians?

- Side streets
- Main Street
- Off Main Street in downtown
- Main Street, b/w the railroad and Middlesex Avenue
- The downtown area
- Main Street and other side streets
- Main Street
- The Middlesex Greenway

What are the most dangerous places for bicycling?

- Along Route 27
- Main Street
- Everywhere
- Middlesex Avenue
- Amboy Avenue

What are the most comfortable places for bicycling?

- Woodbridge Avenue
- Side streets

What improvements would you like to see at Metuchen Station?

- Better parking and traffic circulation
- Better and safer bike racks

Recommended Improvements

Among the recommendations identified in the Circulation Element, several represent improvements with the potential to shift more inbound and local trips to non-driving modes. Primarily focused on improving walking and "complete streets" performance of Downtown streets and intersections, such improvements have the potential to reduce parking demand while also activating Downtown sidewalks and other the public areas.

Intersections - General

- Improvements, upgrades, and resignalization at:
 - Main St. & Amboy Ave.
 - Main St. & New St.
 - Route 27 & Main St.

Intersections - Woodbridge and Main

- Improve sidewalks, street crossings, and sidewalk/ driveway interfaces surrounding the Post Office, bus shelters and the station.
- Add a bump-out on the west side of the intersection.

Street Design - Route 27

- Reconfigure the traffic signalization and pedestrian crossings at Lake Avenue and New Street

- Add a planted median between Main Street and Pearl Street to limit some left turns and define left turn lanes for Main Street and Pearl Street.
- Add a small pedestrian refuge between Pearl Street and Williams Street.
- Add on-street parking on the south side of Middlesex Avenue between Pearl and Center Streets
- Add a pedestrian refuge at the southern side of the Center Street intersection to assist in pedestrian crossings and eliminate speeding to make Lake Avenue left turns.
- Adopt a new streetscape/sidewalk standard.

Street Design - Main Street

- Add curb bump-outs on both side between Station Place and the Northeast Corridor underpass
- Remove the parallel parking space on southbound side before the Station Place crosswalk
- Relocate the bus shelter near Middlesex Avenue
- Replace walk signals & add textured crosswalks at New Street and Hillside Avenue

Bicycle Mobility

- Additional racks should be considered as part of streetscape improvements.

Station Area

- Add more bike racks.
- Introduce bike lockers.

Parking

- Require all surface parking for new development to be kept to the rear of buildings.

2013 Field Observations

Park Once Infrastructure

The key to successful parking management in any vibrant downtown is creating a "park once" environment. Within such an environment, most drivers expect to park just once while in the downtown area, walking between all local destinations. This requires a significant pool of shared parking spaces, usually including some off-street spaces to supplement on-street parking. In this regard, Downtown is well-supplied, particularly "after hours" when hundreds of park-and-ride spaces become widely available.

Just as important, however, is providing safe, attractive, direct walking facilities (sidewalks and crosswalks) between these parking resources and local destinations. Ideal walking conditions can greatly expand the distance people are willing to walk between parking and their destinations; while poor walking conditions can reinforce instincts to focus only on the most convenient, "front door" parking options.

Pedestrian Network

Downtown Metuchen benefits from a very walkable scale, with few destinations within the study area lying beyond a 10-minute walk of each other. This suggests a promising context for creating a Park Once environment, particularly if the pedestrian connections in between these points make that 10 minutes safe and pleasant.

Sidewalks

The local sidewalk network is largely complete, with few observed missing links on either side of the street. One notable exception is the north side of Wernik Place, which is an exceptionally wide street, with very light traffic. Presumably, this street was widened

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at some point to facilitate u-turns by commuters exiting the long-term parking spaces that line this side of the street

A more common sidewalk gap are the interruptions created when a sidewalk meets a driveway. Such intersection are generally unavoidable, and are effectively minimized on most commercial streets. However, the severity of some observed interruptions quickly degrades walking conditions in parts of Downtown.

Ideally, roadways rise up to the sidewalk level at driveway intersection points, and the sidewalk material is extended through them. Short of that, gaps created by driveways that interrupt sidewalks should be minimized as much as possible. By contrast, several driveways were observed to create unnecessarily wide and disruptive gaps in the intersecting sidewalk.

Figure 27 Missing Sidewalk Link at Disused Driveway



Similarly, private development that has been allowed to provide several parking spaces along the street, has not only wiped out curb

parking but created significant sidewalk gaps, in front of their property. This form of parking creates a severe disruption within pedestrian networks by, not only creating sidewalk gaps, but introducing significant vehicle traffic across walking paths.

Figure 28 Curb Parking and Sidewalk Lost to Private Parking



The condition of sidewalks, is also inconsistent, even on Main Street. Common, observed conditions affecting walking safety and comfort include:

- Uneven paving;
- Broken and crumbling paving; and
- Obstacles within the pedestrian path.

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Figure 29 Obstructed Sidewalk on South Main Street



Figure 30 Curb Extensions Provide Several Pedestrian Crossing Benefits



Figure 31 High-Visibility Crosswalk Supports Crossing Near the Train Station



Crossings

Downtown benefits from the presence of a model pedestrian crossing at Main Street, just to the north of the train station. This crossing combines several innovative elements, including:

- Curb extensions to reduce the crossing distance and improve pedestrian visibility;
- Well-defined crosswalks that align with ADA-accessible curb ramps; and
- "Yield to Pedestrian" signage, which is particularly helpful on high-volume highways like Main Street (also County Route 531).

While many other crossings throughout Downtown contain some of these elements, none contain all of them. At a minimum, crossings along high-traffic Downtown streets should include:

- Crosswalks aligned with each approaching sidewalk;
- Pedestrian crossing signals at all signalized intersections; and
- ADA-accessible curb ramps aligned with all crosswalks and connecting sidewalks.

Figure 32 Missing Pedestrian Signal at Main and Hillside



Some of the least appealing segments of the local pedestrian network can be found around several Downtown public parking lots. For the most part, these segments suffer from a lack of investment, rather than any inherent, physical limitations. Some specific examples include:

- Station Place, which connects several public parking lots, and suffers from frequent driveway disruptions and other

sidewalk gaps, as well as a lack of lighting or any other pedestrian amenity;

- The New Street Lot, which lacks formal, pedestrian connections to abutting New Street or Main Street; and
- The Pearl Street Lot, which primarily suffers from being surrounded by other parking lots and several auto-oriented land uses.

Connections to Parking

Figure 33 Poor Walking Conditions Surrounding Pearl Street Lot



Investments in improved streetscapes at these locations could improve pedestrian connections to Downtown land uses, expanding the market of Downtown customers who will willingly use these lots during evenings and weekends. Extending the quality streetscapes found along Main Street toward these parking facilities would visually connect these areas to the more active parts of Downtown.

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In particular, using the presence of a pedestrian alley between the New Street Lot and Main Street and/ or New Street, would greatly improve the profile and appeal of this lot as a short-term parking resource. The current appearance of this alley, by contrast, makes the lot look like accessory parking for the stores along Main Street.

Figure 34 Potential Gateway to Parking from Main Street



Wayfinding and Information

As downtown economies continue to evolve toward more dining, socializing, and entertainment destinations, the significant off-street capacity available for public parking on evenings and weekends should be highlighted as a substantial Downtown asset. Going a step further, combining wayfinding and information into a cohesive branding effort could significantly raise the profile of MPA assets, and provide a mental map of parking options that drivers can access upon arriving downtown. Components of such a campaign should include:

- An MPA website with a parking map of public parking options by day of week and time of day;
- Improved auto- and pedestrian-oriented wayfinding, marking MPA parking locations, including walking distance information (preferably in time, rather than linear distance);
- Improved signage, streetscape, and lighting at and surrounding MPA parking assets.

Figure 35 Wayfinding for Recreational Walking Near the Station



Bike

The entire borough of Metuchen consists of less than three square miles, an area that can be traversed in less than 15 minutes by an average cyclist. Well-used bike parking facilities at and near the Train Station indicates strong, unmet cycling demand among local commuters, and a likely potential to tap into unmet cycling demand for general Downtown trips as well.

Attracting Downtown visitors by bike can reduce demand for auto parking and ease congestion at popular lots and on-street blocks. Promoting cycling also creates a more active environment, and healthy local population. Further, offering easy, convenient cycling connections can help attract business among customers who prefer cycling over driving, and make it easier to support local businesses.

Local Network

Missing elements for offering optimal cycling access to Downtown include:

- In-road facilities, such as bike lanes or sharrows;
- Prominent, convenient parking near shops; and
- Wayfinding along the Middlesex Greenway, which could alert riders to their proximity to Downtown shopping, dining, and drinking options.

Regional Connections

The Middlesex Greenway is a former rail line converted to a bike trail, connecting the communities of Metuchen, Edison, and Woodbridge. Located on an abandoned section of the Lehigh Valley rail corridor, this 3.5 mile long, 42-acre corridor was purchased by the County of Middlesex in 2002 for conversion to recreational use. The Greenway abuts the Study Area along its southern border, and terminates within Metuchen at Route 27, just a block to the west of the Study Area.

Transit

As is the case in many New Jersey towns, the appeal of Metuchen's rail connections to New York City and Trenton are at the center of the Metuchen economy. Parking access near Metuchen Station is a key asset sought by homebuyers in Metuchen as well as neighboring communities. The result of these pressures for train

access in many commuter towns is a station area and/ or downtown that is dominated by parking.

Fortunately, Metuchen has been able to retain a vibrant Main Street core surrounding its train station, in large part by pushing most of its park-and-ride lots a block or two away from the station.

Regional Rail

NJ Transit rail services, accessible at Metuchen Station in the center of Downtown, are the primary transit resource for Downtown. Ridership primarily consists of outbound commute and inbound return trips by residents of Metuchen or nearby communities. However, the service runs nearly 24-hours, even on weekends, with a service gap of just a few hours, roughly between two and four in the morning.

Figure 36 Morning Commuters on the Eastbound Platform



Headways during commute peaks can be less than 15 minutes, while off-peak headways rarely expand beyond 1-hour. The price of a monthly commuter pass to New York City is currently \$308. Trip times vary from less than 40 minutes for some peak-hour trips to roughly an hour in the off-peak. The price of a monthly

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pass for a 45-minute commute to Trenton (offering rail connections to Philadelphia) is \$248.

Local Bus

While inbound rail commuting is likely rare, there are several local bus options that can offer driving alternatives for Downtown employees.

Figure 37 An 813 Bus En Route to Middlesex College



Local and connecting transit options include three NJ Transit bus lines.

- The **810**, offering hourly, 7-day service between New Brunswick and Woodbridge Center Mall (just east of Edison), with Downtown stops at:
 - Main Street and Woodbridge Avenue
 - Main Street and Route 27
 - New Street just off of Main Street; and
 - Center Street, just south of Route 27.

- The **813**, offering weekday and Saturday service to Perth Amboy, Edison, and Middlesex County College, with Downtown stops at:
 - Main Street and Woodbridge Avenue
 - Main Street and Route 27
 - New Street just off of Main Street; and
 - Center Street, just south of Route 27.
- The **819**, offering weekday and Saturday service to Piscataway and Plainfield, with Downtown stops at:
 - Metuchen Station
 - Main Street and Route 27.