AN UNOFFICIAL HANDBOOK TO THE CIRCULATION ELEMENT OF THE MASTER PLAN

CITY OF JERSEY CITY
JERRAMIAH T. HEALY, MAYOR

AS OF: DECEMBER 2, 2010

Sources (clockwise): NJDOT/JDNX/Wally Gobetz/Gregoriosz

ACKNOWLEDGEMENTS

City Council:
Peter Brennan, Council President
Willie Flood, Councilwoman-at-Large
Ray Velazquez, Jr., Councilman-at-Large
Michael Sottolano, Ward A (Greenville) Councilman
David Donnelly, Ward B (West Side) Councilman
Nidia Lopez, Ward C (Journal Square) Councilwoman
William Gaughan, Ward D (The Heights) Councilman
Steven Fulop, Ward E (Downtown) Councilman
Viola Richardson, Ward F (Bergen/Lafayette) Councilwoman

Jersey City Department of Housing, Economic Development and Commerce:
Carl S. Czaplicki, Director
Robert D. Cotter, AICP/PP, Planning Director

Prepared by:
Grace Bogdan
Daniel Poster

Edited by:
Douglas J. Greenfeld, AICP/PP
Robert D. Cotter, AICP/PP
Naomi Hsu, AICP/PP
Claire Davis, AICP/PP
Jeffrey Wenger, AICP
Kristin Russell, AICP/PP
Tanya Marione-Stanton, AICP
Sandra Sung

This plan was prepared with financial support from the North Jersey Transportation Planning Authority.

JERSEY CITY

DEPARTMENT OF HOUSING, ECONOMIC DEVELOPMENT & COMMERCE
DIVISION OF CITY PLANNING

ROBERT D. COTTER, PP, AICP
PLANNING DIRECTOR

JERRAMIAH T. HEALY, MAYOR
CARL S. CZAPLICKI, DIRECTOR

January 3, 2011

Dear Development and Design Professional:

I am pleased to provide you with a copy of "AN UNOFFICIAL HANDBOOK TO THE CIRCULATION ELEMENT OF THE MASTER PLAN."

The purpose of this handbook is to introduce planners, engineers, and other practicing professionals to the award winning Jersey City Master Plan Circulation Element. There is particular emphasis placed on overview material pertinent to preparing and reviewing development regulations, development applications, and variance applications. *This handbook is not intended to serve as a proxy for the Circulation Element, and readers are encouraged to refer to the Circulation Element for full details of all items addressed by these chapters.*

A circulation element is a powerful tool for shaping a community; it influences the flow of vehicle, bicycle, and pedestrian traffic, reconciles freedom of movement with maintenance of place, and defines the streetscapes we experience on every city block.

The Jersey City Circulation Element was adopted unanimously by the Planning Board on April 14, 2009. Its purpose is to guide the development of the City's transportation network through 2050, and to aid the City in achieving its vision of becoming a world-class destination with a multi-modal transportation network that both accommodates the automobile and supports alternatives to reduce automobile use.

The Handbook is intended to introduce the contents of the actual Circulation Element and provide a quick overview of the comprehensive material it contains. In reviewing the Handbook, you may find a section that addresses your particular area of concern. This is when and where you then can refer to the actual Circulation Element for a complete discussion of that subject.

If you have any further questions or comments, we are here to help and listen. Feel free to call or write to us at the address given below.

Sincerely yours,

Robert D. Cotter, PP, AICP

30 Montgomery Street – Suite 1400, Jersey City, NJ 07302
201-547-5010 office • 201-547-4323 fax
www.cityofjerseycity.com

TABLE OF CONTENTS

TABLE OF CONTENTS CONT.

JERSEY CITY'S VISION:

See Section 3.1 of Circulation Element

BY THE YEAR 2050, JERSEY CITY'S EXTENSIVE AND SUSTAINABLE DEVELOPMENT, REDEVELOPMENT AND NEIGHBORHOOD REVITALIZATION ACTIVITY WILL HAVE TRANSFORMED THE CITY INTO A BUSTLING, "GREEN," WORLD-CLASS CENTER WITH A RANGE OF HOUSING AND RETAIL CHOICES, MANY EMPLOYMENT AND BUSINESS OPPORTUNITIES, AND EXCELLENT RECREATIONAL, ENTERTAINMENT AND CULTURAL AMENITIES. AS BEFITS ANY SUCH CENTER, THE CITY WILL BE SERVED BY A MULTI-MODAL TRANSPORTATION SYSTEM THAT IS ATTRACTIVE, CLEAN, SAFE, EFFICIENT, RELIABLE, INCLUSIVE, AFFORDABLE, ACCESSIBLE, AND USER-FRIENDLY. JERSEY CITY'S COMPREHENSIVE AND SEAMLESS TRANSPORTATION NETWORK WILL PROVIDE OPTIONS TO ITS USERS AND ACCOMMODATE ALL TYPES OF TRIPS - BOTH LOCAL AND REGIONAL IN NATURE - TO, FROM, AND WITHIN ALL NEIGHBORHOODS, THROUGHOUT THE DAY AND NIGHT, AND IT WILL MITIGATE CONGESTION AND MINIMIZE THE AMOUNT OF SINGLE-OCCUPANCY VEHICULAR TRAFFIC IN JERSEY CITY.

THE CITY'S TRANSPORTATION NETWORK WILL BENEFIT RESIDENTS, WORKERS, AND VISITORS ALIKE BY GIVING PEOPLE A CHOICE IN HOW THEY TRAVEL TO, FROM, AND WITHIN JERSEY CITY. THE PRINCIPAL FEATURES OF JERSEY CITY'S TRANSPORTATION NETWORK WILL BE A HIGHLY-FUNCTIONING AND EFFICIENT MULTI-MODAL PUBLIC TRANSIT SYSTEM, A ROADWAY NETWORK THAT WILL NOT ONLY ACCOMMODATE VEHICULAR TRAFFIC BUT WILL ALSO PROVIDE SAFE AND EFFICIENT ACCOMMODATION FOR BICYCLISTS AND PEDESTRIANS, AND A NETWORK OF OFF-ROAD BICYCLE AND PEDESTRIAN PATHS THAT COMPLEMENT THE CITY'S PARKS AND OPEN SPACES.

CIRCULATION ELEMENT EDUCATIONAL HANDBOOK

The purpose of this handbook is to introduce planners, engineers, and other practicing professionals to the Jersey City Master Plan Circulation Element. There is particular emphasis placed on overview material pertinent to preparing and reviewing development regulations, development applications, and variance applications. *This handbook is not intended to serve as a proxy for the Circulation Element, and readers are encouraged to refer to the Circulation Element for full details of all items addressed by these chapters.* ***Throughout the chapters, references to direct sections of the Circulation Element will be given.***

There are six chapters in total which have been arranged to carry the reader logically from one set of concepts to the next. The first half of this handbook builds on the foundation established in chapter one; the second half addresses more advanced material pertinent to reviewing development and variance applications and preparing development regulations. In this pursuit, special attention has been paid to highlighting information that may be of particular relevance.

JERSEY CITY HAS BEEN A HUB OF TRANSPORTATION SINCE ITS INCEPTION. THE CITY'S PRIME LOCATION AT THE CONFLUENCE OF THE HACKENSACK AND THE HUDSON RIVERS, NEWARK BAY, AND UPPER NEW YORK BAY, HAS HAD SIGNIFICANT INFLUENCE ON THE MOBILITY OF GOODS FEW CITIES CAN COMPARE TO. THE CITY IS LOCATED IN CLOSE PROXIMITY TO NEW YORK CITY AS WELL AS MAJOR POPULATION CENTERS IN NORTHERN NEW JERSEY, AND MULTIPLE HIGHWAYS. HISTORICALLY THE CITY HAS BEEN THE EASTERN TERMINUS OF TRANS-CONTINENTAL RAILROADS WHICH CORRESPOND TO BARGE DOCKS THAT SERVICE NYC. IT MAKES SENSE, THEN, THAT JERSEY CITY'S HISTORY HAS BEEN ACCOMPANIED BY HEAVY INVESTMENT IN TRANSPORTATION INFRASTRUCTURE, AND THIS INVESTMENT CONTINUES TODAY. **JERSEY CITY IS NEW JERSEY'S FASTEST-GROWING MUNICIPALITY AND HAS ONE OF THE HIGHEST PUBLIC TRANSIT MODE SHARES IN THE UNITED STATES.** JERSEY CITY IS COMPRISED OF 15 SQUARE MILES, AN ESTIMATED POPULATION OF AT LEAST 260,712 RESIDENTS(2009), AND A HIGHLY-DEVELOPED MULTI-MODAL TRANSPORTATION SYSTEM THAT SUPPORTS THE MOVEMENT OF PEOPLE AND GOODS TO, FROM AND WITHIN THE CITY.



Source: Bill Wittkop/Jersey City Division of City Planning/NJTPA

Statutory Authority of the Planning Board

The State of New Jersey established the Municipal Land Use Law (MLUL) in 1975, compiled as N.J.S.A. 40:55D-1 et seq. The MLUL provides a strong home-rule foundation for municipal planning, granting municipalities a range of regulatory powers including the adoption of a comprehensive master plan, a capital improvement program, subdivision and site plan ordinances, a zoning ordinance, and development review procedures.

Municipalities that choose to regulate land use (which all 566 boroughs, townships, villages, towns and cities within NJ have) are bound by MLUL requirements. MLUL requires that a master plan be adopted by the planning board and contain 1) a statement of long-term goals and objectives and 2) a land use element,. The MLUL offers 11 optional elements Municipalities may include in their Master Plan, where appropriate. Municipalities must update their master plan every six years.

Optional Master Plan Elements:

- Housing Plan
- Circulation Plan
- Utility Service Plan
- Community Facilities Plan
- Recreation Plan
- Conservation Plan
- Economic Plan
- Historic Preservation Plan
- Recycling Plan
- Farmland Preservation Plan
- Sustainability Plan

Due to Jersey City's location within the region and the importance of transportation and infrastructure within and through the City, a Circulation Plan Element was chosen as not only an appropriate element, but essential. According to the MLUL, a Circulation Plan Element *shows, "the location and types of facilities for all modes of transportation required for the efficient movement of people and goods into, about, and through the municipality, taking into account the functional highway classification system of the Federal Highway Administration and the types, locations, conditions and availability of existing and proposed transportation facilities, including air, water, road, and rail".* **A circulation element is a powerful tool for shaping a community; it influences the flow of vehicle, bicycle, and pedestrian traffic, reconciles freedom of movement with maintenance of place, and defines the streetscapes we experience on every city block.**

JERSEY CITY MASTER PLAN – CIRCULATION ELEMENT

Adopted: April 14, 2009

Purpose: To guide the development of the City's transportation network through 2050, and to aid the City in achieving its vision of becoming a world-class destination with a multi-modal transportation network that both accommodates the automobile and supports alternatives to reduce automobile use.

Methodology: The Circulation Element was developed by a consulting firm in conjunction with Jersey City professional planning staff. The content is based on collection and analysis of data along with feedback from the public and Technical Advisory Committee, to create an action oriented plan for Jersey City's local and regional transportation network.

Technical Advisory Committee (TAC): comprised of planners, engineers, and other professionals from State agencies, City departments, and regional organizations. The TAC's purpose was to assist in the collection of data, review of consultant deliverables, and aid in the development of goals, objectives, strategies, and actions.

Circulation Element Public Outreach

- Focus Group
  - Neighborhood group representatives
  - Major employers
  - Business & Development communities
  - Recreational & Education facilities
  - City hospitals
  - Bus & Ferry operators
  - Emergency Service providers
- 3 Public Meetings
- Jersey City Mobility 2050 Website
- 2050 Jersey City Mobility Survey
- Planning Board Hearing

ORGANIZATION OF THE JERSEY CITY CIRCULATION ELEMENT

Chapters

- 1. Introduction
- 2. Existing Conditions
- 3. Jersey City's Vision, Goals, Objectives, Strategies, and Actions
- 4. Analysis
- 5. Conclusions

Bibliography

Figures

- Maps
- Growth Projections
- Functional Classification System Diagrams
- Traffic Calming Illustrations

Appendices

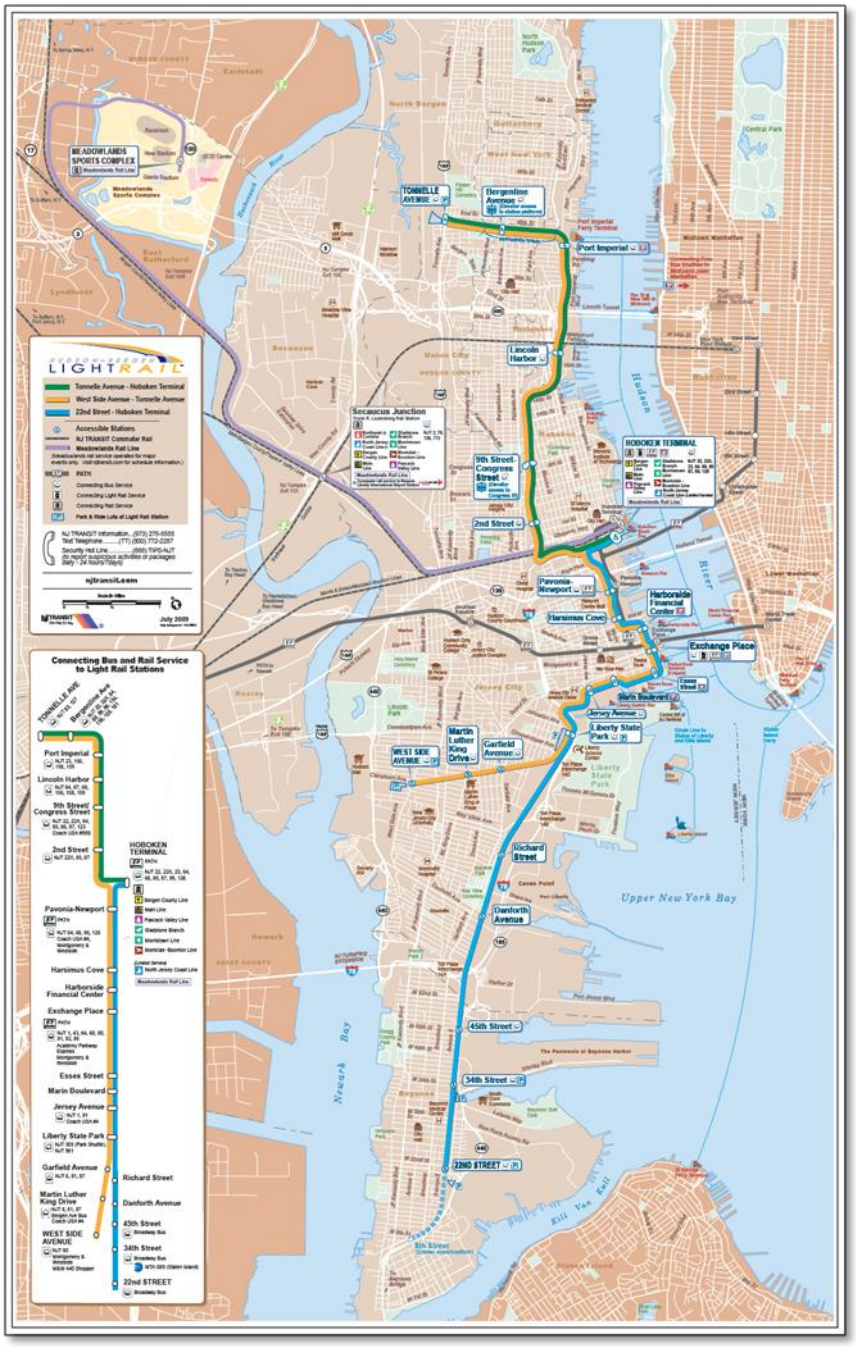
- Traffic Count Data
- Table of Redevelopment Plans
- Mobility Report 2050
- Jersey City Classification System
- FHWA Classification System

THE CITY OF JERSEY CITY HAS AN EXTENSIVE TRANSPORTATION NETWORK THAT PROVIDES ACCESSIBILITY AND CONNECTIONS FOR PEOPLE AND GOODS WITH NEW YORK CITY, NEWARK, AND ALL AREAS OF THE GREATER REGION. THIS TRANSPORTATION SYSTEM IS BROAD-BASED IN NATURE AND CONSISTS OF PASSENGER AND FREIGHT RAIL LINES, MAJOR HIGHWAYS, BUS ROUTES, SIGNED BIKE ROUTES, PEDESTRIAN PARKWAYS, TRUCK ROUTES, FERRY SERVICES, COMMERCIAL SEAPORTS, AND PROXIMITY TO AN INTERNATIONAL AIRPORT. PUBLIC TRANSPORTATION IS ESPECIALLY IMPORTANT BECAUSE **40%** OF HOUSEHOLDS IN JERSEY CITY DO NOT OWN OR HAVE ACCESS TO A CAR. APPROXIMATELY 59% OF PEOPLE WHO WORK IN JERSEY CITY COMMUTE BY MASS TRANSIT.

Source: Leon Yost

EXISTING CONDITIONS

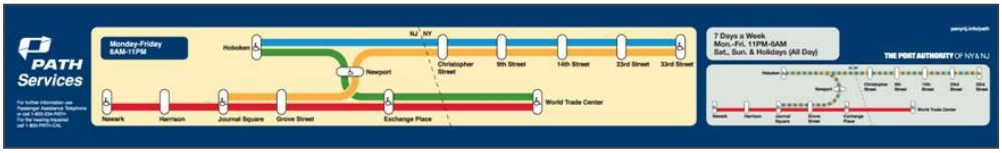
See Section 2 of the Circulation Element



Hudson-Bergen Light Rail

The Hudson-Bergen Light Rail (HBLR) is a privately-operated light rail service that is owned by NJ TRANSIT. The HBLR consists of three lines within Jersey City that connect with other modes of transportation and link important destinations such as Exchange Place, Harborside Financial Center, Liberty State Park, and Pavonia-Newport , along with numerous adjacent communities. With 12.3 million passenger trips in 2008, HBLR is widely recognized as a tremendous success.

PATH



Port Authority Trans-Hudson (PATH) is subsidiary of The Port Authority of NY & NJ that links Jersey City with New York City, Hoboken, Harrison, and Newark. The PATH has four stations within Jersey City and provides easy connections to the New York City Subway, NJ TRANSIT, Amtrak rail services at Newark's Pennsylvania Station, and NJ TRANSIT commuter rail at Hoboken Terminal. There are a total of four lines in the PATH system: Newark–World Trade Center; Hoboken–World Trade Center; Hoboken–33rd Street; and Journal Square–33rd Street.

Hours of Operation: 24 hrs **As of 1/1/2010**
One-Way Adult Fare: $1.75
Peak Headway: 4-5 minutes
Fact: In 2009, 22.2 million trips (31% of PATH system total ridership) were made from Jersey City PATH stations.
Source: The Port Authority of NY & NJ

Bus Service

Jersey City's bus services are a major transportation lifeline of the city for residents, workers, and visitors. They are vital to providing mobility and minimizing traffic congestion. The bus network links Jersey City's diverse neighborhoods, and provides access to many areas of the city and region; however, some areas are underserved. Bus services are largely provided by NJ TRANSIT and supplemented by private carriers. NJ TRANSIT operates a total of 22 general purpose bus routes serving most areas of Jersey City. In 2008, there were a total of 2,181,840 passenger trips ending in Jersey City (see table on next page). Privately operated bus lines to local destinations in Jersey City include Coach USA, Montgomery & Westside, and Bergen Avenue Bus. Coach USA and Bergen Avenue Bus also connect Jersey City with New York City and Bayonne.

Paratransit Operations

The Americans with Disabilities Act (ADA) requires that all transit services provide access to disabled persons. Consequently, buses are equipped with elevator lifts, kneeling functions, or other such accommodations. Passengers with disabilities are eligible for reduced fares upon presentation of a NJ TRANSIT Reduced Fare ID Card or Medicare Card. In addition, NJ TRANSIT's WHEELS bus provides increased access for disabled patrons on a local itinerary serving the Grove Street PATH Station, Jersey City Medical Center, Liberty State Park HBLR Station, and Port Liberté. NJ TRANSIT also provides a separate on-demand paratransit service within Jersey City.

Bus Terminals

There are a number of major, regional bus terminals in Jersey City, namely the facilities at the Journal Square Transportation Center, Grove Street, and Exchange Place.

Route No.	End Destination	2008 Passenger Trips
1	Newark	4,249,645
2	Secaucus	645,314
6	Jersey City (Merritt Street – Journal Square)	117,983
22	Union City	632,661
43	Newark	42,465
64	Lakewood and Weehawken	423,378
67	Toms River	359,980
68	Old Bridge	209,087
80	Jersey City (Gates Avenue – Exchange Place)	2,003,913
81	Bayonne	847,952
82	Union City	78,189
83	Hackensack	896,078
84	North Bergen	1,574,584
85	Secaucus and Hoboken	558,974
86	North Bergen	460,404
87	Hoboken	3,312,516
88	North Bergen	743,829
123	New York City	685,983
125	New York City	342,061
126	New York City	3,226,637
305	Liberty State Park Shuttle	59,944
319	Wildwood	323,565

Source: NJ TRANSIT

Journal Square Transportation Center

In addition to PATH services, the Journal Square Transportation Center facilitates intermodal transfers by providing direct connections to 11 NJ TRANSIT bus routes. With its off-street bus lanes and loading areas, the Journal Square Transportation Center is particularly well suited to accommodate its high-volume of bus traffic.

Exchange Place: This terminal offers intermodal connections to PATH, HBLR, ferry service, and transfers to eight bus routes that serve Newark, Union City, New Brunswick, Weehawken, East Brunswick, Bayonne, and Lakewood.

Ferry Service

Weekday commuter ferry service to and from Jersey City is largely provided by NY Waterway, which is a privately-owned company that operates a total of six routes between Jersey City and Manhattan. In addition to NY Waterway, the Liberty Landing Marina operates the Liberty Park Water Taxi from its marina to the World Financial Center. Recreational ferry service from Liberty State Park to Ellis Island and Liberty Island is available throughout the year. Ferries depart from the historic Central Railroad of New Jersey Terminal and Museum. This service is privately-operated by Statue Cruises, LLC.

Source: Leon Yost

As of 1/1/2010

Hours of Operation: Varies on route
One-Way Adult Fare: $5-$6.50
Peak Headway: 12-30 minutes
Fact: Approximately 30,000 ferry trips are made daily between New York City and New Jersey.

Auto Intercept Parking

Definition: *parking spaces located in strategic positions outside of downtown cores, with access to public transportation; commonly called "park-and-ride lots."* Their aim is to reduce the number of single occupancy vehicles travelling in downtown areas. For Jersey City, auto intercept parking is provided at the Westside Avenue and Liberty State Park HBLR stations, as well as at train stations throughout New Jersey.

Source: Jersey City Division of City Planning

Freight Rail

Freight Rail Facilities
- Greenville Yard
- Greenville Auto Terminal
- Croxton Yard
- Port Jersey Railroad
- New York New Jersey Rail
- Cross Harbor Float
- National Docks secondary rail line

Jersey City is home to major freight facilities, and is directly linked with the Norfolk Southern and CSX Transportation Class 1 railways (railroads that have an annual carrier operating revenue of $250 million or more). These transcontinental lines move freight throughout North America. Jersey City is also served by the short line Port Jersey Railroad, as well as the Port Authority's rail float service to Brooklyn. The National Docks Secondary is a segment of the national rail freight system that weaves its way through Jersey City.

Port Facilities

The Port of New York/New Jersey is comprised of several complexes throughout the region: Jersey City and Bayonne host the Port Jersey Marine Complex, which is the closest complex to the entrance of New York Bay, saving vessels approximately four hours of travel time as compared to Port Newark/Elizabeth. The two major facilities located within the Port Jersey Marine Complex are the Global Marine Terminal and the Auto Marine Terminal.

Source: Gettyimages.com

Auto Marine Terminal
- 130 acres, 1800 linear feet of berth space
- Used exclusively for vehicle import & export
- Direct connections to CSX Transportation and Norfolk Southern
- Owned and operated by Port Authority of NY/NJ

Global Marine Terminal
- 100 acres, 1800 linear feet of berth space
- 6 container cranes
- Oriented to heavy truck traffic
- Located 1.3 miles from NJ Turnpike exit 14A
- Owned and operated by Global Terminal & Container Services, LLC

Regional Roadway System

Source: Jersey City Division of City Planning

As all roads leading to and from the western portal of the Holland Tunnel must pass through Jersey City, the roadway system includes several major highways of regional and national importance, such as Interstate 78/NJ Turnpike-Hudson County Extension, U.S. Routes 1&9 (Pulaski Skyway and Truck), 7, and 139. As a principle node in the regional highway network, Jersey City experiences a high degree of thru-traffic and congestion, which often overflows onto local streets. Additional regional roadways in Jersey City include State Route 169 & 440, and John F. Kennedy Boulevard/Hudson County Route 501.

Truck Routes

New Jersey law permits municipalities to adopt ordinances that prohibit trucks with a combined vehicle and load weight in excess of four tons from traveling on local roadways, or to limit them to streets designated as truck routes. Truck routes serve to minimize unnecessary commercial truck traffic on local streets, and facilitate the smooth flow of traffic into and out of a municipality. The City of Jersey City has designated the entire length or a segment of a total of 47 streets as truck routes. Trucks may divert onto local streets if necessary to make a delivery, provided they first get as close to the site as possible via designated truck routes.

Bicycle and Multipurpose Trail System

Source: Jersey City Division of City Planning

Jersey City's bicycle and pedestrian trail system enriches the lives of residents and visitors through the promotion of good health and social interaction. It consists of a series of walkways, and greenways that provide the public with eco-friendly transportation alternatives and recreational opportunities. These include the Hudson River Waterfront Walkway, the East Coast Greenway Route, the Liberty-Water Gap Trail, the Hackensack RiverWalk, and various other bicycle routes.

JERSEY CITY 2050 MOBILITY SURVEY

See Section 4.3 of Circulation Element

The City conducted a mobility survey with the purpose to obtain current neighborhood specific data that could be used to determine the shortcomings of the multi-modal transportation systems to, from, and within Jersey City, and to determine the mobility patterns and transportation needs of the City's residents and workers. The 2050 Mobility Survey focused on three market segments:

- **Market Segment 1**: People working in Jersey City and living elsewhere
- **Market Segment 2**: People living in Jersey City and working elsewhere or not working
- **Market Segment 3**: People both living and working in Jersey City

Overview of Findings

Market Segment 1: People working in Jersey City and living elsewhere
Sample Size: 1,437

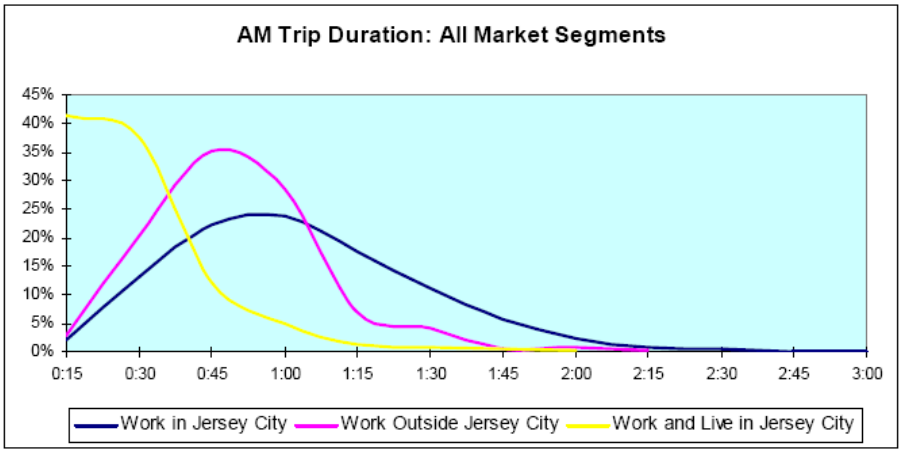
- 80% of commuters who work in Jersey City leave between 6 and 8:30 am
- Peak departure time: 7:00 to 8:00 am, peak of this peak: 7:00 to 7:30 am
- 85% of respondents arrive at work between 7:00 and 9:15 am
- Peak hour of arrival: 8:00 to 9:00 am, peak of this peak: 8:30 to 9:00 am
- 88% of respondents commute time: 30-90 minutes
- 52% of respondents commute time: 45-60 minutes

Market Segment 2: People living in Jersey City and working elsewhere or not working
Sample Size: 668

- 92% of respondents leave for work between 6 and 9:15 am
- Peak departure time: 7:30 to 8:30 am (57%)
- 87% of respondents arrive between 7:30 and 10:00 a.m.
- Peak arrival time is 8:30 to 9:30 am
- 85% of respondents commute time: 30-60 minutes
- 64% of respondents commute time: 45-60 minutes

Market Segment 3: People both living and working in Jersey City
Sample Size: 694

- 95% of respondents leave for work between 6 and 10 am
- Peak departure time: 7:30 to 8:30 am (55%)
- 93% of respondents arrive between 7 and 10:15 am
- Peak arrival time is 8 - 9 am (62%)
- 97% of respondents commute time: 15-60 minutes
  - 80% of respondents commute time: 15-30 minutes
  - 20% of respondents commute time: 30-60 minutes

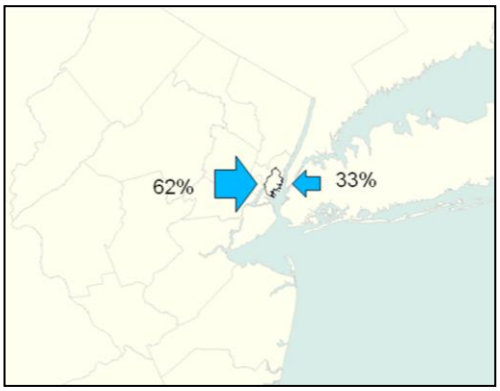


Source: Circulation Element of the Jersey City Master Plan

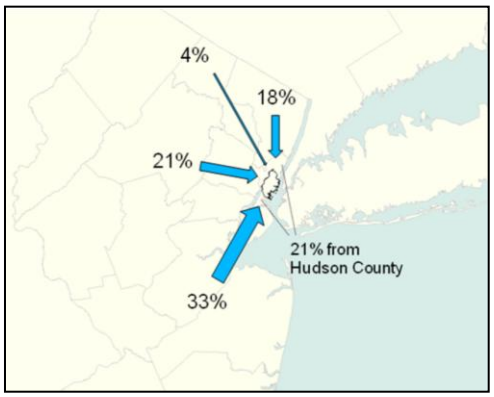
Origin and Destination

Overall, one-third of the people surveyed in Market Segment 1 originate mainly from New York counties that are east of the Hudson River; approximately one-third (31 percent) of these respondents commute to work in Downtown Jersey City.

Commuters to Jersey City/East & West of the Hudson River



Commuters to Jersey City from within New Jersey

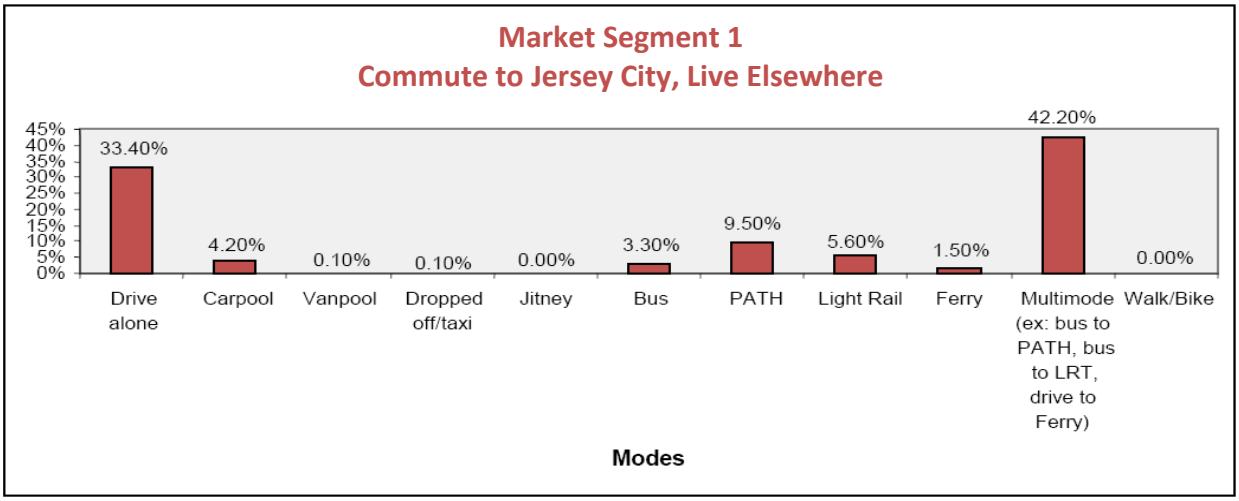


Source: Douglas Greenfeld

Modal Splits

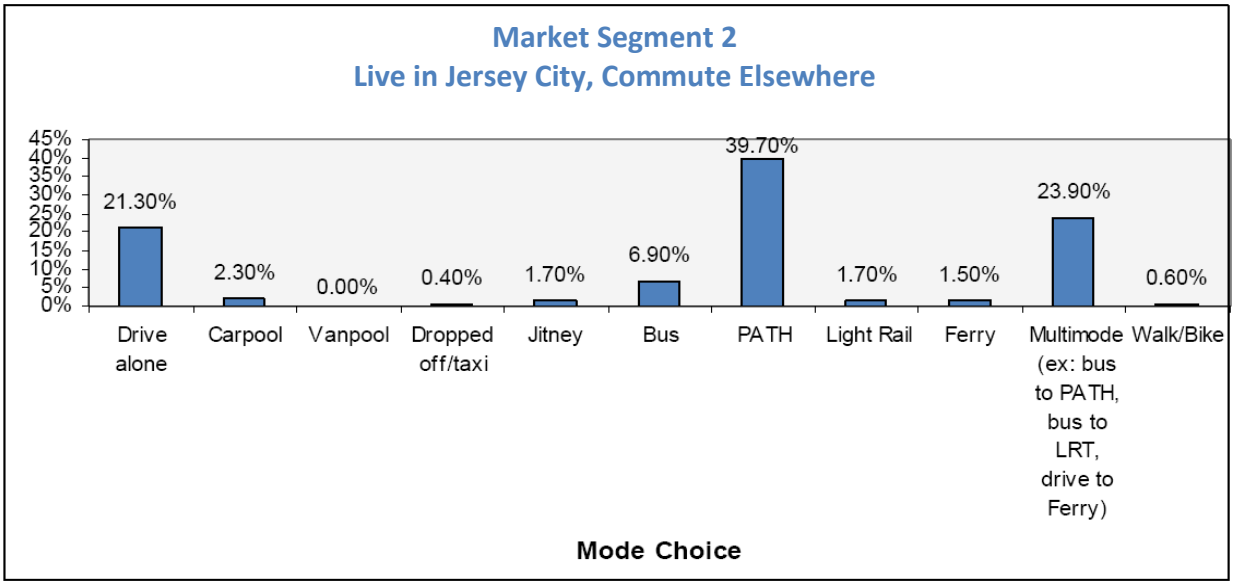
Of the three market segments, the lowest proportion of transit ridership (35 percent) is among respondents who both live and work in Jersey City (Market Segment 3). These findings are consistent with respondents' annotative comments on city mass transit: generally that service is insufficient to meet routine needs such as going to work, shopping, or recreation within Jersey City. Market segments experiencing higher transit share (work in Jersey City, work outside Jersey City) reflects the extensive commuter rail, intercity rail, light rail, ferry, and bus transit networks serving the greater Jersey City region.

Respondents who live elsewhere and commute to work in Jersey City go primarily by transit: 42 percent on a multimodal route, 10 percent on PATH, and 6 percent on Hudson-Bergen Light Rail. One-third of respondents drive alone to work.



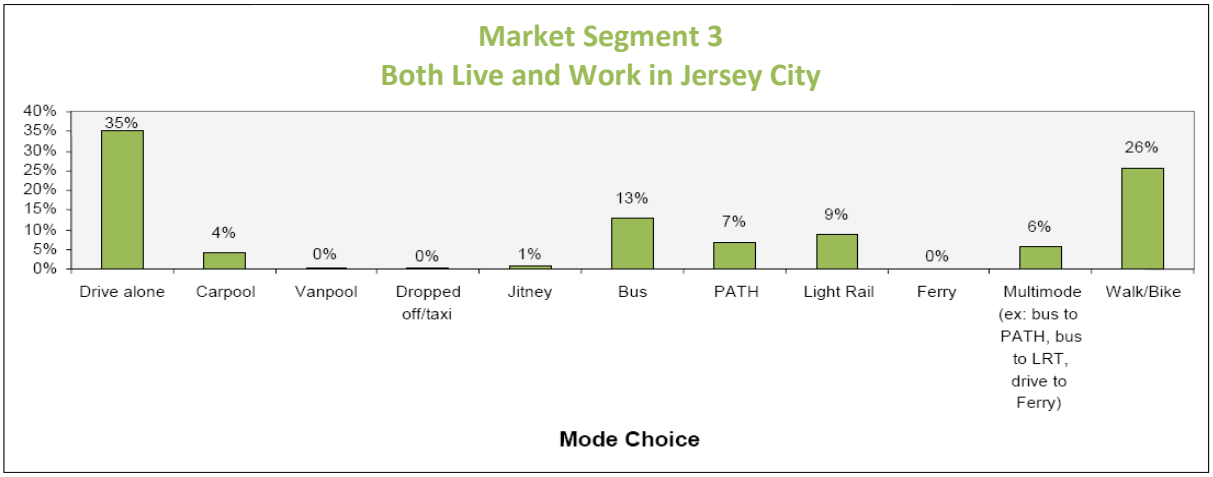
Source: Circulation Element of the Jersey City Master Plan

Jersey City residents who work elsewhere also make use of various transit options: 40 percent use PATH, 24 percent run a multimodal route, and 7 percent by bus. Twenty-one percent of respondents in this market segment travel to work by car.



Source: Circulation Element of the Jersey City Master Plan

Jersey City residents who work within the City comprise the largest horde of solo automobilists (35 percent). These findings underscore the need to support "walk and bike" strategies and explore ways to bolster mass transit service in order to mitigate traffic congestion.



Source: Circulation Element of the Jersey City Master Plan

FORECASTING POPULATION AND FUTURE GROWTH YIELD VALUABLE INFORMATION ABOUT THE CITY'S FUTURE DEVELOPMENT, THEREFORE THEY ARE INTEGRAL COMPONENTS TO THE CIRCULATION ELEMENT. THIS WAS ACCOMPLISHED BY PREPARING A CITYWIDE BUILD OUT ANALYSIS AND ANTICIPATING FUTURE TRAVEL DEMAND IN JERSEY CITY. JERSEY CITY IS EXPECTED TO GROW 82.3% IN POPULATION BY 2050. FROM THIS EXAMINATION, A STRATEGY FOR ADDRESSING GROWTH AND CIRCULATION WAS CREATED. THIS STRATEGY ENABLES JERSEY CITY TO SECURE AND PRESERVE RESOURCES VITAL TO EXPANDING SERVICE AND CAPACITY IN THE LONG TERM, IN ADDITION TO LINKING TRANSPORTATION AND LAND USE PLANNING.

Source: Jersey City Division of City Planning

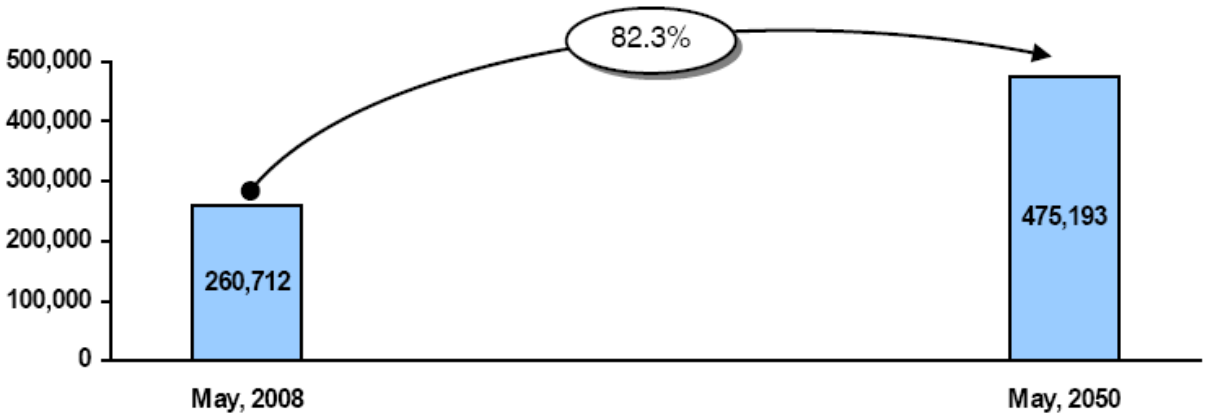
GROWTH PROJECTIONS

See Section 4 of Circulation Element

NJTPA and Jersey City Division of City Planning Growth Projections

The North Jersey Transportation Planning Authority (NJTPA) provided municipal-level growth projections for population, household and employment growth through 2030. According to their findings, Jersey City will increase 16% in population, 22.9% in households, and 19% in employment. A more extensive citywide build-out analysis was completed by Jersey City staff to inventory all growth areas in the city that may be completed by 2050. **This results in 80,330 new residential units housing and 9.8 million square feet of commercial space, which brings the total City population to 475,193 in 2050**.

2050 Population Projection for Jersey City



Source: Circulation Element, Figure 4.1-1

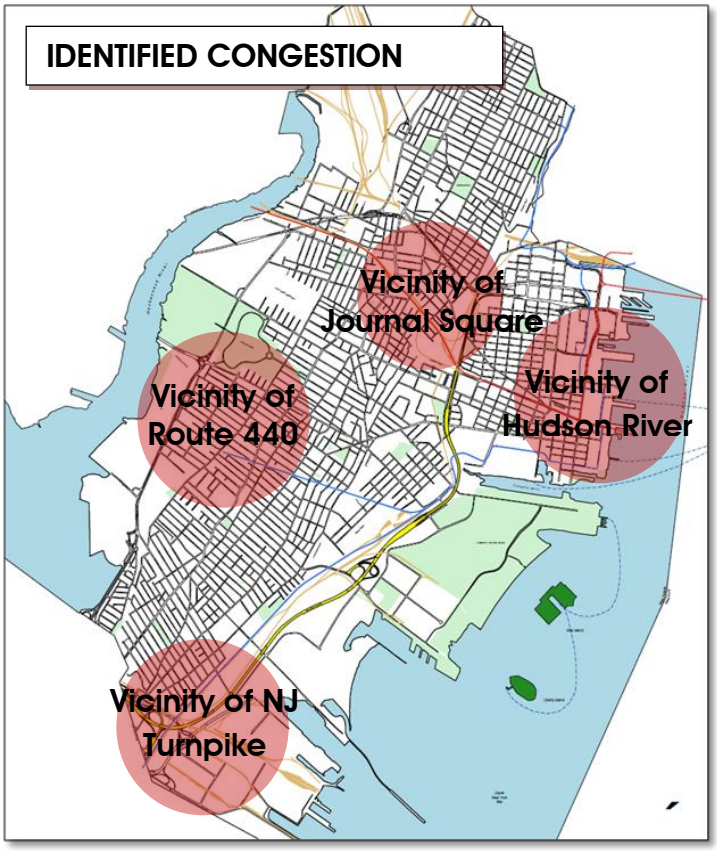
ADEQUACY OF THE SYSTEM THROUGH 2050

See Section 4.2.1 of Circulation Element

In order to identify roadway locations where congestion is anticipated through 2050, the North Jersey Transportation Planning Authority's (NJTPA) North Jersey Regional Transportation Model-Enhanced (NJRTM-E) analyzed the volume of roadway systems versus the capacity of the system. The NJRTM-E identified congested areas in the following vicinities:

- Route 440 (Bergen and Greenville)
- Downtown Hudson River Waterfront
- Journal Square
- NJ Turnpike Extension in the Greenville Neighborhood

The redevelopment planned for land west of Route 440, and the anticipated development in the vicinity of the Hudson River will generate a significant amount of traffic and mass transit needs. The volume/capacity ratios of collector and local streets in both areas are anticipated to exceed acceptable values by 2050 if not mitigated. The vicinity of Journal Square is currently well served by PATH, bus service, and available parking facilities; however, in order to support redevelopment improvements to pedestrian access, reduction of vehicular trips and multimodal access is needed. Implementation of the Canal Crossing, Claremount Industrial, and Danforth Transit Village Redevelopment Plan's new street grids would benefit the roadway grid network, though the construction and completion will increase HBLR demands and traffic volume in the vicinity of the NJ Turnpike.



Source: Jersey City Division of City Planning

THE COST OF TRAFFIC CONGESTION

- Impedes bus service and makes it difficult for buses to operate on time and predictably.
- Obstructs emergency vehicles.
- Adds time delay and expense to the delivery of goods to stores and packages to homes and businesses.
- Makes employees late for work and makes it difficult for shoppers to get to stores.
- Creates delays for those who must drive as part of their work (e.g. sales people, construction workers.).
- Detracts from the quality of family life because of time spent in traffic or on a bus on the way to and from work, picking up the kids at day care, or running errands.
- Creates frustration and stress.

Mitigating traffic congestion

- Provide a safe, clean, reliable, and efficient multi-modal mass transit services
- Ensure walkable and bicycle friendly environments
- Link land use and transportation by ensuring that jobs, schools, goods, and services are reachable by mass transit, walking and/or biking

HOW TO ADDRESS GROWTH & CIRCULATION

See Section 5.1 of the Circulation Element

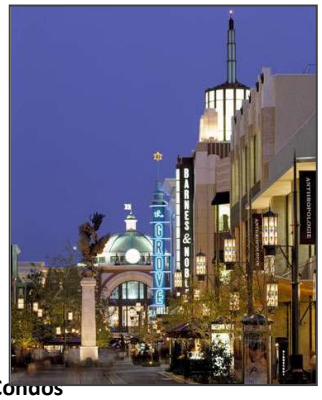
The Circulation Element will address growth by identifying rights-of-way that need to be secured and recommending improvements to the transportation infrastructure for all aspects of the multi-modal system. Circulation will also be addressed by revising the existing and future roadway layouts to accommodate all users in order to provide connectivity for all modes of travel.

Source: www.completestreets.org

RAIL + BICYLE ACCESS + PEDESTRIAN ACCESS + LIGHT RAIL + BUS + AUTOMOBILE + FERRY

= MULTI MODAL

IN ORDER TO ACHIEVE ITS VISION, THE CITY OF JERSEY CITY ESTABLISHED 14 MAJOR GOALS FOR THE SHORT, MEDIUM AND LONG TERM TO BRING THE CITY FORWARD TOWARD A WORLD-CLASS TRANSPORTATION SYSTEM AND PROVIDE A FOUNDATION FOR THE CITY'S EVOLUTION INTO A PROSPEROUS AND LIVELY WORLD-CLASS CENTER. THE COMPREHENSIVE FRAMEWORK THAT CREATES THESE 14 GOALS IS BROKEN DOWN INTO OBJECTIVES, STRATEGIES AND ACTIONS. THIS MODULE SUMMARIZES EACH GOAL AND STRUCTURED ELEMENTS, CAREFULLY NOTING ACTIONS THAT POTENTIALLY IMPACT ZONING CHANGES, REDEVELOPMENT PLANNING, AND SITE PLAN/SUBDIVISION APPLICATIONS. THIS IS INTENDED TO ASSIST PLANNERS, ENGINEERS, ARCHITECTS, AND OTHERS; HOWEVER, THE CIRCULATION ELEMENT *MUST BE REFERENCED DIRECTLY* FOR INFORMATION CONCERNING STRATEGIES AND ACTIONS.



Source: Wasatch Front Regional Council/Hoboken Condos

FRAMEWORK

***Although Goals, Objectives, Strategies, and Actions are numbered, they are not in sequential order of importance.**

Goals are broad, overarching statements of intent, speaking to the city's transportation aims and desires at the most fundamental level.

Objectives enumerate the many facets of each goal in greater detail.

Strategies provide the overall approach by which to accomplish objectives.

Actions provide the specific means by which to implement the strategies. They consist of specific projects and policies that are designed to support the objectives, goals and vision.

The base distinction between goals, objectives, strategies, and actions is one of purpose: Goals and objectives are aspirational. Strategies and actions provide the implementation approach that is needed to achieve the goals and objectives.

GOALS

See Section 3.2.1 of Circulation Element

This section will state each goal, summarize some of the goal's objectives, and list some pertinent actions that affect zoning impacts, redevelopment planning, and site and subdivision approval.

USERS MUST REFERENCE CIRCULATION ELEMENT DIRECTLY FOR FULL LIST OF OBJECTIVES, STRATEGIES, AND ACTIONS

Goal 1: Coordinate transportation and land use planning in a systematic and comprehensive manner.

Example Objectives:

- Develop and implement smart growth strategies that locate new residential development within walking distance of bus stops and passenger rail stations, with the highest density zones located within walking distance of passenger rail stations; that mixes residential land use with commercial land use; and allocates industrial zones near port facilities, freight rail lines, regional highways and the NJDOT Portway projects
- Consider the cumulative impacts of development on traffic congestion and consider traffic congestion impacts on local bus service
- Create meaningful public spaces that facilitate integration of the built environment with arterials and major transit routes

Example Strategies:

- Work with regional agencies to identify specific locations for intercept parking facilities outside Jersey City that use existing or new mass transit linkages to Jersey City's downtown employment center
- Market Jersey City as a transit-rich location and market the benefits of using mass transit

What this affects	Example Actions	See Section 3.2.1
Zoning, Redevelopment Planning, Site Plan & Subdivision Applications	**Action G1-3:** Permit on-street parking that is designed to serve neighborhoods and buffer pedestrians from vehicular traffic	
	Action G1-4: Model traffic impacts of proposed zoning changes, zoning density variances, and proposed new redevelopment plans, and work with transit providers to assess development impacts to mass transit ridership	
	Action G1-12: Permit use of commercial parking facilities by car sharing programs	

Goal 2: Increase, improve, and enhance public transit service to, from, and within all areas of Jersey City

Example Objectives:

- Provide affordable, frequent, reliable and accessible bus service to residents and visitors
- Increase convenience and capacity of PATH system
- Support new development of new neighborhoods through expansion of mass transit systems

Example Strategies:

- Work with NJ TRANSIT and other transit providers to improve local bus routing, operations, service, facilities, equipment and congestion points
- Work with transit providers to create bus rapid transit service, where possible

What this affects	Example Actions	See Section 3.2.2
Zoning and Redevelopment Planning	**Action G2-2:** Work with NJ TRANSIT and private carriers to locate bus stops in all residential neighborhoods, and generally within a ¼ mile walk of all residences and closer, where there are topographic considerations. Space bus stops for local bus routes approximately every 530 to 590 feet and closer within business districts, to balance the need for short walking distances	
	Action G2-3: Work with NJ TRANSIT and private carriers to provide bus service to all activity centers that consist of employers with combined employment of 500 or more employees, shopping centers and shopping districts with more than 150,000 square feet of leased retail space, or colleges and universities with 500 or more students	
	Action G2-4: Work with NJ TRANSIT and private carriers to provide bus service to medical facilities, social service providers and governmental facilities	
	Action G2-5: Work with NJ TRANSIT and private carriers to maximize bus system directness and convenience by minimizing route distances and the need for transfers, and by coordinating bus route schedules for easier transfers.	
Zoning, Redevelopment Planning, Site Plan & Subdivision Applications	**Action G2-7:** Create bus priority lanes and traffic light priority where buses are impeded by traffic congestion and other bus preferential treatment, where appropriate	
Zoning and Redevelopment Planning	**Action G2-10:** Work with NJ TRANSIT to install complete and attractive bus stops that include shelters, route and schedule information, lighting, emergency call box, and bike racks, where appropriate. Integrate public art with bus stops. Initiate pilot program to test kiosks with touch screen route planning information at major bus stop locations	
Zoning, Redevelopment Planning, & Subdivision Applications	**Action G2-15:** Work with NJ TRANSIT and private carriers to explore the use of Bus Rapid Transit (BRT) to, from, and within Jersey City and bus preferential treatment within Jersey City	
Zoning and Redevelopment Planning	**Action G2-24:** Work with NJ TRANSIT to install complete and attractive HBLR stops that include shelters, route and schedule information, lighting, emergency call box and bike racks, where appropriate. Integrate public art with HBLR stops. Work with NJ TRANSIT to initiate pilot program to test kiosks with touch screen route planning information	
	Action G2-43: Work with Port Authority NYNJ and NJ TRANSIT to develop specific HBLR and PATH station area and ferry terminal area improvement plans to optimize connections between buses and other modes by installing wayfinding and ensuring pedestrian access	
	Action G2-44: Locate taxi stands in close proximity to transit stations and major activity centers. Allow open stands where any taxi can stop	
	Action G2-45: Explore reserving on-street parking spaces for carshare vehicles	
	Action G2-49: Work with mass transit providers to ensure that all stations are ADA compliant	

Goal 3: Integrate and connect neighborhoods, and improve public access to and along waterfront areas

Example Objectives:

- Improve vehicular, pedestrian and bicycle access within and between neighborhoods
- Complete a public access walkway along all waterfronts, except where is conflicts with port operations. Provide an alternate route where the walkway conflicts with port operations. Maximize the number of public access points to the walkway. Ensure that the access points appear inviting to the public.
- Create a seamless mass transit network within and between neighborhoods

Example Strategies:

- Fill in missing links in the street grid by constructing new public streets
- Design all new neighborhood streets in a grid pattern, with small block sizes

What this affects	Example Actions	See Section 3.2.3
Zoning, Redevelopment Planning, Site Plan & Subdivision Applications	**Action G3-3:** Require developers to construct the portion of the Hackensack RiverWalk that is adjacent to their property	
	Action G3-5: Complete street grids, as identified on Right-of Way Mapping, Figure 4.4-1, in order to increase connectivity	
	Action G3-6: Create new streets and extend existing streets to support development, increase connectivity for the multi-modal system, and to provide access to the waterfront as identified on Right-of Way Mapping, Figure 4.4-1	

Goal 4: Create a city-wide pedestrian-friendly environment

Example Objectives:

- Create a network of sidewalks, walkways, and paths that allow pedestrians to walk between all neighborhoods and destinations in Jersey City.
- Provide a safe and secure environment for pedestrians
- Support and reinforce the existing culture of walking in Jersey City

Example Strategies:

- Ensure that all sidewalks are of adequate width and have the capacity to carry current and anticipated future pedestrian volumes. Respect the integrity of historic districts
- Fill in missing links between existing sidewalks, walkways and paths

What this affects	Example Actions	See Section 3.2.4
Zoning, Redevelopment Planning, & Site Plan Applications	**Action G4-2:** Install traffic calming devices on existing streets with problem locations in accordance with the traffic calming plan that is contained in this Circulation Element	
	Action G4-3: Adopt uniform standards, which are ADA compliant and neighborhood appropriate, for pedestrian street crossings and crosswalks, including state-of-the-art techniques to protect pedestrian safety	
	Action G4-4: Install street trees spaced at a maximum of 30 feet on center to provide shade	

	and a pleasant pedestrian environment and establish a municipal street tree fund to which developers can contribute when trees cannot be installed. Street trees should be of a variety with high branching systems so that lower branches may be pruned to maintain sight lines for public safety purposes
	Action G4-5: Prune trees to remove low branches to provide lines of sight for vehicular and pedestrian safety and security
	Action G4-6: Increase pedestrian safety by utilizing mechanisms, such as on street parking, street trees, street furniture and bollards, to buffer pedestrians from moving vehicles

Goal 5: Create a city-wide bicycle-friendly environment

Example Objectives:

- Provide a comprehensive city-wide network of dedicated bike lanes and vehicle/bike share lanes
- Improve connectivity between neighborhoods for bicyclists
- Encourage bicycling as a means to reduce traffic congestion and carbon emissions and to improve public health

Example Strategies:

- Create striped bicycle lanes and vehicle/bike share lanes on existing streets where feasible
- Work collaboratively with property owners to implement bicycle system amenities. Seek grant funding for implementation of bicycle system amenities

What this affects	Example Actions	See Section 3.2.5
City Street Standards	**Action G5-1:** Adopt as City standard a street regulating plan that regulates the form of all streets, bike lanes, where feasible, and sidewalks in accordance with the street typologies and illustrated hierarchy of streets that are contained in this Circulation Element.	
Zoning, Redevelopment Planning, & Site Plan Applications	**Action G5-6:** Adopt zoning and redevelopment plan requirements to provide bicycle amenities for building users, such as interior bicycle storage facilities for residential buildings, that are accessible without stairs or tight corners; and bike racks and employee showers for commercial buildings	

Goal 6: Maintain existing roadway and public transportation infrastructure in a state of good repair and in a clean condition, and replace obsolete infrastructure

Example Objectives:

- Maintain roadway surface free potholes
- Maintain cleanliness of shelters and operation of equipment at transit stations and bus stops
- Ensure ADA compliance for all mass transit stations, sidewalks, street crossings and building entrances. ADA compliance should be designed to respect the character of historic buildings and districts

Example Strategies:

- Use city, state and federal funds to repair or replace streets, sidewalks, roads and bridges, where needed
- Identify obsolete infrastructure and establish a priority list of replacement projects

Goal 7: Create a safe and accessible environment for vehicles, pedestrians, and bicyclists

Example Objectives:

- Minimize crime against pedestrians, bicyclists and mass transit users
- Minimize crashes between motor vehicles, HBLR vehicles, bicycles, and/or pedestrians
- Minimize delays within Jersey City for vehicles, pedestrians and bicyclists

Example Strategies:

- Develop land in a manner that supports "eyes on the street"
- Implement traffic calming devices with community input, to improve pedestrian and vehicular safety

What this affects	Example Actions	See Section 3.2.7
Zoning, Redevelopment Planning, & Subdivision Applications	**Action G7-6:** Require new streets to incorporate traffic calming in accordance with the traffic calming plan that is contained in this Circulation Element	
Zoning and Redevelopment Planning	**Action G7-16:** Support "eyes on the street" by encouraging the re-use of historic midblock and corner retail properties to fulfill their originally intended retail purpose	

Goal 8: Improve access between Jersey City and the greater region

Example Objectives:

- Increase regional mass transit connections and service to Jersey City employment centers, retail destinations, and entertainment destinations
- Increase regional mass transit connections and service between Jersey City and suburban employment centers and regional vacation destinations
- Fill in missing links between Jersey City street grid and the grids of adjoining municipalities

Example Strategies:

- Work with regional transportation agencies to improve all modes of access between Jersey City and the greater region
- Encourage regional intelligent transportation systems and non-signage intelligent transportation systems (ITS) within Jersey City, to inform drivers of incidents and delays

What this affects	Example Actions	See Section 3.2.8
Zoning, Redevelopment Planning, & Subdivision Applications	**Action G8-2:** Incorporate bus priority and high occupancy vehicle lanes into the design of highways, bridges, access ramps, and on local streets to and from existing highways, where feasible	

Goal 9: Facilitate the regional movement of goods and services

Example Objectives:

- Maximize the use of rail to move freight throughout the industrial areas of Jersey City and Bayonne

- Provide sufficient highway access and capacity to accommodate movement of trucks to and from the port and industrial areas within Jersey City, provide that there is not a negative impact to Jersey City's existing or planned residential neighborhoods and retail districts
- Create an alternate route in order to divert trucks away from Routes 440 and 1-9T between Bayonne border and Route 7 in order to accommodate the conversion of Routes 440 and 1-9T into a multi-use urban boulevard and the redevelopment of the corridor into a new high-intensity mixed-use district
- Provide a comprehensive local truck route network to serve local manufacturing, assembly, warehousing and distribution businesses

Example Strategies:

- Work with local short line rail operators and regional transportation agencies to increase the use of Ultra Low Emissions Locomotives (ULEL)
- Work with NJDOT and other regional agencies to advance Portway

What this affects	Example Actions	See Section 3.2.9
Zoning, Redevelopment Planning, & Site Plan Applications	**Action G9-2:** Adopt a capital improvement plan to upgrade roadbed construction, cartway width and turning radii for truck routes where needed, in port and industrial areas. Truck routes in Jersey City should be complete streets that accommodate pedestrians, bicycles and buses in accordance with the Roadway Typical sections in this Circulation Element	

Goal 10: Accommodate the local delivery of goods and services through community-sensitive practices

Example Objectives:

- Provide access and mobility for delivery vehicles
- Minimize the negative impacts of trucks
- Use alternative means to deliver goods and services

Example Strategies:

- Ensure that truck routes within Jersey City provide access to existing and planned industrial and commercial areas
- Design new commercial buildings so that receiving docks and trucks are not visible from the street and sidewalk and landscaping are provided between the street and the property

What this affects	Example Actions	See Section 3.2.10
Zoning, Redevelopment Planning, & Site Plan Applications	**Action G10-4:** Adopt zoning to require screening of receiving docks and truck areas with building interior loading docks and/or wing walls with landscaping and sidewalks	

Goal 11: Reduce the amount of energy that is used to travel, improve air and water quality, reduce greenhouse gas emissions, and encourage healthier lifestyles.

Example Objectives:

- Minimize the distance that people travel

- Minimize the amount of energy that is used by vehicles
- Minimize the aggregate amount of greenhouse gas and other emissions that are generated by all trips

Example Strategies:

- Improve bicycle, pedestrian and mass transit access to all destinations
- Work with employers to encourage telecommuting to reduce the number of commuter vehicular trips

What this affects	Example Actions	See Section 3.2.11
Zoning, Redevelopment Planning, & Site Plan Applications	**Action G11-1:** Require that all new development projects and improvements to existing developments provide sidewalks, bike lanes, and other amenities to connect to planned and/or existing bicycle lanes and pedestrian areas	

Goal 12: Mitigate congestion and reduce the use of the single occupancy vehicles (SOV) in Jersey City

Example Objectives:

- Minimize delays caused by unforeseen roadway incidents (e.g., accidents, weather events)
- Disseminate information on roadway conditions, travel delays, incidents and accidents in a timely and efficient manner to drivers
- Minimize the percentage of daily SOV commuters who drive to Jersey City,

Example Strategies:

- Implement Transportation System Management (TSM) city-wide, such as signal optimization and other mechanisms, to manage vehicle flows
- Locate intercept parking facilities outside Jersey City with convenient access to mass transit services that serve Jersey City

What this affects	Example Actions	See Section 3.2.12
Zoning, Redevelopment Planning, & Site Plan Applications	**Action G12-4:** Require that traffic congestion mitigation measures for new development take into account area-wide traffic congestion impacts, as well as impact to key corridors	
	Action G12-8: Prohibit new commuter park-and-ride parking as recommended in the 2007 Jersey City Regional Waterfront Access and Downtown Circulation Study Final Report	
	Action G12-10: Locate on-street parking for scooters, where feasible	

Goal 13: Design transportation infrastructure in a manner that beautifies the city

Example Objectives:

- Design new transportation infrastructure including bridges, overpasses, streets, sidewalks, mass transit stops and stations to be attractive and context sensitive
- Improve the aesthetics of existing transportation infrastructure
- Provide attractive and meaningful gateways at City and neighborhood entry points

Example Strategies:

- Develop a handbook on transportation infrastructure design as a reference tool

- Incorporate public art in and around transportation infrastructure (e.g. medians, mass transit stations)
- Preserve and create scenic corridors and view sheds as identified in land use plan element

What this affects	Example Actions	See Section 3.2.13
Zoning, Redevelopment Planning, & Site Plan Applications	**Action G13-5:** Adopt zoning that requires the design of new buildings to consider the public realm in building orientation, articulation, materials and relationship to the street	
	Action G13-6: Adopt standards for screening of loading and parking areas from view using landscaping, decorative walls and decorative fencing	
	Action G13-9: Adopt a policy of 1% for public art, whereby new development projects provide 1% of the cost of construction to a Jersey City public art trust fund	
Zoning, Redevelopment Planning, & Subdivision Applications	**Action G13-10:** Work with PSE&G and BPU to locate existing utilities underground where feasible	
	Action G13-11: Adopt zoning and redevelopment plans to require that new development projects locate all utilities underground, where feasible	

Goal 14: Encourage the use of new technologies and innovative techniques that are supportive of the other goals

Moving forward, the City should encourage the use of new technologies and techniques that support all of its goals.

ACTION PLAN

See Section 3.3 of Circulation Element

All Actions contained within the Circulation Element consist of projects and policies that are designed to support Jersey City's current and future transportation needs over the short, medium, and long-term. All of the actions have been compiled to create the Action Plan Matrix. The Action Plan matrix also states the estimated cost, potential implementing agency, potential funding sources, and timeframe for implementation of each Action.

Example of Action Plan Matrix

						Goal													
Action #	Action	Estimated Timeframe	Estimated Cost[11]	Potential Lead Implementing Agencies	Potential Funding Sources	1	2	3	4	5	6	7	8	9	10	11	12	13	14
G1-9	Work with NJ TRANSIT and private developers to design and implement the Hoboken Terminal and Yard Redevelopment Plan, which will include high intensity mixed-use development in the Hoboken Terminal area. Conduct traffic impact analysis as part of the redevelopment planning process. Ensure that the cumulative impacts of redevelopment for this site, and other nearby Jersey City redevelopment areas, do not exceed the carrying capacity of Jersey City roadways. This may be achieved through access management, density limitations, street modifications increase in local mass transit service, or other means.	Long-Term	VH	NJ TRANSIT	Private Capital, NJ TRANSIT	•													
G1-10	Advance a phased approach to transportation projects and policies that support the redevelopment of Journal Square.	Long-Term	VH	NJ TRANSIT, PANYNJ, Jersey City, Developers	NJ TRANSIT, PANYNJ, Jersey City, Private Capital	•													
G1-11 G2-5D G3-9 G8-14 G12-13	A capital investment prioritization study should be undertaken to develop an implementation schedule for transit improvements and use of capital resources.	Short-Term	VL	NJ TRANSIT, PANYNJ	NJ TRANSIT, PANYNJ, FTA	•	•	•					•				•		
G1-12	Permit use of commercial parking facilities by car sharing programs.	Short-Term	Negligible	Jersey City	Negligible	•													
G1-13	Adopt a redevelopment plan that accommodates mixed-use development and shared parking on the HBLR Liberty State Park station park-and-ride lot. Perform traffic impact analysis of redevelopment and determine if there is a need to improve vehicular access in order to support redevelopment.	Medium	VL	Jersey City	Jersey City	•													
G1-14 G13-1	All city, county and state capital projects shall be submitted to the Jersey City Planning Board in accordance with N.J.S.A. 40:55D-31.	Short-Term	Negligible	Jersey City	N/A	•												•	
G2-1	Implement the recommendations of the NJ TRANSIT/NJTPA/Jersey City bus study.	Short-Term	TBD	NJTPA, NJ TRANSIT, Jersey City, Private Bus Carriers	TBD		•												
G2-2	Work with NJ TRANSIT and private carriers to locate bus stops in all residential neighborhoods, and generally within a ¼ mile walk of all residences and closer, where there are topographic considerations. Space bus stops for local bus routes approximately every 530 to 590 feet, and closer within business districts, to balance the need for short walking distances with the need for speedy bus operation.	Short-Medium	L	NJ TRANSIT and Private Bus Carriers	NJ TRANSIT, Private Bus Carriers, FTA		•												

[11] For all capital projects, estimated cost does not include operation and maintenance costs.

Source: Circulation Element of the Jersey City Master Plan

INDICATORS, TARGETS, & BASELINES

See Section 3.3 of Circulation Element

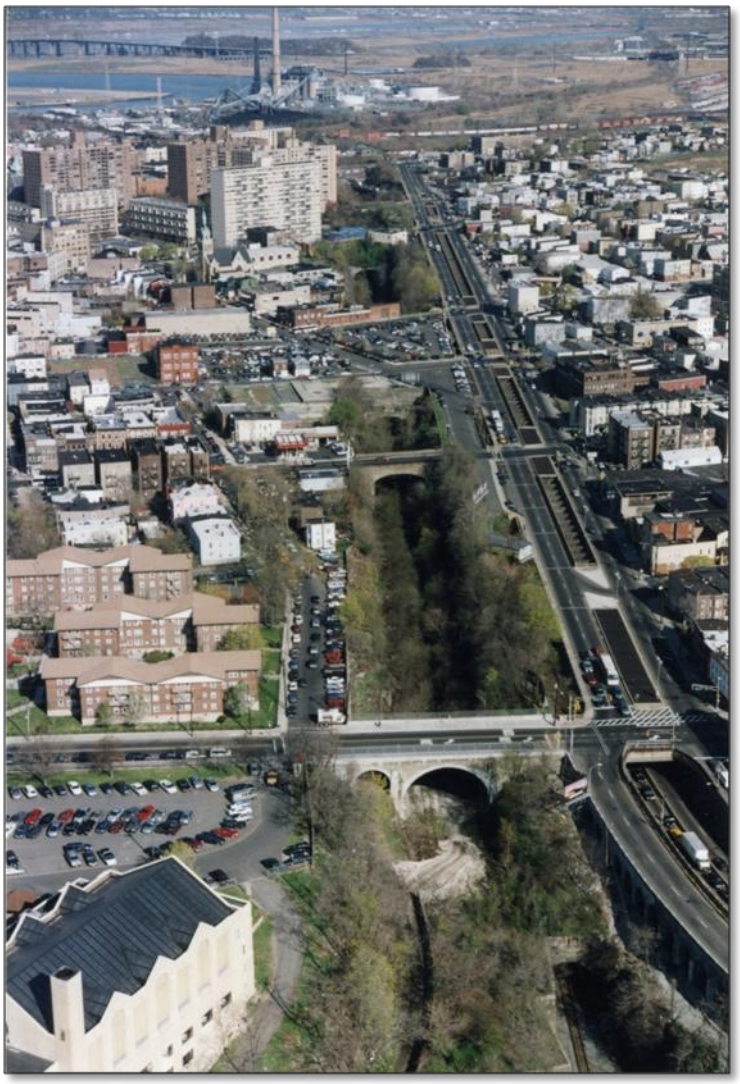
To enable Jersey City to monitor the attainment of its progress in implementing its Circulation Element, Indicators and Targets have been established for each Goal. The Indicators measure progress toward the Goals, Objectives and Strategies. The Targets are a measurable milestone of achievement. Baselines are provided for comparison in the future, so that the City can measure its progress in implementing the Circulation Element.

INDICATOR	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 13	GOAL 14
Percentage of workers commuting by public transit	X	X										X		
HBLR ridership	X	X						X				X		
Bus ridership	X	X										X		
PATH ridership	X	X						X				X		
Estimate of vehicle miles travelled in Hudson County	X	X										X		
Percentage of workers commuting by foot	X		X								X			
Annual number of accidents involving pedestrians	X		X	X			X							
Percentage of workers commuting by bicycle	X		X		X						X			
Percentage of workers commuting by public transit (<30 min)	X		X											
Percentage of workers commuting by transit/carpool (>30 min)	X							X						
Linear miles of gaps in Hudson and Hackensack river walks	X		X	X										
Linear miles of striped bike lanes	X		X		X									
Annual number of accidents involving bicyclists	X				X		X							
Budget appropriations/expenditures for infrastructure maintenance/repair	X					X								
Complaints for potholes, average response time to complaint	X					X								
Amount of money paid in insurance claims due to potholes	X					X								
Replacement cycle of all roads in Jersey City	X					X								
Status of roadway projects	X					X								
Annual number of accidents involving 2 or more vehicles	X						X							
Commodity flow data (value and tonnage of freight)	X								X					
Adoption of revised Barricade Manual Ordinance	X									X				
Annual days with good air quality	X										X			
Deaths from chronic lower respiratory disease	X										X			
Deaths from heart disease	X										X			
Deaths from diabetes mellitus	X										X			
Percentage of workers driving to work alone	X											X		
Linear miles of streetscape projects in Jersey City	X												X	
Bi-decennial qualitative analysis/report	X													X

Source: Circulation Element of the Jersey City Master Plan

Chapter V Right-of-Way Needs

RIGHT-OF-WAY IS AN AREA WHERE THE PUBLIC AT LARGE OR A SPECIFIC PRIVATE PARTY HAS A LEGAL RIGHT TO TRAVERSE THE LAND IN SOME SPECIFIED MANNER. IN ESSENCE, RIGHT-OF-WAY MAKES UP AND CONNECTS THE CIRCULATION SYSTEM. RIGHT-OF-WAY MAY CONTAIN PUBLIC OR PRIVATE ROADS, SIDEWALKS, TRAILS, WALKWAYS, AND PUBLIC OR PRIVATE RAIL LINES. JERSEY CITY WILL REQUIRE ADDITIONAL RIGHT-OF-WAY THROUGH 2050 IN ORDER TO CONNECT THE VARIOUS ASPECTS OF ITS CIRCULATION SYSTEM. THE CIRCULATION ELEMENT IDENTIFIES FIFTY-SEVEN LOCATIONS OF NEW RIGHTS-OF-WAY IN JERSEY CITY.



Source: Leon Yost

The Significance of Preserving Rights-of-Way

A circulation element is a powerful tool for shaping a community; it influences the flow of vehicle, bicycle, and pedestrian traffic, identifies critical future needs for mass transit infrastructure, reconciles freedom of movement with maintenance of place, and defines the streetscapes we experience on city blocks. Jersey City's new Circulation Element is ambitiously equipped with plans to steer these issues. Undertakings to preserve future rights- of-ways are vital to the future of Jersey City.

In exploring the issue, it is helpful to understand why the City needs to plan future right-of-way acquisitions in advance of transportation system construction (besides a commitment to foresighted planning in general). The highly built-out nature of Jersey City serves as the main impetus; open space is a scarce commodity and must be carefully rationed between competing sources of development (buildings, transportation facilities, parks, etc.). If the city were to add new sections of rights-of-ways on a piecemeal basis, complications would almost certainly arise; namely, costly and controversial condemnation proceedings due to development of structures on ROW lands. In this light it is easy to see how a built-out environment, in combination with a high-pressure transportation network, can necessitate long range planning.

The board is empowered to refine the accuracy of the ROW delineation at the time of the subdivision or site plan approval provided there is at least a sketch level delineation of the new ROW in the master plan to show the locations and sizes suitable to the planned streets, ways, basins or areas in their plat; and hold the land for as long as one year after approval of the final plat, or longer with developer consent, until such time that the city purchases the land or acquires it via condemnation proceedings. If the municipality fails to enter into contract to purchase the requisitioned land or institute condemnation proceedings within a year (or the length of the agreement), not only may a developer proceed to build up the land for private use, they are also entitled to just compensation for actual loss found to be caused by such temporary reservation and deprivation of use.

Note: This compensation clause applies to right-of-way that is <u>not</u> needed for the development itself; it does not apply to right-of-way infrastructure necessary to support the development.

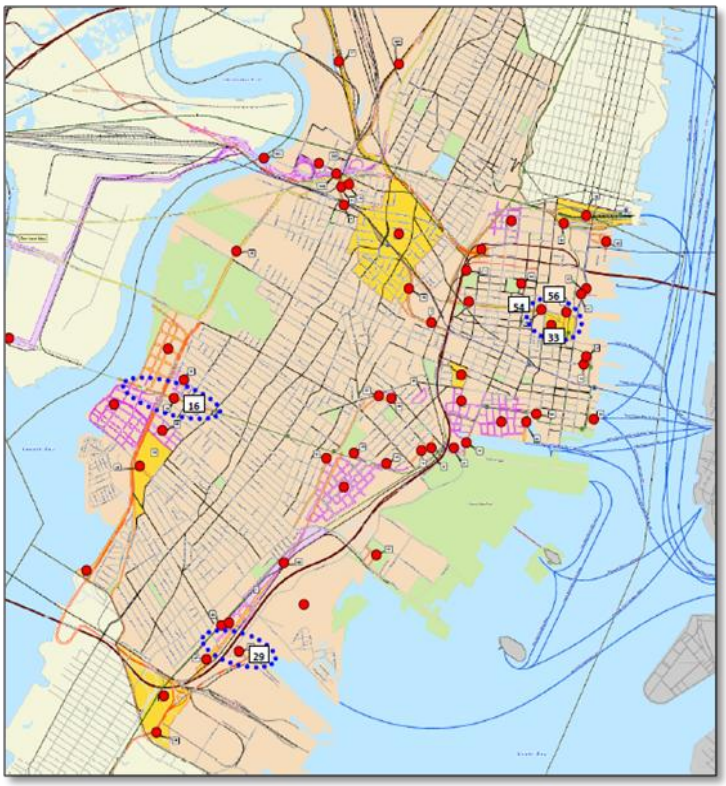
Oftentimes planned right-of-way that is needed for overall circulation purposes is located on private property. The state addresses this issue within N.J.S.A. 40:55D-44 of the Municipal Land Use Law. Encapsulated in this statute, the state of New Jersey grants authority to municipal planning boards to locate and preserve space for the reservation of designated streets, public

drainage ways, flood control basins, or public areas (public parks, playgrounds, trails, paths, recreational areas, scenic and historic sites, sites for schools and other public buildings/structures, other public open spaces) within the proposed development, provided that either the official map or (as in Jersey City's case) the master plan reserves land in this capacity.

MODE SPECIFIC ROW PRESERVATION:

See Section 4.4 of Circulation Element

Jersey City will require additional ROW through 2050 in order to connect the various aspects of its circulation system. As indicated on the Right of Way Needs Map to the right (Figure 4.4-1 of the Circulation Element), 57 locations of new ROW were identified throughout the City. The mapping includes projects ranging from rail, bus, road, and bike/pedestrian use.



Source: Circulation Element, Figure 4.4-1

Rail (17 locations): ROW is needed for various rail projects that will allow for extensions of mass transit services to provide new stations, platforms, and walkways which will facilitate better efficiency and service.

Bus: The majority of bus improvement recommendations are located within existing rights-of-way and therefore not indicated on the ROW mapping. However, one improvement, a bus layover facility (#5 on Map) could potentially require ROW, or would be built on land purchased by NJ TRANSIT. There is a need for a bus layover facility that is accessible to Downtown Jersey City, since buses are no longer permitted to idle in Exchange Place Plaza. This facility would

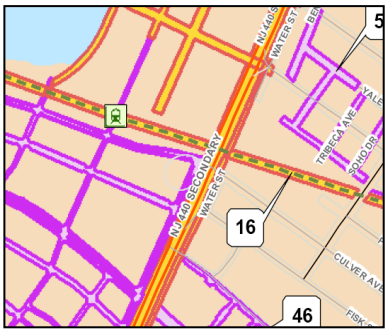
serve as temporary storage for buses during mid-day between the AM and PM peak hours, easing the transition into the afternoon peak period.

Road: The plan identifies multiple street grids to serve potential development and redevelopment, and proposes multiple roadway extensions to serve bikes, vehicles, and pedestrians. These projects include ROW that are proposed for state and county roadways that will alleviate congestion and better serve the region to enhance movement of goods and services. As stated in Section 4.4 of the Circulation Element, these roadway extensions, grids, and projects are necessary to alleviate projected congestion through 2050.

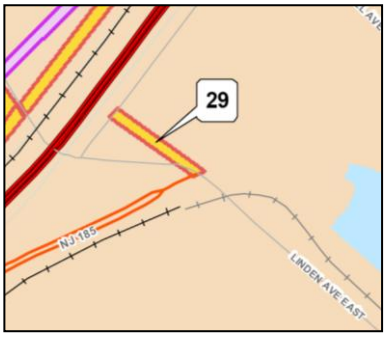
- Street Grids in Adopted Redevelopment Plans (8 locations)
- Future Street Grids or Future Modifications to Street Grids (8 locations)
- Local Street Extensions (13 locations)
- Roadway Projects (6 locations)

Bike and Pedestrian (8 locations): Similar to the bus improvements, many of the bike and pedestrian accommodations recommended in the plan utilize the existing ROW, however there are several locations where ROW needs to be obtained or preserved for trails, walkways, and pedestrian accommodations.

Examples of Right-of-Way Preservation in Jersey City



HBLR Westside Avenue Line Extension (#16) – Phase one extends the HBLR from Westside Avenue station across Route 440 to the Bayfront I Redevelopment Area and includes a new HBLR station at Bayfront I. In a later phase, the HBLR extends across the Hackensack River in the location of the existing piers, through Kearny, and across the Passaic River into Newark.



Linden Avenue Realignment (#29) – This removes a jog in Linden Avenue where it connects to Caven Point Road.

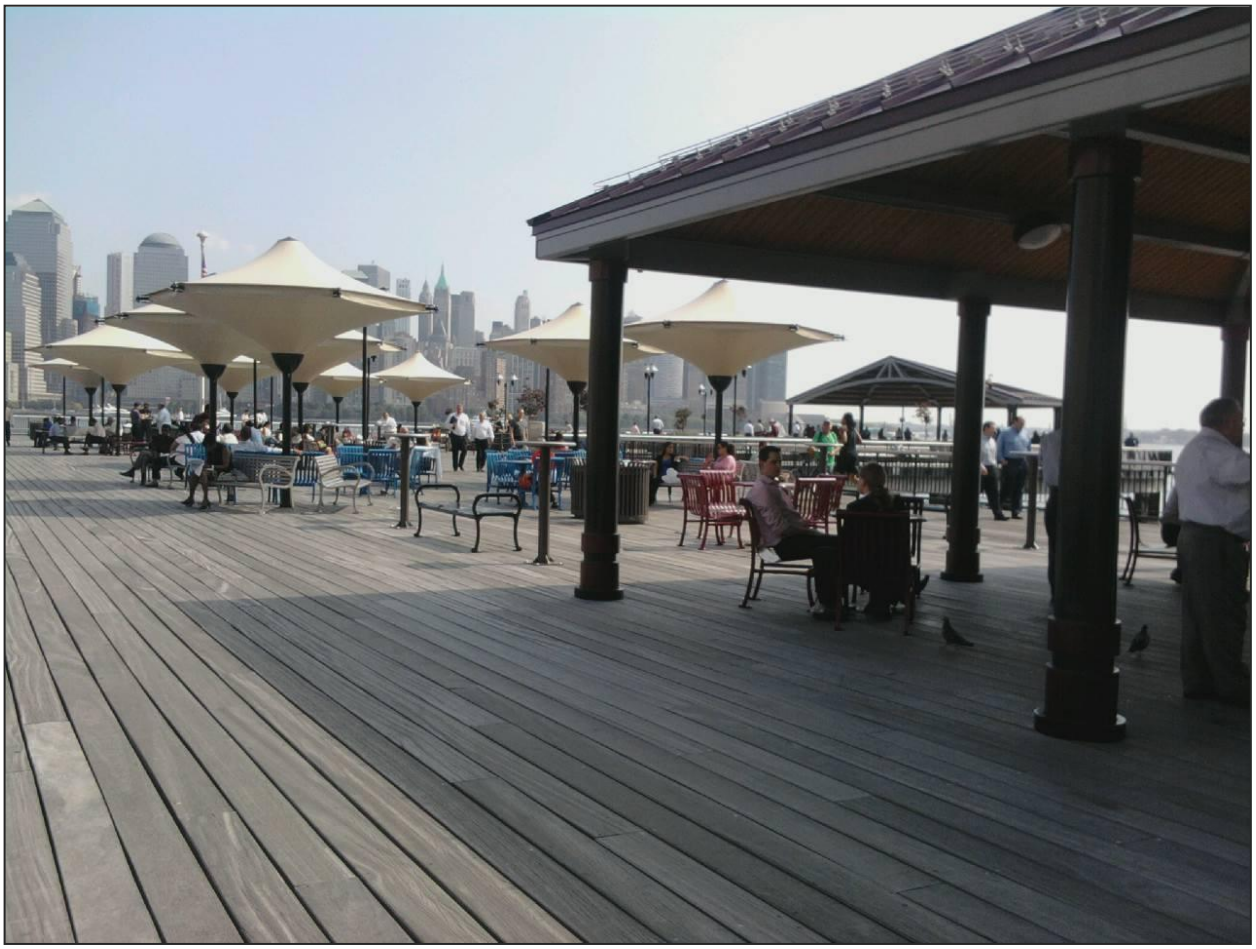
Warren Street Extension (#56) – This extension is between 2nd Street and Thomas Gangemi Drive which is in the Metro Plaza Area, and should accommodate a future HBLR crossing. The Metro Plaza Area future grid should include the Warren Street Extension.

Metro Plaza Future Grid (#33) – This area is envisioned for residential towers. This grid will support the development and accommodate the HBLR.

Sixth Street Embankment/East-West Connections (#54) – The Sixth Street Embankment should be reused as a linear multi-use path/park for bikes and pedestrians. The Sixth Street Embankment should also include space for a future extension of the HBLR.

Chapter VI Street Design Guidelines

The New Jersey Department of Transportation adopted a Complete Streets Policy for the entire state of New Jersey. This policy encourages municipalities to create safe, aesthetic, multi-modal streets through planning, engineering, and design of new and retrofitted facilities. The Circulation Element of the Master Plan includes a traffic calming plan as well as a Jersey City functional classification system with corresponding street design guidelines for new and existing streets. These sections of the Circulation Element provide guidance on applying a range of possible physical techniques and design



Source: Jersey City Planning Division

FUNCTIONAL CLASSIFICATION SYSTEM

See Section 4.5 of the Circulation Element

Functional Classification is the process by which roads are grouped according to the service they are intended to provide within a circulation network so that travel can be efficient and serve all users. Smaller, less traveled, roadways provide a high degree of access, while larger roadways provide a high degree of mobility.

Federal classification system: Developed by the Federal Highway Administration (FHWA) in cooperation with county and Metropolitan Planning Organization officials. The system is updated every 10 years, after the US Census is released. All roads in Jersey City are classified under the federal system as one of the following: urban interstate, urban freeway/expressway, urban minor arterial highway, urban collector, or urban local.

Jersey City Functional Classification System: The Circulation Element of the Master Plan established a new Jersey City functional classification system that is informed by the federal classifications, and provides a more fine grained sorting of city streets than is possible under the federal system. Jersey City's roadway classification system is not intended to replace the Federal designations; it will be used in conjunction with the Circulation Element's typical sections that provide guidance on the design of new streets and redesign of existing streets.

Jersey City Classification	Example
Major collector: Major City streets whose primary function is to collect and distribute traffic between minor collector streets, local streets, and the arterial system. These roads are characterized by moderate volume, and provide for land access, traffic circulation, and access to arterial routes.	Christopher Columbus Drive Grand Street (from Communipaw Avenue to Washington Street) Jersey Avenue (from Newark Avenue to 18th Street) Grove Street
Minor Collector: Streets that serve multiple land uses, and whose primary function is to provide land access and inter-neighborhood traffic movement. These streets typically feed into a higher level street and serve as small local neighborhood commercial and residential areas.	Newark Avenue Summit Avenue Tonnele Avenue Thomas Gangemi Drive
***Local Residential Street*:** Streets that primarily serve residential areas with full access for all users. These streets carry low traffic volumes. These streets provide ample access, and can exist in any land use setting and involve travel to and from a collector facility.	Vroom Street Water Street Clarke Avenue Cubberly Place
***Local Park Street*:** Streets that serve parks that focus on full access for all users. These streets carry low traffic volumes.	Freedom Way Morris Pesin Drive Lincoln Park Road

GUIDING PRINCIPLES

See Section 4.6.1 of the Circulation Element

The City understands the importance of the public streetscape; therefore multiple planning and engineering guides were reviewed seeking the most desirable through lane and bike lane width relative to speed and volume, as well as street layout and amenities. Through consultation of the Technical Advisory Committee and various city departments, these are the typical guiding principles for section layouts:

Sidewalk/buffer area

- Minimum of 10' on each side of ROW to be provided for sidewalk and buffer area
- Clear width of the sidewalk should be ADA accessible, minimum unobstructed width of 5'
- Desired to have wider sidewalks where applicable

Street Amenities:

- Bike racks
- Benches
- Planters
- Street trees
- Trash receptacles
- Lighting

Parking Lanes

- Should be on all local residential streets where feasible
- Minimum width: 8 feet, except for local residential streets with less than 1500 ADT

Travel Lanes

- Major collectors width: 11 feet
- Minor collectors width: 10 feet
- Local residential street width: 10 feet

Bike Lanes

- Striped and provided for each side of two way streets where feasible
- Minimum one way width: 5 feet
- If ROW inadequate, shared bike and vehicle width: 14 feet

JERSEY CITY TYPICAL STREET SECTIONS

See Section 4.6 of the Circulation Element

The Typical Sections provide design guidelines for new roads and existing streets in Jersey City. In most cases it is not possible to widen existing local streets due to the locations of existing structures. Therefore, the Circulation Element establishes Typical Roadway Sections that utilize the existing right-of-way in a manner that accommodates all of its users where feasible. These Typical Sections accommodate travel lanes, parking lanes, sidewalks, and bike lanes where feasible. Typical Sections were established for Major Collectors, Minor Collectors, and Local Residential Streets as identified in Jersey City's Functional Classification system. They may be applied in conjunction with traffic calming techniques

Jersey City has multiple right-of-way widths, therefore, five predominant right-of-way widths were chosen for Typical Sections: 100 foot, 80 foot, 66 foot, 60 foot, and 50 foot rights-of-way. A Typical Section was developed for each classification for each of the five right-of-way widths, where applicable. Typical Sections are established for the following roadway types and applied to various ROW widths as seen on the table to the right:

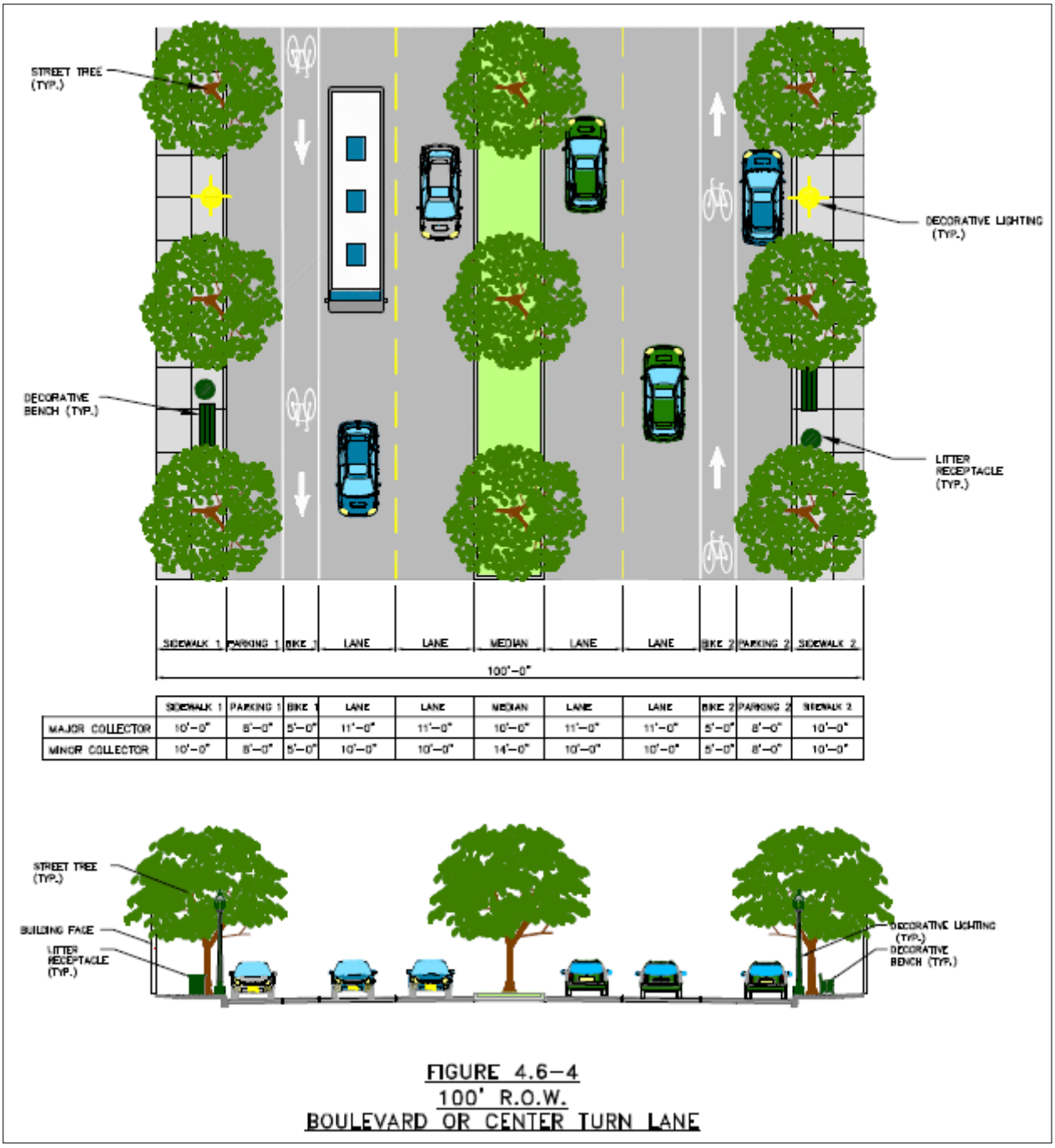
- Two-way Street; two-sided parking
- Two-way Street; two-sided alternate side parking and cycle track
- Two-way Street; one-sided parking
- Two-way Street; no parking
- Boulevard or Center Turn Lane
- One-way Street; two-sided parking
- One-way Street; one-sided parking

Right-of-Way	Roadway Layout
100 Foot Right-of-Way	Two-Way Street; Two-Sided Parking
100 Foot Right-of-Way	Two-Way Street; Two-Sided Alternate Side Parking and Cycle Track
100 Foot Right-of-Way	Two-Way Street; One-Sided Parking
100 Foot Right-of-Way	Boulevard or Center Turn Lane
80 Foot Right-of-Way	Two-Way Street; Two-Sided Parking (Major and Minor)
80 Foot Right-of-Way	Two-Way street; Two-Sided Parking (Local)
80 Foot Right-of-Way	Two-Way Street; Two-Sided Alternate Side Parking and Cycle Track
80 Foot Right-of-Way	Two-Way Street; One-Sided Parking
80 Foot Right-of-Way	Two-Way Street; No Parking
80 Foot Right-of-Way	Boulevard or Center Turn Lane
80 Foot Right-of-Way	One-Way Street; Two-Sided Parking
80 Foot Right-of-Way	One Way Street; Two Sided Parking (Local)
80 Foot Right-of-Way	One-Way Street; One-Sided Parking
80 Foot Right-of-Way	One Way Street; One Sided Parking (Local)
66 Foot Right-of-Way	Two-Way Street; Two-Sided Parking
66 Foot Right-of-Way	Two-Way Street; Two-Sided Park (Minor and Local)
66 Foot Right-of-Way	Two-Way Street; One-Sided Parking
66 Foot Right-of-Way	Two-Way Street; One-Sided Parking (Minor and Local)
66 Foot Right-of-Way	Two-Way Street; No Parking
66 Foot Right-of-Way	Two-Way Street; No Parking (Minor Collector)
66 Foot Right-of-Way	Boulevard or Center Turn Lane
66 Foot Right-of-Way	Boulevard or Center Turn Lane (Minor and Local)
66 Foot Right-of-Way	One-Way Street; Two-Sided Parking
66 Foot Right-of-Way	One-Way Street; Two-Sided Parking (Minor and Local)
66 Foot Right-of-Way	One-Way Street; One-Sided Parking
60 Foot Right-of-Way	Two-Way Street; Two-Sided Parking
60 Foot Right-of-Way	Two-Way Street; One-Sided Parking
60 Foot Right-of-Way	Two-Way Street; No Parking
60 Foot Right-of-Way	Boulevard or Center Turn Lane
60 Foot Right-of-Way	One-Way Street; Two-Sided Parking
60 Foot Right-of-Way	One-Way Street; Two-Sided Parking (Local)
60 Foot Right-of-Way	One-Way Street; One-Sided Parking
50 Foot Right-of-Way	Two-Way Street; Two-Sided Parking
50 Foot Right-of-Way	Two-Way Street; One-Sided Parking
50 Foot Right-of-Way	Two-Way Street; No Parking
50 Foot Right-of-Way	One-Way Street; Two-Sided Parking
50 Foot Right-of-Way	One-Way Street; One-Sided Parking
50 Foot Right-of-Way	One-Way Street; One-Sided Parking (Minor and Local)

Source: Circulation Element of the Jersey City Master Plan

Typical Street Section Examples

Major Collector:



	SIDEWALK 1	PARKING 1	BIKE 1	LANE	LANE	MEDIAN	LANE	LANE	BIKE 2	PARKING 2	SIDEWALK 2
MAJOR COLLECTOR	10'-0"	8'-0"	5'-0"	11'-0"	11'-0"	10'-0"	11'-0"	11'-0"	5'-0"	8'-0"	10'-0"
MINOR COLLECTOR	10'-0"	8'-0"	5'-0"	10'-0"	10'-0"	14'-0"	10'-0"	10'-0"	5'-0"	8'-0"	10'-0"

FIGURE 4.6-4
100' R.O.W.
BOULEVARD OR CENTER TURN LANE

Source: Circulation Element

Minor Collector:

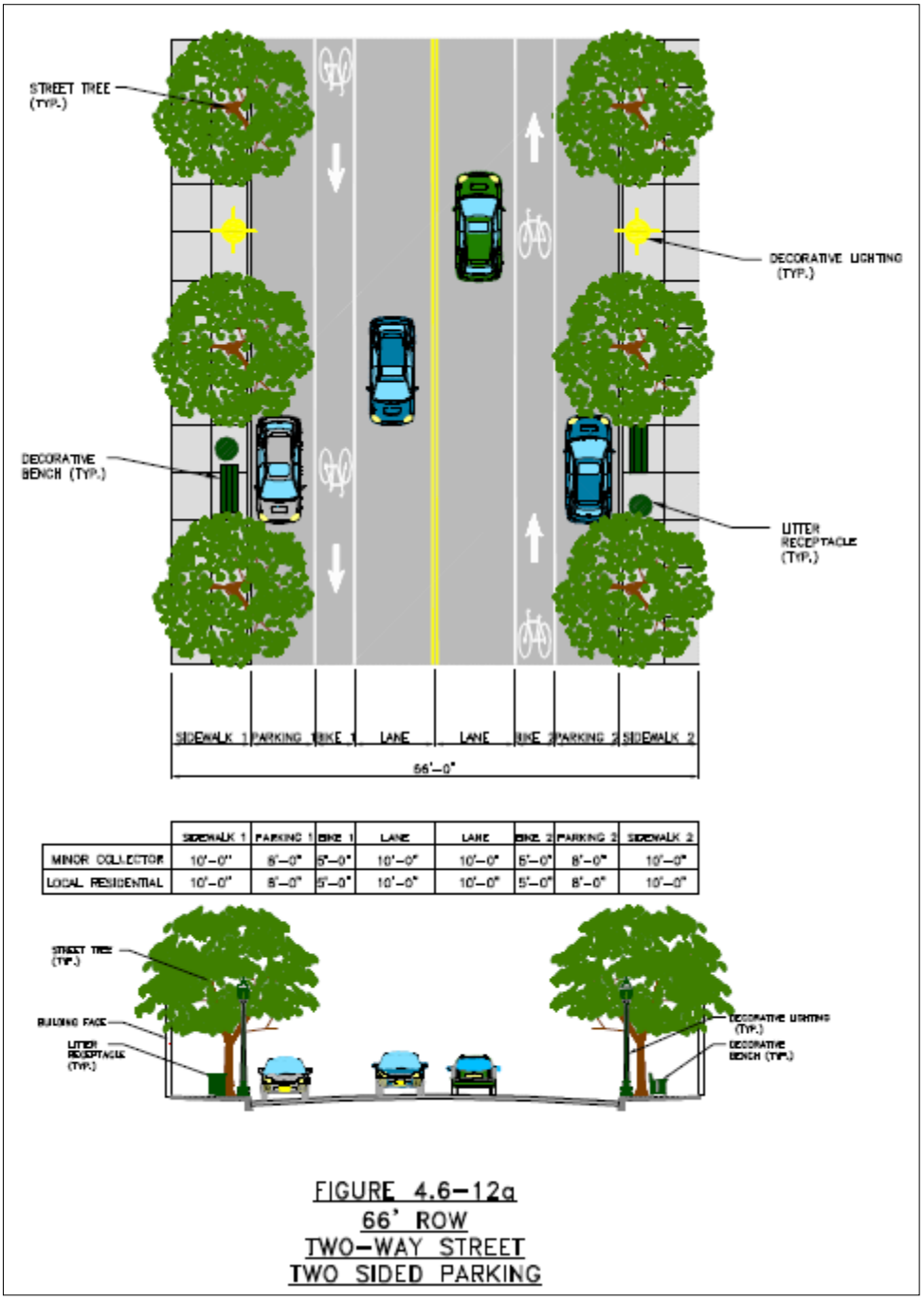
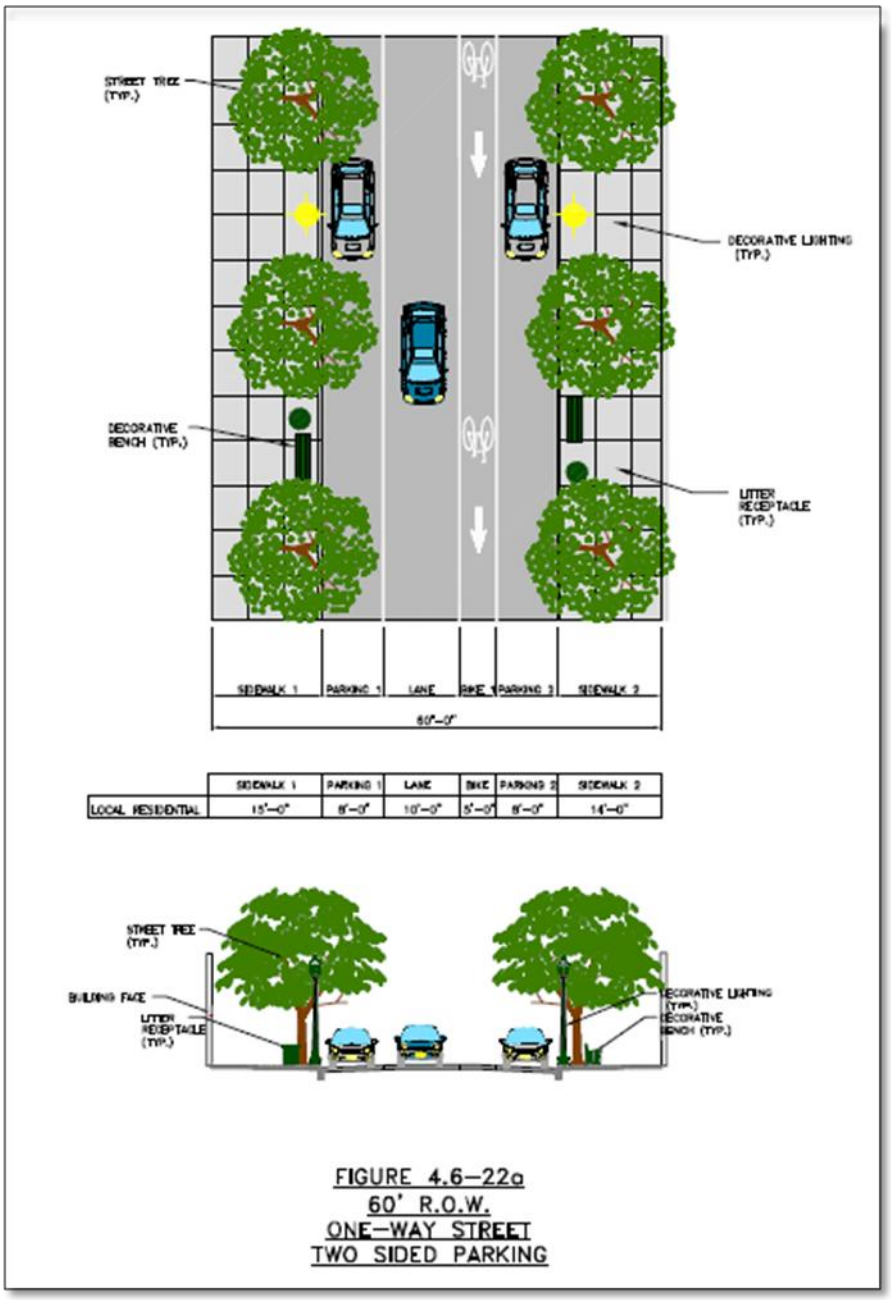


FIGURE 4.6-12a
66' ROW
TWO-WAY STREET
TWO SIDED PARKING

Source: Circulation Element

Local Residential Street:



Source: Circulation Element

TRAFFIC CALMING PLAN

See Section 4.7 of the Circulation Element

"Traffic calming is the combination of mainly physical measures to reduce the negative effects of motor vehicle use, alter driver behavior and improve condition for non-motorized street users" (I.M. Lockwood, "ITE Traffic Calming Definition," ITE Journal, Vol. 67, July 1997, pg 22-24)

Traffic calming measures are used to reduce the speed and volume of vehicles to acceptable levels for the functional street classification, thereby making roadways safer, pedestrian friendly, and aesthetic. These measures are not regulatory and do not require enforcement, they are intended to be self-enforcing. The Circulation Element provides a full listing of applicable traffic calming measures. Traffic calming devices should be installed with community input. Consider the following examples:

Types of Traffic Calming Measures

- Speed Humps and Speed tables
- Raised Intersections
- Bump Outs aka Neckdowns
- Chicanes
- Raised Medians/Pedestrian Refuge
- Traffic Circles
- Roudabouts
- Textured Pavement & Crosswalks
- Road Closures & Traffic Diverters
- Multi-way Stop Controlled Intersections
- Reduced Speed Limits
- Traffic signs, striping & pavement markings
- Speed Detector signs
- Red Light Running

Traffic Calming Selection Matrix

This matrix was created to provide guidance on selecting the best traffic calming measure for a particular street. The matrix includes all traffic calming measures along with criteria to consider for each, to cross reference information

Traffic Calming Measure	Functional Classification	Cartway Width	Traffic Volume	Maximum Posted Speed Limit	Percent Heavy Vehicles	Roadway Grade	Comments and Recommendations
Speed Humps	Local residential and local park	40-feet or less	Less than 3,000 ADT	25 MPH	Less than 5%	Less than 8%	Emergency services and transit should be consulted
Speed Tables/ Raised Crosswalks	Local residential and local park	40-feet or less	Less than 3,000 ADT	25 MPH	Less than 5%	Less than 8%	Emergency services and transit should be consulted
Raised Intersections	Minor collector, local residential and local park	40 feet or less	Less than 10,000 ADT	35 MPH	Less than 5%	Less than 8%	Emergency services and transit should be consulted
Bumpouts/ Neckdowns	All	48 feet or less	Up to 15,000 ADT	40 MPH	Less than 5%	Less than 8%	Emergency services and transit should be consulted
Chicanes	Local residential and local park	40 feet or less	Less than 3,500 ADT	35 MPH	Less than 5%	Less than 8%	Emergency services and transit should be consulted
Raised Medians/ Pedestrian Refuges	All	Up to 6 lanes	Up to 15,000 ADT	40 MPH	Less than 5%	Less than 8%	Emergency services and transit should be consulted
Traffic Circles	Minor collector, local residential and local park	One and two lane approaches	Less than 3,500 VPH	45 MPH	No limit	No limit	Aprons should be included to accommodate large, heavy vehicles
Roundabouts	Minor collector, local residential and local park	One and two lane approaches	Up to 2,500 VPH for a single lane	45 MPH	No limit	No limit	Aprons should be included to accommodate large, heavy vehicles
Textured Pavement/ Crosswalks	Minor collector, local residential and local park	Up to 4 lane cross sections	Up to 10,000 ADT	45 MPH	No limit	No limit	Road Opening Permit Ordinance must be revised to include restoration
Road Closures	Local residential and local park	Two lane roads	Less than 3,500 ADT	35 MPH	No limit	No limit	This strategy should be considered in redevelopment areas or in new subdivisions
Traffic Signage & Markings	All	No limit	No limit	No limit	No limit	No limit	Low cost measures
Multi-way Stops	Minor collector, local residential and local park	Single lane approaches	500 VPH for an 8 hour period	40 MPH	No limit	No limit	Traffic calming is not the primary purpose

Traffic Calming Measure	Functional Classification	Cartway Width	Traffic Volume	Maximum Posted Speed Limit	Percent Heavy Vehicles	Roadway Grade	Comments and Recommendations
Speed Humps	Local residential and local park	40-feet or less	Less than 3,000 ADT	25 MPH	Less than 5%	Less than 8%	Emergency services and transit should be consulted

Source: Circulation Element

BICYCLE AND PEDESTRIAN FACILITIES

See Section 4.8 of the Circulation Element

Walkways and Greenways
- Hudson River Waterfront
- East Coast Greenway Route
- Liberty-Water Gap Trail
- Hackensack RiverWalk
- Lincoln Park Paths
- Liberty State Park Paths

Sidewalks are essential to the City's circulation system, therefore they must be well-maintained. The maintenance of pedestrian facilities includes sidewalk repairs, the removal of snow, ice, and water. Inspection should be undertaken with regularity so that paths can be accessed by all types of pedestrians, free of potential hazards, and adequately handle typical pedestrian volumes. **It is especially important to ensure that substitute facilities are available when sidewalks are consumed by construction**. An adequate, well-maintained pedestrian network will provide access and enhance the transportation network for residents and visitors alike, thereby reducing vehicular congestion, increasing public transit ridership, and improving the quality of life. In addition, a well-maintained network of pedestrian sidewalks will increase connectivity throughout the City by offering users a number of different routes by which to reach their destination.

Sidewalk Repairs

Sidewalks should be kept in a state of good repair for the safety and accessibility of all of its users. Additionally, the City aims to maintain sidewalks in a structurally sound and aesthetic form. The table below should be used by the responsible entity as a guide for maintaining sidewalks.

Guidelines:

Condition	Monitor	Repair/Replace
Breaks in vertical elevation	If breaks are less than ¼ inch	Breaks are more than ¼ inch
Deteriorating surface	If sidewalk is spalling	If sidewalk collects ponding
Cracks	If they are hairline cracks(less than ¼ inch)	If cracks are more than ¼ inch
Broken and chipped sidewalks	If they are somewhat unlevel, spalling, chipped	If they cause a hazardous unlevel traveling surface, tripping hazard, ponding
Slopes		If running slope is greater than 5% If cross slope is more than 2%

Winter Season Maintenance

It is important that snow and ice are removed from the pedestrian paths in a timely manner and stored in areas that will not impede pedestrian movement throughout the City.

Requirements:

- Pursuant to *296-1.1, Jersey City Code of Ordinances, all property owners, occupants or other persons having charge of a residential building or vacant lot are required to clear snow and ice from the sidewalks and gutters to one foot outside the curb within 8 hours after snow has fallen
- Where sidewalks pass through publicly owned properties, the agency that owns the property is responsible for snow and ice removal
- Snow and ice that has been removed from streets, driveways, parking lots, and sidewalks shall not block sidewalks or other pedestrian routes
- All intersections and access to pedestrian crosswalks shall be kept clear of snow and ice
- Ponding and icing should be prevented on sidewalks and intersections, and inlet grates and gutters should be kept clear of snow and ice to allow drainage

Pedestrian Facilities in Work Zones

The safety of sidewalks abutting and within work zones is an important aspect of sidewalk maintenance in Jersey City. The following guidelines should be followed to provide safe and adequate pedestrian access around the project site:

Informing Pedestrians

- Advance information for detours, bypasses, and sidewalk/path blockages
- If blockages are necessary, information for alternative routes should be provided
- Signage should be as specific as possible to direct pedestrians through alternate routes
- Mechanisms should be provided to alert handicapped pedestrians (e.g., blind, deaf, disabled) of alterations

Channeling Pedestrian's Path

In the event that a pedestrian path will require modification due to ongoing construction a proper transition to the modified path should be provided that is channeled using a proper barrier such as cones, marking tape, barricades, ropes, chains, wood railings, and meets the ADA, ADAAG, and PROWAG requirements.

Modified Path Design Considerations

- Changes should take into account the origins, destinations, and routes of its users
- Modification should utilize physical barriers such as barricades to prevent pedestrians from walking in original path or outside designated area for safety reasons
- Adequate lighting should be provided for night time safety
- Storage of construction materials, equipment, and waste should be designated outside of pedestrian route
- Adequately handle current pedestrian volumes
- Surface should be constructed of a rigid, stabilized material that is even, free of cracks, holes, and other potential safety issues. Material should be a non-slip surface
- There should be periodic inspection of the construction site to assure continuous safety

COMPLETE STREETS

New Jersey Department of Transportation (NJDOT) recently passed a Complete Streets Policy after the adoption of the Circulation Element. The goals listed in Section 3.2.1 of the Circulation Element (Chapter 4 of this document) are directly related to the goals within NJDOT's Complete Street policy. **The central purpose of a complete streets philosophy is to accommodate *all users* at *all times*.**

> ***NJDOT's Goal:*** *To create and implement a Complete Streets Policy in New Jersey through the planning, design, construction, maintenance and operation of new and retrofit transportation facilities within public rights of way that are federally or state funded, including projects processed or administered by the Department.*

Complete Street: defined as a means of providing safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options.

Long-term Implementation Goals:

- Restructure their procedures to accommodate all users on every project.
- Re-write their design manuals to encompass the safety of all users.
- Re-train planners and engineers in balancing the needs of diverse users.
- Create new data collection procedures to track how well the streets are serving all users.

Source: The RBA Group

Source: Michael Ronkin/The RBA Group

Glossary of Terms

ACTION PLAN: within the Circulation Element of the Jersey City Master Plan, it is comprised of projects and policies that are designed to support Jersey City's current and future transportation needs over the short, medium and long-term *(Circulation Element)*

ALTERNATIVE TRANSPORTATION: Ways of traveling other than in private cars, such as walking, bicycling, rollerblading, carpooling, and public transportation *(NRDC Glossary of Environmental Terms*

AUTO INTERCEPT PARKING: parking spaces located in strategic positions outside of downtown cores, with access to public transportation; commonly called "park-and-ride lots." *(Circulation Element)*

BICYCLE LANE: A lane at the edge of a roadway reserved and marked for the exclusive use of bicycles. *(Jersey City Land Development Ordinance)*

BICYCLE PATH: A pathway, often paved and separated from streets and sidewalks, designed to be used by bicycles. *(Jersey City Land Development Ordinance)*

BULBOUTS/CURB EXTENSIONS: extension of the curb line to narrow the street width and shorten the length of the crosswalk *(Circulation Element)*

BUS RAPID TRANSIT: a type of limited stop bus service that relies on technology to speed up the service *(APTA Public Transportation Fact Book)*

CAPACITY: A transportation facility's ability to accommodate a moving stream of people or vehicles in a given time period. *(FHWA Planning Glossary)*

CIRCULATION: systems, structures and physical improvements for the movement of people, goods, water, air, sewage or power by such means as streets, highways, railways, waterways, towers, airways, pipes and conduits, and the handing of people and goods by such means as terminals, stations, warehouses, and other storage buildings or transshipment points. *(N.J.S.A. 40:55D-3. Amended. Effective September 25, 2004)*

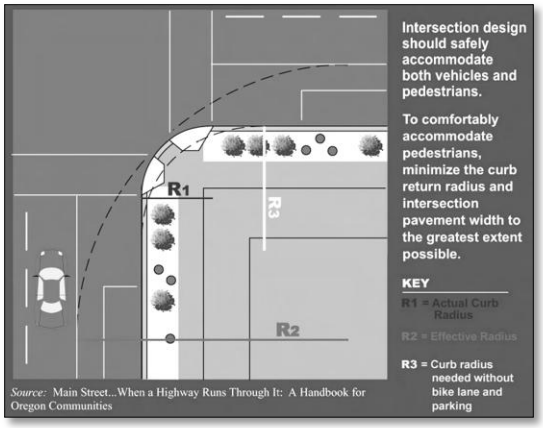
CIRCULATION PLAN: the location and types of facilities for all modes of transportation required for the efficient movement of people and goods into, about, and through the municipality, taking into account the functional highway classification system of the Federal Highway Administration and the types, locations, conditions and availability of existing and proposed transportation facilities, including air, water, road, and rail. *(N.J.S.A. 40:55D-28. Amended. Effective August 5, 2008)*

COMMUTER RAIL: train service that travels between a central city and nearby suburbs, with fifty percent of daily riders using the train at least three times a week *(FTA Glossary of Transit Terms)*

COMPLETE STREETS: Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street. *(National Complete Streets Coalition)*

CONGESTION: The reduction in travel speed, reliability, or maneuverability that occurs when traffic demand approaches or exceeds the available capacity of the transportation facility(ies). *(Florida DOT Glossary)*

EFFECTIVE CURB RADIUS: At an intersection or driveway, the larger radius that is achieved, compared to the actual curb return radii, by taking into account parking or bicycle lanes. *(NJ DOT Smart Transportation Guidebook)*



FREIGHT MOVEMENT: Commercial transport of goods by road, rail, waterborne transport or other modes, to or from a port, warehouse, store or other origin or destination

FUNCTIONAL CLASSIFICATION SYSTEM: Categorization of public roads based on the service they are intended to provide. *(NJDOT)*

HEAVY RAIL: high-speed passenger rail cars (such as commuter rail) that travel on fixed tracks where no pedestrian or car travel is allowed *(FTA Glossary of Transit Terms)*

INTELLIGENT TRANSPORTATION SYSTEMS (ITS): using advanced technology to improve a transportation system's efficiency and safety *(FHWA Planning Glossary)*

INTERMODAL: the connections between different types of transportation modes *(FHWA Planning Glossary)*

LIGHT RAIL: a streetcar-type vehicle operated on city streets *(FHWA Planning Glossary)*

MODE: a specific form of transportation, such as an automobile, subway, train, bus, or airplane. *(FHWA Planning Glossary)*

MODE SHARE/MODAL SPLIT: describes the percentage of travelers using a particular type of transportation. *(Wikipedia)*

MULTIMODAL: the availability of different transportation options within a system or corridor. *(FHWA Planning Glossary)*

RIGHT OF WAY (ROW): an area where the public at large or a specific private party has a legal right to traverse the land in some specified manner. *(Circulation Element)*

SITE PLAN REVIEW: The examination of the specific development plans for a lot as per *N.J.S.A.* 40:55D-37 et seq. *(Jersey City Land Development Ordinance)*

SMART TRANSPORTATION: a new approach to roadway planning and design, in which transportation investments are tailored to the specific needs of each project. The different contexts - financial, community, land use, transportation, and environmental - determine the design of the solution. Smart Transportation also encompasses network connectivity, and access and corridor management. It will help both states and communities adapt to the new financial context of constrained resources. *(NJ DOT Smart Transportation Guidebook)*

SUBDIVISION: The division of a lot, tract or parcel of land into two or more lots, tracts, parcels or other divisions of land for sale or development. The following shall not be considered subdivisions within the meaning of this Chapter, if no new streets are created:

A. Divisions of property by testamentary or intestate provisions.

B. Divisions of property upon court order, including but not limited to judgments of foreclosure.

C. Consolidation of existing lots by deed or other recorded instrument.

D. The conveyance of one or more adjoining lots, tracts or parcels of land, owned by the same person or persons, and all of which are found and certified by the administrative officer to conform to the requirements of the Municipal Development regulations and are shown and designated as separate lots, tracts or parcels on the Tax Map or Atlas of the City. *(Jersey City Land Development Ordinance)*

TRAFFIC CALMING: the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. *(ITE)*

VEHICLE MILES TRAVELED (VMT): One vehicle traveling the distance of one mile equals one VMT. This measure is used to estimate congestion, fuel consumption and a host of other key transportation-related factors. *(NJTPA)*

VEHICLE HOURS TRAVELED (VHT): Total travel time on street system measured in hours.

VOLUME TO CAPACITY RATIO (V/C): the ratio of the volume of cars on the road to the capacity of the road.