JERSEY CITY BUS STUDY FINAL REPORT

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EXECUTIVE SUMMARY

The Jersey City Local Bus Study was written in response to concerns that portions of the Jersey City local bus network were collapsing as private carriers cut back or eliminated service in its entirety. NJ TRANSIT, the City of Jersey City, the County of Hudson, and the North Jersey Transportation Planning Authority funded the work effort. It was prepared by the Bus Service Planning staff at NJ TRANSIT with input from a Technical Advisory Committee composed of individuals representing the funding agencies. The focus of the study is on short-term improvements primarily in Jersey City that need to be implemented as resources such as operating funds and equipment become available.

This report describes the existing bus service in Hudson County and presents short-term recommendations for changes and improvements to the local bus system, both in terms of general and systemic issues as well as specific route-by-route actions. More than three dozen action items were identified to improve existing bus operations. These items range from route-specific service adjustments to providing for more ticket and pass sales outlets either by vendors or the installation of ticket vending machines (TVMs). A complete listing and description of the study recommendations and the priority assigned each in terms of implementation phasing is contained in Section VIII.

The recommendations were grouped into categories in terms of their perceived priority. The recommendations were ranked from a high of "five star" items to those receiving "one star". The six "five star" items are briefly described below:

- The NJ TRANSIT 87 line's performance is hindered by running time and overcrowding issues. Both situations need to be addressed and resources made available to remedy the lines substandard performance. The bus line is relatively long and serves several submarkets. Traffic congestion occurs at numerous points along the line resulting in delays and bus "bunching". Substantial resources will be required to implement ameliorative measures.
- Similarly, it is recommended that running time issues on the NJ TRANSIT 2
 line be examined and adjusted accordingly. Additional service to the USPS
 International Bulk Mail Facility is also suggested. Finally, consideration should
 be given to revising the route structure and may include a "trunk" operation
 between Journal Square and Secaucus Junction Station with other routes
 serving the Harmon Cove/Harmon Meadows sections of Secaucus.
- Montgomery & Westside's Society Hill route and NJ TRANSIT's 80 line should operate a coordinated headway/schedule to eliminate service gaps and/or bus bunching along West Side Avenue.

- Similar to the above, a coordinated headway/schedule should be operated by Coach USA's 4 line and NJ TRANSIT's 81 line to alleviate bunching and crowding along Ocean Avenue particularly for peak period travel to/from downtown Jersey City and the Grove Street PATH Station.
- When construction is completed on US Highway 1/9 in North Bergen and Fairview, NJ TRANSIT's 83 line should be adjusted in terms of running time requirements to improve on-time performance.
- Reopen the Exchange Place Transit Mall. The Transit Mall was closed shortly
 after the "9/11" attacks for security reasons. Due to the heavy volume of
 buses during peak periods, safe and timely operation is extremely difficult. In
 light of the major role of bus service, serious consideration should be given to
 reopening the transit mall.

It should be noted that "The Circulation Element of the Jersey City Master Plan", adopted April 14, 2009, was developed concurrently with this bus study, and endorses the implementation of the recommendations of this bus study. The document identifies the local bus system as critical to the mobility of residents, workers and visitors as well as an integral element in terms of citywide congestion management.

The next highest ranked (i.e., "four star") group of improvements include findings such as providing for additional monthly pass sales outlets to substantially rescheduling local bus service to allow for a "pulse" or timed-transfer schedule coordination scheme at Journal Square. These items are highlighted below.

- Provide more outlets (agents or Ticket Vending Machines) for monthly pass sales. It is a major deficiency that there are no TVM's at the Journal Square Transportation Center to sell bus tickets. Similarly, all light rail TVM's should be upgraded to provide for bus as well as light rail sales. No capital investment would be required and the ability to make fare media more easily available to users would be a considerable and immediate upgrade. Technological improvements including "Next Bus", "My Bus" and traffic signal priority (TSP) should be incorporated into all new service restructuring and redesign efforts.
- Create a working group with the Port Authority and the Jersey City Redevelopment Agency to develop a viable plan for the expansion of the Journal Square Transportation Center bus facility and appropriate access to/from the local street network.
- NJ TRANSIT 82 Add peak period service and fix running time problems
- NJ TRANSIT 83 Discontinue West Side Avenue service.
- NJ TRANSIT 84 "Fix" on-time performance problems.

- MONTGOMERY & WESTSIDE MONTGOMERY Eliminate off-peak and weekend Exchange Place service.
- MONTGOMERY & WESTSIDE MONTGOMERY Operate midday weekday service via Hudson County Plaza.
- MONTGOMERY & WESTSIDE/A&C MARION 440 SHOPPER Alternate weekday service between western Sip Avenue and Broadway.
- Begin coordination of timed transfer at Journal Square Transportation Center for trunk corridor routes on weekends.

The remaining study recommendations are briefly described below:

- NJ TRANSIT 1 Reroute Exchange Place service to serve the Lafayette neighborhood
- NJ TRANSIT 43 Operate all service through or to Journal Square Transportation Center.
- NJ TRANSIT 83 Improve Saturday service and add Sunday service.
- NJ TRANSIT 84 Improve Sunday span.
- NJ TRANSIT 88 Monitor results of September 2009 schedule adjustments.
- NJ TRANSIT 88 Increase Sunday span to meet guidelines.
- NJ TRANSIT 88 Reroute some service to Central Avenue in The Heights if Coach USA no longer operates in corridor.
- NJ TRANSIT 1 Receive Hudson County Correctional Facility service from 80.
- NJ TRANSIT 6 Add weekend and evening service to Lafayette Loop branch.
- NJ TRANSIT 80 Transfer Hudson County Correctional Facility service to 1
- NJ TRANSIT 85 Correct sporadic overcrowding and should be considered a
 potential candidate to serve Xanadu/Meadowlands Sports Complex.
- NJ TRANSIT 981 Meet off-peak needs in Liberty State Park Industrial Area and Port Liberté.
- COACH USA 4 Extend from Newport Center Mall to area "north of Newport".
- COACH 10/99S Operate some limited stop service in peak periods as precursor to Bus Rapid Transit in Kennedy South Corridor.
- Address Grove Street PATH bus operations issues.
- NJ TRANSIT 1 Split Hudson County service from Ivy Hill service. (Create two routes.)
- NJ TRANSIT 6 After a separate Garfield Avenue service is developed, restructure route to no longer serve Garfield Avenue.
- NJ TRANSIT 43 If conditions change along the route that would encourage ridership, consideration should be given to add service.
- NJ TRANSIT 86 Reduce/eliminate service once there is better fare integration with Hudson-Bergen Light Rail.
- NJ TRANSIT 88 Implement BRT treatments in Kennedy Boulevard corridor north of Journal Square.

- NJ TRANSIT 123 Address overcrowding in non-peak periods and extend span of service.
- NJ TRANSIT 126 If demand warrants due to additional development, expand peak period service and introduce off-peak service to Hamilton Park.
- NJ TRANSIT 981 If demand warrants and Bergen Avenue does not choose to operate, extend peak period service to Port Jersey Industrial Park.
- COACH 10/99S Implement BRT treatments in Kennedy Boulevard corridor south of Journal Square.
- MONTGOMERY & WESTSIDE/A&C MARION 440 SHOPPER Extend to redevelopment area south of Hudson Mall.

The full set of recommendations presented above and the listing according to their ranked priorities and potential phasing is presented in Section VIII.

It should be recognized that some system improvements are conditional on additional development in specific corridors. Other improvements will require action by both the bus operating companies and the local jurisdictions (Jersey City and Hudson County) to improve the flow of bus traffic on key service corridors. In addition, the Port Authority of New York and New Jersey (PANYNJ) will need to play an important role in improving the Journal Square Transportation Center for both bus passengers and buses. Also, certain of the proposed improvements, such as providing for schedule coordination among various bus lines at the Journal Square Transportation Center will be extremely costly in terms of both equipment and hour resources to implement.

I. INTRODUCTION

Jersey City, New Jersey's second largest city (2000 census), is a densely populated municipality located across the Hudson River from New York City (Manhattan). It has an extensive local bus network provided both by NJ TRANSIT, the statewide public transit agency, and by three private bus operators or bus operator associations. Some of the local bus service extends into the Port Authority Bus Terminal in Manhattan. It also has the PATH heavy urban rail system (four stations within the city's boundaries) connecting it to both Manhattan and Newark, New Jersey's largest city. Finally, a major addition to the transportation network has been added in the last decade, the Hudson-Bergen Light Rail system (thirteen stations within the city's boundaries) that currently connects the city to other parts of Hudson County.

Economically, Jersey City has experienced a renaissance, especially along the Hudson River Waterfront. While not all sections of the city have experienced the same level of growth as the Waterfront, investment and reinvestment in properties throughout the city is evident. As part of this renaissance, the population of the city has again begun to grow after years of decline.

However, the bus network, a key element of the mobility needs of the city's residents, has not been examined in a comprehensive fashion in recent years to identify what changes to the network are needed to meet the increasing needs of the city's population.

The three private bus companies or bus owners' associations do not receive any operating assistance from government sources. This situation is rare not only in New Jersey; but also throughout the United States and much of the world. Even in New York City, which has the most patronized transit network in the nation; most "private" bus companies received public operating assistance for many years prior to being taken over by the MTA between 2004 and 2006. As costs, including fuel and congestion costs (increased travel time per trip) have increased, these private operators are more and more stressed and have cut back the amount of service provided. In some cases, they have eliminated entire bus routes. Significant service reductions and route eliminations occurred to the Jersey City bus route network in the period from 2006-2008 creating a significant public outcry. This study is a direct result of that outcry.

II. STUDY OBJECTIVES

The study has two primary objectives, first to document the current state of bus service in Jersey City and identify deficiencies in existing bus services (overcrowding, reliability, frequency, span of service, and related items) and second to identify service gaps (areas of the city currently without bus service or adequate access to PATH and Hudson-Bergen Light Rail stations). Furthermore, the study was tasked to

prioritize service improvements that would help resolve service deficiencies and address the needs of those neighborhoods not served or underserved by public transit.

As noted earlier, the focus of the study was on short-term improvements that need to be implemented as resources such as operating funds and equipment become available.

III. INFORMATION COLLECTION

A. PRIVATE BUS COMPANIES

Limited data existed for the operations of the private bus companies. A team of consultants was hired to have personnel ride each trip operated by these companies and present the data in tabular form. A database containing this information was compiled. Also, two companies attended a meeting to discuss their operations and share their ideas about improving them. The ridership data collected by the consultant was shared with these companies.

B. NJ TRANSIT

A much broader amount of data existed for NJ TRANSIT services as buses are equipped with fareboxes that record passenger activity. In addition, NJ TRANSIT periodically collects ridership and schedule adherence data through riding checks (trips are ridden to determine stop by stop passenger activity and on-time performance) and standing checks (trips are observed at key locations). Where it was felt that additional data was needed, additional standing checks were conducted.

NJ TRANSIT holds periodic meetings between service planning staff and bus operators and garage management. At these meetings, operational issues are discussed. Information gathered that pertained to the study was included in the service review.

C. THE PUBLIC

Five public open house meetings (see Appendix #1A) were held to obtain input from bus riders and other interested parties. At the open houses, individuals who attended were interviewed individually about their public transportation use and needs. A structured questionnaire (Appendix #1B) was used to obtain and record this information. Jersey City residents were also invited to submit items to the Mayor's Action Office in Jersey City, especially if they could not attend one of the open houses. In addition, comments received through NJ TRANSIT's Customer Service Office about bus service in Jersey City were reviewed. Appendix #1C provides a summary of customer comments.

D. TECHNICAL ADVISORY COMMITTEE

A Technical Advisory Committee (TAC) composed of representatives from Jersey City, Hudson County, the North Jersey Transportation Planning Authority, and NJ TRANSIT was formed to assist in the work effort and to discuss the study's direction and progress. TAC members provided the staffing at the open houses. They also shared materials from prior and concurrent studies and other information that was incorporated into the analysis of the bus service needs of Jersey City residents. Appendix #2 identifies TAC members.

IV. BASIC DATA

A. BUS ROUTES/OTHER LOCAL TRANSIT

Twenty-four bus routes provide local bus service within Jersey City and to neighboring communities. Eighteen of these routes are either operated by or contracted out by NJ TRANSIT. Three routes are operated by the associated Montgomery & Westside and A&C Marion companies, two routes are operated by Coach USA and one route is operated by the Bergen Avenue Independent Bus Owners Association.

PATH (three routes) and Hudson-Bergen Light Rail (three routes) also provide local service between their stations within Jersey City and between Jersey City and neighboring communities. A number of jitney operators provide minibus service, especially in the northern and downtown areas of Jersey City; however, little is known of their operations, as schedules are rarely available. A map depicting the "local" bus lines route paths and the alignments of the various rail services is presented following this page.

B. DAILY RIDERSHIP

Ridership was counted on many routes and extrapolated from available data on the remaining routes. The data is shown in Appendix # 3. (Note that ridership data for some routes on weekends was not available and was estimated.) Boardings for local bus service, including boardings on trips to New York City but excluding boardings on long distance intra-New Jersey services (such as to Middlesex and Monmouth Counties) is:

Weekdays – approximately 65,000 Saturdays – approximately 30,000 Sundays – approximately 18,000

C. HUBS

- 1. Journal Square The Journal Square Transportation Center (an off-street facility) serves as a major hub for bus to bus transfers and bus to PATH transfers. On a typical weekday, approximately 15,000 passengers (about 23% of all Jersey City weekday bus passengers) board approximately 1200 bus trips at Journal Square. Appendix # 4 shows weekday ridership by route at Journal Square.
- 2. Downtown Jersey City/Grove Street PATH Station There is significant transfer activity between buses and PATH at the bus stops near the Grove Street PATH Station. In addition to this location being served by a number of local bus routes, there is substantial suburban commuter bus traffic here. Also, many residential developments operate shuttles to the PATH station and there is a large jitney presence. There is no off-street facility to accommodate this level of activity and the existing street bus stops are stressed to accommodate both bus vehicle volume and passenger activity during peak hours.
- 3. Exchange Place There is significant transfer activity between buses (both local and suburban) and PATH, ferries, and the Hudson-Bergen Light Rail system in the Exchange Place area. Exchange Place itself, which had been reconfigured to accommodate exclusive bus loading locations as part of the construction of the Hudson-Bergen Light Rail Line, was closed to buses in the aftermath of the September 11, 2001 attacks on the World Trade Center in Manhattan for security reasons. The remaining bus loading locations in the area are on Montgomery Street and Christopher Columbus Drive. They are stressed during peak hours and are often blocked by other vehicles that ignore the bus stop signage with associated parking restrictions.

V. ASSESSMENT OF EXISTING BUS SERVICE

There are a number of measures by which one can evaluate both the need for and adequacy of bus service in a given geographic area. In addition to general guidelines, one must also consider specific local conditions (for example, topography, manmade barriers) that may make bus service more or less attractive to a particular subset of the population. As such, not all guidelines may apply to every route for each operating day (weekday, Saturday, Sunday). These guidelines should serve as useful benchmarks to identify deficiencies that should be reviewed in depth and for which a determination should be made as to the need for corrective action as well as the priority for that corrective action given the scarce resource environment that public transit usually faces.

In general, the bus network in Jersey City meets and generally exceeds guideline definitions for an extensive urban bus network. A discussion of specific guidelines and an assessment of their attainment follows.

A. <u>Guideline: Access to a bus stop - Residential</u> – Where population density exceeds 10,000 persons/square mile and at least 10% of the households do not have automobiles, there should be a bus stop (or light rail station) within a quarter mile of ninety-five per cent of all households.

Jersey City exceeds this density measure in almost all residential areas. In addition, topographical considerations (The Palisades) require bus service at various elevation levels on parallel streets as access to bus stops at significantly different elevation levels is difficult for large segments of the population. Auto ownership in Jersey City is low.

<u>Assessment</u> – This guideline is met. However, there are pockets of population that have either no service at all or peak period only service and which are isolated by the road network, railroad tracks, or other conditions. These areas include:

- the area north of the Holland Tunnel access road
- Port Liberté
- western Sip Avenue due to inability to site bus stops on Truck Route 1-9
- sections of Garfield Avenue (topography)
- area west of Kennedy Boulevard in northern Jersey City (topography)

In addition, residential development is planned in areas of the city that currently do not have bus service. Existing bus routes will need to be modified or new bus routes developed to serve this development. Among these is an area west of NJ Route 440 south of the Hudson Mall and another located east of Garfield Avenue centered near Exit 14B of the New Jersey Turnpike.

- B. <u>Guideline: Access to Bus Stop Non-Residential</u> Major activity centers should be within one quarter mile of a bus stop. These activity centers include:
 - Employers or employment clusters with more than 1,000 employees
 - Shopping centers with more than 250,000 square feet of leased retail space
 - Colleges/Universities with more than 500 full-time students or 1000 total students
 - Hospitals/Nursing Homes with more than 200 beds or 500 employees
 - Social Service/Government Centers with more than 400 client visits daily or 500 employees

<u>Assessment</u> – Most non-residential trip generation locations have bus service during activity times. Activity Centers that may warrant additional service include:

- Port Jersey Industrial Park
- Liberty State Park Industrial Park and areas to the south thereof (not all shift times met)
- Big Box Store area north of Newport Mall
- C. <u>Guideline: Span of Service</u> Jersey City is part of the much larger New York-New Jersey-Long Island metropolitan area. It is located across the Hudson River from Manhattan. PATH rail service operates to and from Manhattan around the clock. PATH has four stations in Jersey City and two rail routes to Manhattan. The bus network in Jersey City is a critical adjunct to PATH with the largest interchanges of passengers at the Journal Square and Grove Street stations. Because New York City is "the city that never sleeps" and Jersey City is the bedroom for many New York workers, an adequate span of service for the bus network is critical. In addition, PATH connects Jersey City to Newark Penn Station. At Newark Penn Station, there is around the clock connecting bus service to Newark Liberty International Airport, a major employment hub with job shifts around the clock seven days a week.

The Hudson-Bergen Light Rail Line, to which many bus routes connect, also offers a comprehensive level of service, beginning at 4:30 AM on weekdays and 5:30 AM on weekends. Service ends at about 2:00 AM daily.

Accordingly, the TAC has recommended that the guideline for the span of local bus service in Jersey City exceed that of most metropolitan areas. These guidelines are:

Weekdays: 5 AM to 1:00 AM Saturdays: 6 AM to Midnight Sundays: 7 AM to 11:00 PM

Assessment - Many routes meet the weekday span guideline. Fewer routes meet the weekend guidelines. However, there has been no overt effort to coordinate schedules between bus routes or between bus routes and PATH or Hudson-Bergen Light Rail to facilitate transfers during weekday off-peak (especially evening) and weekend service periods. Appendix #5 shows current spans of weekday service. Appendix #6 presents a route by route review of span and frequency as part of an assessment of each route.

D. <u>Guideline: Frequency of service</u> - The following frequency of service is recommended for the trunk portion of local bus service. If demand warrants, more frequent service should be offered. Where possible, clock face headways should be offered.

Weekday peak Weekday off-peak Weekday late evening Weekends 15-30 minutes
60 minutes
30-60 minutes

Assessment: Appendix #5 gives current bus service frequency on weekdays while the route by route material in Appendix #6 gives weekend frequencies as well. Numerous routes do not meet at least one of these guidelines. However, it should be noted that many routes share a common trunk or are closely parallel to each other. Coordinated headways between routes could improve guideline attainment.

E. <u>Guideline: Directness</u> – A bus route should follow a reasonably direct course (given the road network) between route endpoints. In addition, no more than 25% of the users of the bus route should need to transfer to another bus route to complete their trips.

Assessment: There was no analysis of transfer activity conducted as part of this study. Various routes were not direct from endpoint to endpoint (most notably NJ TRANSIT 1, 2, 6, 80, and 87 and M&W/A&C Marion 440 Shopper). However, the 1, 80, and 87 had little ridership from end to end but a lot of overlapping ridership along their routings. The 440 Shopper and 6 need larger collection/distribution areas to be viable. They are designed to serve specific neighborhoods and generators and total trip time is still reasonable for the end to end rider. The 2 has circuitous routing outside of Jersey City and is recommended for restructuring.

F. <u>Guideline</u>: <u>Simplicity</u> – An individual route should not have more than five and preferably no more than three branches so that current and potential bus users can understand the route and where it goes.

<u>Assessment</u> – This guideline is met on the local Jersey City bus routes.

G. <u>Guideline: Loading</u> - Peak period trips should not exceed the manufacturer's guidelines for standees and individuals should not need to stand for longer than fifteen minutes. All other trips should not exceed 100% of seated capacity.

Assessment – Both peak and off-peak guidelines often are not met. There are two primary reasons for this. First, both public and parochial school children overload the system during the school year. Second, schedule adherence is poor and is often related to traffic congestion. Accordingly, gaps in service and bus bunching occur leading to overcrowding. There are a few specific routes during certain time periods where additional service is warranted apart from the two reasons cited here.

H. <u>Guideline</u>: <u>Bus Stop Spacing</u> – Bus stops should be between 530 and 660 feet apart (generally six to eight stops to the mile) depending on spacing between parallel bus routes. In a dense urban area, this permits 95% of the population to be within ¼ mile of a bus stop.

Assessment - This guideline is generally met. However, there is no standard approach to bus stops (near side or far side at an intersection). In addition, bus stops are moved frequently at local request. Also, it does not appear that a provision for bus stops is included in major developments located along bus routes or in areas that would benefit from bus service once a development is completed.

I. <u>Guideline: Service Reliability</u> – Buses should never operate early and should not operate more than five minutes late at least 90% of the time during offpeak periods and from 75-85% of the time during peak periods (depending on route frequency).

<u>Assessment</u> – The limited resources available to the study did not permit multi-day sampling of on-time performance. However, a review of data collected suggests that this guideline is barely being met during both peak and offpeak periods. Comments from the public similarly suggest dissatisfaction with both on-time performance and overall service reliability.

VI. GENERAL PRIORITIES

Listed here are major activities for which action is required to create a first class local bus system in Jersey City. Specific route recommendations are in the next section.

It is recognized that resources may not be currently available to address these priorities in the order listed. For example, there is no current peak period bus surplus in New Jersey. Correcting peak period crowding and on-time performance problems would require the procurement of additional equipment. On the other hand, addressing reliability and overcrowding problems on weekends would be possible to do more quickly (assuming financial resources are available) as buses are available at that time.

A. Priority I - Provide Reliable Service on Existing Bus Routes

Without reliable, on-time service it is difficult to evaluate the extent of overcrowding and other system deficiencies. If buses operate behind schedule, they begin to pick up passengers waiting for the next scheduled trip. This creates overcrowding on the trip operating late and further delays it. On the other hand, the trailing bus then picks up fewer passengers than projected. This may cause the trailing bus to begin to run early. It may catch up with the bus operating late, creating bunching and poor on time performance for both trips.

Unreliable service is one of the more frequent reasons cited for not using public transit. For Jersey City to get the greatest benefit from the bus network in terms of mobility for its residents and those employed in the city and in terms of reducing congestion by having more people use public transit, service must be reliable.

- 1. Identify and Correct, where possible, conditions outside of bus company control that contribute to unreliable service. The bus carriers, Jersey City, and Hudson County should work cooperatively to identify and correct causes of unreliable service tied to inadequate running time. Appendix #7 lists current locations or conditions identified by the carriers as contributing to poor on-time performance. It is recommended that a task force be created that meets semi-annually (more often if needed) to review these issues. Members of the task force might include representatives of NJ TRANSIT's Bus Safety and Service Supervision units, representatives of the private carriers operating local bus service in Jersey City, representatives of the Traffic Engineering offices of both Jersey City and Hudson County, a representative of the Jersey City Police Department, a representative from the Jersey City Planning unit, and a representative from the Mayor's office. Low cost (Transportation Systems Management TSM) solutions such as leading left turn signals and a review of traffic signal timing should be actively considered where appropriate.
- 2. Correct instances of inadequate running time and recovery time. On some routes, there is either inadequate running time and/or recovery time. Some of this is caused by conditions outside of the direct control of the bus operating companies that can be addressed (see section VI. A. 1. above and Appendix #7). However, in some instances, it appears that an operating company has not adjusted its schedule in response to increased ridership and the general growth in traffic that has occurred in Jersey City.

B. Priority II – Address Overcrowding

As noted in the section above, perceived overcrowding is often caused by reliability problems (late buses, bunching of buses). Thus, making bus service reliable often corrects a large part of the overcrowding problem. Similarly, a sudden discharge of bus passengers from an activity site such as a high school will put pressure on bus capacity and reliability of service that may be difficult to address. Where crowding otherwise exists, it should be addressed as quickly as resources permit. See Appendix 6 for routes that appear to be experiencing overcrowding during certain periods.

C. Priority III – Meet or exceed service frequency and span guidelines in seven key corridors.

The study has identified seven key or trunk corridors (see Section VII. A.) that, based on geographic spacing, topography, and ridership, are worthy of first attention in making sure frequency and span guidelines are met on a daily basis. Most population and activity centers, including population clusters with low auto ownership, have access to one of these corridors.

D. Priority IV. – Improve quality of bus operations (both bus flow and passenger experience) at bus hubs

1. Establish off-peak and weekend timed transfers at Journal Square Transportation Center between buses and between buses and PATH. Improve bus access to and from the Journal Square Transportation Center.

As noted earlier, Journal Square is the major transportation hub in Jersey City. In addition, it is scheduled for major redevelopment that will add to the density of both residential and non-residential activities in the immediate area. A strong bus network will be needed to serve this redevelopment if the area is not to be choked with auto traffic. Use of buses will be encouraged by coordinating the bus activity with timed transfers between buses and between buses and PATH. It should be noted that creating a timed transfer hub will be very costly because bus cycle times vary by route and there will be additional non-revenue time for some routes to insure the timed transfers are reliable. Certain routes will benefit from interlining to offset partially the cost of this effort. Section VII. B. presents more detail on this priority.

2. Address issues that developed at Exchange Place after Exchange Place was closed to buses.

The Exchange Place Transit Mall (Montgomery Street between Greene Street and Hudson Street and Exchange Place) was created in April 1994 as an agreement between the City of Jersey City and NJ TRANSIT. The concept was to fully establish the transit "presence" prior to the operation of the Hudson-Bergen Light Rail Line in April, 2000. The operating plan was designed to provide for convenient multimodal transit accessibility among light rail, PATH and bus modes. However, Exchange Place itself was closed for security reasons in a post World Trade Center attack evaluation. The temporary solution, having buses that used Exchange Place proper for boarding board on Montgomery Street eastbound, is inadequate to meet demand, and results in additional congestion on Hudson Street and Christopher Columbus Drive. The south side of Montgomery Street lacks passenger shelters and both private automobiles and delivery vehicles frequently park in the bus stops. More importantly, bus flow is impeded and there is a conflict between buses and both light rail vehicles and other rubber-tired vehicles since buses have to use Hudson Street

between Montgomery Street and Christopher Columbus Drive to access the area. It is likely that there will be increased demand for bus service to the area as the current economic slowdown ends.

3. Provide more adequate bus boarding and alighting facilities at Grove Street PATH Station.

There has been some realignment of bus stops and bus routings in the Grove Street PATH area that has helped bus flow. However, the westbound bus stop lacks adequate shelter for passengers waiting for their buses and the eastbound bus stop needs to be longer to accommodate peak period usage.

E. Priority V. – Extend service to underserved areas

Certain areas of Jersey City presently have insufficient or are not afforded bus service. Resource limitations make it difficult to expand service in these areas at the current time. However, as resources permit and as development in these areas occurs, additional bus service should be provided. Section VII. C. presents a possible ordering for these service expansions.

F. Priority VI. - Meet or exceed service frequency and span guidelines in secondary corridors except where service is tailored to specific activity center hours of need

The primary corridors identified in this study provide a solid framework for bus service in Jersey City and put a large majority of city residents within access to a bus stop. However, to insure all areas of the city have service and to provide more single seat rides for residents, the secondary corridors need upgrading. Section VII. E identifies and discusses these corridors.

G. Priority VII. – Improve the ability of the public to use the bus system

- 1. Integrate transfers between bus companies and increase availability of monthly bus pass outlets in Jersey City.
- 2. Improve public access to information so that information and schedules for all bus companies is readily available.
- 3. Insure that bus stops are properly placed, especially when development occurs.

Jersey City is served by four bus companies providing local bus service, each of which has its own fare structure. The NJ TRANSIT monthly bus pass is accepted on all local bus service (with NJ TRANSIT reimbursing the other bus companies for accepting the pass); however, there are few pass outlets or ticket vending machines selling local bus passes within the city. While Newark, a city with only a slightly

larger population than Jersey City, has eighteen commissioned ticket agents and fifteen rail and light rail stations where local bus passes can be purchased from ticket agents and/or ticket vending machines. Jersey City has only seven commissioned ticket agents selling one zone bus passes. At a minimum, there should be either a commissioned ticket agent or a ticket vending machine selling local one zone bus passes at each PATH and Light Rail station within Jersey City. (Two zone local bus passes are available at Light Rail ticket vending machines.) If more bus users have monthly passes, boarding time at bus stops can be reduced and on-time performance of bus trips improved.

For the occasional bus user, using the system in Jersey City can be costly, especially if the routes of two different bus operators need to be taken to complete a trip. Unlike in Essex and Union Counties where NJ TRANSIT and the other bus operators accept each others' transfers, there is no similar arrangement in Jersey City. Such an arrangement should be implemented.

And, because the public sometimes does not distinguish the various operators, information about non-NJ TRANSIT routes should be included on NJ TRANSIT timetable maps and on the NJ TRANSIT web site.

Finally, bus routes without properly spaced bus stops are of little value. By state law, decisions on the placement of bus stops reside with the municipality. In reviewing and approving new developments and roadway improvements, the city (and county where applicable), should make sure that such plans do not isolate or eliminate existing bus stops and provide for new bus stops (for example, locations with adequate shoulders or bus cut outs) on existing routes in areas of new activity and in redevelopment areas to which bus service is likely to be extended. There should also be appropriate pedestrian access (for example, sidewalks and crosswalks), to bus stop locations.

H. Priority VIII. – Identify corridors suitable for bus rapid transit treatment (BRT) and then implement service in these corridors.

Given the frequency of bus service on many streets in Jersey City, a number of streets/corridors may qualify for enhancements that improve the flow of buses, including in some cases full-fledged Bus Rapid Transit (BRT) treatment. Identifying these corridors was outside the scope of this study. However, a recent study conducted for the New Jersey Department of Transportation (*NJ TRANSIT: Transit Signal Priority – NJ Systems Application and Technology Investigation, Cambridge Systematics, December 2008*) identified Kennedy Boulevard south of Journal Square at least to the Bayonne border and possibly beyond into Bayonne as a suitable candidate for further review in this regard. Data collected in this study suggests Kennedy Boulevard north of Journal Square, initially to 30th Street in Union City and eventually to the Bergen County border, would also be a candidate for such further review.

I. Priority IX. – Integrate Hudson Bergen Light Rail fares with local bus fares.

Of the three light rail systems operating in New Jersey, only the Hudson-Bergen Light Rail system has a fare structure different from the local bus network. Expansion of the Light Rail system beyond its current termini may at some point, lead to consideration of instituting a zonal fare structure. With a fare structure that emulates the bus fare structure, it should be possible to feed the Light Rail system further and make further revisions to the bus system. (See discussion at VII. E. 2. c. for an example.)

VII. SPECIFIC RECOMMENDATIONS

In addition to the discussion below, Appendix #6 contains a description of each currently operating local Jersey City route, including an evaluation and recommendation(s) and a priority classification of 1 to 5 stars to implement the recommendation(s) as resources become available. In the discussion below, the applicable routes operating in the corridor being discussed or proposed for the corridor discussed are either cited directly in the discussion **in bold** or are cited in parentheses following the discussion (**in bold**).

A. Trunk corridors

While the density of population in Jersey City and projected future growth suggest a need to enhance bus service in many areas of the City, first attention should be paid to key corridors where bus service should operate from 5 AM to 1 AM daily at peak and off-peak frequencies suggested by the service guidelines. In addition to efforts by the bus companies serving these corridors to provide such service, Jersey City and Hudson County should make a concerted effort to improve bus flow in these corridors through enforcement of traffic and parking regulations and through TSM type improvements where applicable.

The following corridors are recommended to be trunk corridors:

- 1. West Side/Sip West Side Avenue from Danforth Avenue to Sip Avenue and Sip Avenue from West Side Avenue to Journal Square. (NJ TRANSIT 80, MONTGOMERY & WESTSIDE Society Hill)
- 2. Kennedy Boulevard South from Bayonne border to Journal Square. (This corridor should be extended through the entire length of Bayonne.) (**Coach USA 10/99S**)

- 3. Old Bergen/MLK/Monticello/Bergen Old Bergen Road from Merritt Street to Martin Luther King, Jr. Boulevard. Martin Luther King Jr. Drive from Old Bergen Road to Monticello Avenue. Monticello Avenue and Fairmount Avenue from Martin Luther King Jr. Drive to Bergen Avenue. Bergen Avenue from Fairmount Avenue to Journal Square. (NJ TRANSIT 87)
- 4. Ocean/Grand/Downtown Ocean Avenue from Merritt Street to Grand Street. Grand Street from Ocean Avenue to Communipaw Avenue. Communipaw Avenue from Grand Street to Pacific Avenue. Pacific Avenue from Communipaw Avenue to Grand Street. Grand Street from Pacific Avenue to Jersey Avenue. Jersey Avenue from Grand Street to Columbus Drive. Columbus Drive from Jersey Avenue to Grove Street PATH. (Coach USA 4, NJ TRANSIT 81)
- 5. Kennedy Boulevard North from Union City border to Journal Square. (This corridor should be extended at a minimum to 30th Street, Union City with extension to the North Bergen/Fairview border as resources permit.) **(NJ TRANSIT 88, NJ TRANSIT 125)**
- 6. Palisade Avenue/Newark Avenue Palisade Avenue from Union City border/9th St. Congress Street Light Rail Station to Newark Avenue. Newark Avenue from Palisade Avenue to Journal Square. (This corridor should be extended to 30th Street, Union City via either Bergenline/New York Avenues or Palisade Avenue, with extension via Bergenline Avenue/New York Avenue to the North Bergen/Fairview border as resources permit). (**NJ TRANSIT 84, NJ TRANSIT 87**)
- 7. Secaucus Junction/County Road Secaucus Junction Rail Station to County Road to Journal Square via Manhattan Avenue and Kennedy Boulevard, permitting a connection from the transportation hub at Journal Square to almost the entire NJ TRANSIT Rail network at Secaucus Junction. (Trips should operate directly to Secaucus Junction Rail Station and as needed to Jersey City Bulk Mail Facility and employment sites in Secaucus.) (NJ TRANSIT 2)

Note: All of these corridors serve a PATH Station. PATH provides service around the clock connecting Jersey City with Manhattan and Newark. In addition, the Kennedy Boulevard North and Palisade Avenue corridors connect to the bus hub along 30th Street/31st Street in Union City. In addition, the extensions to the North Bergen/Fairview border connect to the bus hub there. The connection to the Secaucus Junction Rail Station provides connections to most of the North Jersey Rail network and will grow in importance once the new Hudson River rail tunnels are completed. In conjunction with the service offered by PATH and by Hudson-Bergen Light Rail, most areas of the city would have good coverage over a 20 hour span or better.

B. Journal Square Transportation Center

The Journal Square Transportation Center (JSQTC) is the major bus transfer hub in Jersey City. Here people not only connect to the PATH rapid transit system to Manhattan, Newark, Harrison, Hoboken, and other parts of Jersey City; but also to bus routes serving most parts of Jersey City and other parts of Hudson County. During off-peak and weekend hours when bus service is less frequent, a timed transfer hub should be developed at this location.

In addition to its transportation function, major redevelopment of the Journal Square area is planned including office, residential, and retail space. A classic movie theater is being restored that will provide entertainment opportunities. Increased use of the JSQTC should be anticipated as part of this redevelopment. Use of the bus terminal at the JSQTC is currently approaching its functional capacity during peak periods and expansion should be considered as part of the redevelopment. It is possible that sixteen to twenty loading positions for buses will be required in the not too distant future.

In addition, improved ingress to and egress from the bus terminal should be incorporated into the redevelopment plans, as the access to and from the bus terminal, especially from Summit Avenue via Pavonia Avenue is currently inadequate. Prior to redevelopment, some low cost improvements/actions might be feasible. (See discussion of traffic issues in Appendix #7 II A.)

Under the proposal here for an off-peak and weekend timed transfer hub, buses on trunk and secondary corridors serving Journal Square would arrive at least hourly at the same time of the hour approximately five to eight minutes before eastbound PATH trains were scheduled to depart and would depart Journal Square approximately four to seven minutes after westbound PATH trains were scheduled to arrive.

For example, using the PATH midday Sunday schedule, service on the Newark-World Trade Center route operates every fifteen minutes and service on the Journal Square-33rd Street route operates every ten minutes. Twice during each hour, there are good opportunities for timed transfers. Buses would be scheduled to arrive at 0:18 after the hour to permit connections to trains to Newark (0:23), World Trade Center (0:26) and 33rd Street (0:27). Buses would leave JSQTC on the 0:30 permitting connections from trains from Newark (0:26), from World Trade Center (0:23), and from 33rd Street (0:26). And people transferring between bus routes would have a twelve minute window to do so. If a particular bus route operated on a thirty minute frequency, its trips would also arrive at 0:48 and leave on the hour, creating similar transfer opportunities with PATH. If appropriate, buses could have more frequent service on either a ten or fifteen minute frequency; but not all bus/PATH and bus/bus connections would be expected to be met.

A coordinated transfer of this nature can be a major benefit to transit users, both in facilitating the transfer itself and in encouraging sound scheduling practices by the carriers including the provision of adequate recovery time for buses between trips. However, there is one negative for some passengers and internal costs for the transit companies. For the passenger who is currently riding through Journal Square on a single bus trip (currently possible on NJ TRANSIT 80 and 87 and Coach USA 10), there will be a delay while the trip holds for the transfer. Alternatively, the bus companies may decide it is more efficient to split a route at Journal Square, forcing a transfer for bus users who currently have a one seat ride.

For the bus companies, costs may increase depending on current cycle time (time it takes one bus to make one round trip) for each specific route, as personnel and equipment may need to be added to operate a headway that meets the transfer window requirements. Revenue increases from the creation of a timed transfer hub will almost definitely not offset additional costs.

C. Underserved areas

Service to underserved/unserved areas should be provided as resources permit. The study identified a number of these areas. A discussion of each area and actions taken/suggestions for actions to be taken is given here. The actions to be taken are listed here in order of suggested review for implementation by the operating companies. Some actions have already been taken since the study began. Items noted for the NJ TRANSIT 6 have already been implemented.

- 1. Bergen Hill (East Side)
- 2. Greenville (East Side)

Both of these areas lost direct service to Journal Square with the discontinuance of Coach USA 3 and 99. NJ TRANSIT has already implemented service on a new route, NJ TRANSIT 6 that serves these neighborhoods and the new county offices at Hudson County Plaza.

3. <u>Lafayette</u> - The Lafayette section of Jersey City lost a significant amount of service when Coach USA discontinued its No. 16 route. The No. 16 connected the neighborhood to Journal Square, downtown Jersey City, and Newport Center Mall. It also provided some crosstown service along Communipaw Avenue and it extended beyond Newport Mall to the big box stores north of Newport and a small residential community tucked between the Newport/Hamilton Park area and the Hoboken border. (Service to Downtown/Grove Street PATH and Newport Center Mall is also available on Coach USA 4.)

a. <u>Lafayette-Journal Square</u> - NJ TRANSIT has restored weekday service to Lafayette on a branch of the NJ TRANSIT 6 called the Lafayette

Loop. The new service operates on weekdays during the day and connects the Lafayette section to Journal Square and to Hudson-Bergen Light Rail. If ridership on the route grows, consideration should be given to the provision of weekday evening and weekend service.

- b. Lafayette-Communipaw Crosstown It is recommended that the current NJ TRANSIT 1 Exchange Place service be rerouted from Grand Street between The Junction (Communipaw Avenue at Grand Street) and the intersection of Grand Street and Pacific Avenue. The service need not continue to be associated with the current 1 route; but it should continue into South Kearny and downtown Newark to provide essential connections to jobs for residents throughout southern Jersey City. Implementing this routing change would also restore a direct connection from the Lafayette neighborhood to Exchange Place. Hours of operation should focus on work shifts; though a base midday service should be maintained on weekdays.
- 4. North of Newport The small residential area and big box retail area tucked in between the Hoboken border and the Holland Tunnel access roads is essentially without bus service. The mix of retail jobs and shopping opportunity and residential activity suggests a need for some bus service. One of the three bus routes serving Newport Center Mall should be extended into this area. (NJ TRANSIT 86, MONTGOMERY & WESTSIDE Montgomery, Coach USA 4)
- 5. Western Sip Avenue Marion Gardens This neighborhood has low income housing and the offices of the Jersey City Housing Authority. Housing Authority employees, clients (many of whom do not have access to an automobile), and area residents warrant some transportation. It is recommended that alternating trips on the A&C Marion 440 SHOPPER be diverted from Broadway on weekdays until 6 PM to serve this area. This would provide this neighborhood with bus service to both Journal Square and the major shopping areas along NJ Highway 440.
- 6. Port Jersey Industrial Park, Liberty State Park Industrial Park, Port Liberté There is no bus service to the Port Jersey Industrial Park and only peak period service to the Liberty State Park Industrial Park and the Port Liberté residential complex. Jersey City should collect shift time and number of employees information from these industrial areas and share it with the two operating companies. Initially, the NJ TRANSIT 981 or Bergen Avenue IBOA should be extended to serve the Port Jersey Industrial Park to meet shift times for specific industries there. The 981 service should be expanded to meet additional shift times at and near the Liberty State Park Industrial Park and provide additional service to Port Liberté.
- 7. <u>Garfield Avenue</u> A route serving Garfield Avenue should be considered as redevelopment occurs in the corridor, given the significant amount of land available for redevelopment that is not proximate to Light Rail stations or other bus routes. At one time, the corridor was more heavily industrialized and had more

demand for service throughout the day. Based on a review of ridership prior to the discontinuance of service, that demand had been reduced significantly and could not support a reasonable frequency of service. Since then, the new No. 6 Lafayette Loop service (instituted in 2009) has provided service to the northernmost segment of the corridor while Bergen Avenue continues to provide service to the southernmost segment. Additional service is available nearby at two light rail stations and along Ocean Avenue.

- 8. <u>440 Redevelopment Area</u> When the 440 Redevelopment Area south of Hudson Mall on the western side of NJ Highway 440 is developed, the A&C Marion 440 Shopper route should be revised to serve the newly developed area to provide service to Journal Square. This route can also be modified to serve the western side of the expanding New Jersey City University campus, across NJ Highway 440 from the redevelopment area.
- 9. <u>Hamilton Park</u> Currently, the NJ TRANSIT 126 provides unidirectional peak period service between Hamilton Park and New York (midtown-Port Authority Bus Terminal) via the Newport/Pavonia PATH Station and the Clinton/Willow corridor in Hoboken. Redevelopment is occurring in the western portion of the Hamilton Park neighborhood. As the redevelopment continues, there will be increased demand for local bus service to access PATH and shopping areas, such as the area north of Newport Center, at Newport Center, and in Downtown. While the neighborhood cannot support expanded bus service on its own, service might possibly provided in conjunction with additional service to the "North of Newport" area (see item 4. immediately above) or with additional service to the Clinton/Willow corridor in Hoboken as redevelopment continues in the western portion of that city. (NJ TRANSIT 86, MONTGOMERY & WESTSIDE Montgomery, Coach USA 4)

D. Coordination of Services/Route Restructuring

A review of ridership data suggested there are some opportunity for coordination of services between carriers and some minor route restructuring apart from route extensions to meet the needs of unserved areas. Coordination of service can only be done once there is reliable service; so that buses operating on two different routes or by two different companies fall into their assigned slots where service is coordinated.

1. West Side Avenue - There is excess capacity in this corridor during off-peak periods on weekdays and on Sundays. Once service reliability is established, it should be possible for the M&W Society Hill route and the NJ TRANSIT 80 route to coordinate headways. This will benefit the bus user by providing a consistent headway and will reduce bunching and operating costs for the bus companies.

2. Ocean Avenue – There is excess capacity in this corridor, especially midday on weekdays between 9 AM and 2 PM. Service should alternate between Coach USA 4 and NJ TRANSIT 81, each operating on a thirty minute headway, during this period.

E. Non-Trunk Corridors

The following corridors are designated "non-trunk" corridors in that they have bus service but are not recommended for initial focus in addressing overcrowding, reliability, frequency, and span guidelines. *These corridors are essential to the integrity of the public transit network in Jersey City.* However, this study recognizes that resources are finite. A prioritization of service corridors will help focus limited resources where they can be beneficial to the largest number of Jersey City residents and those employed in Jersey City. Guidelines for service should be met first on the trunk corridors. Once those guidelines are attained, the needs of the non-trunk corridors should be reviewed rigorously.

Non-trunk corridor guidelines can be modified to meet specific needs of the area being served but should generally be:

- Service, at a minimum, should operate during traditional peak periods of service.
- Service should also operate where there are significant numbers of second and third shift employees and/or other non-traditional needs (such as evening classes at colleges).
- Service should operate during retail hours where there is significant retail activity.
- During non-peak hours of non-trunk corridor service, service should be coordinated with other services at transit hubs.

1. Crosstown Corridors

a. <u>Communipaw Avenue</u> – Section VII. C. 3. b. presents a recommendation for realigning service in this corridor to include the Lafayette neighborhood. That recommendation should initially be implemented at existing service levels. In addition, if the service in this corridor is disassociated from the existing NJT 1 route, reliability may improve. See Appendix #6 - NJ TRANSIT 1 for a more complete discussion. Reliability of service in this corridor is impacted by traffic congestion, especially between Mallory Avenue and Kennedy Boulevard. See Appendix #7 for a more complete discussion.

b. <u>Montgomery Street</u> - This corridor has service between West Side Avenue and Downtown with service extended to Exchange Place or Newport Center Mall. Specific immediate recommendations for this corridor include operating Exchange Place service only during peak hours and revising the midday weekday routing (non-peak) to serve Hudson County Plaza. (MONTGOMERY & WESTSIDE Montgomery service)

c. Newark Avenue – This corridor has service between Summit Avenue and Downtown with service extended to Exchange Place and Newport Center Mall. Service is provided over all or part of this corridor by NJ TRANSIT 80, 84, and 86 throughout the day, NJ TRANSIT 82 during peak hours, and at scattered times by NJ TRANSIT 43. While service levels basically meet current needs in this corridor, congestion on Newark Avenue, especially during peak periods, hinders service reliability. See Appendix #7 for a more complete discussion of the congestion issue.

d. <u>Congress Street/Paterson Plank Road to Hoboken</u> – While the one-way street network over part of Congress Street does not permit a true crosstown service, the NJ TRANSIT 85 provides necessary connectivity between Summit Avenue and the Congress Street/9th Street Hudson-Bergen Light Rail Station. Also, the NJ TRANSIT 85 and 87 provide service throughout the day to Hoboken providing connections for residents of The Heights to PATH, ferries, and trains at Hoboken Terminal. The services to Hoboken are heavily patronized; but congestion, including congestion in Hoboken, impacts reliability to some degree on both routes.

2. North - South Corridors

This study has already identified many of the North-South corridors as trunk corridors. Non-trunk (secondary) corridors include:

a. <u>Summit Avenue between Journal Square and the Union City border.</u> Two routes serve this corridor. The NJ TRANSIT 82 provides a peak period service to Downtown and Exchange Place via Newark Avenue. This service should be more frequent during the peak period to address overcrowding and should be retimed to insure reliability.

The NJ TRANSIT 83 connects this corridor to Journal Square and provides an essential connection between Journal Square, the North Hudson area, and parts of south central Bergen County to Hackensack. This route has a narrow service span on Saturdays and no service on Sundays. To provide access to jobs via connections in Union City and along Tonnelle Avenue in North Bergen, Saturday service span should be expanded and Sunday service should be initiated at least as far as Fairview. Service should be coordinated with the NJ TRANSIT 127 that operates along the same routing between central Union City and Fairview. A peer route, the

NJ TRANSIT 76 operating from Newark to Hackensack has strong ridership within Bergen County on Sundays, suggesting that the 83 should operate all the way to Hackensack.

On the other hand, a branch of this route connects Journal Square to the West Side Avenue corridor in North Bergen during peak periods on weekdays. Declining economic activity along West Side Avenue suggests there is too much service in this corridor. It is recommended that service on this branch of the 83 be discontinued (passengers from Jersey City can transfer to the NJ TRANSIT 121 in Union City) and the resources be reallocated.

b. Central Avenue in The Heights

Two routes provide service in the corridor. NJ TRANSIT 87 connects the area south of Franklin Street to both the Greenville section of Jersey City via Journal Square and Hoboken via the Congress Street/9th Street Hudson-Bergen Light Rail Station. Coach USA 10/99S connects the area south of Congress Street to New York and to Bayonne and the Greenville section of Jersey City via Journal Square.

Ridership to New York on the 10/99S is light (see discussion in VII E. 3. New York routes) and impacts the reliability of service for the local retail market on Central Avenue. Nor is New York a natural ridership base for the local retailers. However, local ridership north of Franklin Street is also light (about 150-200 passengers a day) and could not support its own service if the New York service were disassociated from it. However, this study recognizes the importance of local bus service in this corridor.

If Coach USA at any time decides to discontinue its current service, it is recommended that a branch of the NJ TRANSIT 88 be added to operate via Central Avenue between Paterson Plank Road and Hoboken Avenue on its route between northern Hudson County and Journal Square, especially during most retail hours. The opening up of the Union City market to Central Avenue merchants and the benefits that Central Avenue residents will have from being able to use the 88 to reach other parts of Hudson County directly or via transfers is significant. Diverting selected trips on the 88 to serve this corridor should not impact users on its existing route along Kennedy Boulevard, as the trips selected to be diverted should be at times when the NJ TRANSIT 125 operates along Kennedy Boulevard offering service in the same time block as the 88.

Another option if Coach USA decides to discontinue its current service would be to divert some trips on the 87 to operate via Central Avenue and Congress Street instead of via Ferry or Franklin Streets and Palisade Avenue between the intersection of Central and Franklin and the intersection of Congress and Palisade. However, this study recommends that this not be considered as a viable option until reliability and overcrowding issues on the 87 are addressed. Adding to the complexity of this route

before these issues are addressed would not meet the needs of those along Central Avenue who are interested in improved bus service or current 87 users.

c. Palisade Avenue/Newark Avenue to Exchange Place/Newport NJ TRANSIT 86 provides service in this corridor. The route was started as a precursor to the Hudson-Bergen Light Rail and serves three light rail stations. Ridership has continued to decline on this route since the Hudson-Bergen Light Rail line was extended to Union City and service has been trimmed. However, there is still a market for this service, in part because the fare structure of the light rail line forces local residents to pay higher fares for the equivalent of a one-zone bus trip, whether using a monthly pass or a transfer. This study recommends continuing to pare this service to meet current ridership levels. If fares are integrated (including incorporating the non-NJ TRANSIT carriers into the transfer program), this route might only need to operate as a shuttle between Newport and the intersection of Newark Avenue and Palisade Avenue, if it is needed at all.

d. Caven Point Road/Burma Road

This corridor has peak period service to the Downtown area (Grove Street PATH) and the Liberty State Park Light Rail Station. Because the area has peak only service, it has been classified as an underserved area. See discussion at VII. C. 6. (NJ TRANSIT 981)

e. <u>Ocean Avenue/Hudson County Plaza to Journal Square and Lafayette section to Hudson County Plaza and Journal Square</u>
These corridors recently had service saved from discontinuance or restored. See discussion at VII. C. 1, VII C. 2, and VII C. 3 a. (**NJ TRANSIT 6**)

f. Old Bergen Road/Bergen Avenue to Journal Square

This corridor is considered a non-trunk corridor despite high ridership (7600 weekday boardings) because it is situated between and generally one block from the Kennedy Boulevard (South) corridor to the west and the Martin Luther King, Jr. Drive corridor to the east. It is served by the Bergen Avenue bus line which is operated by an Independent Bus Owners Association. If the association dissolves or is otherwise unable to operate service, much of the ridership demand could be accommodated by the bus service on the adjacent Kennedy and King corridors. Peak period bus service would be warranted in this corridor as bus service levels on the adjacent corridors are close to saturation during peak periods. Also, the existing service provides an important link to the Broadway Bus in Bayonne. If the current operator were to discontinue service, this link in southern Jersey City should be maintained as a branch of the Kennedy Boulevard service (Coach USA 10), preferably from the intersection of Kennedy Boulevard and Old Bergen Road via Old Bergen Road, Neptune Avenue, and Garfield Avenue to Broadway and 53rd Street in Bayonne, or an extension of some trips on the King Drive service (NJ TRANSIT 87).

g. NJ 440 and adjacent areas

This corridor contains some residential pockets and large retail areas. Service is provided by the MONTGOMERY & WESTSIDE/A & C Marion 440 SHOPPER. Service operates to meet the needs of the retail areas and should continue to do so. There is some opportunity to modify the route to serve one currently underserved area and to extend it to a future redevelopment site. (See sections VII. C. 5 and VII. C. 8.)

3. New York Services

While four bus routes provide service between Jersey City and the Port Authority Bus Terminal in New York City (Coach USA 10/99S, NJ TRANSIT 123, 125, 126), PATH is the primary mode of choice for most New York commuters with a small share of the market being handled by ferries. Of the four bus routes, the 10/99S has, by far, the largest Jersey City ridership traveling to New York. Most of their ridership is from the Kennedy Boulevard corridor south of Journal Square. Spot overcrowding occurs on this service.

The three NJ TRANSIT routes offer an appropriate level of service within Jersey City at the current time; however, overcrowding can occur closer to New York City on the 123 and 126. Future development in Jersey City may increase the market for these services, most probably in the Hamilton Park and Journal Square areas.

F. Secondary Hubs (Exchange Place and Grove Street PATH)

A task force consisting of NJ TRANSIT, the other bus companies serving these areas (both local and suburban), and appropriate Jersey City departments should be established to develop solutions to the bus operation problems at these locations. Improved bus service is essential if these areas are to continue to grow without being choked in traffic.

VIII. PHASING THE RECOMMENDATIONS – A BLUEPRINT FOR THE NEAR FUTURE

This study recognizes that the current economic climate has put extreme financial pressure on the bus companies providing local bus service in Jersey City. It also recognizes that even were the financial situation not so grim at the current moment, resources are scarce. Buses are expensive to buy. Bus companies generally do not have spare vehicles available for use during peak periods and a review of fleet availability shows that there is indeed little peak period excess vehicle capacity available in Jersey City. Similarly, NJ TRANSIT in particular, faces severe garage capacity constraint at the current time and would need to have increased garage

capacity to add service to meet all the unmet needs on existing services and to fill the geographic gaps that exist in the bus network.

The following list is the study's recommendations for the phasing in of improvements to bus service in Jersey City. Review by both bus companies and the community may lead to adjustments in the list. Also, some lower priority items may be easier to do and may be implemented first because they cause little or no drain on current resources. And conditions may change.

The study recognizes that some priority items that existed when the need for the study was identified have already been addressed, at least in part, by the introduction of a new route to Jersey City, the **NJ TRANSIT 6**, and filling service gaps in eastern Greenville, eastern Bergen Hill, and the Lafayette neighborhoods. Furthermore, the study has learned that NJ TRANSIT adjusted travel times and added some evening and weekend service to the **NJ TRANSIT 87** effective September 5, 2009. The 87 had by far the greatest number of service quality complaints from the public.

Remaining recommendations from the study include:

*****Five star items:

A. "Fix" remaining running time and crowding problems on **NJ TRANSIT 87.** As these are primarily problems that occur during peak periods or that peak period issues caused to spill over into non-peak periods, the cost to fix these problems is high. If the effort to improve reliability by addressing chronic traffic problems bears fruit (as discussed elsewhere in this report) the cost could be less.

Estimated vehicle needs: Four peak buses Estimated hours of service: 32 on weekdays

B. "Fix" running time problems on **NJ TRANSIT 2**. Provide more service to Postal Service International Bulk Mail facility. Fully develop as trunk route, revising route structure on both regular service and "R" service.

If the revisions to the route as suggested in this report are adopted after further scrutiny, it may be possible to implement improved service with no peak vehicle costs.

Estimated vehicle needs: No peak buses

Estimated hours of service: 20 on weekdays, 24 on Saturdays, 24 on Sundays

C. "Fix" crowding problems and bunching on West Side Avenue.

Careful coordination of service between MONTGOMERY & WESTSIDE's Society

Hill route and NJ TRANSIT 80 should address most crowding problems except during peak periods when students overwhelm the buses serving the corridor.

Focusing on chronic traffic problems along the route should also help address the problems at low cost.

Estimated vehicle needs: One/two peak bus(es) Estimated hours of service: 8 on weekdays

D. "Fix" on time performance problems, bunching, and crowding on Ocean Avenue service to Downtown Jersey City/Grove Street PATH Station.

Careful coordination of service between Coach USA 4 and NJ TRANSIT 81 should address most problems at little or no cost.

Estimated vehicle needs: No buses Estimated hours of service: 0

E. "Fix" weekday on time performance problems and bunching on NJ TRANSIT 83.

This effort should be undertaken after construction on US Highway 1-9 in North Bergen and Fairview is complete.

Estimated vehicle needs: One bus

Estimated hours of service: 12 on weekdays

F. Reopen Exchange Place Transit Mall or develop alternate plan for bus movement in the area

The Exchange Place Transit Mall was built with federal transit funds as part of the construction of the Hudson-Bergen Light Rail Line. It was closed after the "9-11" attacks on the World Trade Center for security reasons. Since its closing, peak period bus operation at Exchange Place has been difficult. This study recommends a task force be established to identify and implement appropriate solutions to improve bus operations in this area.

For the following recommendations, see the individual discussion by route in Appendix #6 and Section VII. above.

****Four star items

- Provide more outlets (agents or Ticket Vending Machines) for monthly pass sales.
- Create working group with the Port Authority and the Jersey City Redevelopment Agency to develop a viable plan for the expansion of the Journal Square Transportation Center bus facility and appropriate access to/from the local street network.
- NJ TRANSIT 82 Add peak period service and fix running time problems
- NJ TRANSIT 83 Discontinue West Side Avenue service.
- **NJ TRANSIT 84** "Fix" on-time performance problems.

- MONTGOMERY & WESTSIDE MONTGOMERY Eliminate off-peak and weekend Exchange Place service.
- MONTGOMERY & WESTSIDE MONTGOMERY Operate midday weekday service via Hudson County Plaza.
- MONTGOMERY & WESTSIDE/A&C MARION 440 SHOPPER Alternate weekday service between western Sip Avenue and Broadway.
- Begin coordination of timed transfer at Journal Square Transportation Center for trunk corridor routes on weekends.

***Three star items

- NJ TRANSIT 1 Reroute Exchange Place service to serve the Lafayette neighborhood
- NJ TRANSIT 43 Operate all service through or to Journal Square Transportation Center.
- NJ TRANSIT 83 Improve Saturday service and add Sunday service.
- NJ TRANSIT 84 Improve Sunday span.
- NJ TRANSIT 88 Monitor results of September 2009 schedule adjustments.
- NJ TRANSIT 88 Increase Sunday span to meet guidelines.
- NJ TRANSIT 88 Reroute some service to Central Avenue in The Heights if Coach USA no longer operates in corridor.

**Two star items

- NJ TRANSIT 1 Receive Hudson County Correctional Facility service from 80.
- NJ TRANSIT 6 Add weekend and evening service to Lafayette Loop branch.
- NJ TRANSIT 80 Transfer Hudson County Correctional Facility service to 1
- NJ TRANSIT 85 Correct sporadic overcrowding.
- NJ TRANSIT 981 Meet off-peak needs in Liberty State Park Industrial Area and Port Liberté.
- COACH USA 4 Extend from Newport Center Mall to area "north of Newport".
- COACH 10/99S Operate some limited stop service in peak periods as precursor to Bus Rapid Transit in Kennedy South Corridor.
- Address Grove Street PATH bus operations issues.

*One star items

- NJ TRANSIT 1 Split Hudson County service from Ivy Hill service. (Create two routes.)
- NJ TRANSIT 6 After a separate Garfield Avenue service is developed, restructure route to no longer serve Garfield Avenue.
- NJ TRANSIT 43 If conditions change along the route that would encourage ridership, add service.

- NJ TRANSIT 86 Reduce/eliminate service once there is better fare integration with Hudson-Bergen Light Rail.
- NJ TRANSIT 88 Implement BRT treatments in Kennedy Boulevard corridor north of Journal Square.
- NJ TRANSIT 123 Address overcrowding in non-peak periods.
- NJ TRANSIT 126 If demand warrants due to additional development, expand peak period service and introduce off-peak service to Hamilton Park.
- **NJ TRANSIT 981** If demand warrants and Bergen Avenue does not choose to operate, extend peak period service to Port Jersey Industrial Park.
- **COACH 10/99S** Implement BRT treatments in Kennedy Boulevard corridor south of Journal Square.
- MONTGOMERY & WESTSIDE/A&C MARION 440 SHOPPER Extend to redevelopment area south of Hudson Mall.

The comprehensive nature of the recommendations in the prior discussion indicates both the depth of the analysis and importance placed on local bus service. It is important to recognize that bus service in Hudson County and Jersey City in particular, is a critical element in meeting the mobility demand of local residents for work, shopping, educational and recreational trips.