



Comments on the New York City Traffic Congestion Mitigation Plan

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Metropolitan
Transportation
Authority

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1. Overview

Implementation of a congestion pricing program can benefit the Metropolitan Transportation Authority (MTA) in two important respects --- (1) the policy will promote and expand the use of mass transit in the region; (2) the resources raised by imposition of congestion charges can provide significant additional resources to support long-term investment in transit infrastructure.

The purpose of this report is to provide the MTA's comments on New York City's congestion pricing plan (City Plan) to the New York City Traffic Congestion Mitigation Commission. In accordance with the State statute creating the Commission, this report will describe:

- How MTA will meet the increase in demand to use public transportation due to the implementation of the City Plan;
- The additional MTA capital and operating needs required to implement the transit response; and
- The impact of these needs on MTA's capital and operating budgets.

For the purposes of commenting on the City Plan, the MTA has utilized the City's overall projection of diversions to public transportation resulting from the imposition of a congestion charge. However, it is anticipated that it will take considerable time throughout 2009, the first implementation year of the City Plan, for the changes in travel generated by congestion pricing to stabilize into recurring patterns, as commuters and other travelers identify routes, times and modes that best meet their needs. Consequently, the initial service strategies presented in this report to meet the demand created by the City Plan will require continued monitoring of travel patterns and service adjustments as the program matures. Forecasts of traffic impacts on MTA bridge and tunnel crossings from vehicles diverting from the currently toll-free East River Bridges continue to be assessed but are expected to fluctuate early on as motorists that elect to continue to drive will "bridge shop" for the shortest time travel and best overall net price.

Successful implementation of the City Plan will require the MTA to provide a full complement of new and enhanced service aimed at accommodating expected auto diversions for those traveling into and within the Manhattan Congestion Zone, as well as access improvements to existing transit service. A portion of this additional service will need to be implemented in advance of the imposition of the congestion charge.

Neither the operating nor capital costs associated with these improvements are provided for in either the MTA's four-year (2008-2011) Financial Plan or the Authority's current five-year Capital Plan (2005-2009). However, the United States Department of Transportation has elected to enter into an Urban Partnership Agreement with the New York State Department of Transportation, the MTA and the New York City Department of Transportation which would if effectuated provide about \$184 million to support MTA related capital costs of the congestion pricing initiative.

After assuming the use of available federal funds provided for by the Urban Partnership Agreement, the early capital needs associated with providing new service will require an additional \$284 million. These initial expenditures, which primarily consist of the cost of ordering new City and suburban buses and subway cars, will need to be funded and advanced on an expedited basis, and are anticipated to be largely committed before the imposition of the congestion charge. In addition, \$56 million will be needed in net operating funds to ensure that the transit alternatives are firmly in place once the pilot begins.

The longer-term capital investments that will be made during the remaining years of the pilot program are expected to total \$163 million. These expenses are predominantly related to subway station improvements and suburban expansion. Lastly, \$320 million would be needed after the completion of the pilot program

to construct two bus depots to service and support the additional bus service; property acquisition and design will be completed sooner.

Once the congestion pricing initiative commences, the MTA will need \$104 million annually to operate and maintain this service, net of additional revenue gained by new ridership.

The City's Plan estimates that traffic speeds would increase in the congestion pricing zone by nearly 8 percent, and in other parts of the city to a lesser extent. Any reduction in congestion on city streets would have a beneficial impact on the service quality provided by NYCT and MTA Bus operations, as well as potentially reducing costs associated with extra time spent in traffic (in operators' time, fuel, and maintenance).

2. Increased Demand and How the MTA Will Respond

"... comments on the traffic congestion mitigation plan..."

MTA's response to the City's Plan is focused on how the transit system will respond to changes in travel due to congestion pricing. The changes are described in terms of the following markets:

City Diversions: defined as estimated motorists originating in the City who will divert to transit, New York City Transit (NYCT) subways and buses as well as MTA Bus (MTAB), and who will make up the majority of the congestion pricing travel impact;

Suburban Diversions: defined as suburban New York motorists who will divert to transit (primarily using Long Island Rail Road and Metro North Railroad commuter services) and who are estimated by the City to be much fewer in number than City diversions; and

MTA Crossings: defined as motorists (with E-ZPass) who will continue to enter by vehicle into the Congestion Zone defined in the City Plan by private vehicle, but who may divert from the City-owned free East River crossings to MTA Bridges & Tunnels' (B&T) Manhattan crossings due to the proposed congestion fee offset. Additionally, B&T will be impacted by motorists without E-ZPass who currently use B&T crossings but would divert to the City's toll free crossings because of the imposition of congestion fees.

City Diversions

Successful implementation of the City Plan will require a significant effort by MTA New York City Transit (NYCT) and MTA Bus (MTAB) to accommodate the motorists who will divert to transit. The number of daily auto diversions to transit from within NYC is estimated by the City to be approximately 78,000. This includes both diversions to transit from the outer boroughs and northern Manhattan to the congestion zone as well as diversions within the congestion zone. Most of these new trips are estimated to originate in a relatively small number of areas of the City with fewer connections to the existing subway and/or bus network. These areas, such as far eastern Queens or southeastern Brooklyn, currently generate a larger share of daily auto trips in the City. The corridors recommended for additional transit services have been defined by MTA working with New York City based upon modeling efforts by both to identify the neighborhoods and areas of the existing transit network most likely to be affected.

The MTA strategy for these areas consists primarily of a combination of new bus routes and enhancements to existing routes linking these areas directly into the Manhattan Congestion Zone, and enhanced bus links to subway lines which serve Manhattan and the Congestion Zone. Within Manhattan, bus and subway service is also being bolstered in anticipation of new demand for intra-core zone trips caused by motorists whose trips originate and end in Manhattan and who transfer from outer borough

services that connect to Manhattan. Finally, service on key subway lines in Manhattan and the outer boroughs will be enhanced during midday and shoulder periods to increase customer capacity.

MTA plans to ramp up these new services by initiating many of them in late 2008 and early 2009 in advance of the April 2009 start of the three year congestion pricing pilot.

Overall, MTA proposes to use a total of 309 additional buses within New York City to provide the new and enhanced services. Map 1 and Table 1 show these corridors and routes along with the number of total additional buses to be assigned to each.

In addition, MTA will participate in the City's first Bus Rapid Transit (BRT) program in 2008. Service will begin on up to five routes in different areas of the City over the next two years. Key elements will include new bus lanes, distinctive pavement treatments on the bus lanes, sidewalk extensions to the bus lanes in some locations to speed boarding, new stations with new shelters, traffic signal priority at some intersections, branded buses, and an enhanced enforcement program by the City. Further details on this program, including implementation costs are found in the Transportation section of the PlaNYC report.

**Map 1
Congestion Pricing Bus Corridors**

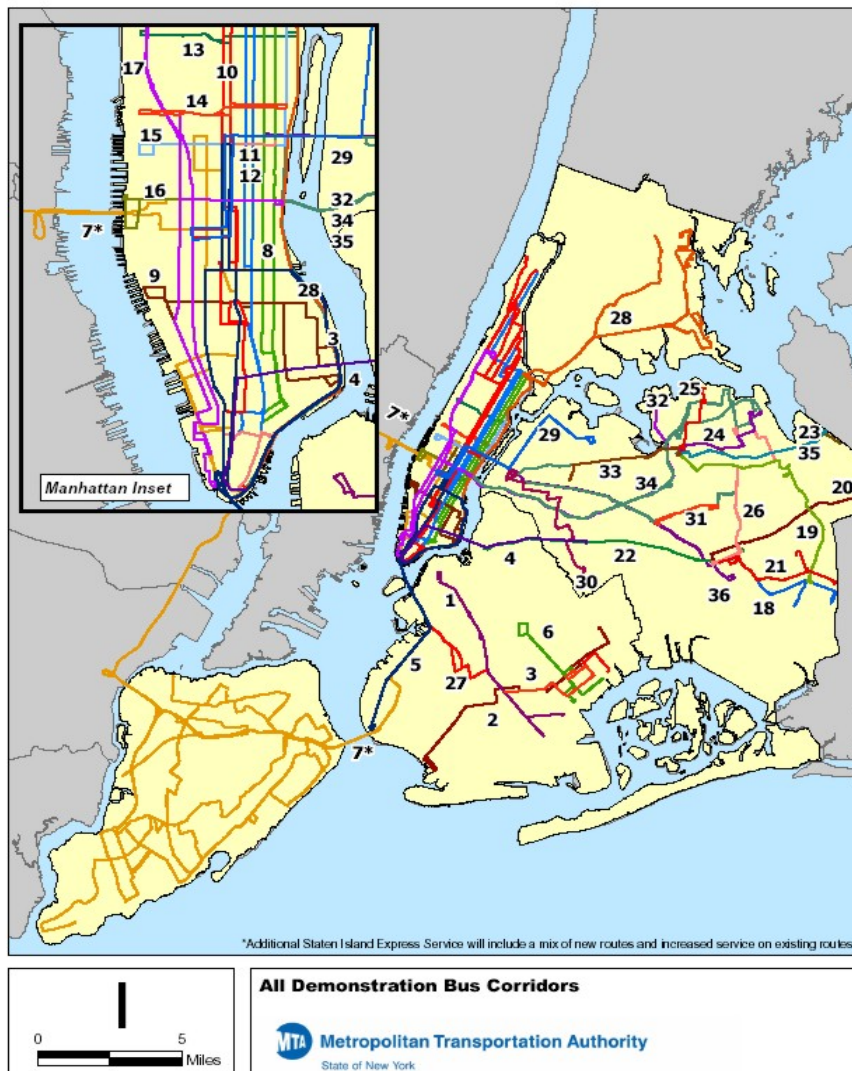


Table 1
New NYCT/MTA Bus Service Required for Congestion Pricing

Map Key	Map Color	Corridor	Total Buses Required		
			Local	Artic	Express
New York City Transit Routes					
<i>Brooklyn</i>					
1	Purple	Flatbush Avenue (B41 Local/Limited)	33		
2	Brown	Ave. H/Glenwood/Flatlands from Rockaway Parkway to Flatbush Avenue (B6)	6		
3	Red	NEW ROUTE: Canarsie/East 80th St/Glenwood Rd/Avenue H to Flatbush Avenue	6		
4	Dark Blue	NEW ROUTE: Metropolitan Avenue to Williamsburg Bridge and Lower Manhattan	12		
5	Blue	NEW ROUTE: Bay-Ridge-Manhattan Express Route			23
6	Green	Remsen Avenue (B17)	6		
<i>Staten Island</i>					
7	Orange	SI-Manhattan Express (All routes)			33
<i>Manhattan</i>					
8	Green	1st /2nd Avenue (M15)		6	
9	Brown	14th Street (M14)		6	
10	Red	5th Avenue/Madison (M1/M2/M3/M4)	9		
11	Blue	Lexington/3 rd Avenue (M101/M102/M103)		5	
12	Blue	Lexington Avenue/3rd Avenue Corridor (X90)			10
13	Dark Green	86th Street (M86)		4	
14	Red	65th/66 th Streets and 67 th /68th Streets (M66)	2		
15	Light Blue	57th Street/York Avenue (M31)	3		
16	Green	42 nd Street (M42)	3		
17	Purple	Broadway/7 th Avenue (M20/M104)	3		
<i>Queens</i>					
18	Blue	120 th Avenue/Merrick Boulevard (Q84)	2		
19	Green	46 Av/48 Av/Springfield Blvd. (Q27 Ltd.)	2		
20	Brown	Hillside Avenue (Q43)	2		
21	Red	Linden Boulevard/Merrick Boulevard (Q4)	2		
22	Green	Metropolitan Avenue to Jamaica (Q54)	2		
23	Light Blue	Northern Boulevard (Q12)	3		
24	Purple	Northern Blvd/Crocheron Ave/32 nd Ave (Q28)	2		
25	Red	Union Street/149th Street (Q14)	2		
26	Pink	Utopia Parkway/Bell Boulevard (Q31)	6		
NYC Transit Total (193 buses)			106	21	66

Map Key	Map Color	Corridor	Total Buses Required		
			Local	Artic	Express
MTA Bus Company Routes					
<i>Brooklyn</i>					
27	Red	Canarsie-Manhattan Express			13
<i>Bronx</i>					
28	Light Brown	NEW ROUTES: NE Bronx –Lower Manhattan Express (3 separate routes)			21
<i>Queens</i>					
29	Blue	NEW ROUTE: 21st Street to Midtown Manhattan via Queensboro Bridge (extension and variation of Q19A)*		5	
30	Purple	48 th Avenue/58th Street/Forest Avenue (Q39)*		2	
31	Red	Jewel Avenue (Q64)*		2	
32	Purple	NEW ROUTE: College Point-Manhattan Express Route			12
33	Brown	NEW ROUTE: Northern Blvd.-61st St. to Woodside LIRR		10	
34	Dark Green	NEW ROUTES: NE Queens-Lower Manhattan Express (3 separate routes)			21
35	Dark Green	Northern Blvd to Manhattan Express (QM3)			3
36	Purple	Queens Boulevard Local Bus (Q60)*		2	
		Expanded Service on Existing Routes*		25	
MTA Bus Company Total (116 buses)				46	70
GRAND TOTAL (309 buses)			106	67	136

* Assumes routine bus purchases will equip other runs on these routes with articulated buses.

In addition to the core bus strategy, MTA is planning selected subway service enhancements where and when demand is likely to occur, and where additional capacity exists. These additional services, given current operating capacity and car availability constraints will provide new and enhanced services in corridors where there could be increased demand. The plan includes subway service increases on the 1 line (Broadway-7th Avenue) during midday to address some of the projected increase in afternoon trips within the Congestion Zone. To serve neighborhoods in Brooklyn that currently have a relatively high percentage of auto commuters, capacity will be increased on the C (Fulton Street) line by extending all trains from 8 cars to 10 cars. To address some of the projected additional demand from southeast Queens, additional E and F line (Queens Boulevard) service is planned consisting of four additional train trips that extend the duration of peak AM service levels into shoulder periods by one-half hour. Providing this additional subway service will require the purchase of 46 new subway cars (including spares).

In addition, subway station capacity enhancements, such as additional or widened stairways, will have to be constructed in a number of stations to accommodate additional subway riders.

Suburban Diversions

Short-term expansion of the commuter rail network to serve the Manhattan-bound peak travel market is constrained by a number of factors including capacity at Pennsylvania Station, storage and track capacity, platform lengths that cannot accommodate longer trains, insufficient number of cars to provide supplemental service, and a shortage of parking spaces in some locations. As a result of these constraints, the strategy to accommodate auto diversions from the northern and eastern suburbs will depend on some combination of: (1) maximizing the utilization of the existing system, (2) establishing new suburban express bus service coupled with the construction of Park and Ride facilities, and (3) expanding rail service where feasible. The right mix of these strategies will depend on the degree to which suburbanites that currently pay tolls to reach Manhattan will shift their travel behavior.

The number of auto diversions from the northern and eastern suburbs is estimated by the City to be substantially lower than those in New York City. The City Plan forecasts daily transit diversions of approximately 2,500 from the Mid Hudson region served by Metro-North (MNR) and 3,500 trips from Nassau and Suffolk Counties served by the Long Island Rail Road (LIRR). These diversions, which represent a small portion of MTA's commuter rail ridership, will be dispersed throughout MTA's commuter rail service area.

Initially, serving diverted suburban motorists bound for Manhattan will largely be accomplished by taking advantage of the existing commuter rail services with minor budget impacts in 2009. However, as the congestion pricing program matures demand may emerge on sections of the commuter rail network where less capacity is available than elsewhere, or at stations where parking is more limited. To help address this demand up to 58 express buses to provide direct service to Manhattan may be needed. To support this potential additional service, the United State Department of Transportation's Urban Partnership grant includes funding for two new suburban Park and Ride facilities.

If necessary, suburban diversions will also be accommodated by adding commuter rail service in a limited number of locations where feasible, using the existing MNR and LIRR network. For example, if actual suburban diversions are greater than estimated demand, additional railroad service enhancements may be made in the shoulder period (the one or two hour period before and after the peak one hour where capacity exists), by increasing train lengths where possible, or by additions to existing railroad station access services (such as Long Island Bus (LIB) service to major LIRR stations, Tappan-Zee Express buses to Tarrytown or White Plains; or Haverstraw ferries to Ossining Station).

Map 2
Long Island Rail Road Network



3. Capital and Operating Costs and Impacts

"A description of the additional capital and operating needs required for the implementation of such plan"

Implementation of service changes to support the City Plan will create new capital and operating needs beyond those already included in the Authority's current 2005-2009 Capital Plan and its four-year Financial Plan (2008-2011) that accounts for its operating budget.

Capital Investments

As shown in the table below, the capital cost of new transit service until the end of the congestion pricing pilot totals \$446.6 million including expenditures for City and suburban buses, new subway cars, subway station renovations and enhancements, expanded and new maintenance facilities, and suburban park and ride lots. This assumes \$184.3 million in anticipated federal funds available through the New York Urban Partnership agreement. In order to expedite the delivery of service, the MTA where possible, will maximize the use of existing contract options for bus and subway related procurements. Contractual commitments for most of these projects are expected to be made prior to the end of the three year congestion pricing pilot program in 2012. Assuming the successful completion of the pilot, \$320 million will remain to be funded to accomplish the construction of the two bus depots.

**Table 2
Summary Of MTA Capital Needs
(\$ in millions)**

Capital Project Category	Project	Capital Commitments	
		08-09	10-12
City Bus Service	309 Articulated, Local & Express Buses	\$220.0	
	2 Bus Depots (Brooklyn & Queens)*	80.0	
	1 Bus Layup Facility	5.0	\$20.0
	Bus Rapid Transit Service	10.9	11.0
City Subway Service	46 Subway Cars (new and spare rail cars)	105.8	
	Station Renovations and Enhancements		100.0
Suburban Service	58 Suburban Express Buses	38.2	
	2 Suburban Park and Ride Facilities	8.0	32.0
Subtotal – Capital Need		\$467.9	\$163.0
Federal UPA Grant		(\$184.3)	
Total Unfunded Capital Need		\$283.6	\$163.0

* There is an additional \$320 million that will be needed post-2012 for the construction of the two bus depots if increased levels of service are to remain in place after the pilot.

Operating Expenses

Operating costs related to the City Plan are divided into two categories --- those costs that will be incurred prior to the flow of the implementation of the congestion charge, and annually recurring costs that will be sustained after the program is fully operational.

The MTA will begin ramping up transit service in the last quarter of 2008 to ensure that alternatives to the automobile are firmly in place when the fee goes into effect. As summarized in the table below these sunk costs are estimated to total \$55.8 million (net of additional revenue) and include the phased

implementation of service improvements over a six month period beginning in October 2008. Also included are additional one time costs to overhaul existing buses and subway cars to extend the life of equipment that would otherwise have been retired but is now essential to supplementing transit service in advance of the delivery of the new fleet. While not included in the following table, MTA Bridges and Tunnels, depending on how the City plans to operate the back office functions related to the opening, administration and servicing of a significant number of new E-ZPass accounts, is likely to incur considerable one time and recurring costs. These costs as well as those anticipated to result from the toll crediting system envisioned in the City Plan are excluded at this time pending resolution of the City's strategy to address these customer needs. A ten percent increase in the number of E-ZPass tags distributed by B&T will result in one time expenditures of \$5.4 million as well as recurring costs of \$2 million annually to service these new customer accounts.

Table 3
Summary Of MTA Operating Costs
Prior To The Imposition Of The Congestion Charge
October 2008 – March 2009
(\$ in millions)

Expenditure Category	Operating Cost
Subway Service (train operators, conductors and maintenance personnel)	\$2.1
Subway Car Overhauls (one time cost)	8.0
Bus Service (drivers, maintenance storage, fueling, cleaning, repairs, support)	34.0
Bus Overhauls (one time cost for 106 hybrid buses)	6.7
Bus Rapid Transit	6.5
Marketing New Subway & Bus Service & Bus Stop Changes (one time costs)	0.6
Data collection to monitor bus and subway ridership	2.0
Operating Revenue	\$(4.1)
Total Unfunded Operating Need	\$55.8

Subsequent to the commencement of the City Plan, services for straphangers and commuters will be fully ramped up. The annual operating expenses to deliver these services will total \$153.1 million. These costs will be offset through the collection of an estimated \$48.9 million in additional fares from new customers diverting from automobiles. The net recurring costs of \$104.2 million are itemized below.

Table 4
Summary Of MTA Annual Recurring Operating Costs
(\$ in millions)

Expenditure Category	Operating Cost
Subway Service (train operators, conductors and maintenance personnel)	\$8.3
Bus Service (drivers, maintenance)	87.6
Bus Depots (2 facilities – storage, fueling, cleaning, repairs and personnel)	23.0
Bus Rapid Transit	13.0
Suburban Service	19.5
Data collection to monitor bus and subway ridership (inside cordon, crossing cordon, outside cordon)	1.7
Subtotal	\$153.1
Operating Revenue	\$(48.9)
Total Unfunded Operating Need	\$104.2

4. Concluding Observations

Transit Service Improvements Must Precede Implementation of the City Plan: In order to put in place adequate alternatives to encourage motorists to switch modes, additional transit service will need to be deployed in advance of the imposition or collection of the congestion fee. The early capital commitments and net operating expenses associated with ramping up this service are estimated to be \$283.6 million and \$55.8 million, respectively.

MTA Costs to Support the City Plan Have Not Yet Been Addressed: The operating and capital costs to implement the full complement of transit services needed to successfully implement the City Plan are not provided for in either the MTA's four-year Financial Plan or the Authority's current five-year Capital Plan.

Capital Needs Total: After assuming the use of available federal funds provided for by the Urban Partnership Agreement, the unfunded capital costs associated with enhanced transit service total \$767 million assuming the pilot is successful and two additional depots are constructed. Fully capitalizing these costs would add \$56 million in additional annual operating debt service expenses.

Recurring Operating Needs Total Over \$100 million a Year: Approximately \$104 million will be needed annually to operate and maintain service, net of additional revenue gained by new ridership.

Transit and Bridge Crossing Diversions Require Monitoring: It will take considerable time for the changes in travel generated by congestion pricing to stabilize into recurring patterns, as commuters and other travelers identify routes, times and modes that best meet their needs. Consequently, the initial service strategies presented in this report to meet the demand created by the City Plan will require continued monitoring of travel patterns and service adjustments as the program matures.