



## ***A Bolder Plan: Balancing Free Transit and Congestion Pricing in New York City***

**An Advance Brief  
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*If you were to design the ultimate system, you would have  
mass transit be free and charge an enormous amount for cars.  
— Mayor Michael Bloomberg, April 20, 2007*

### **Introduction**

Traffic congestion is strangling New York, costing our city \$13 billion in economic losses a year, along with enormous environmental pollution and stress. Various proposals, including Mayor Bloomberg's PlaNYC congestion pricing plan, have been put forward to curb traffic gridlock, against the backdrop of steadily rising fares for mass transit riders. There is no question that a successful citywide transportation system will require a rebalancing of the automobile with mass transit. But what is the best way to achieve this balance?

Last February, attorney and mass transit advocate Theodore Kheel, who has played a major role in shaping transport policy in the region, commissioned a \$100,000 study to answer the provocative question: *Could eliminating fares on New York's subways and buses, paired with congestion pricing, be the key to solving the city's traffic problems?*

Some precedents exist: Major cities including London and Stockholm have implemented road pricing and are reaping the benefits; San Francisco recently announced its intent to explore this bold approach. In a recent poll, New York City voters said they would be more likely to support congestion pricing if it prevented a hike in mass transit fares. This brief offers preliminary findings from our full report, which will be released in January 2008 in advance of the interim report of the Traffic Congestion Mitigation Commission.

### **Key Preliminary Findings**

The study examined the feasibility and quantifiable benefits of a proposed plan (hereafter referred to as the “Kheel Plan”) that would permanently eliminate New York City subway and bus fares and offset the loss of income with a combination of: 1) a 24-hour \$16 toll on autos and \$32 on trucks crossing into Manhattan’s most congested area, the Central Business District (CBD) at or below 60<sup>th</sup> Street; 2) a surcharge on medallion taxi fares; and 3) higher curbside parking fees within the CBD.

The study found that the Kheel Plan would:

- **Reduce traffic** within the Central Business District by 25% and within the entire city by nearly 10%. Auto trips into the CBD would drop by one-third.
- **Save the public a staggering \$4 billion a year** in recovered productivity, or more than 100 million “vehicle hours” that would otherwise be spent in traffic. (Some 20% of this value would be realized by bus riders, 32% by truck, taxi and auto users within the CBD, and 48% by vehicle users in the rest of the city.)
- **More than recoup revenues now generated by fares.** The one-two punch of the \$16 automobile toll (\$3 billion annually), taxi fare surcharge (\$340 million annually) and higher curbside parking fees (\$500 million annually) would generate nearly \$4 billion annually — enough to replace the \$3.5 billion in current tolls and subway and bus farebox revenues and still leave an annual revenue stream of \$500 million for improving and expanding transit.
- **Provide universal no-fare transit with less crowding than today’s service.** Making transit free will be an enormous boon for all New Yorkers, particularly low-income residents, and lift, once and for all, the specter of fare hikes. As we detail later in this brief, the Kheel Plan also includes a strategy for handling the anticipated increase in ridership that will result in less, not more crowded trains and buses.
- **Shorten travel time:** Enable a one-third (34%) increase in vehicle speeds within the CBD and an average one-tenth (10%) increase in the rest of the city. A typical 12-minute taxi trip in the heart of midtown Manhattan would be trimmed to nine minutes, while five minutes would be shaved from the typical 55-minute ride for a non-CBD trip, say from Bayside to Bensonhurst. Bus travelers would also save time: a fare-free system would eliminate the tedious swiping of MetroCards that leads to frustrating boarding delays, thereby shortening a typical 20-minute bus ride to 15-16 minutes.
- **Produce additional, significant benefits:** The plan would generate an additional \$2 billion in health cost savings and other benefits from reduced pollution, fewer traffic

crashes, lower insurance costs, and increased tendencies to walk and bike — all due to diminished traffic levels.

While a small portion of these benefits would be offset by the loss of amenity for drivers cutting back on car trips, city residents and businesses would still realize a net gain of almost \$6 billion a year in time saved, improved health and an enhanced natural and social environment.

### **Kheel Plan vs. Bloomberg Congestion Pricing Plan: A Side by Side Comparison**

The Kheel Plan takes Mayor Bloomberg’s visionary congestion pricing proposal to its logical conclusion. As in Mayor Bloomberg’s plan, current tolls would be deducted from the \$16 toll to protect MTA and Port Authority revenues. The Kheel Plan, however, proposes a more streamlined cordon fee strategy with just 19 added tolling locations instead of the more cumbersome network of 340 stations proposed by the mayor. This stripped-down approach, as the chart below shows, would result in significant savings.

Below is a side-by-side comparison of the Kheel and Bloomberg (PlaNYC) proposals:

#### **Kheel Plan vs. PlaNYC Proposal**

	<b>PlaNYC (“A”)</b>	<b>Kheel (“B”)</b>
<b>Results</b>		
(1) Transit Fare	\$2.00 and rising	Zero
(2) Traffic Speed Improvement in CBD	7.5%	34%
(3) Traffic Speed Improvement outside CBD	3.2%	10%
(4) Bus Speed Improvement (citywide average)	5.5%	23%
(5) Added Funds for Transit (annual)	\$390,000,000	\$500,000,000
(6) Value of Time Savings (annual)	Under \$1 billion	\$4.0 billion
(7) Value of Other Benefits (annual, net)	Not quantified	\$1.7 billion
(8) Improved CBD Streetscape and Travel Options	Ancillary	Central to Plan
<b>Policies</b>		
(9) Cordon Fee for Automobiles	\$8.00	\$16.00
(10) When Charged	12 hours, 5 days	Always
(11) Cordon Fee for Trucks	\$21.00	\$32.00
(12) Charge for Leaving or Driving Within Cordon?	Yes (lesser rate)	No
(13) Taxi Surcharge	None	25%
(14) Number of Charging Locations	340	19
(15) Charging Infrastructure Capital Cost	\$179,000,000	\$20,000,000
(16) Cordon Administration (annual cost)	\$232,000,000	\$48,000,000

Figures in “A” column are from PlaNYC or other public sources. Figures in “B” column are derived and documented in materials on Nurture New York’s Nature Web site, at <http://nyn.org/kheelplan/>

The PlaNYC proposal, while commendable and courageous, offers little if any relief to endlessly spiraling subway and bus fares; the Kheel Plan banishes fare escalation from the civic horizon by abolishing the fare itself. The PlaNYC proposal would improve traffic speeds within the Central Business District by a modest 7.5%. By contrast, the improvement in traffic flow under the Kheel Plan would be more than four times as great, or 34 percent.

### **Handling the Anticipated Increase in Ridership**

Preliminary figures in the study place the expected swell in subway trips into the Central Business District at 343,000 new riders per day — a 20% increase over the current weekday average of 1,736,000. Yet, current crowding notwithstanding, we find that the increase could be accommodated with 15% more space per passenger than the MTA service criterion, for the following reasons.

First, much of the increase in ridership would occur off-peak (discretionary off-peak travel is more price-sensitive than on-peak) when the existing system as currently operated generally has spare capacity. Even during the peak hour, 8-9 a.m., the subway lines have capacity to absorb additional riders, or could do so by adding trains within the feasible operating track capacities of each route. While 447 additional cars would be needed to accommodate the added 28,000 riders, these could be provided by retaining, not scrapping, the best existing cars as new cars on order are delivered. A total of 188 additional new cars are already budgeted.

Second, fortuitously, the most crowded subway lines originate in corridors served by commuter rail lines which could be operated to attract in-city riders, thereby freeing up capacity for subway riders closer to the core. Both commuter railroads serving the Manhattan core from the north and east — Metro-North and the L.I.R.R. — have considerable unused seats during the morning peak. Moreover, both lines have the track capacity to operate additional trains, using rolling stock that is available today or could be made available within 18 months.

We estimate that 26,000 peak-hour subway riders could relocate to parallel commuter rail lines, and would likely do so, provided that in-city rail trips are discounted in tandem with subway trips. Our calculations show an additional 5,000 current peak-hour subway riders living close to the CBD would be expected to switch to bicycle-commuting, freeing up even more space for the new straphangers lured (or tolled) out of automobiles.

### **Impact on Business Revenue**

Any congestion pricing proposal must consider the impact of vehicle fees on overall travel and commerce. Ensuring that business activity doesn't suffer was an important part of our rationale for coupling the cordon fee with free transit.

We estimate that the combined cordon fee and free transit in the Kheel Plan will eliminate a quarter of a million auto trips into the CBD each weekday, representing approximately 340,000 "person-trips" (accounting for multiple-passenger autos). In their place would be

365,000 new transit trips into the CBD, nearly 95% via subway and the rest via transit bus. The Kheel Plan, then, results in a modest net gain in trips into the Manhattan core. But the anticipated gain in travel *outside* the CBD is enormous: an estimated 1,165,000 new transit trips attracted into free subways and free (and faster) buses. New York City will be even livelier than today — as well as safer, speedier and more sustainable.

### **Impact on MTA Workers and Taxi Drivers**

The study also examines the impact the Kheel Plan would have on MTA workers and on the taxi industry. We envision no decrease in the MTA workforce. Fare collectors would be retrained to staff the new trains necessary to handle increased ridership, and technicians who maintain the automatic fare collection machinery would be engaged in maintenance of the expanded transit fleet. We have assumed only modest operational savings from transitioning to free transit, largely in fare administration. Moreover, the reduction in motor traffic — an estimated 10% citywide; 25% within the CBD — would allow police resources to be transferred from traffic management and crash adjudication to subway policing to ensure that free transit is also safe and convivial.

On the taxi front, our estimates suggest that while the number of rides in medallion taxis would decline slightly (about 2%), the average number of rides *per shift* would increase by 15-20%, thanks to reduced traffic gridlock, particularly within the CBD. This striking increase in productivity should translate to increased earnings for both driver and owner, although the number of taxis in service would diminish.

### **Impact on Safety and Quality of Life**

Positive changes in the city's streetscape would be far more pronounced under the Kheel Plan. The dramatic reduction in motor vehicle travel within the CBD would provide the spatial wherewithal for a raft of improvements such as sidewalk widenings, bicycle lanes, and Bus Rapid Transit lanes that have heretofore been held hostage to the imperatives of auto traffic. The reduction in vehicle traffic outside the CBD, estimated at 8%, would increase opportunities for walking and bicycle-riding, thus contributing to increased physical activity and enhanced health for New Yorkers.

### **Conclusion**

We are at a tipping point in the city's traffic crisis and the need to reduce carbon pollution. A bold policy with free mass transit at its center will take thoughtful planning and start-up costs to implement. But these challenges are not insurmountable, and New York City can lead the way. By charging a steep but fair price to drive into the city's dynamic but congested nerve center, the Kheel Plan can liberate New Yorkers from the twin tyrannies of endless fare spirals and never-ending traffic jams.

As a society, we have chosen to make schools, police, and fire protection free because they are 'public goods' whose universal use benefits everyone. That's equally true of transit, and

it's time to manage it that way. Free transit will bring enormous benefits to all New Yorkers. This study points the way to making it possible.

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### **Methodology**

The study was conducted under the auspices of the Institute for Rational Urban Mobility (IRUM) with support from Community Consulting Services and Komanoff Energy Associates.

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### **Project Partners**

**Nurture New York's Nature** (NNYN) is a not-for-profit foundation dedicated to creating public awareness of the importance of developing and promoting environmental solutions in New York City. Founded by veteran mass transit advocate Theodore Kheel, NNYN creates awareness by funding studies, sponsoring lectures and conferences, conducting publicity campaigns, and forming strategic alliances with other organizations to accomplish its mission. [www.nnyn.org](http://www.nnyn.org).

**The Institute for Rational Urban Mobility, Inc** (IRUM), founded in 1997, studies and promotes the enhanced livability and increased economic competitiveness of New York City and other dense urban areas through a program of innovative transport reforms. [www.irum.org](http://www.irum.org).

**Community Consulting Services, Inc.** is a nonprofit organization that provides technical assistance to communities on transportation and environmental issues. <http://www.communityconsulting.org/>

**Komanoff Energy Associates**, founded in 1977, provides policy analysis on energy, environmental and economic issues in New York City and nationwide. [www.komanoff.org](http://www.komanoff.org).

### **For More Information**

Supporting materials, including the spreadsheet with the Balanced Transportation Analyzer © used to analyze and formulate the Kheel Plan, may be viewed and downloaded from <http://nnyn.org/kheelplan/>.