

vision42



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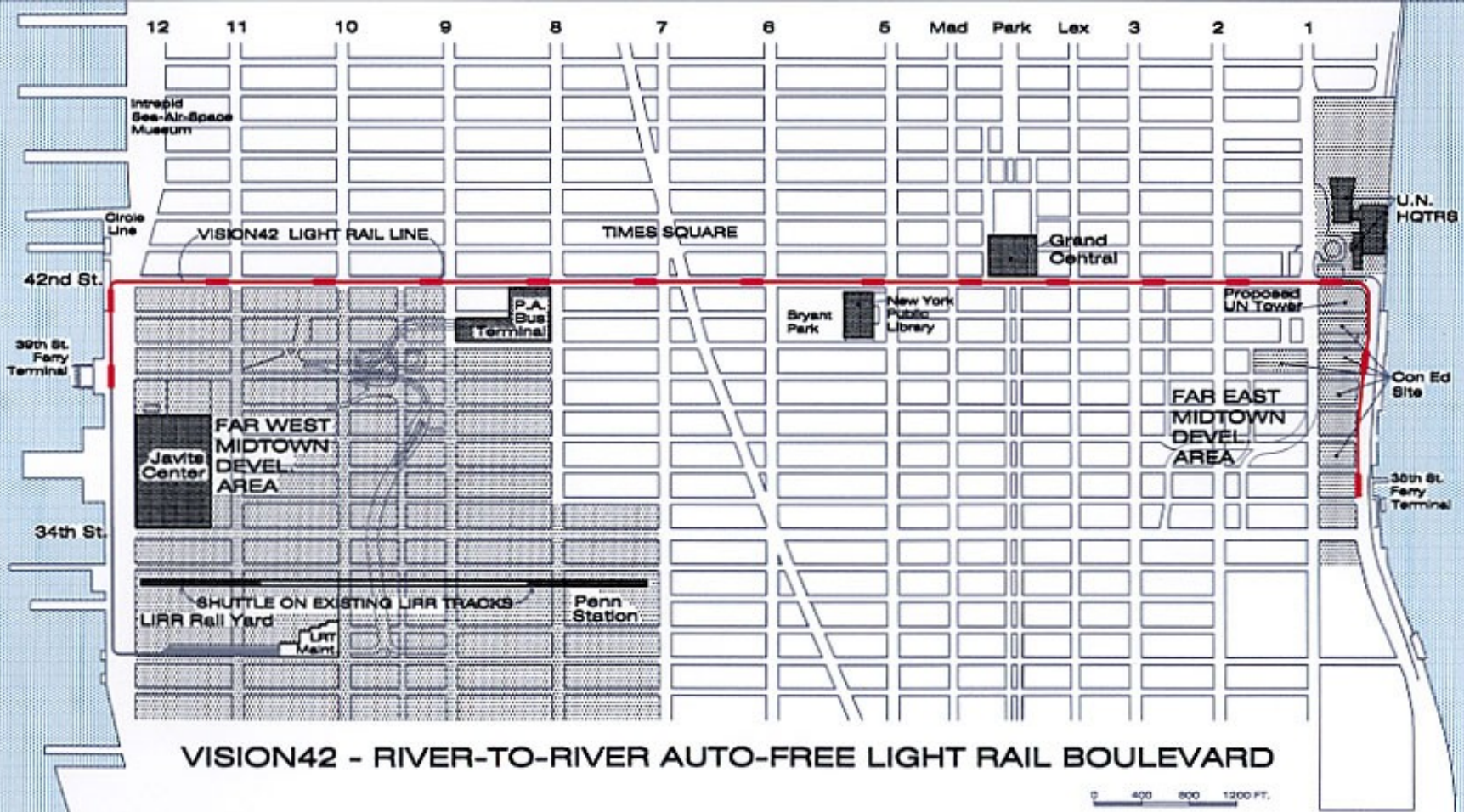
vision4
auto-free light rail boulevard
for 42nd Street

Roxanne Warren, AIA, Chair

George Haikalis, ASCE, Co-Chair

Institute for Rational Urban Mobility, Inc.

www.vision42.org



**a 2½-mile low-floor light rail line, river-to-river in 21 minutes
 — cutting travel time in half, compared with today's buses**



VISION42 - TYPICAL CROSS SECTION

a fully landscaped walking environment for Manhattan's core — eliminating traffic allows space for cafés and other amenities.



Low floors allow the system to perform almost like a moving walkway.



Half a million people arrive daily at Midtown Manhattan's major transit hubs.



Some 60 percent of the street space is allocated to motorists.



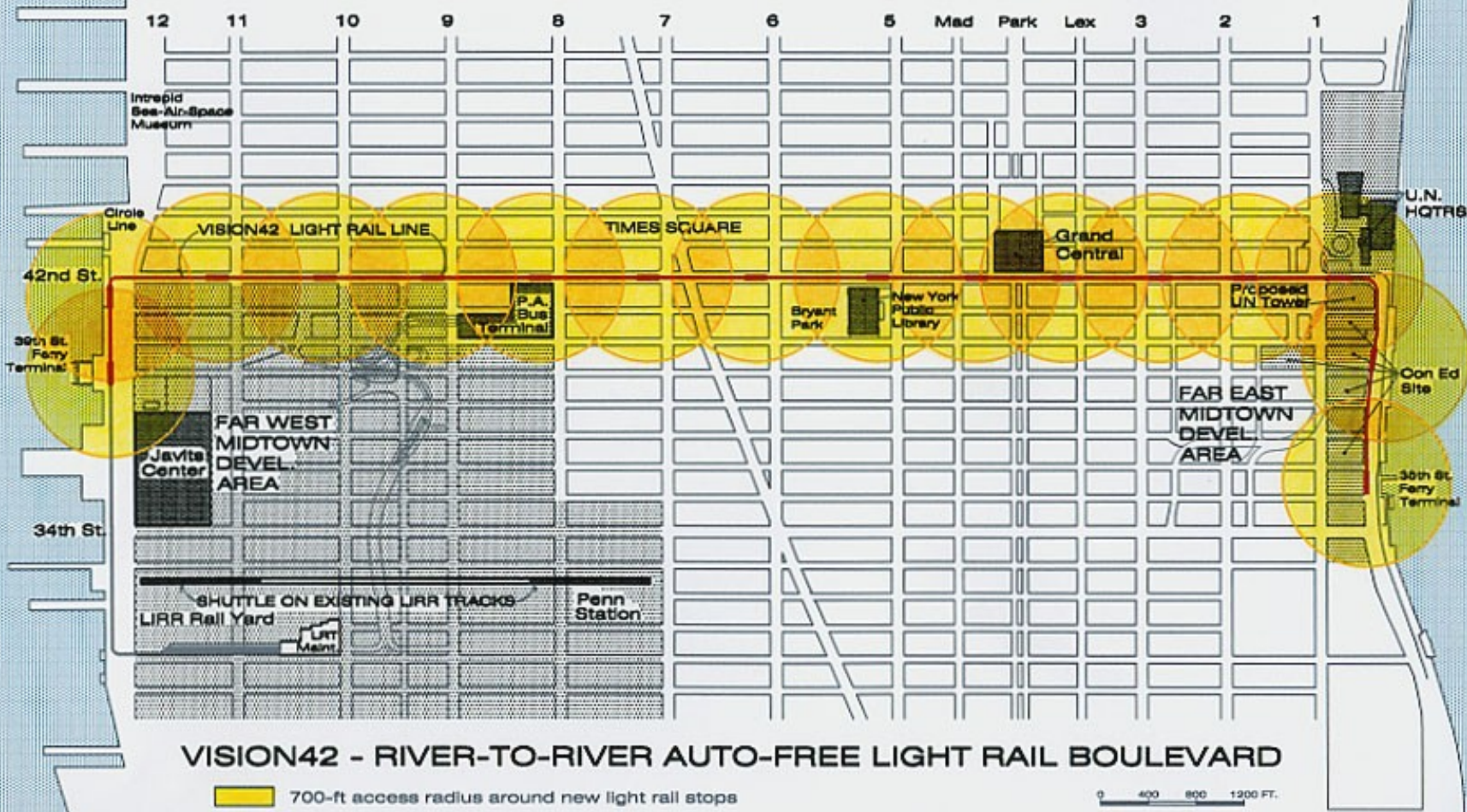
Pedestrian volumes have grown with each new development on 42nd Street



...and have quadrupled in the three decades since 1982.



City and State actions have stimulated development at Times Square, creating a need for *much* better surface transit, including *crosstown*.



vision42 — river-to-river

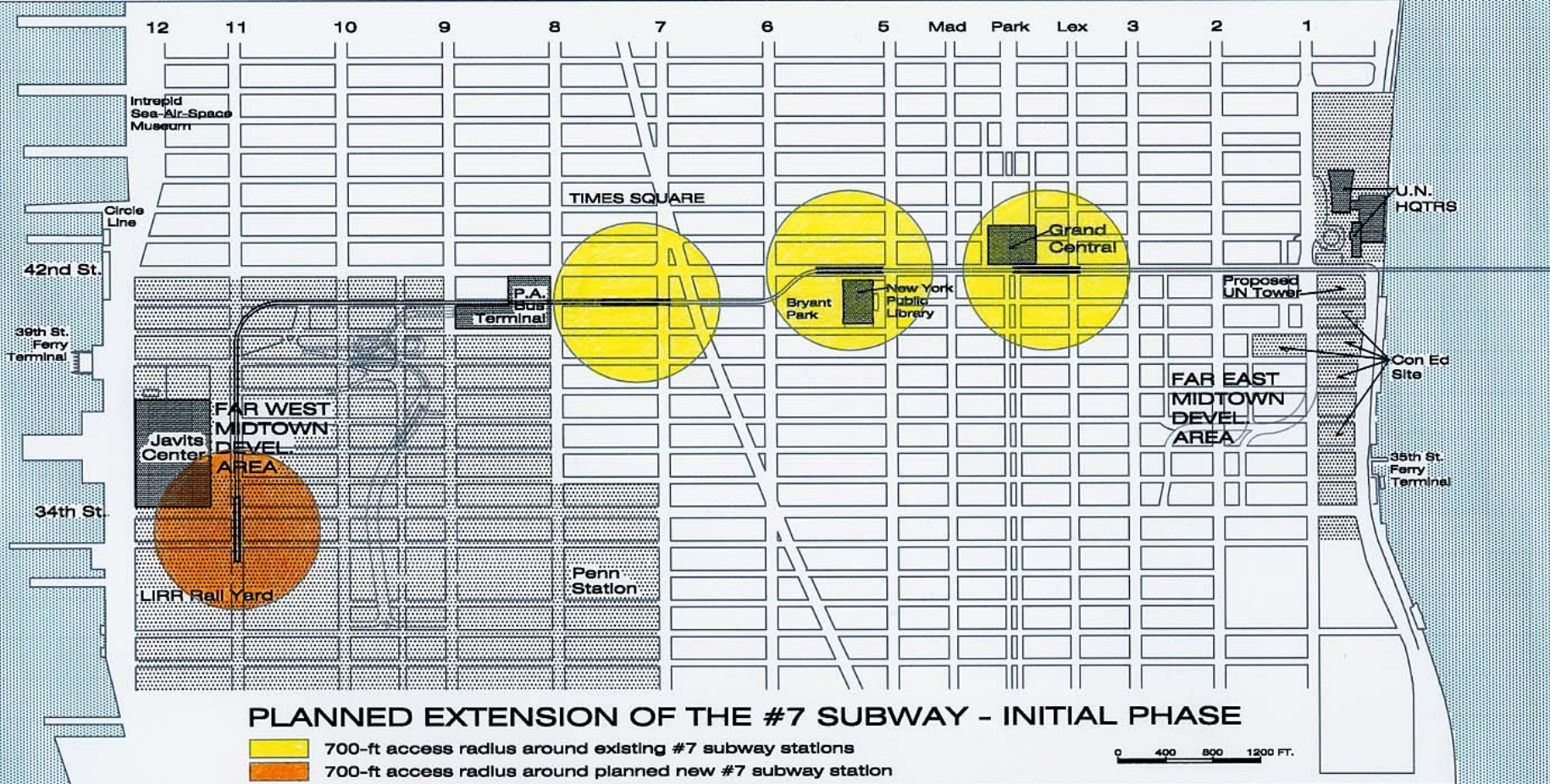
with 16 pairs of stops, light rail greatly enhances access in Midtown Manhattan, particularly to the rivers



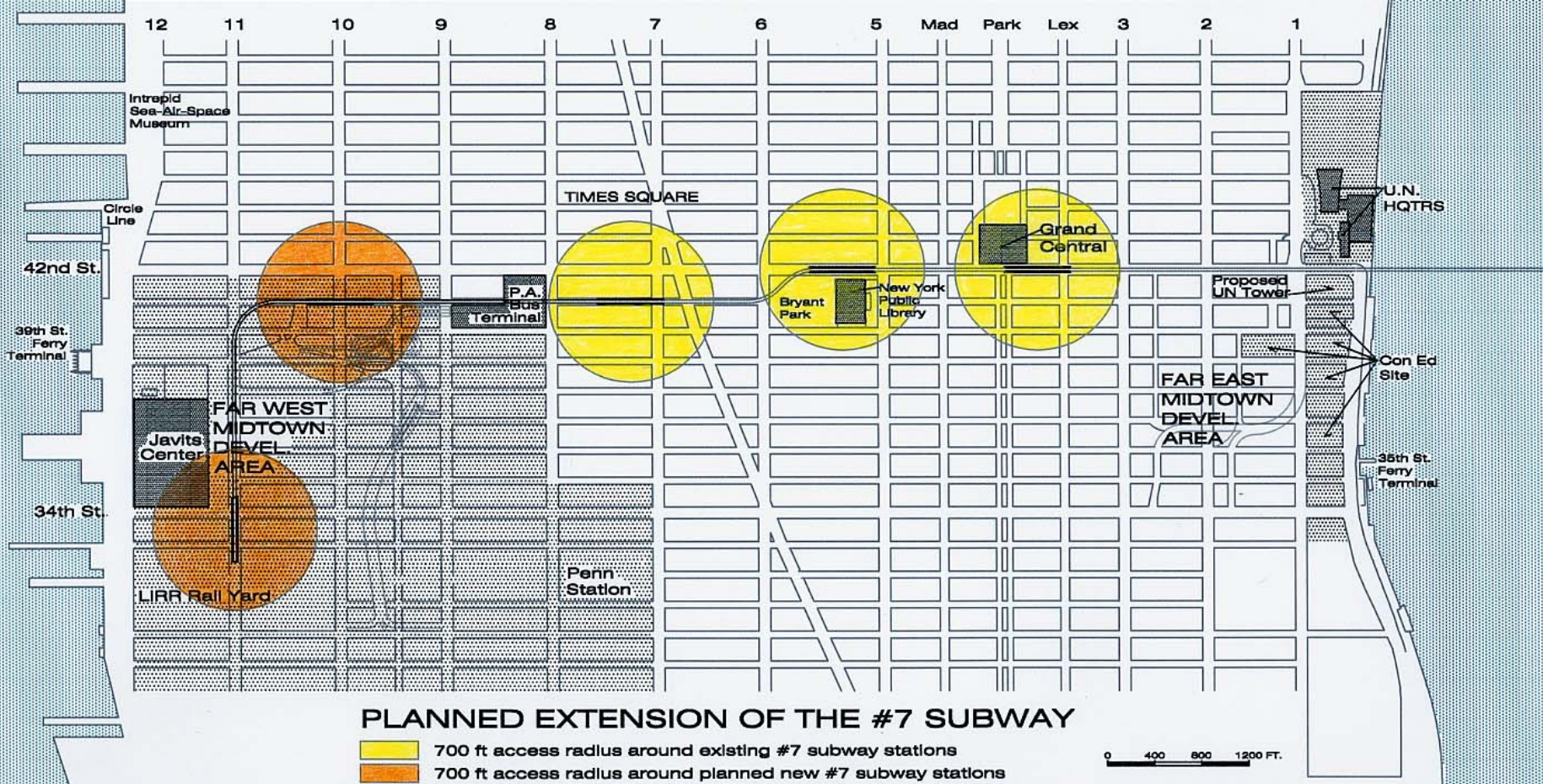
Light rail would interface with ferry terminals at both rivers — making ferry travel more attractive and ferry operations more efficient.



...a fittingly ceremonial approach to the United Nations...



The \$2.1 billion, 1-mile extension of the #7 subway, nearing completion, includes only one terminal station at 11th Avenue, serving the Hudson Yards.



The original plan had called for an intermediate station at 10th Avenue, which was eliminated because it would have added some \$750 million to the project cost.



New Economic Study

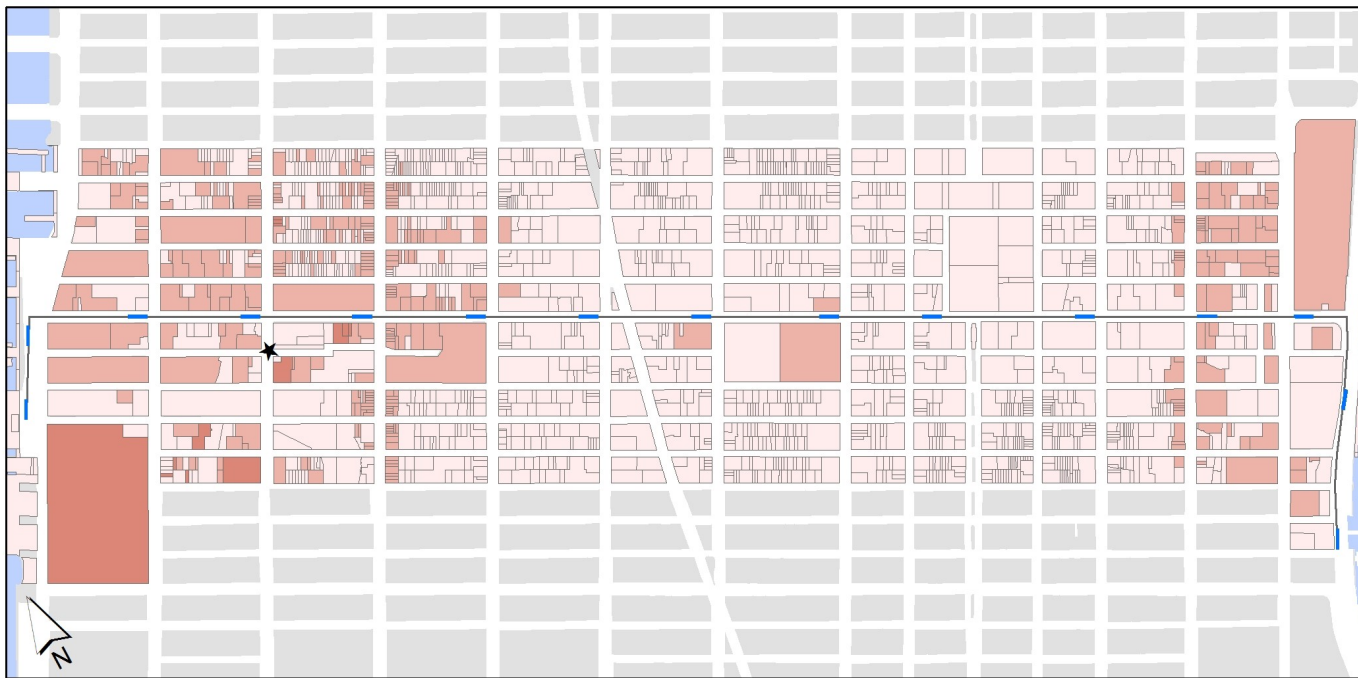
**comparison of economic
benefits and**

costs:

**vision42 vs 10th Avenue
Station on #7 Subway**



Travel Time Savings Using LRT from Grand Central Terminal



Buildout Year 2030 Worker Travel Time Savings

Portal 10: Grand Central

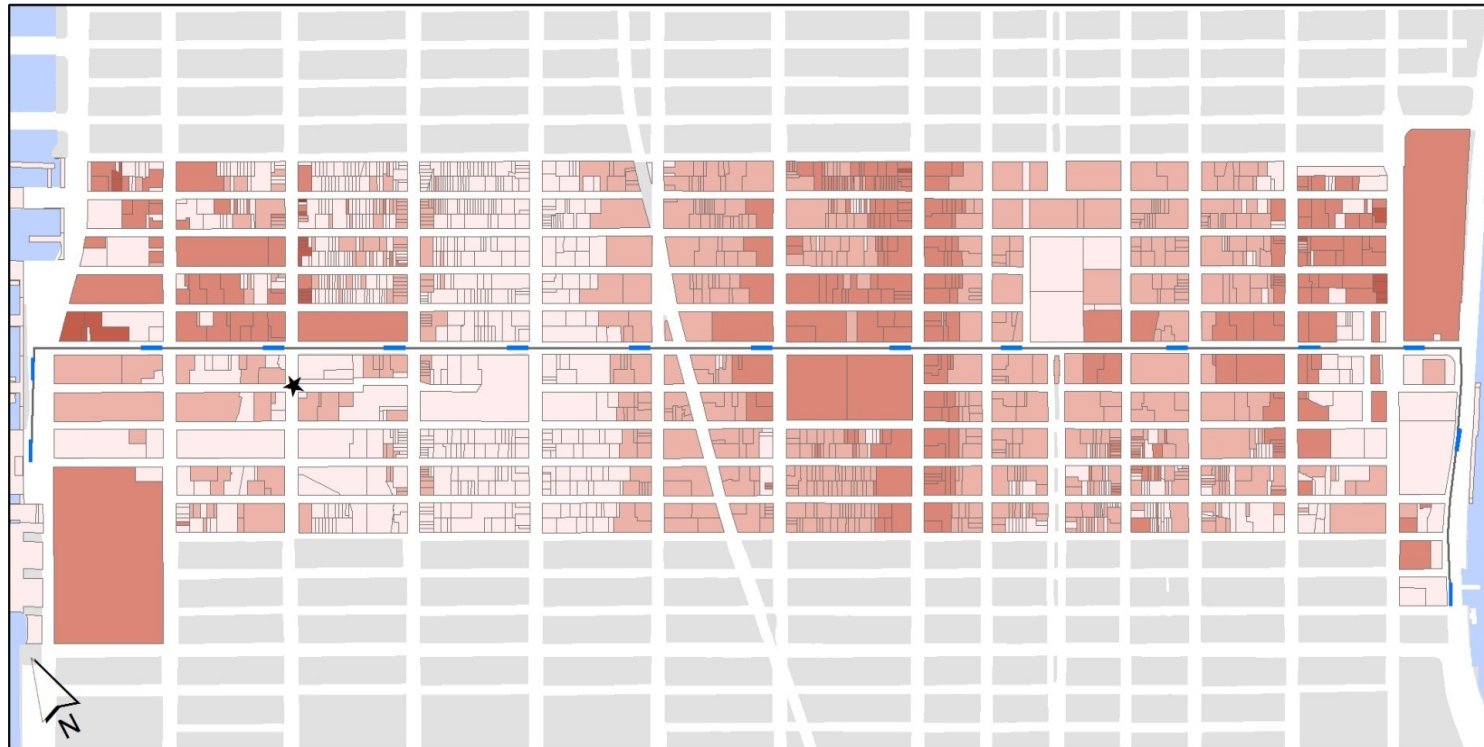
Minutes per worker

- 0
- 0.1 - 0.9
- 1 - 2
- 2 - 3
- 3 - 5
- 5+

- ★ 10th Avenue 7 Station
- LRT Station Platforms
- LRT Alignment



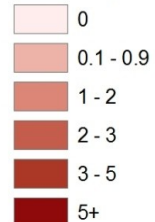
Travel Time Savings Using LRT from Port Authority Bus Terminal



Buildout Year 2030 Worker Travel Time Savings

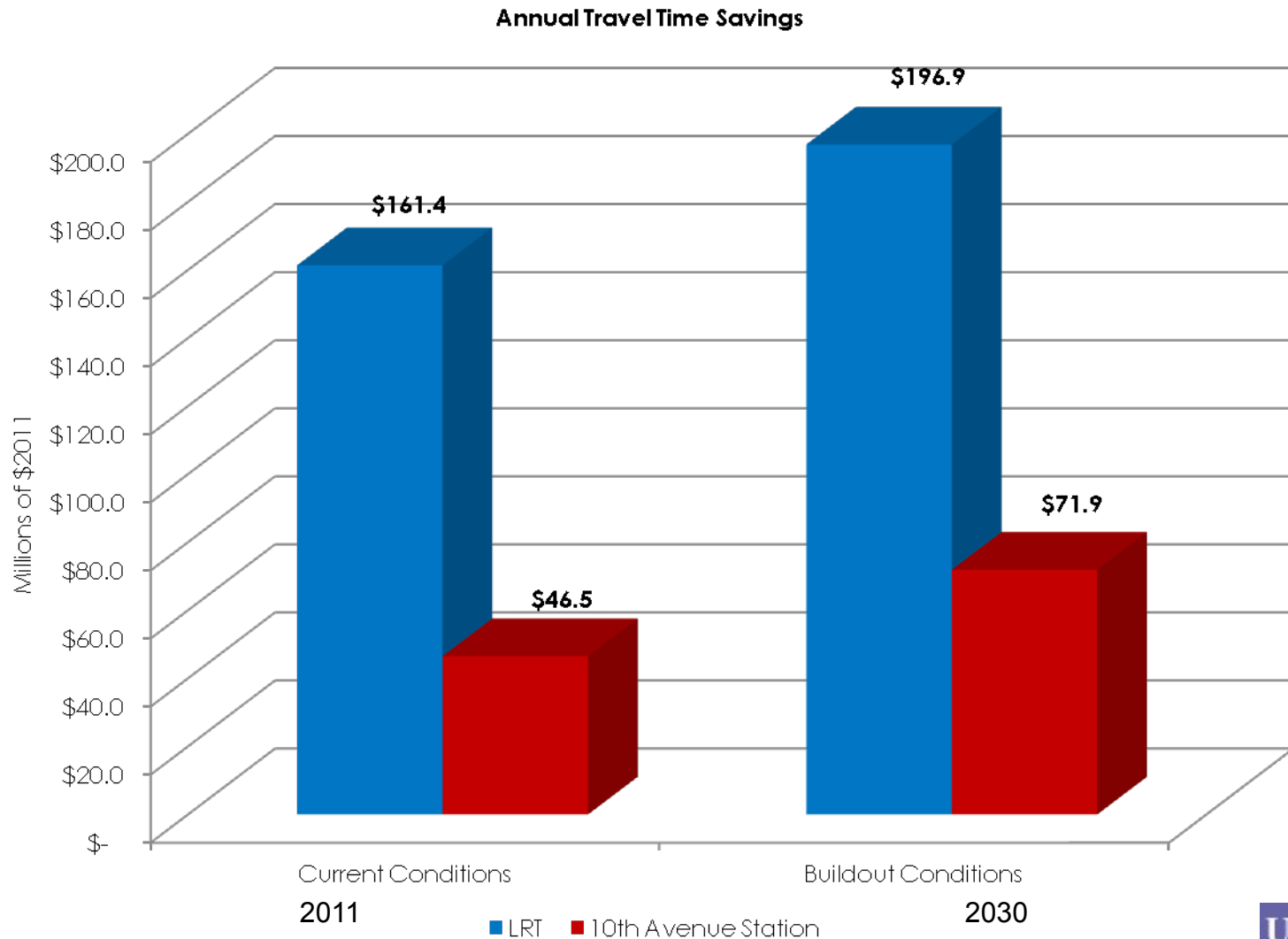
Portal 6: Port Authority

Minutes per worker





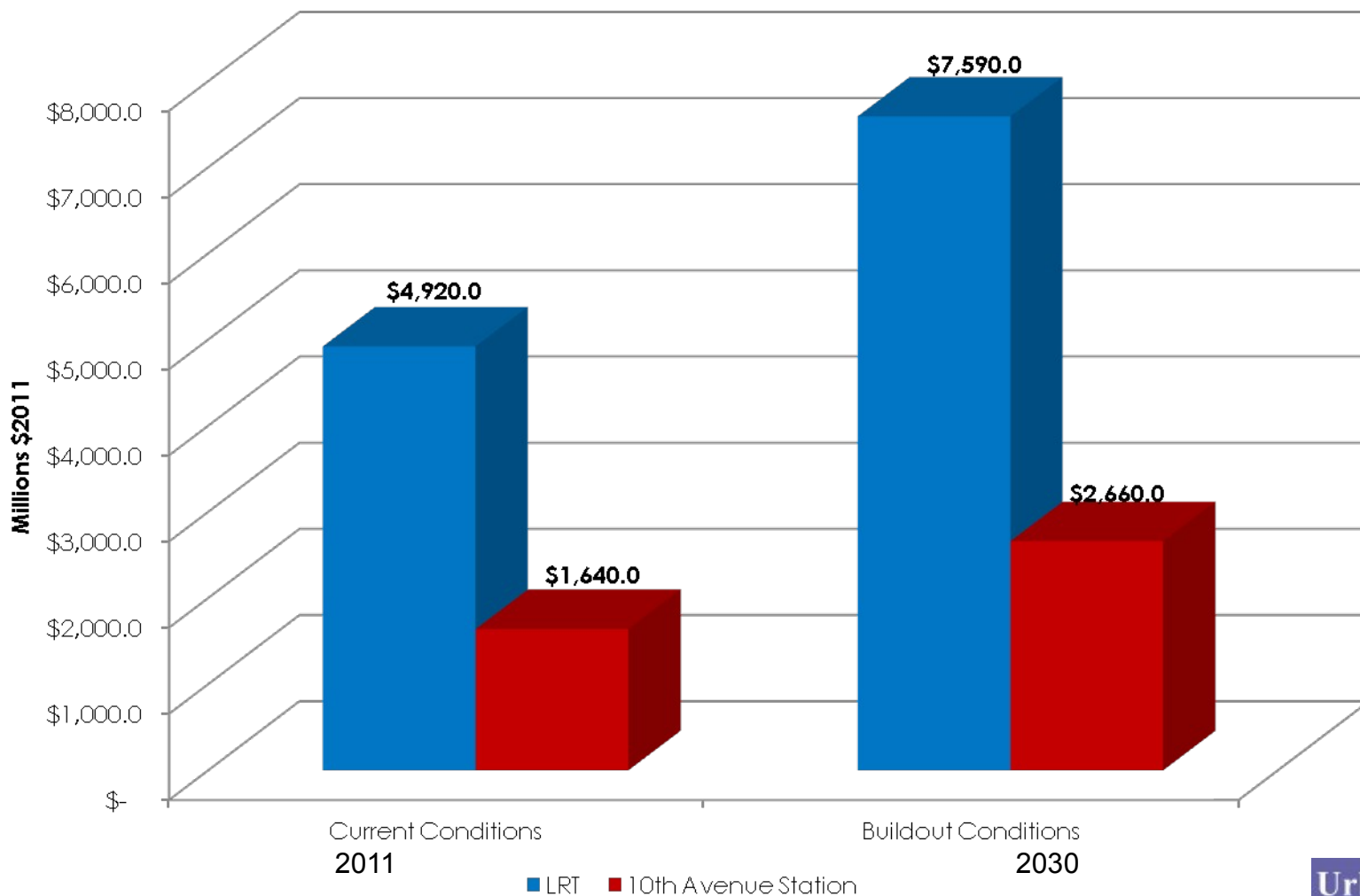
Annual Travel Time Savings, vision42 vs 10th Ave Station





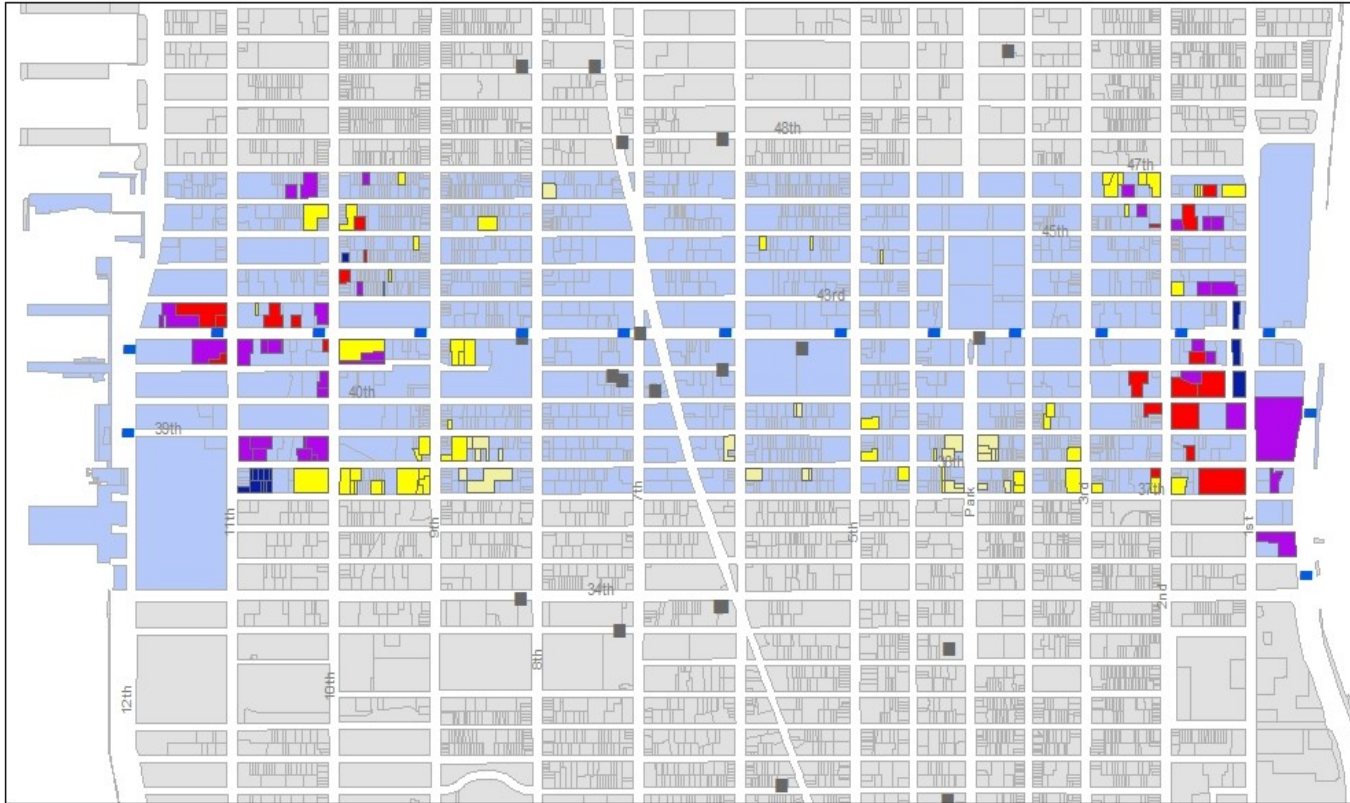
One-time office property value increases, vision42 vs 10th Avenue Station

One Time Property Value Increases





Increase in value of residential properties from vision42



Vision42 Study Area Parcels: All Elevator Residential Parcels

Increase in Property Value

Due to LRT Proximity

- No Change
- 0.1% - 4.7%
- 4.8% - 7.8%
- 7.9% - 26.7%
- 26.8% - 43.1%

- LRT Platform Entrances
- Existing NYC Subway Stations
- Study Area Parcels
- Other Manhattan Parcels



Increase in property values due to vision42

2030 Build-out

- Office \$4,951 million
- Commercial w/ Retail \$ 11 million
- Vacant \$ 74 million
- Residential \$ 2,554 million
- Total \$ 7,591 million



Increase in property values due to 10th Avenue Station

2030 Build-out

- Office \$1,601 million
- Commercial w/ Retail \$ 6 million
- Vacant \$ 23 million
- Residential _ \$ 1,027 million
- Total \$ 2,658 million

Only 1/3 of LRT Benefit



Other Benefits of vision42

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Other Economic Gains Are Projected

**Economic impacts on retail shops,
restaurants, hotels and theaters
on 42nd Street**

- **Structured interviews with senior managers**
- **Pedestrian modeling**



Projected Increase in Pedestrian Trips by Block Segment



vision42:
Pedestrian Generation of
Pedestrianization and LRT

Percent Change Midday

- 15.3% - 21.8%
- 21.9% - 32.9%
- 33.0% - 50.4%
- 50.5% - 73.7%
- 73.8% - 90.8%

Projected gains in retail and restaurant sales are based on an average increase of 35 percent.



More foot traffic= more sales
for ground floor businesses

- **Retail and restaurant customer expenditures are expected to increase from an annual \$1.3 B to \$1.755 B due to LRT.**

Increased taxable sales will yield \$27.0 million in sales taxes to NYC and NYS annually.

- No similar benefit from 10th Avenue Station.



Pedestrianized 42nd Street will add to City's Greenspace



No similar benefit from 10th Avenue Station.



Fiscal Impacts of the two proposals

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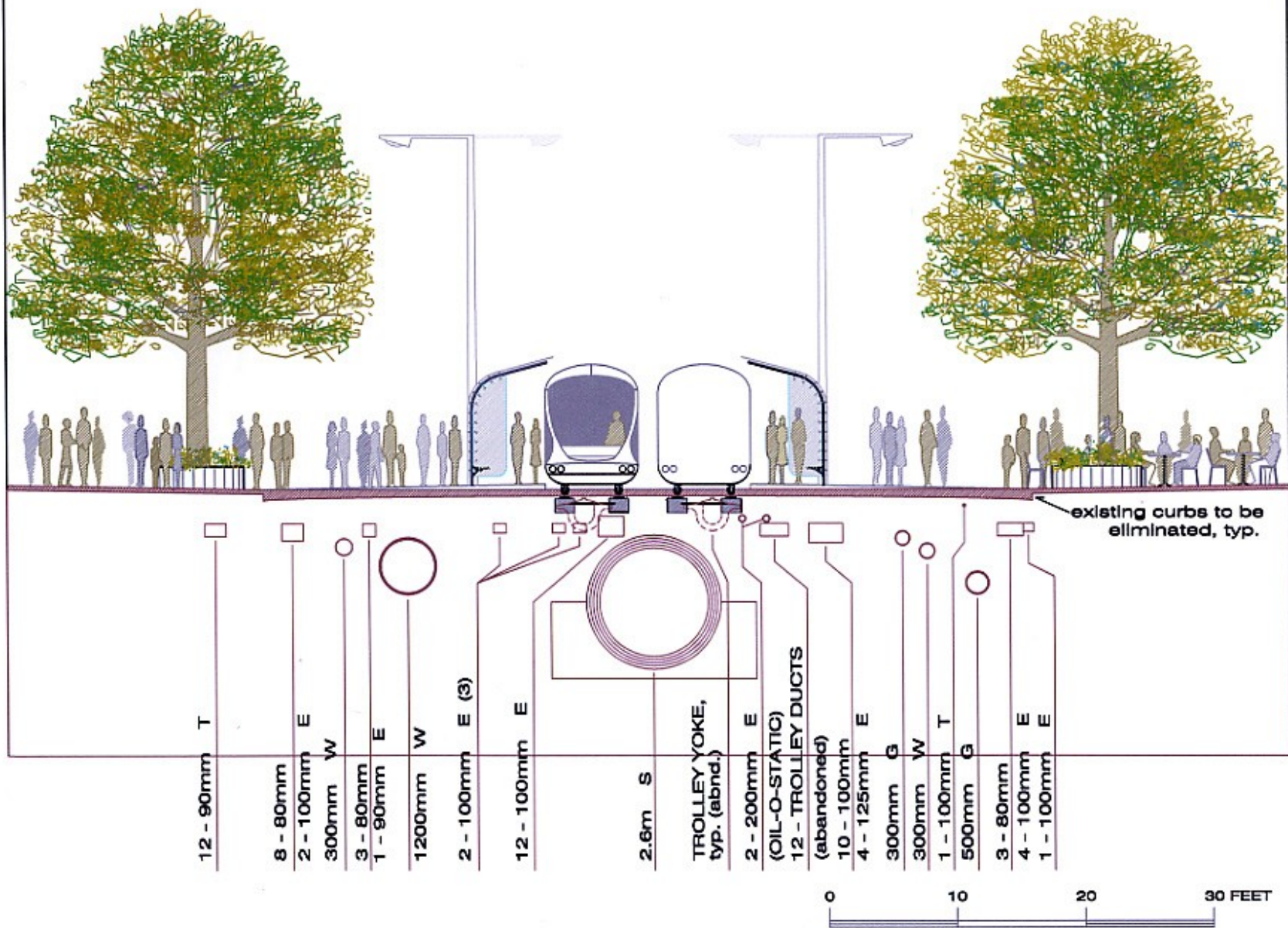
Increased NYC and NYS Tax Revenues

The LRT will generate 2.5 times more tax revenues in the build-out year than the 10th Avenue Station

	vision42 LRT		10th Avenue Station	
	2011	2030	2011	2030
Annual Fiscal Benefits	\$152.2	\$278.5	\$37.2	\$112.7
(in \$millions)				
NYC Property Taxes	\$123.7	\$250.1	\$37.2	\$112.7
Other NYC Taxes	\$ 14.7	\$ 14.7	\$ 0.0	\$ 0.0
Sales (including sales tax on hotels)	\$ 14.1	\$ 14.1	\$ 0.0	\$ 0.0
Hotel Occupancies	\$ 0.6	\$ 0.6	\$ 0.0	\$ 0.0
NYS Sales Tax	\$ 12.6	\$ 12.6	\$ 0.0	\$ 0.0
MTA	\$ 1.1	\$ 1.1	\$ 0.0	\$ 0.0



Capital Costs of the two proposals



VISION42 - CROSS SECTION THROUGH UTILITIES AT 10TH AVENUE

streetcars ran for decades over the underground utilities, until 1946



Estimate of Capital Costs: LRT Options, 10th Ave Station

Component	catenary system, full utility replcmt	self-powered LRT, full utility replcmt	self-powered LRT, min. utility work
		Utility Relocation \$406.3 M	\$406.4 M
	\$240.3 M		
All Other Work	228.3 M	243.7 M	218.8 M
<hr/>			
Net Capital Cost	\$634.6 M	\$650.1 M	\$459.1 M

All costs are in 2011 dollars and were adjusted for inflation using ENR's CCI. 

10th Avenue Station estimate (from MTA)

Net Capital Cost \$750.0 M



Increased Cost of Deliveries and Traffic Diversion for vision42

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Freight Entrances between 3rd and 8th Aves

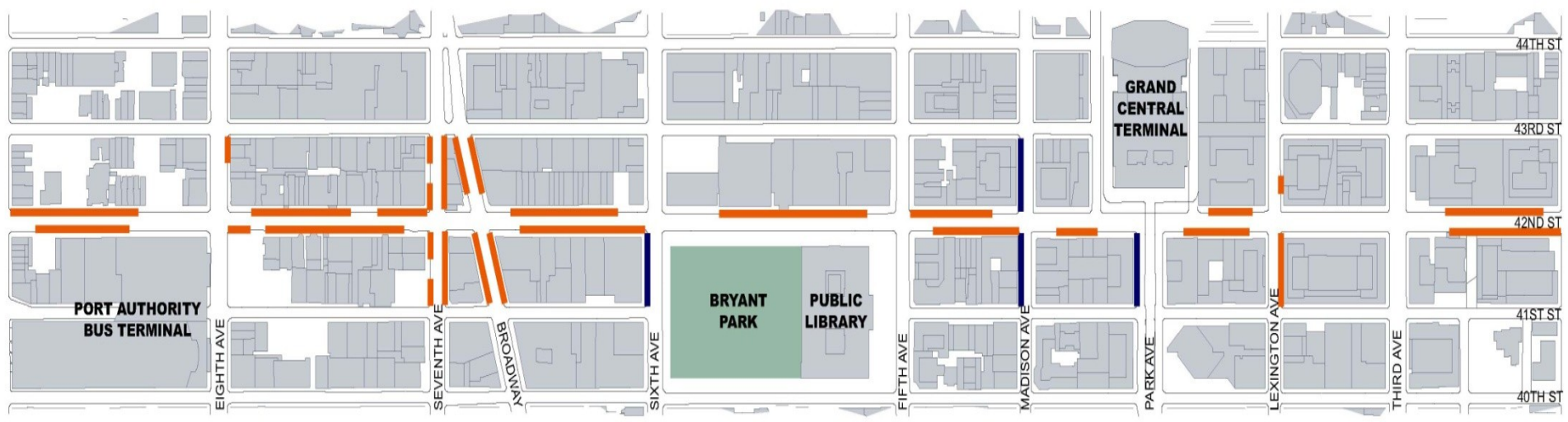


- TaxLots
 - LRT Alignment
 - <all other values>
- FRGT_TYPE**
- Storefront
 - DOOR
 - TRUCK
 - GARAGE
 - DRIVE



most large office buildings have their freight entrances on 41st or 43rd Street, since ground floor rents on 42nd St. are too high for this function



Traffic Study Inventoried Existing Delivery Truck Parking Locations, 3rd to 8th Avenues

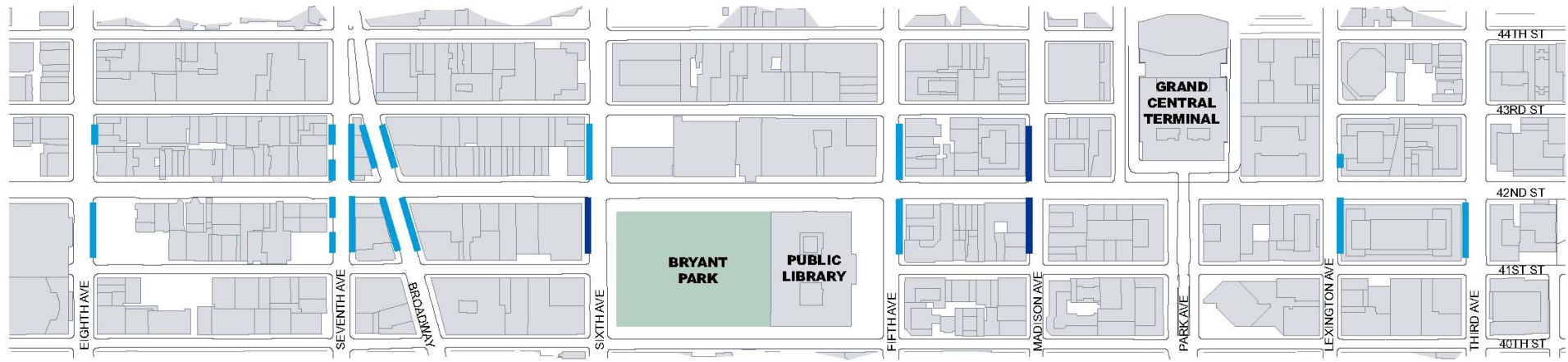


At the peak hours of usage for each curb, the curb feet-minutes currently occupied by delivery trucks were carefully observed and compared with the curb space available.



-  EXISTING NO STANDING Except Trucks Loading and Unloading
-  EXISTING NO STANDING Except Commercial Vehicles--Metered Parking (3 Hour Limit)



Adequate Space for Delivery Truck Parking Locations Would be Reserved on the Avenues



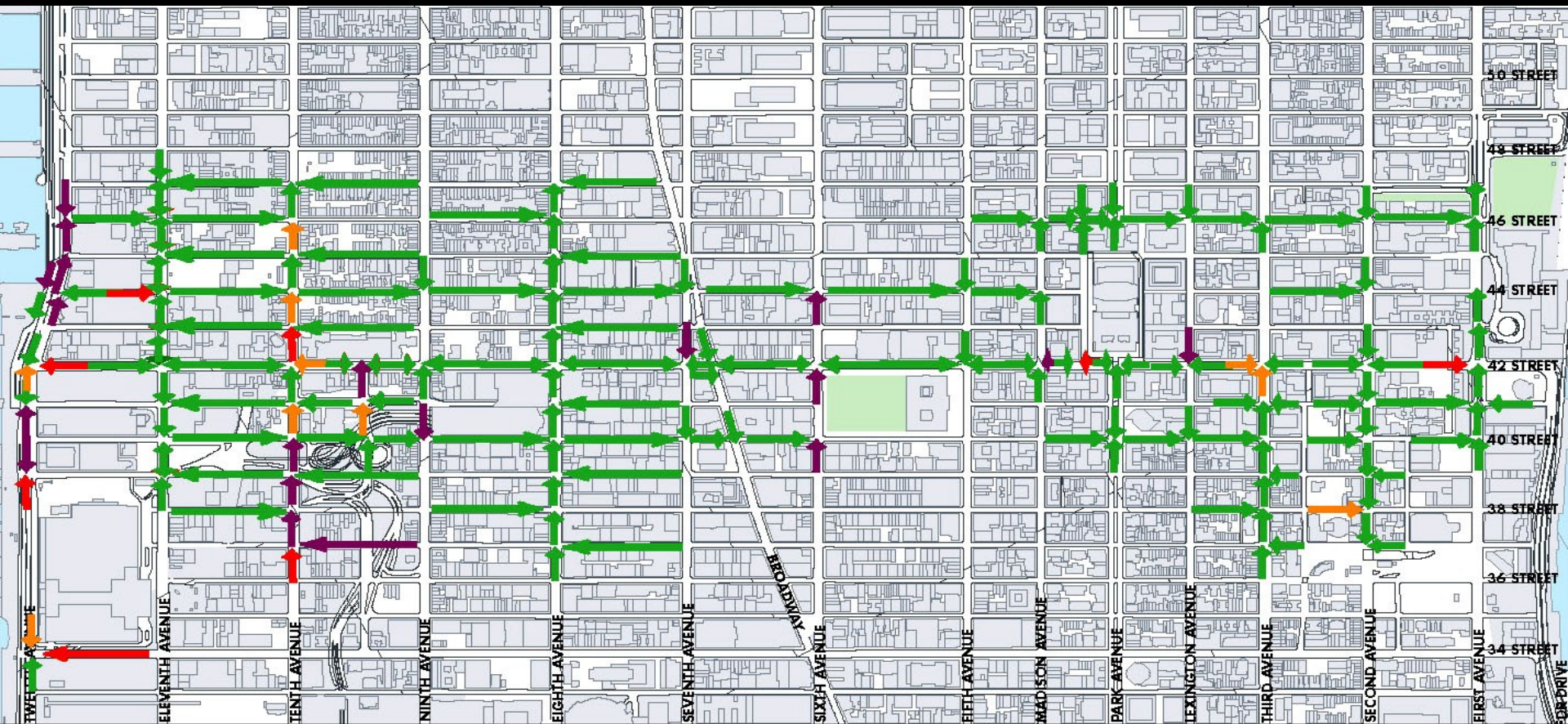
With some changes in parking regulations, sufficient space for delivery trucks can be provided by reserving curb space on adjacent avenues.

-  EXISTING NO STANDING Except Trucks Loading and Unloading
-  PROPOSED NO STANDING Except Trucks Loading and Unloading





Traffic – Level of Service – 2010, PM, No Build



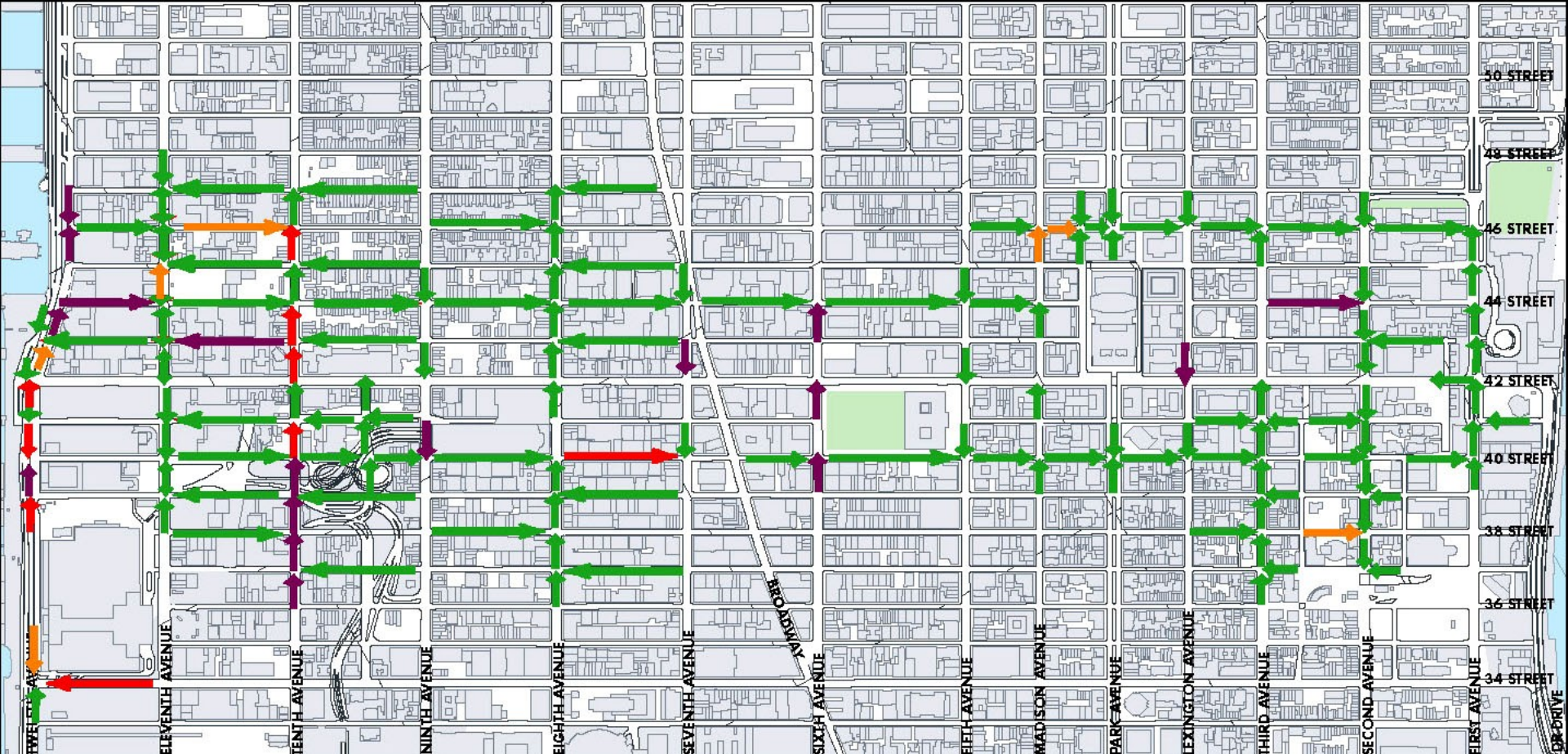
KEY	Delay, LOS
	>80 sec. Delay, LOS F
	< 80 sec Delay, LOS E, F
	>45 sec. Delay, LOS D
	< 45 sec Delay, LOS D, C, B, A

.....compiled from the data of 3 major
environmental impact studies





Traffic – Level of Service – 2010, PM, Build Mitigated



KEY	Delay, LOS
	>80 sec. Delay, LOS F
	< 80 sec Delay, LOS E,F
	>45 sec. Delay, LOS D
	< 45 sec Delay, LOS D,C,B,A

mitigation methods include changes in traffic signals, traffic lane allocation, and parking regulations





Estimate of Diversion and Delivery Costs for **vision42**

Even with mitigations, there will be costs from delays.

Increased Costs of Traffic Diversion	\$88.9 M
Increased Costs of Deliveries	<u>\$0.3 M</u>
Total Annual Costs	\$89.2 M



Annual Economic and Fiscal Benefits

	<u>LRT</u>		<u>10th Avenue Station</u>	
	<u>Existing</u>	<u>Build-out</u>	<u>Existing</u>	<u>Build-out</u>
Net Benefits	\$743.4M	\$896.3M	\$ 88.1 M	\$195.2 M
Annual Economic Impacts	\$591.3M	\$ 617.8 M	\$ 50.9 M	\$ 82.5 M
Annual Fiscal Benefits	\$152.1 M	\$ 278.5 M	\$ 37.2 M	\$ 112.7M



FINANCING vision42

Capital Costs — estimated at **\$411.3 to \$582.3 million**
(2007 USD)

Annual Debt Service — **\$36.1 to \$51.1 million**

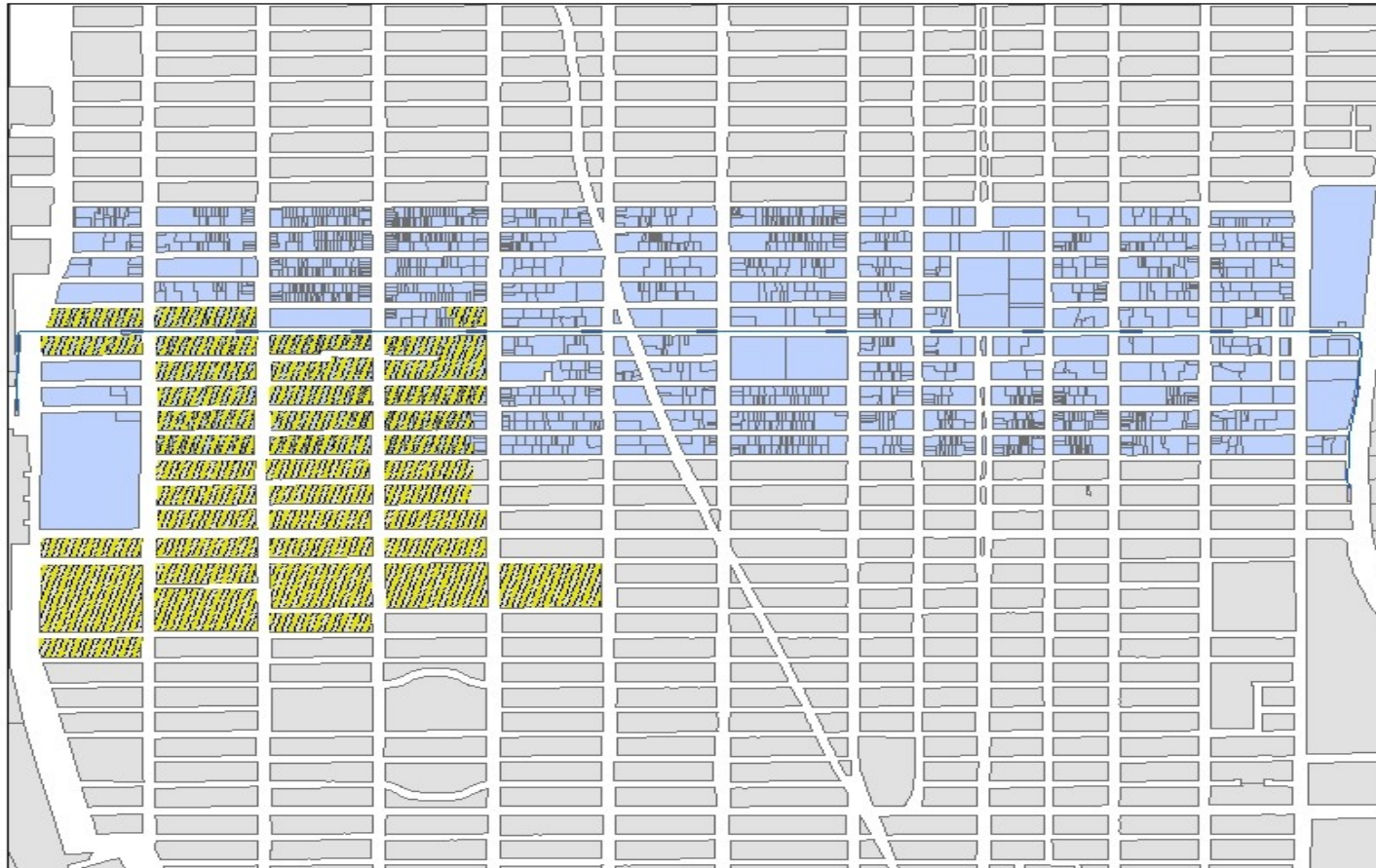
The **NYC tax gain of \$55.1 M*** exceeds the required annual debt service, which can be recouped by one of two basic mechanisms, either:

Tax Increment Financing (TIF), or creating a **Transit Benefit Improvement District (TID)**

*** not including residential**







STUDY AREA for FINANCING vision42



VISION42 Study Area and Hudson Yards Financing District

Legend

-  V42 Study Area
-  Hudson Yards Financing District
-  LRT_Align
-  LRT_Station_Platforms

The study area incorporates existing and new development five blocks to the north and five blocks to the south of the light rail line, and excludes



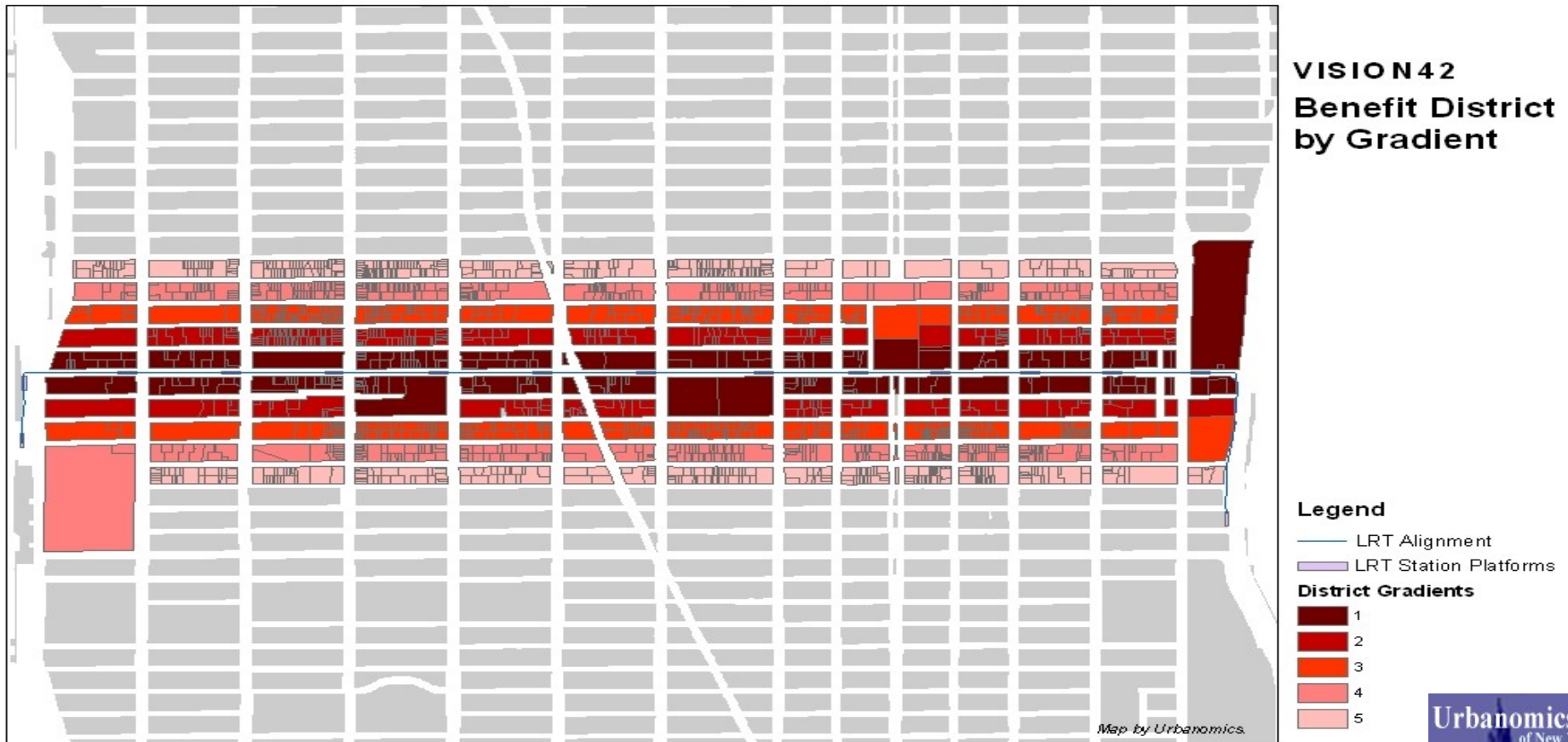
FINANCING vision42



Tax Increment Financing (TIF) would apply 3% of land value increases generated by improved transit access, yielding \$53.0 M per year.



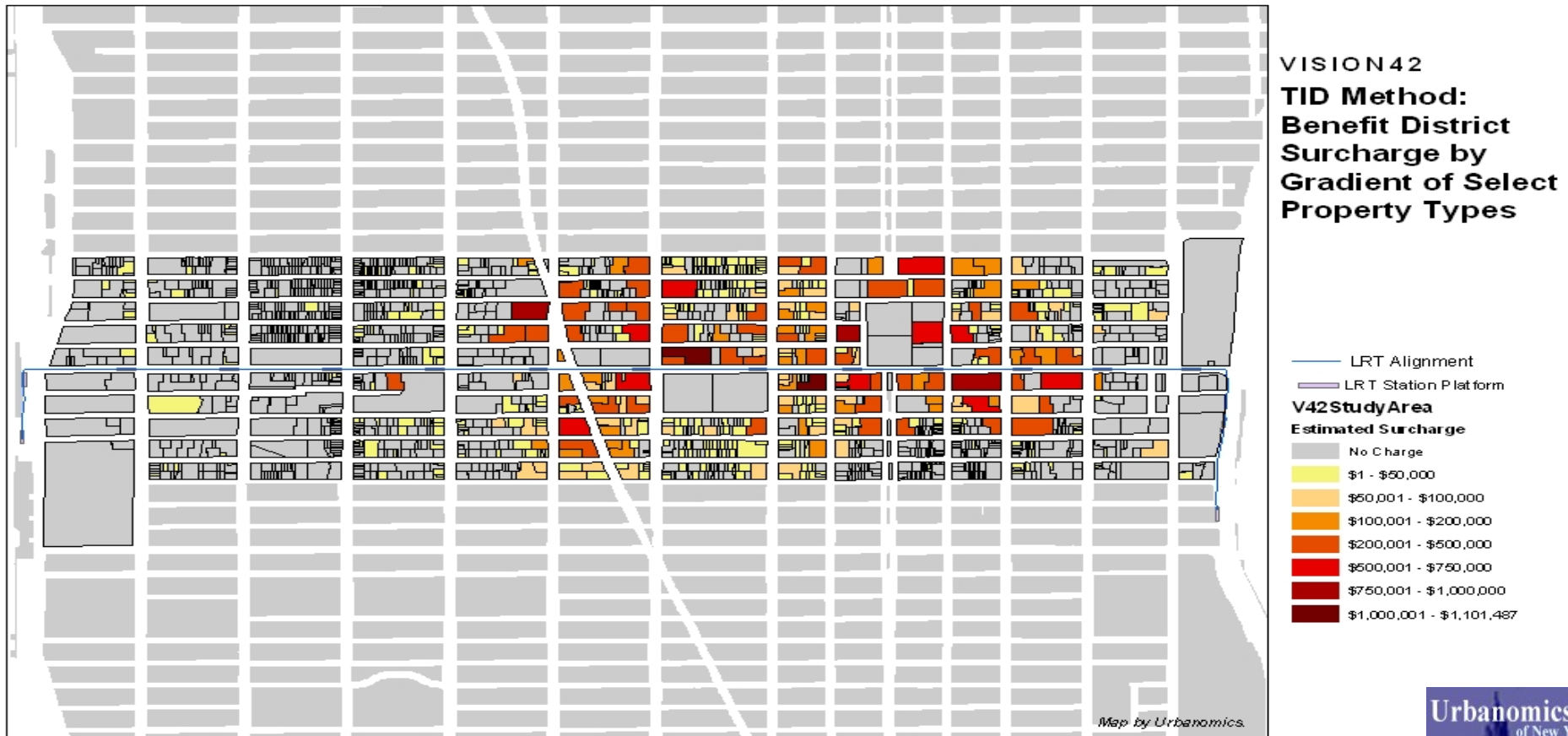
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A likely option — Gradients of levy would be established corresponding to the proximity of each block to the light rail transit line.



FINANCING vision42



Transit Improvement District (TID)—levies would be established as a percent (from 1 to 5%) of current tax rates yielding \$66.8 M per year.



S U M M A R Y

- **vision42** – a 16 stop river-to-river light rail line in an auto-free street – is a **far better investment** than the addition of a single station at 10th Avenue on the #7 subway extension.
- **vision42** can be financed by **capturing the value** of property tax gains that result from its construction and operation.