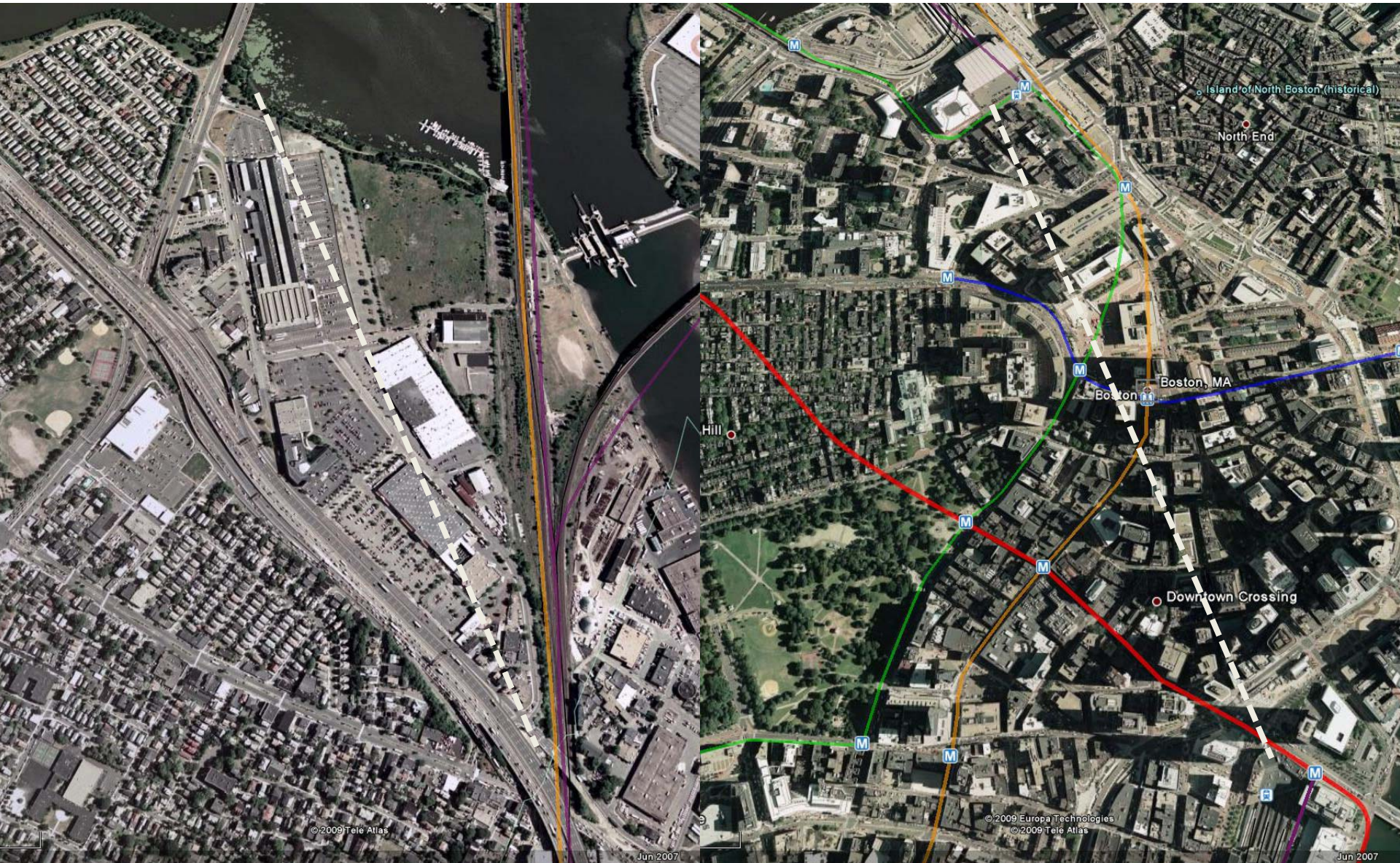
Background Information and Recommendations for the Design of the Assembly Square T Stop

Prepared by Wig Zamore,
MVTF and STEP

SOMERVILLE
TRANSPORTATION EQUITY
PARTNERSHIP

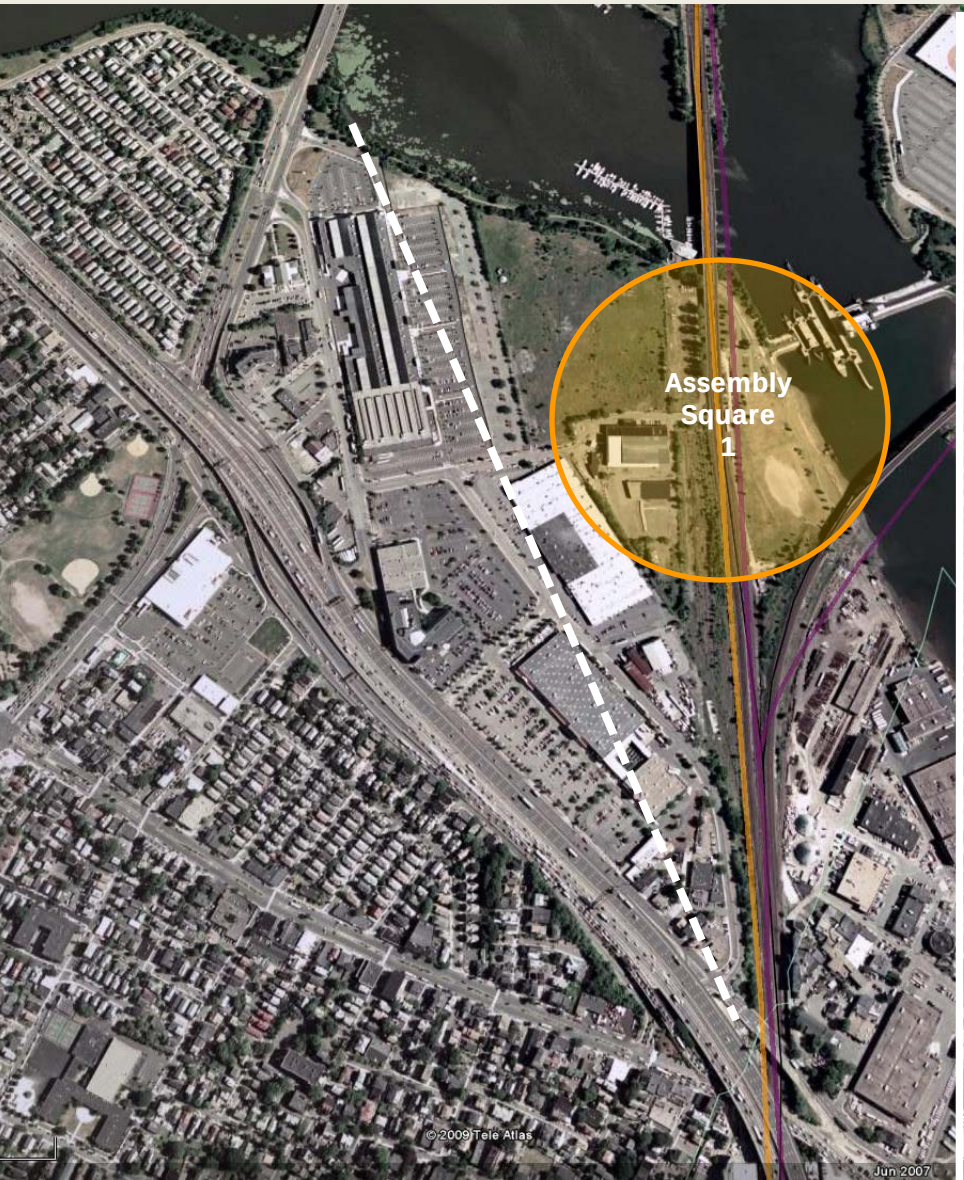
MYSTIC VIEW TASK FORCE

Assembly Square Top to Bottom Equals Distance Between North and South Stations in Boston - 9/10ths of a Mile



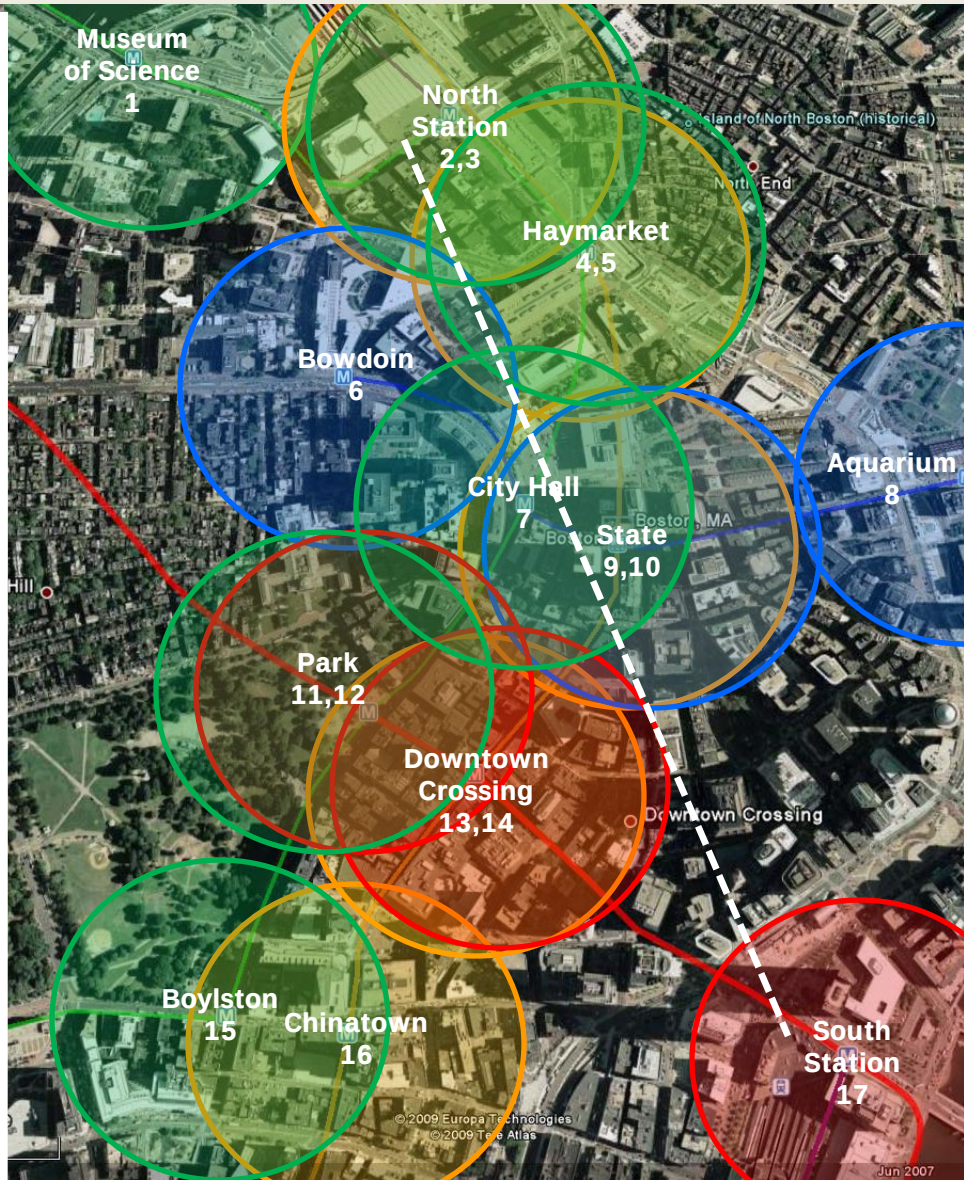
Assembly Square Single Station

One Headhouse - Does not include Wellington and Sullivan to North and South of Assembly Sq.



Downtown Boston Seventeen Stations

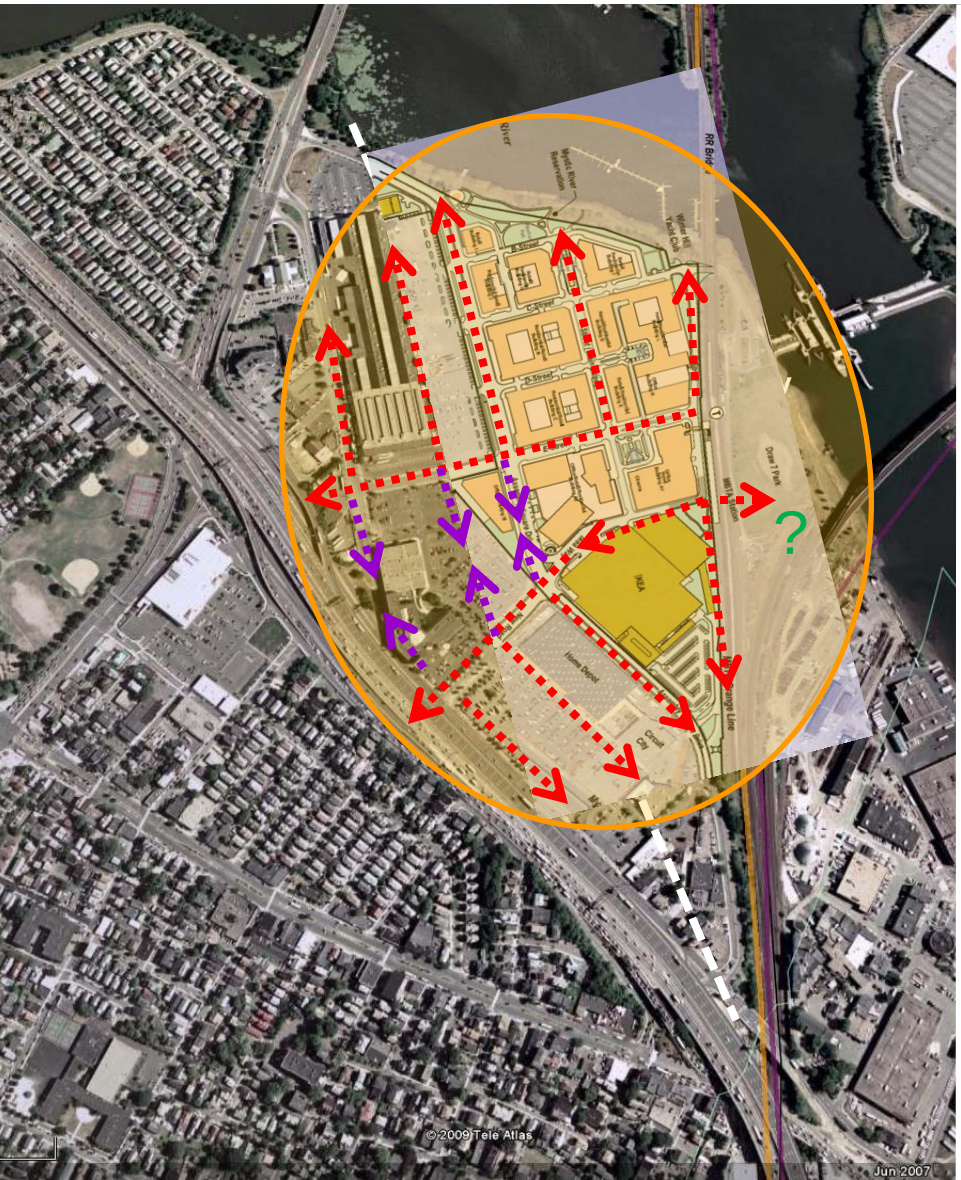
All Four Lines - Does not include Silver Line or Fifteen Commuter Rail Lines at No. & So. Stations

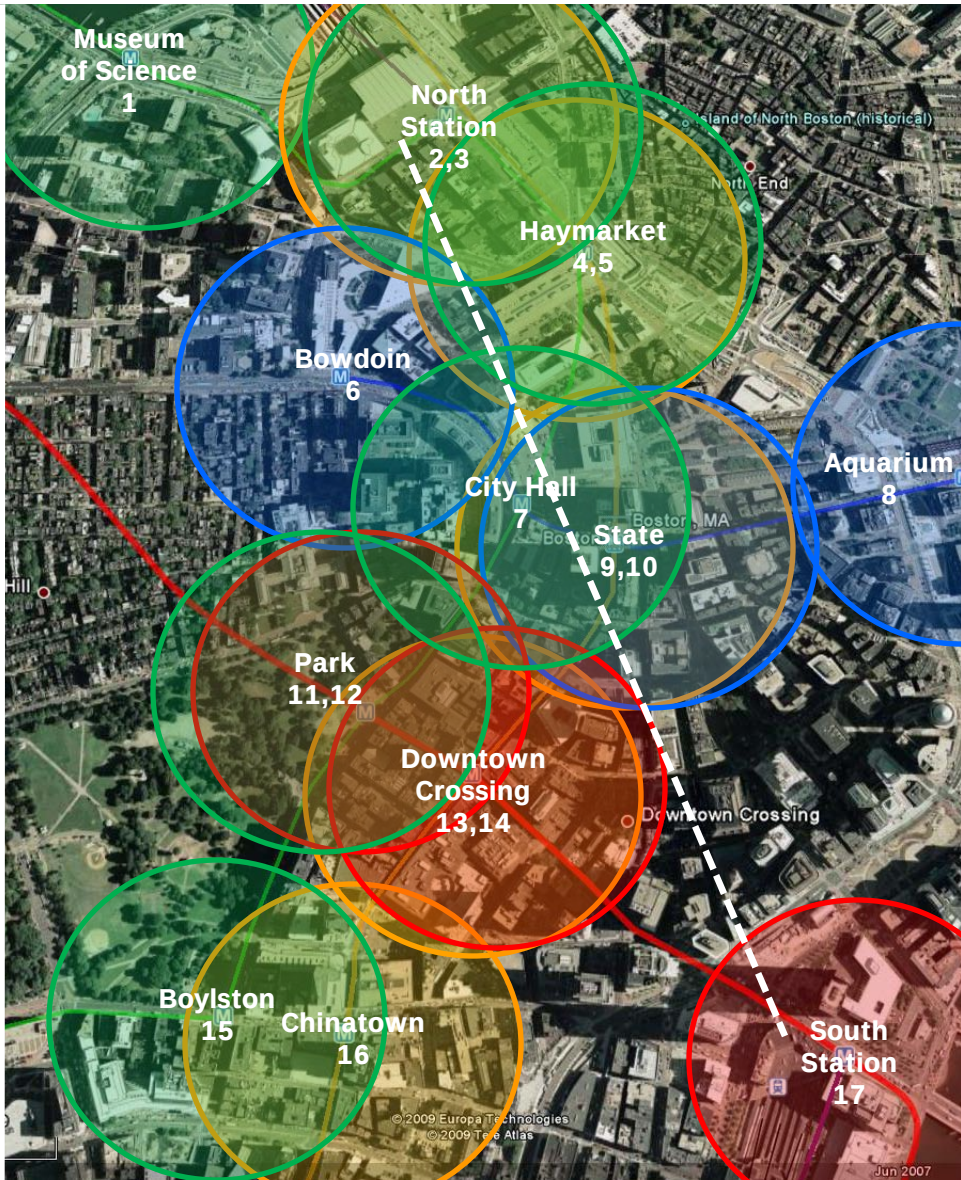


Assembly Square Single Station with **Two Headhouses**

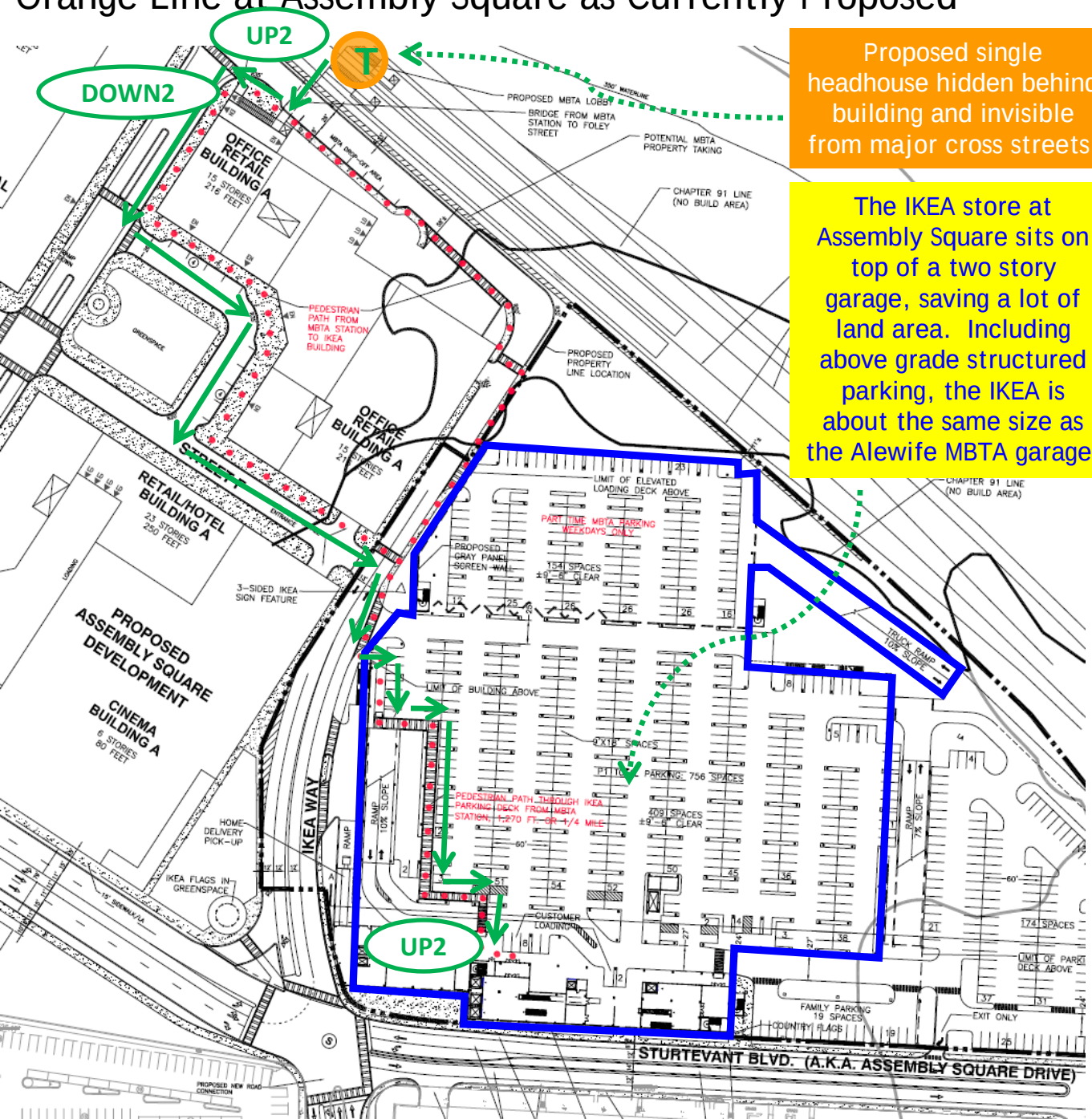
Good Urban Design Serves IKEA and Southern Area Better

Substitute Walk Bike Connections for Costly Extra T Stations





Orange Line at Assembly Square as Currently Proposed



Green Text & Arrows by Wig

IKEA calculated pedestrian path is 1270 feet from T-stop northern headhouse (one quarter mile) - with many blind corners, six stories of vertical up & down and a long walk through the ground floor of the two story garage to IKEA's store entry on third floor.

Detail & Red Text from IKEA Pedestrian Path Map by Greenberg Farrow

GreenbergFarrow
1755 The Exchange
Atlanta, GA 30339
t: 770 303 1033 f: 770 303 2333

PROJECT INFORMATION

SITE AREA

IKEA SITE	±11.90 ACRES

BUILDING AREA

IKEA	
ELEVATED STORE	305,975 SF
PARKING LEVEL: P1	±14,219 SF
PARKING LEVEL: P2	±6,252 SF
TOTAL	326,446 SF

*BUILDING AREA TO BE VERIFIED BY IKEA

PARKING SUMMARY

USER	RATIO REQUIRED	SPACES REQ'D	SPACES PROV'D
IKEA PARCEL	TBD		1,376

PARKING RATIO PROVIDED 4.5 SP/1000 SF
(BASED ON ELEVATED STORE AREA ONLY)

IKEA

SOMERVILLE MA
I-93
& STURTEVANT BLVD.

GFA PROJECT NUMBER 20060052.2

SCALE: 1"=60'-0"
30 0 30 60 120 180 240

IKEA MA-2k.1.3

PEDESTRIAN PATH

Orange Line T Stop at Assembly Square - Two Headhouses

Improve T-Stop Effectiveness

Slide T-stop platform to North

Align TWO HEADHOUSES with major streets

Provide level walkway from top of T-stop escalator in southern headhouse to IKEA store; use aerial walkway as fire escape and cover for pedestrians and bikes at ground level

IKEA customers have shorter pedestrian path, are saved four stories of vertical as well as extremely confusing navigation through Assembly Square and IKEA garage

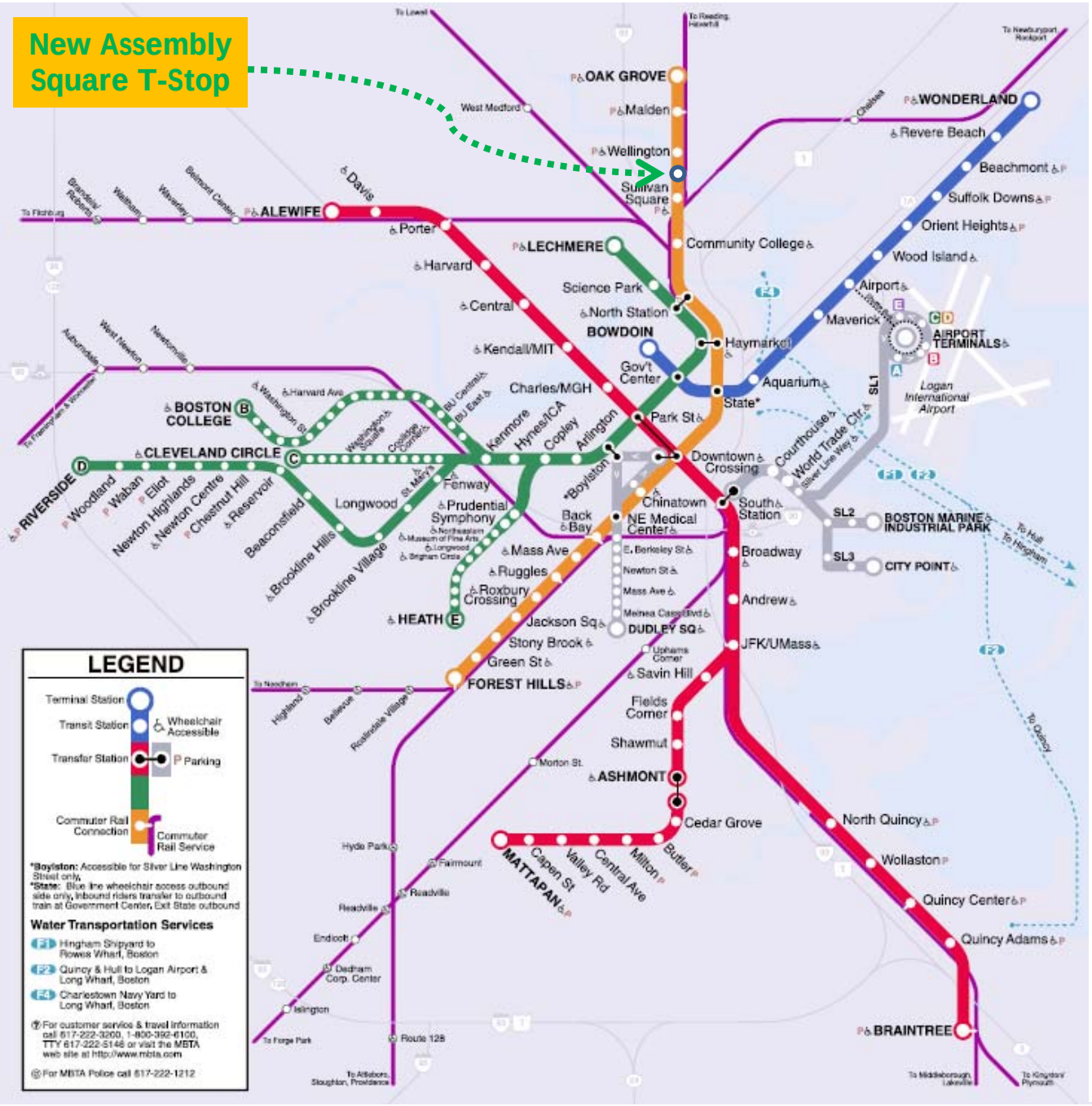
Many more IKEA T-stop users result in reduced roadway congestion and air pollution - local and regional

IKEA Vertical Layout

Roof	**61' 0"**
IKEA Showroom	**42' 6"**
IKEA Market / WH	**26' 0"**
Truck Docks	**26' 0"**
Parking level 2	**13' 0"**
Parking level 1	**0' 0"**

IKEA Store Width **543 feet**

Many MBTA Rapid Transit & Bus Connections Are Available to Assembly Square



Relevant MBTA Boardings

Weekday counts 2005 - 2007

Single Seat Ride:

Orange Line	216,000

One Transfer (rail based):

Green Line (NS, Hay)	237,000
Red Line (Down Cross)	226,000
Blue Line (State)	51,000
Commuter North (NS)	49,000
Commuter South (BB)	83,000
SUBTOTAL	646,000

Rapid Transit TOTAL	862,000

One Transfer (BRT or bus based):

MBTA Bus System	230,000
Silverline 1 - Dudley	15,000
SUBTOTAL	245,000

Zero & One Transfer	1,107,000

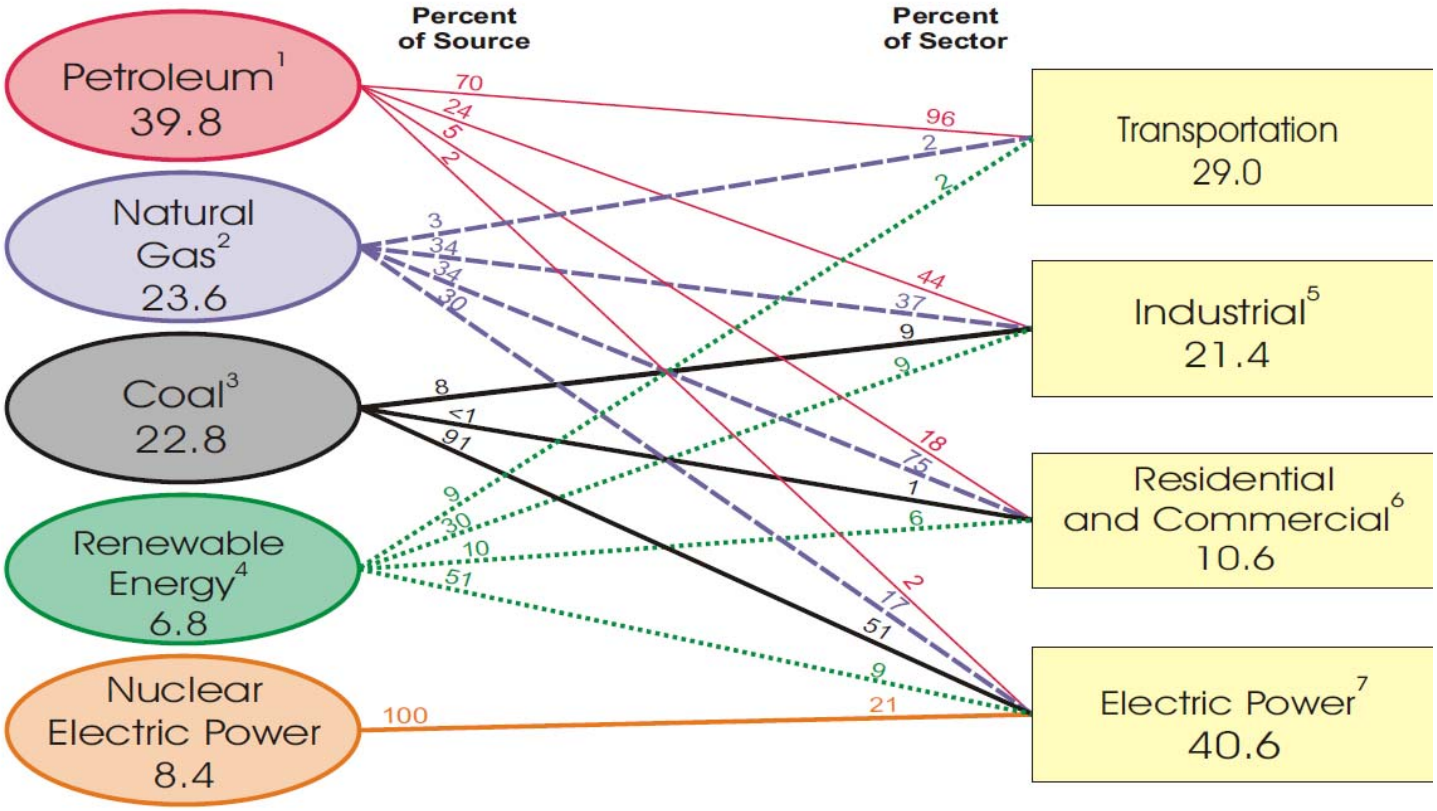
Reducing highway vehicle miles is critical for clean air and the US economy

70% of total US petroleum use is for transportation, 5% is for residential & commercial.

The $15 billion Big Dig added 50,000 highway trips per day; the Assembly Square settlement reduces site trips per day from 100,000 to 50,000. Orange Line T-stop performance is critical.

U.S. Primary Energy Consumption by Source and Sector, 2007

(Quadrillion Btu)



[1]Does not include 0.6 quadrillion Btu of fuel ethanol, which is included in "Renewable Energy."
[2]Excludes supplemental gaseous fuels.
[3]Includes less than 0.1 quadrillion Btu of coal coke net imports.
[4]Conventional hydroelectric power, geothermal, solar/PV, wind, and biomass.
[5]Includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants.
[6]Includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
[7]Electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electric or electricity and heat, to the public.
Note: Sum of components may not equal 100 percent due to independent rounding.
Sources: Energy Information Administration, *Annual Energy Review 2007*, Tables 1.3, 2.1b-2.1f and

GHG Reduction:

Transportation is 70% of total petroleum use

Electric power is 91 % of total coal use

Renewable energy is too small at 6.8%

Reduce, Reuse, Recycle

Somerville IKEA:

Store energy use per year is roughly 30 billion BTUs

Customer travel per year is roughly 300 billion BTUs

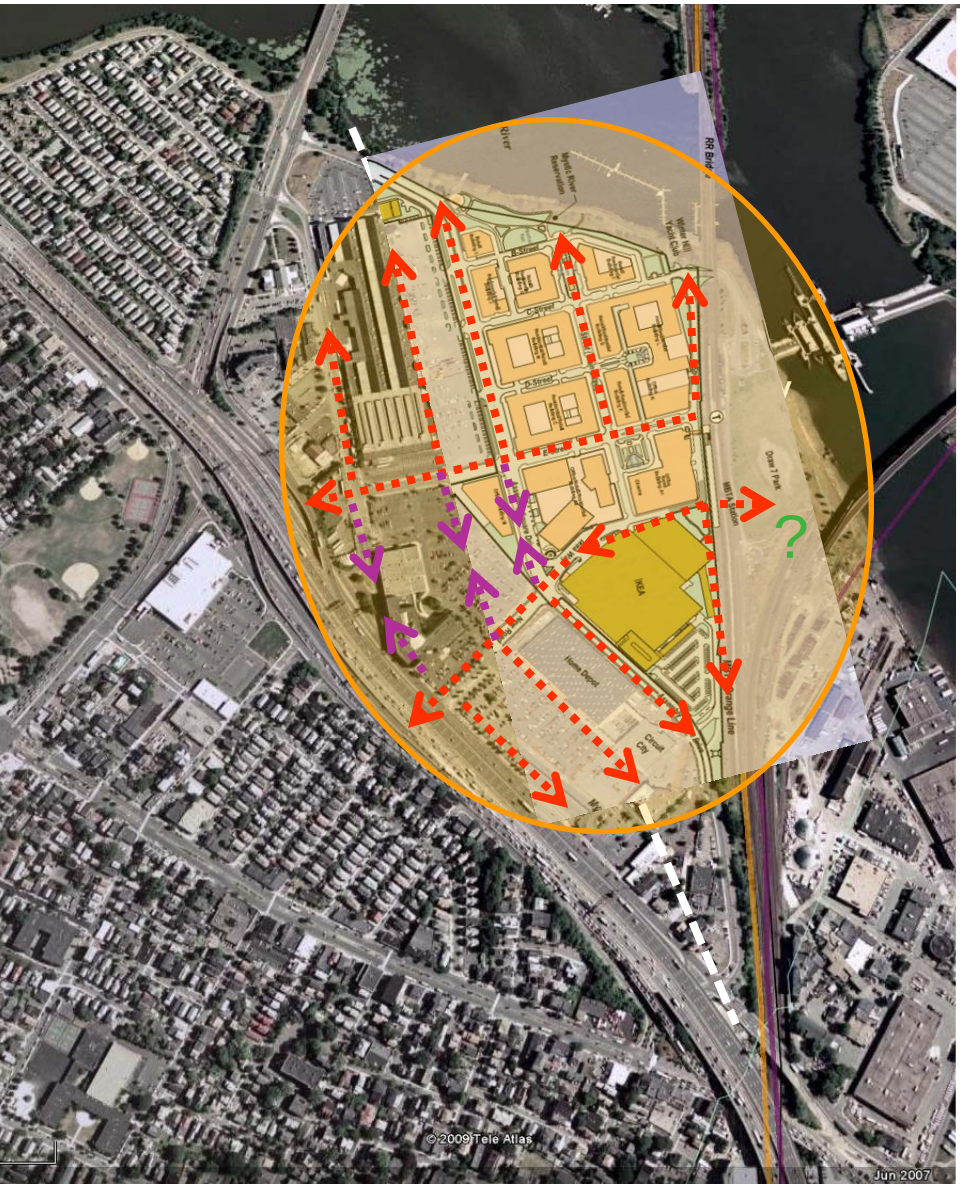
IKEA customer travel per generation equals about:

100 million gallons of gas

2 billion vehicle miles

2 billion pounds of CO2

Assembly Square Single Station with **Two Headhouses**, Good Urban Design and Great Walk Bike Connections Is Key to a Sustainable Future for Somerville & the Region



Assembly Square Re-development Square Feet:

	Federal / IKEA 1	Long Term Vision
IKEA	340,000	340,000
Mall	330,000	
Other retail	515,000	1,060,000
RETAIL subtotal	1,185,000	1,400,000
RESIDENTIAL max	2,600,000	3,000,000
OFFICE / R&D	1,750,000	5,000,000
FLEXIBLE	800,000	1,000,000
TOTAL Sq. Feet	5,235,000	10,400,000

Transportation is Key to Assembly Square Sustainability:

Assembly Square has greater population within a 5 mile radius than other US IKEA stores - 860,000 plus

The Orange Line reaches all Boston research universities - either directly or with a single transfer

IKEA is a small but important portion of total projected Assembly Square vehicle trips

The Elizabeth NJ IKEA and Cambridgeside Galleria have 40% or greater transit mode splits

A great Orange Line T-stop & walk bike links can save:

100 to 200 million gallons of gasoline per generation

2 to 4 billion pounds of CO_2 per generation

With cleaner air to breath and a more livable city