

Advisory Group Working Session

Wednesday, April 13, 2010 6:30–8:30pm E-18 Police Station 1249 Hyde Park Avenue





Role of Transportation

- Maintain and enhance community accessibility
- Provide an information background for Hyde Park
- Support community goals all disciplines
 - Land Use
 - Economic Development
 - Open Space

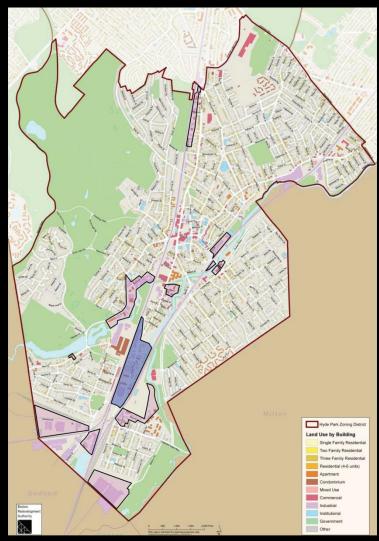
- -- Housing
- -- Historic Preservation
- -- Community Character
- Set Broad guidelines for improvements
- Recommend specific next steps





Transportation Impacts of Development

- Review of zoning
- Many large parcels with potential redevelopment
- Work with land use, open space and other recommendations







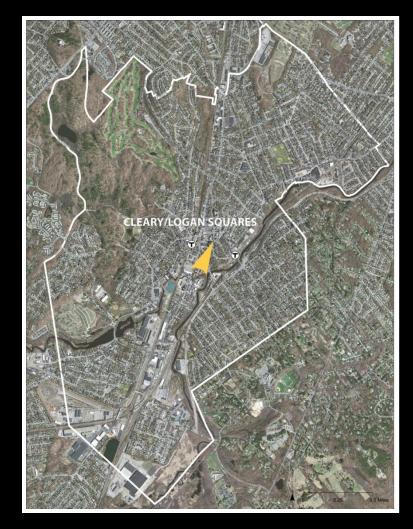
Transforming Cleary & Logan Square

Community Questions

- How will this work?
- What does it mean for traffic?

What can we do?

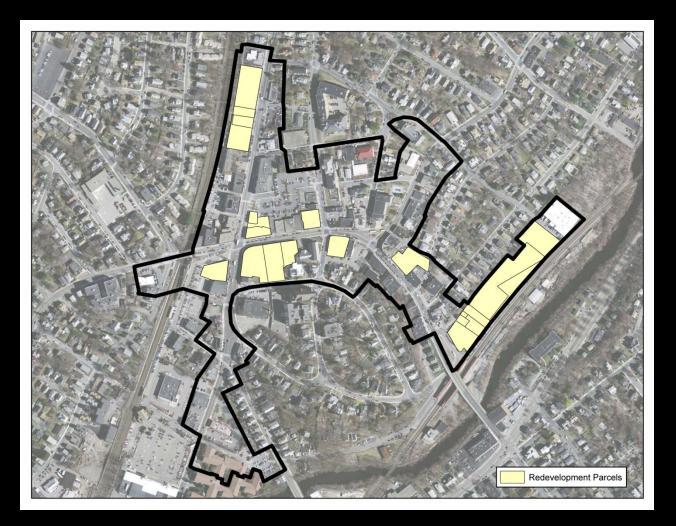
 We'll provide a transportation reality check







Focus Area









How does this work now?

- Establish a baseline
 - Traffic levels & analysis
 - Public transportation
 - Pedestrian/Bicycle
 - Parking
 - Land use
 - Zoning
 - Square footage
 - Occupancy
 - By category





Traffic Volumes

- Major through corridors
- Most volume is pass-through traffic

Daily Roadway Volumes

Veh/Day

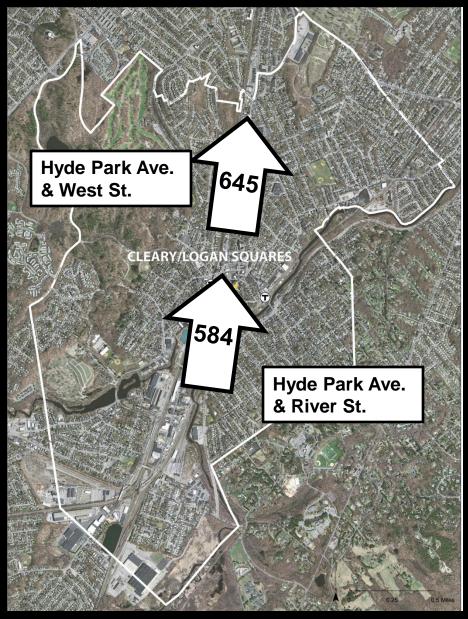


Vehicle counts are for representative locations in the area





Traffic Volumes (AM peak)

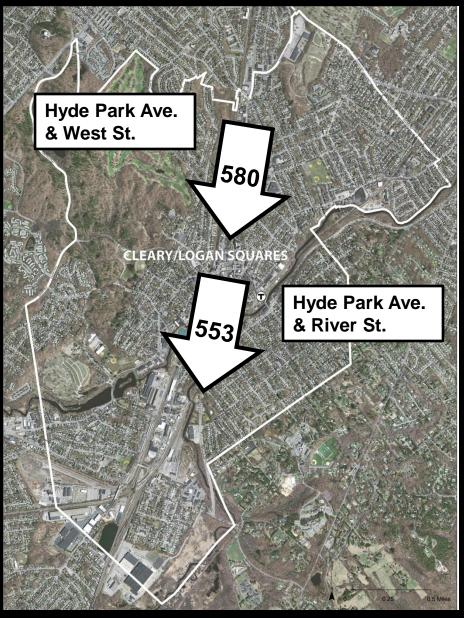








Traffic Volumes (PM peak)



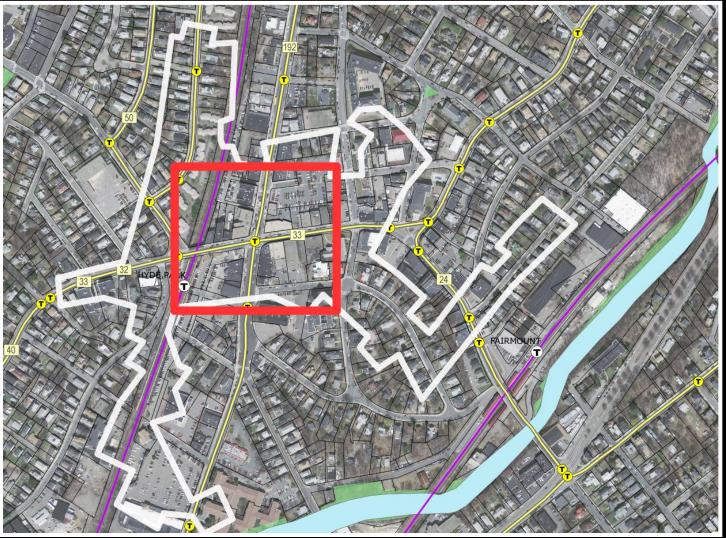








Traffic Analysis

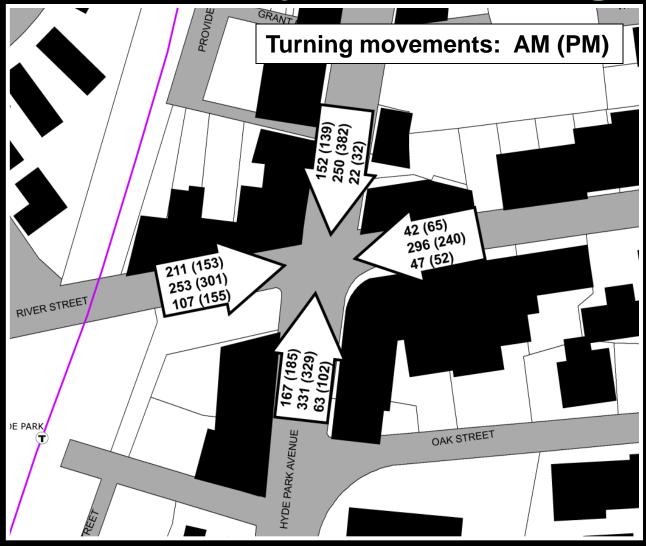








Traffic Analysis – Existing



Total Volume

AM – 1,941 veh/hr PM – 2,135 veh/hr



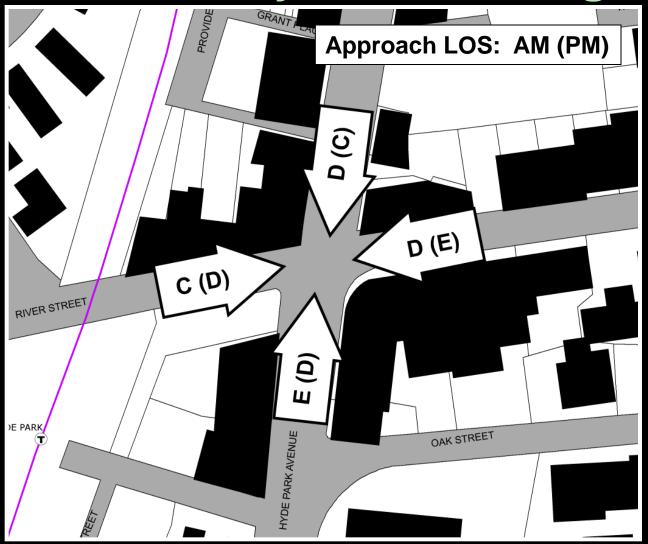
CSS



CSS

Transportation Discussion

Traffic Analysis – Existing



April 13, 2010

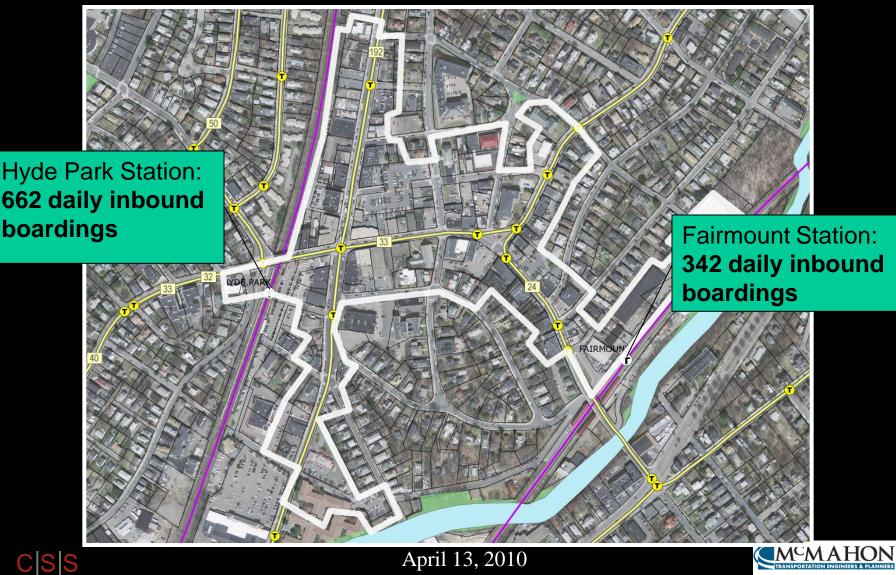
Intersection Level of Service

AM peak – D PM peak – D



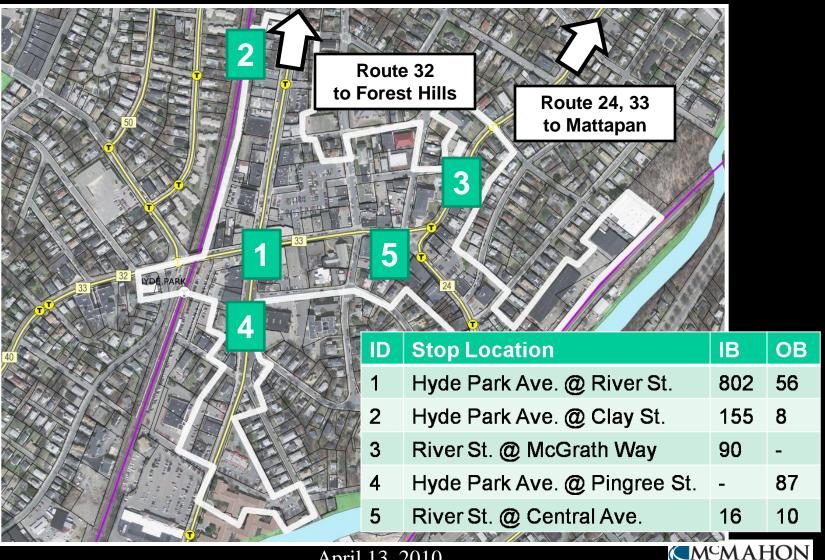


Public Transportation – Commuter Rail





Public Transportation – Rts. 24, 32, 33





Public Transportation Busiest Bus Stops

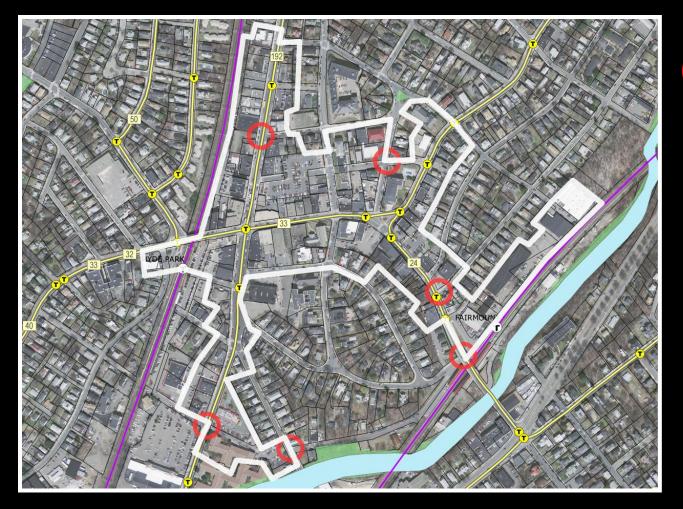
Weekday Boardings – Routes 24, 32, 33

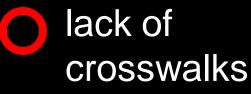
ID	Stop Location	Inbound	Outbound
1	Hyde Park Ave. @ River St.	802	56
2	Hyde Park Ave. @ Clay St.	155	8
3	River St. @ McGrath Way	90	-
4	Hyde Park Ave. @ Pingree St.	-	87
5	River St. @ Central Ave.	16	10





Pedestrians & Bicycles











Pedestrians & Bicycles







Pedestrians & Bicycles









Pedestrians & Bicycles

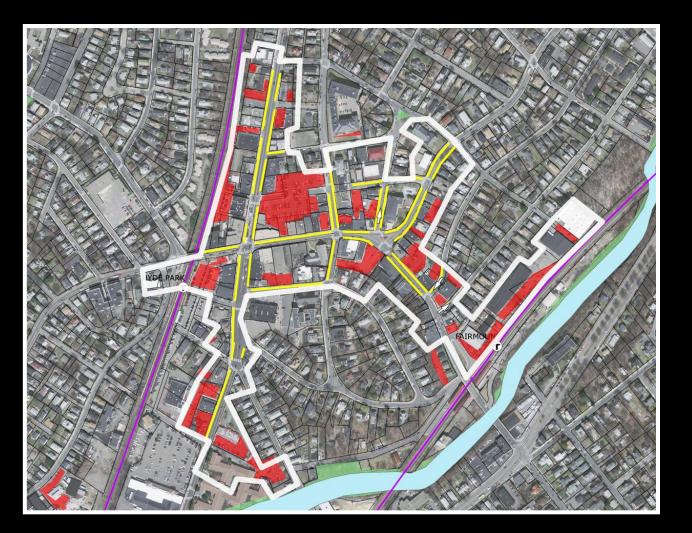












On-street Off-street









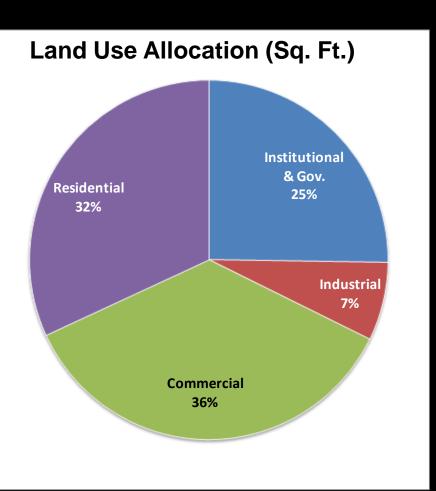
Parking

- Current zoning regulations are FAR-based
- Typical minimum requirement:
 - 1 space/300 sq. ft. nonresidential
 - 1 space/dwelling unit
- BTD Guidelines maximum requirement
 - 1 to 1.5 spaces/1,000 sq. ft. or dwelling unit
- Many existing uses do not meet zoning requirement (have no parking)

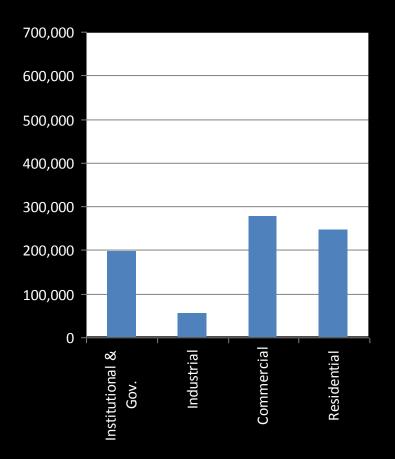




Land Use - Existing



Total sq. ft. - 775,000 approx.





CSS



Land Use - Existing

Land Use (ITE)	Occupied Building Area (sq. ft.)		
Institutional & Government	195,503		
Churches	50,000		
Library	30,000		
General Office	65,503		
Recreational Community Center	50,000		
Industrial	54,528		
Light Industrial	54,528		
Commercial	277,552		
Shopping Center	277,552		
Residential	246,992		
Apartments	247 DU		
Vacant/Parking	4,007		

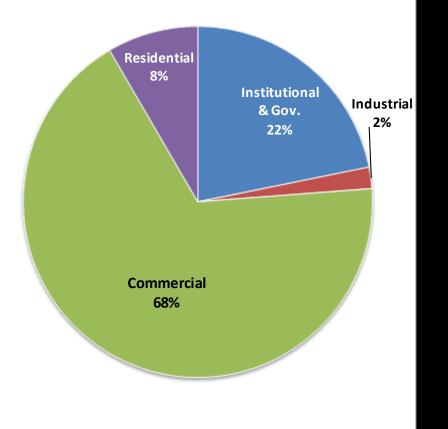




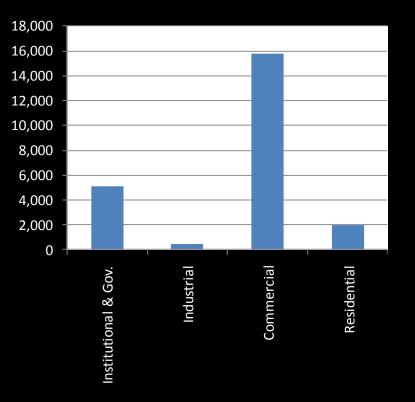


Person Trip Generation

Person Trips by Use



Daily Person Trips – 23,341



Source: Institute of Transportation Engineers, *Trip Generation* 8th *Edition*







Existing Daily Trips Mode Shares

	Auto	Transit	Walk/Bicycle
Citywide average	51%	19%	30%
Hyde Park	83%	7%	9%
Daily Trips (all modes)	23,341		
Person Trips (by mode)	19,840	1,634	1,867
Vehicle Trips	16,533		



Transportation Discussion

Existing Peak Hour Trips – by mode

Based on Existing Land Use

ring												
	Auto	Transit	Walk		F			1	Exiting			
1	376	23	60				St Huge	17 107		Aut	o Tran	sit Wall
	414	67	77			F	The second		AM	216		35
		190				W. H.	SX.		PM	622		
		100					1	6 C				
							4		5/		ŕ	
				Ent		\sim	YZ	G				
					5		4	-	Total	1/10 25		
		15	13 113		1 4 94	1	RE /			Auto	Transit	Walk
		2 Ch	al mar el	No.	125	(Same			AM	592	64	95
					1 1 2 4	111		la per	PM	1036	102	228
					m		ar ser		Redevelop	ment Parcels		







Existing Conditions

- What are the transportation issues & opportunities in the focus area?
- What is the expected level of trips to the focus area based on existing land use?
- Which uses are currently bringing the most trips to the focus area?
- On major streets, what is the percentage of pass through traffic vs. local traffic?





Existing Conditions

Traffic

- Most vehicular traffic is pass-through traffic
- Even at peak hour, congestion is manageable

Parking

- Parking system is inefficient & doesn't correlate well to adjacent land uses
- Many existing uses do not meet zoning requirements





Existing Conditions

Pedestrians & Bicycles

- Sidewalks are mainly available but low quality and mostly non-ADA compliant
- Numerous City-designated bicycle routes, but no road markings/lanes

Public Transportation

- Infrequent commuter rail service outside peaks
- Approximately 2,428 total weekday boardings in the focus area (bus and commuter rail)

- 48% higher than expected based on land use



Existing Conditions Land Use Analysis

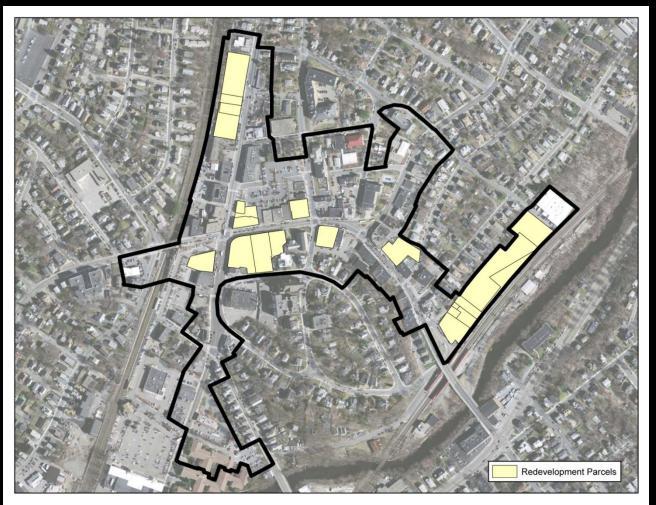
- Focus area hosts over 11,600 persons/day (23,341 trips)
- Analysis overstates existing trips, esp. for vehicles
- Many "shared" trips between uses
- Commercial uses are 35% of sq. ft. <u>but 67% of</u> <u>trips</u>(daily) – probably too high
- Peak hour comparison of vehicle counts:

	AM	РМ
Total Generated by Existing Uses	592	1,036
Cleary Square	1,941	2,135
S S Ap	oril 13, 2010	EXAMPLE AND AND AND AND AND AND AND AND AND AND



Potential Future Build-out Analysis

Redevelopment Parcels



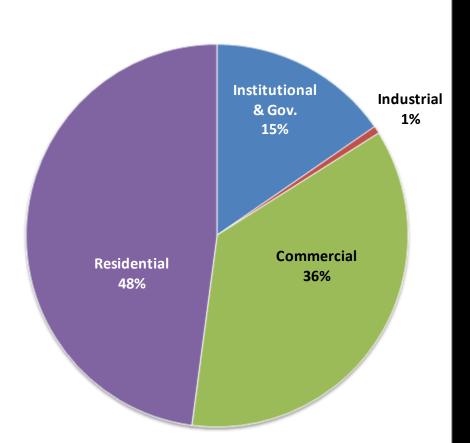




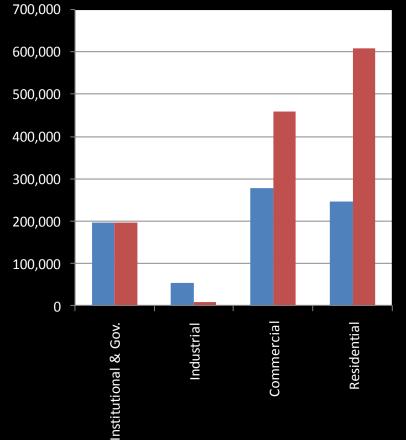


Potential Future Build-out Analysis

Land Use Allocation (Sq. Ft.)



Total sq. ft. – 1.3 million approx.







CSS

Transportation Discussion

Potential Future Build-out Analysis

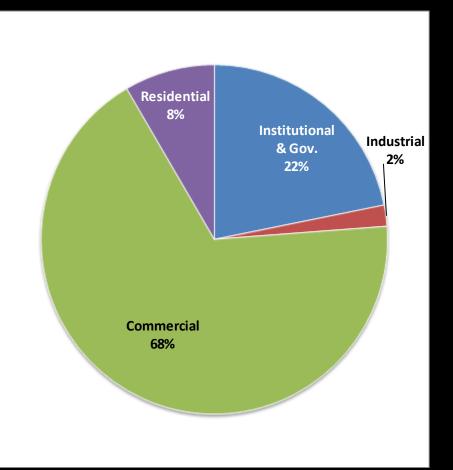
Land Use (ITE)	Occupied Building Area (sq. ft.)	Percent Change
Institutional & Government	195,503	Unchanged
Churches	50,000	
Library	30,000	
General Office	65,503	
Recreational Community Center	50,000	
Industrial	8,292	- 84.8%
Light Industrial	54,528	
Commercial	457,910	+ 65%
Shopping Center	457,910	
Residential	246,992	+ 146.2%
Apartments	608 DU	
Vacant/Parking	4,007	



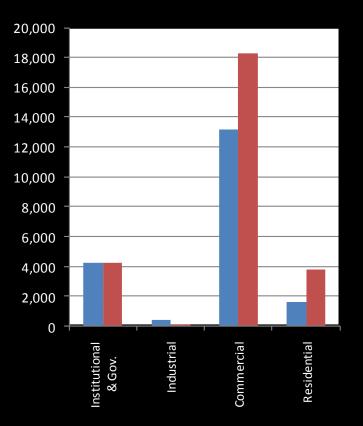


Potential Future Build-out Analysis

Person Trip Generation by Use



Daily Person Trips – 31,644



Source: Institute of Transportation Engineers, Trip Generation 8th Edition







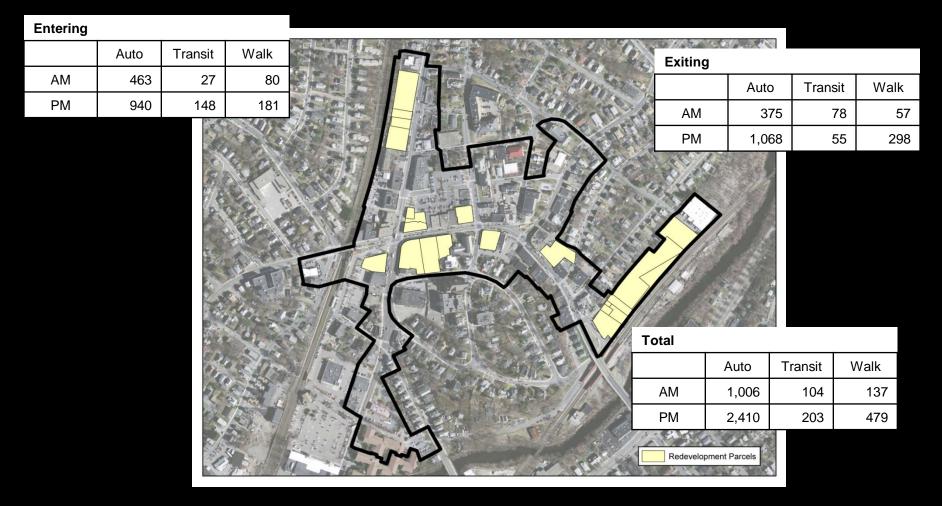
Potential Future Build-out Analysis Mode Shares

	Auto	Transit	Walk/Bicycle
Citywide average	51%	19%	30%
Hyde Park	83%	7%	9%
Daily Trips (all modes)	31,644		
Person Trips (by mode)	26,897	2,215	2,532
Vehicle Trips	22,415		





Potential Future Build-out Analysis Peak Hour Mode Share







Potential Future Build-out Analysis

- How many additional pedestrians, bicyclists and cars will be destined for the focus area?
- How do these compare to present uses?
- What are the expected parking impacts? Are additional spaces required?
- Are the impacts greater in any particular area?
- What is the impact of these trips on the surrounding transportation system?





Potential Future Build-out Analysis

- Vehicle trip increase not expected to significantly affect roadway LOS
- Shift in land uses may help balance traffic volumes between AM and PM peaks





Potential Future Build-out Analysis Parking

- Current zoning minimum parking spaces required:
 361 residential + 480 commercial
 - 841 new parking spaces
- BTD Guidelines
 - 500 to 750 parking spaces maximum





Potential Future Build-out Analysis

Pedestrians & Bicycles

- 665 added daily trips
- Likely to be higher with greater mix of uses

Public Transportation

- 581 added daily trips
- Better service would benefit residential uses





Potential Future Build-out Analysis Land Use

- Built square footage: 60% growth
- Person trips: 35% growth
- Potential build-out
 - Study area hosts 15,800 persons/day (31,644 trips)
 - Addition of 4,150 persons/day (8,303 trips)





Proposed Strategies Land Use

- TOD concentrates trip generation and attraction around transit stops & stations
- Research shows between 15 90% reduction in TOD vehicle trip rates vs. ITE trip generation models¹
- Well-designed TOD & other TDM measures are key to realizing mode shift

¹ Arrington & Cervero. (2008) *TCRP Report 128: Effects of TOD on Housing, Parking, & Travel.* Washington, D.C.: Transportation Research Board



April 13, 2010



Mode Shares (Daily)

	Auto	Transit	Walk/Bicycle
Citywide average	51%	19%	30%
Hyde Park	83%	7%	9%
Jamaica Plain	58%	19%	23%
Roslindale	75%	13%	12%
Dorchester (South)	74%	11%	16%
Proposed Average	69%	14%	17%



Mode Shares (Daily)

	Auto	Transit	Walk/Bicycle
Citywide average	51%	19%	30%
Hyde Park	83%	7%	9%
Built	26,897	2,215	2,532
Proposed Target	69%	14%	17%
	21,834	4,430	5,379
Difference	(5,063)	2,215	2,847
Existing Land Use (current mode share)	16,533	1,634	1,867

April 13, 2010



Proposed Strategies Pedestrians & Bicycles

- Expand sidewalks & enhance pedestrian crossings to facilitate access to neighborhood services and to transit
- Provide additional bicycle facilities to encourage cycling





Proposed Strategies Public Transportation

- Advocate for more frequent commuter rail service
- Advocate for lower fares (subway comparable)
- Develop targeted improvements to MBTA bus service & facilities





Proposed Strategies Policy Changes

- Encourage City to recognize lower trip parking & generation rates for developments near transit with sliding scale impact fee structures
- Examine opportunities for creative parking requirements to balance residential and commercial/ industrial uses





Proposed Strategies Zoning Changes

- Restrict driveway access/curb cuts on major streets
 - River Street, Fairmount Avenue, Hyde Park Avenue
- Prohibit auto-oriented uses and drive-thrus
 - Fast food restaurants, drive-thru banks, repair garages, car washes, gas stations, auto body services, etc.
- Provide parking maximums for new development (sim. to BTDs guidelines).
- Eliminate off-street parking requirements.
- Designate parking as a Conditional use in the B-1 subdistrict .
- Require installation of bicycle parking facilities with the construction of new buildings or parking facilities (in Article 37 – Green Buildings).





Proposed Strategies Capacity Changes

 Identify physical improvements to minimize potential congestion





Public Improvement Plan – Cleary Sq.

- Synchronization of traffic light at River St./Hyde Park Ave. with light at River St./Business St.
 - Decorative stamped crosswalk at River St./Hyde Park Ave.
 - Rumble strip on River St. at NW corner of River
 St./Hyde Park Ave. intersection
- Bump out of curb at south corner of Hyde Park Ave./Oak St. to create a 90 deg. Corner. Move bus stop from north side of Oak St. to south side, at the new curb area. Install two new shelters.





Public Improvement Plan – Cleary Sq.

- May implement trial exercise to make Harvard Ave. two-way. If the trial is successful, could become a permanent change.
- Improved street lights and decorative stamped crosswalk at Harvard Ave./River St. intersection





Advisory Group Working Session

Wednesday, April 13, 2010 6:30–8:30pm E-18 Police Station 1249 Hyde Park Avenue



April 13, 2010