

Blue is Greater Boston's definitive resource for commercial office real estate discussion & analysis.

@BOSqFt

SLIGHT NEGATIVE ABSORPTION reflected a quarter of significant commitments and growth countered by few large space consolidations.

WEWORK is listing 528,000 sf for sublease in Boston and Cambridge, more space than any direct landlord.

BOSTON PROPERTIES is reportedly nearing agreements that will result in two fully-leased groundbreakings in Cambridge and near North Station.

A HEALTHCARE VENTURE announced in January to be backed by Amazon, Berkshire Hathaway and Chase will be based in Boston.

WAYFAIR signed a 395,000 lease in the Back Bay as area availability has plummeted to very low levels.

DIVCOWEST will move forward with a second speculative building at Cambridge Crossing following Philips' anchor lease at 250 North Street.

AMAZON announced it has leased enough space for 2,000 workers in its Alexa unit at a build-to-suit facility in the Seaport.

MANULIFE will vacate its 2004-built Seaport facility in a consolidation to the Back Bay John Hancock footprint.

XMBLY is the latest announced mixed-use Somerville development to join Boynton Yards in attempting to replicate Assembly Row's success.

QUICK



Absorption
-22,000 sf
Absorption was negative, albeit slightly

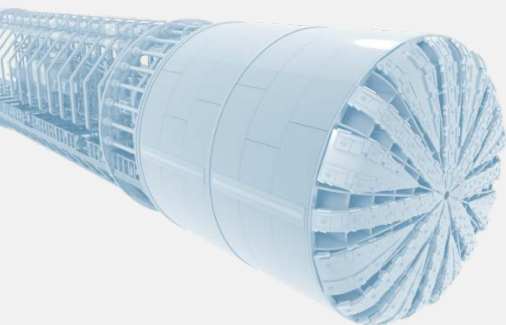


Vacancy
11.0% +0.3%
Vacancy rose driven by new completions



Rents (Class A)
\$38.46 +2.1%
Class A asking rents rose over prior quarter levels

see a video on how a tunnel boring machine works at <https://ecs.re/boringvideo>



BORING ESTIMATES

A study conducted to analyze the North/South Rail Link, a key project in serving a region increasingly re-orienting its activity around transportation nodes, was released last week; here are the estimated project costs when compared to other rail tunnels recently built using the same proposed drilling techniques ...

OTB, page 3

timeline

AMAZON, Berkshire Hathaway and Chase announce their healthcare venture will be based in Boston and headed by Dr. Atul Gawande of Brigham & Women's Hospital and Harvard Medical School.



ARUP

ARUP GROUP announces a project to unite the region's rail systems would cost between \$12 billion and \$21.5 billion following a state-commissioned study, though many public figures dispute that estimate as far too high.

NOVAYA VENTURES receives approval from the City of Somerville for "Xmbly," a 1.5 million sf mixed-use project slated for a site immediately adjacent Assembly Row; the site is set to include 814,000 sf of commercial sf.

NOVAYA



WAYFAIR leases 395,000 sf across the adjacent 222 Berkeley and 500 Boylston Street buildings in the Back Bay; the group was known to be in the market for up to one million sf to accommodate anticipated expansion.

WEWORK leases 90,000 sf across four floors at 40 Water Street, the former Fidelity HQ at 40 Water Street under redevelopment by RelatedBeal; they will join Publicis Groupe, which has already leased 217,000 sf.



MILLENNIUM PARTNERS receives final Boston Planning and Development Agency approval for its project at Winthrop Square; at 1.6 million sf the facility will be the city's second largest by total sf, behind 200 Clarendon.

ALKERMES commits to a 220,000 sf facility to be developed by Davis Marcus Partners at its Reservoir Woods campus in Waltham; the company has a research facility at an nearby building in the campus.



AMAZON announces it has finalized a lease of a 515,000 facility to be developed by WS Development in the Seaport expected to house 2,000 workers; the group opened its first Seaport location earlier in the quarter.

GOOGLE is likely the tenant currently in discussions to lease a build-to-suit 400,000 sf tower from Boston Properties in Cambridge; the building would replace the 115,000 sf structure currently at 325 Main Street.



PHILIPS, already having signed on as the first office tenant at Cambridge Crossing, announces it is increasing its footprint to 343,000 sf; DivcoWest later announced it will speculatively develop another 500,000 building.

CARGURUS leases the 48,000 sf office portion of a 71,000 sf speculative building set for fourth quarter delivery at 121 First Avenue in Cambridge; the group occupies more than 100,000 sf at nearby facilities.



MANULIFE says it will consolidate its operations in and near John Hancock's Back Bay footprint; the 465,000 sf it will vacate at 601 Congress Street in the Seaport date to just before the 2003 acquisition of John Hancock.

q3

jun

jun

may

may

apr

apr

q1

Flashback to Q1'2018 ...

A second straight quarter of positive demand saw occupancy rise 292,000 sf as vacancy dipped 0.2 percent to 10.7 percent. Amazon leased a 430,000 sf build-to-suit facility at 88 Seaport; the move is not believed to have an HQ2 implication. Philips leased 243,000 sf at Cambridge Crossing, the first office tenant to lease space at the 5.5 million sf mixed-use campus. WeWork increasingly markets newly leased space for sublease, a practice likely to be view as competitive with direct offerings. Wayfair announced it may need up to one million sf of headquarters space to accommodate expansion.

Greater Boston's commercial office market continues to reflect repeated recent themes of spectacular growth from numerous industry types and an urban and infill influx trend as of mid-2018. Build-to-suit projects continue to increase in number as Amazon reached final agreement to lease a facility in the Seaport to house the group's Alexa division, Alkermes agreed to lease a 221,000 sf facility in Waltham, and Boston Properties nears agreements with Epsilon, Google and Oath, respectively, for more than one million sf of likely 2019 groundbreakings. Following leasing success with Philips for a majority of 250 North Street, DivcoWest has begun sitework on a second, slightly larger 500,000 sf facility at Cambridge Crossing, which will break the previous assets' record for largest ever speculative Cambridge groundbreaking. Amazon, Berkshire Hathaway and Chase selected Boston to be the headquarters for a healthcare venture announced in January and is in the market for a small scale first office, extending the market's streak of landing out-of-market occupants. The growing residential and commercial base of the region is increasingly orienting around the rail transit system, despite being heavily overcapacity at peak hours and in need of significant upgrades. As the region hopes to capture a seeming opportunity to create a pleasant home for an increasingly discerning set of corporations and workers, planning for an increasingly car-free society must soon take priority.

ESTIMATE OFF THE RAILS?

A concept to connect a unique gap in the nation's passenger rail network – the one between North and South Stations in Boston – is under consideration for at least the fifth time over the last 150 years. Current interest is driven by the region's increasingly transit-oriented population and advancements in tunnel drilling technology that have significantly lowered costs associated with building tunnels that has resulted in a boom in tunnel-building worldwide. Here are comparisons between the estimated cost of building a four-track tunnel released in June through a state-sponsored study.

NSRL Cost Estimated at 11x Recent Averages

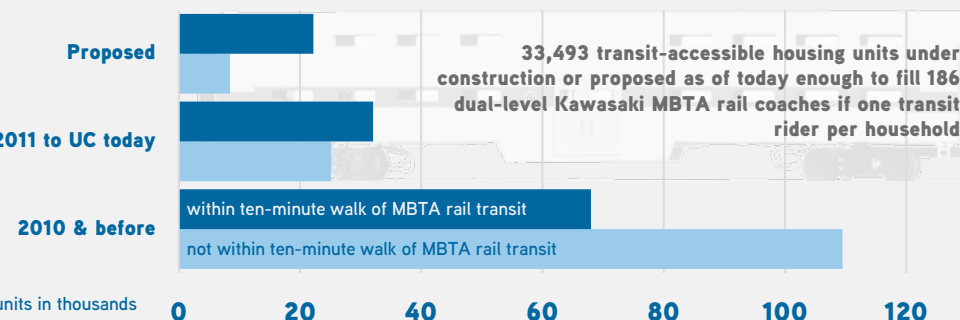
Per-track cost per mile of TBM-constructed or under construction tunnels using tunnel boring methods

tunnel	country	opened	cost (\$billion)		cost (\$million)	
			in 2018 USD		per track mile, 2018 USD	
Pajares Base	Spain	2018	\$2.4		\$77	
Qamchiq	Uzbekistan	2016	\$2.0		\$85	
Crossrail	UK	2018	\$2.3		\$90	
Semmering Base	Austria	2026	\$4.1		\$121	
averages completed or commenced since 2010 using tbm					\$138	
Ceneri Base	Switzerland	2019	\$2.7		\$140	
Gotthard Base	Switzerland	2016	\$10.3		\$145	
Münsterer	Austria	2012	\$3.4		\$169	
Terfner	Austria	2012	\$3.4		\$171	
Koralalm	Austria	2022	\$7.5		\$184	
Brenner Base	Austria/Italy	2026	\$13.5		\$198	
NS Rail Link	United States	2032	\$15.5		\$1,554	

note: \$15.5 billion is a 2018-adjusted figure for the four-track option which was stated in 2028 dollars

Housing Developers Banking on Transit Expansion

Number of housing units developed in multifamily properties with at least ten units in Boston MSA



Rail You'd Want to Ride!

Some accompanying likely system improvements:

Catenary Wire & Electric Multiple Units

EMUs speed & slow faster and enable more frequent service; overhead catenary already exists on the Northeast Corridor.



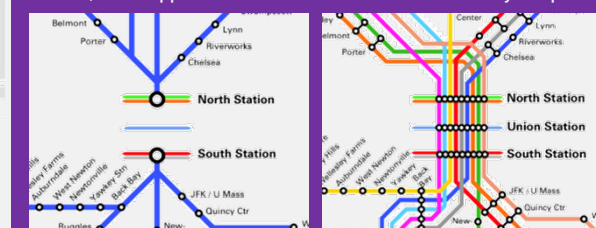
High Platforms throughout Network

Low platforms require boarding through limited attended doors, high platforms allow for more significantly more rapid egress.



Instantly Doubled Catchment

Areas reachable by a direct ride from any station instantly double, and supplemental use of overcrowded subway drops.



Urban Boston

This Quarter ...

- ◆ Tenants absorbed 382,000 sf, lowering vacancy 0.5 percent to 12.0 percent as Class A rents rose two percent to \$60.01 per sf.
- ◆ Seaport accounted for 93 percent of urban absorption as Reebok opened its new, 220,000 sf Seaport HQ at 25 Drydock Avenue and Amazon opened its 145,000 sf at 253 Summer Street.
- ◆ Amazon has leased a 511,000 sf facility to be developed for them by WS Development at 390 Congress Street in the Seaport.
- ◆ Back Bay Class A availability has plummeted over four quarters to 4.9 percent from 15.4 percent; Wayfair leased of 395,000 sf at 222 Berkeley Street and 500 Boylston Street.
- ◆ Financial giants Bank of America, Fidelity Investments and State Street Bank may be in the market for a total of more than two million sf as the group's weigh lease expirations over the next five years.
- ◆ Boston Properties is believed to be more than 75 percent committed on a second, 652,000 sf tower to be developed at the Hub on Causeway.
- ◆ Heitman acquired 28 State Street (\$418 million, 572,000 sf, \$731 per sf) from a joint venture including Rockefeller Group as Related Beal bought 451 D Street (\$276 million, 477,000 sf, \$578 per sf).

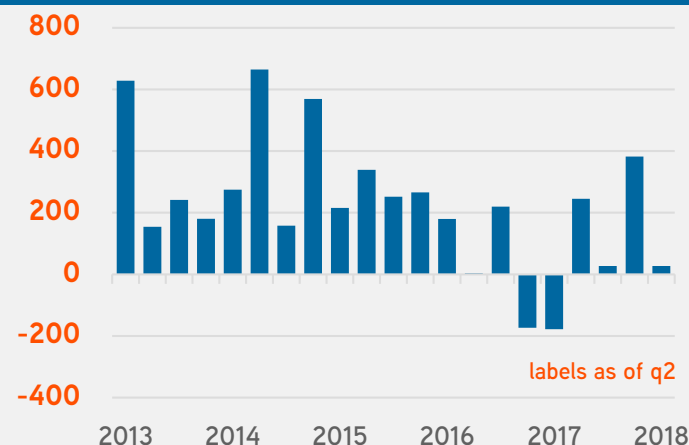
WeWork Sublease Available Tops 500k Sf

Space listed by WeWork for sublease with Boston & Cambridge office landlords

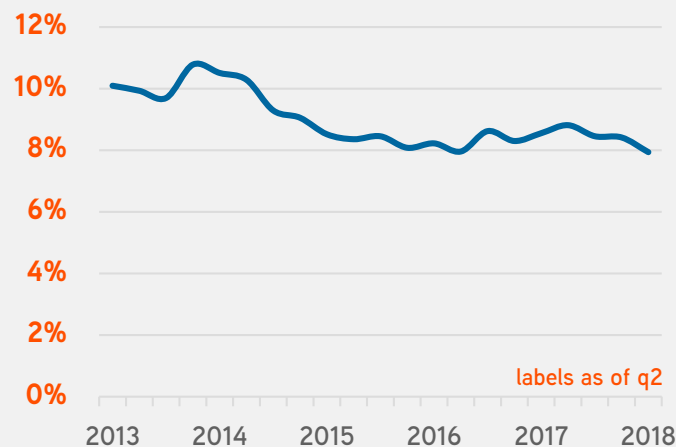
building	sf for sublease	WeWork Leased	Sublease Listed
33 Arch St, Boston	99,000	Jan 2018	Jan 2018
1 Beacon St, Boston	60,000	Oct 2017	Feb 2018
31 St James Ave, Boston	114,000	Feb 2016	Jul 2017
501 Boylston St, Boston	100,000	Mar 2018	Apr 2018
51 Melcher St, Boston	73,000	Jan 2014	May 2018
200 Portland St, Boston	45,000	Aug 2017	Apr 2018
625 Mass Ave, Cambridg	33,000	Oct 2016	Oct 2017
745 Atlantic Ave, Boston	5,000	Feb 2014	May 2018
WeWork Total	528,000		
TH Real Estate	499,000	Landlords with most direct space available, Boston & Cambridge office	
The Blackstone Group LF	444,000		
Oxford Properties Group	364,000		
The Abbey Group	324,000		
Norges Bank Investment	323,000		
Tishman Speyer	313,000		
LaSalle Investment Mana	293,000		
Rockpoint Group LLC	232,000		
John Hancock Real Estat	223,000		
GreenOak Real Estate	219,000		
Invesco Advisors, Inc.	205,000		

source: Costar Realty Information Services

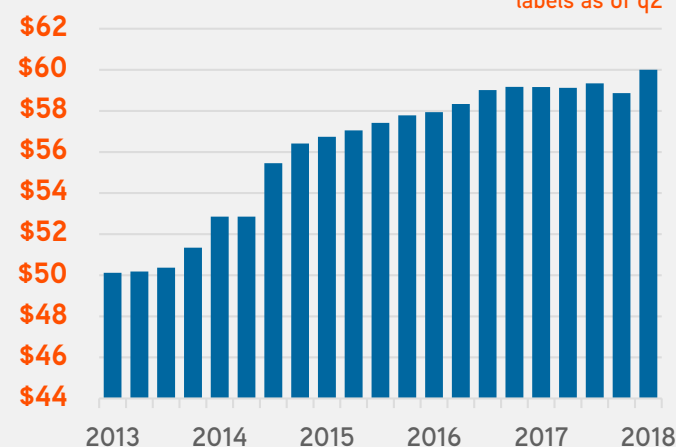
absorption (sf in thousands)



vacancy %



rents \$ class a per sf per year



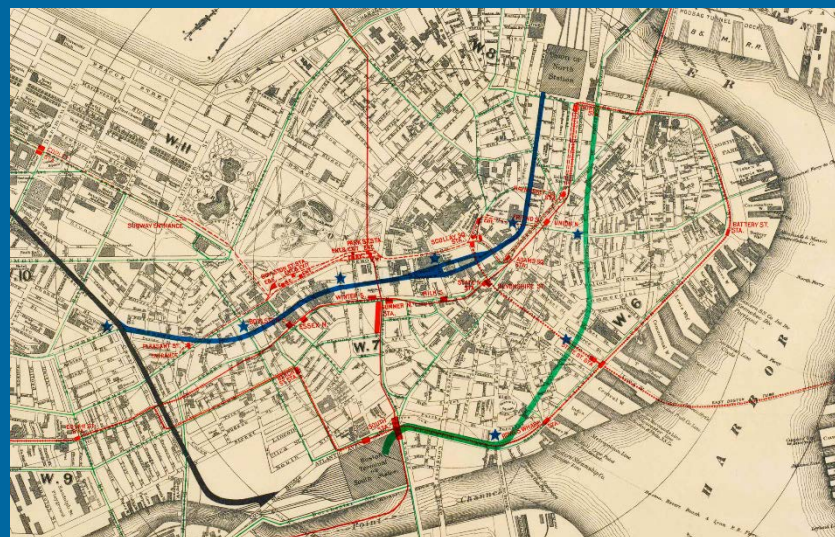
Cambridge & Streetcar Belt

This Quarter ...

- Cambridge vacancy remained stable at 2.0 percent despite 121,000 sf of negative demand; Class A rents increased 2.6 percent to \$62.82 per sf.
- ABT Associates moved to 60,000 sf at 10 Fawcett Street, its former 126,000 sf facility at 55 Wheeler Road will be redeveloped as housing.
- CarGurus leased the 48,000 sf of office space available at a speculative office building under construction at 121 First Street; DivcoWest announced it will commence construction of a second, 500,000 sf facility at Cambridge Crossing following the leasing of a majority of the first building at 250 North Street by Philips.
- Invesco acquired a four-property portfolio marketed as "The Quad" from The Davis Companies (\$73 million, 201,000 sf, \$364 per sf).
- Streetcar Ring vacancy dropped 0.7 percent to 7.4 percent as tenants absorbed 220,000 sf; Class A rents remained stable at \$40 per sf.
- "Xmbly" received an initial set of approvals from the city of Somerville as a 1.5 million sf mixed-use development near Assembly Row.
- Widdett Circle, an 18.5-acre site presently home to a large number of food wholesalers in South Boston, is being marketed for \$200 million as a development site for up to six million sf of mixed-use space.

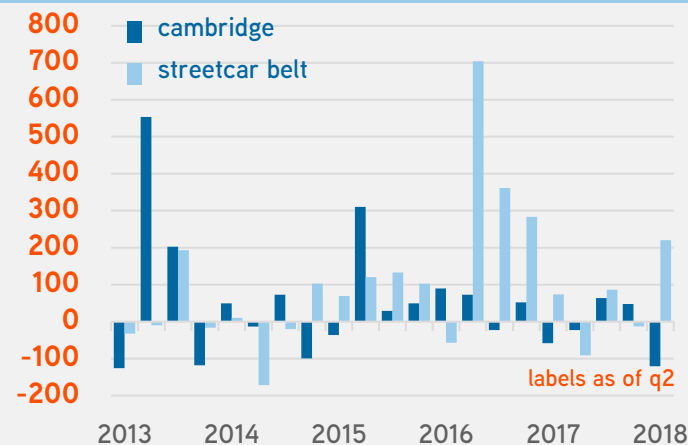
North/South Rail Link a 100+ Year Cause

Shortly after the 1900 completion of South Station plans were being drawn to create a unified station, driven by numerous inefficiencies of operating two terminals in the urban core; two world wars, a depression and the following emergence of the automobile are factors that have it unbuilt to this day.

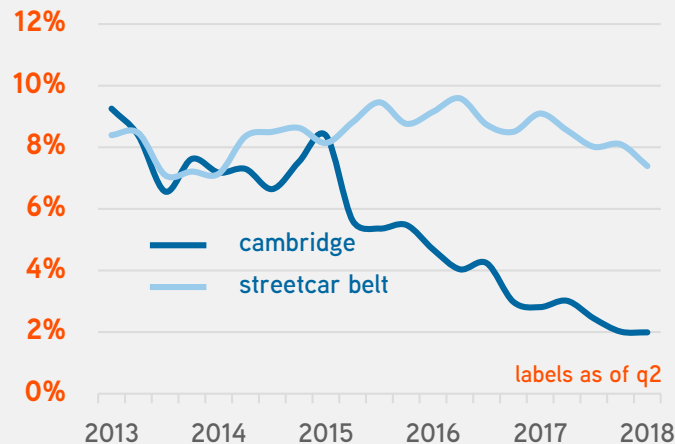


1914 map of Boston showing potential tunnel routes; note that the green route is similar to today's Central Artery Tunnel, though the right of way had not yet been established through the building of the original elevated expressway.

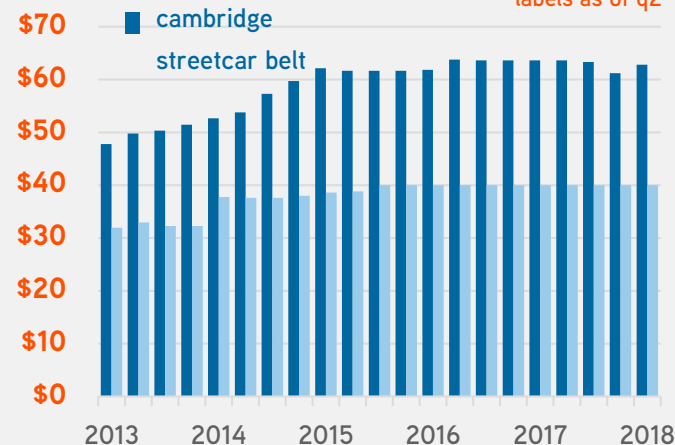
absorption (sf in thousands)



vacancy %



rents \$ class a per sf per year



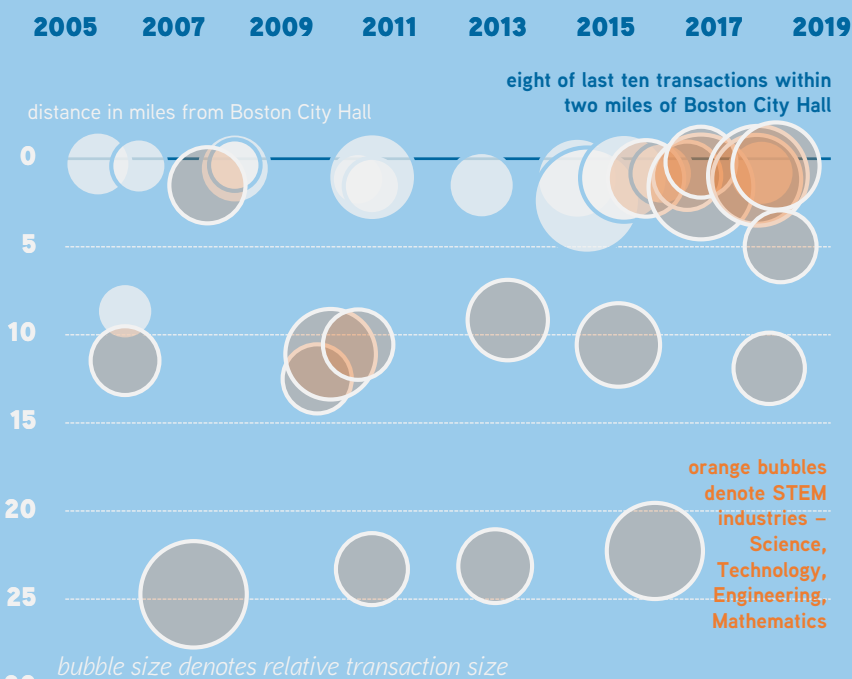
128 & 495 Belts

This Quarter ...

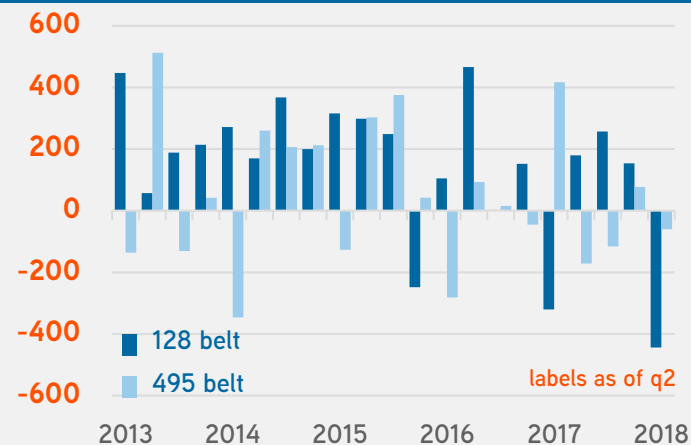
- 128 Ring absorption of negative 444,000 sf lifted vacancy 1.4 percent to 11.6 percent as Class A rents increased 1.3 percent to \$32.44 per sf.
- Reebok's departure from Canton to Boston's Seaport resulted in 680,000 sf of new vacancy; absorption apart from that singular event was a positive 236,000 sf.
- In Waltham, Boston Properties commenced construction on a 211,000 sf facility at 20 CityPoint following a 112,000 sf commitment from SGH; the repositioned, 425,000 sf former postal facility at 200 Smith Street was delivered to the market fully available.
- The Carlyle Group acquired 67 South Bedford Street in Burlington (\$56 million, 177,000 sf, \$314 per sf) from The Davis Companies.
- 495 vacancy increased 0.4 percent to 17.1 percent on 60,000 sf of negative absorption as Class A rents remained stable at \$22.78 per sf.
- Mathworks opened its new, 180,000 sf set of buildings at 19 Superior Drive in Natick, the new facilities bring the group's total occupancy in the town to 1.2 million sf.
- Atsco Footwear acquired 250 Apollo Drive in Chelmsford from CalSTRS (\$11 million, 144,000 sf, \$76 per sf).

Regional Core Dominating in Large Deals

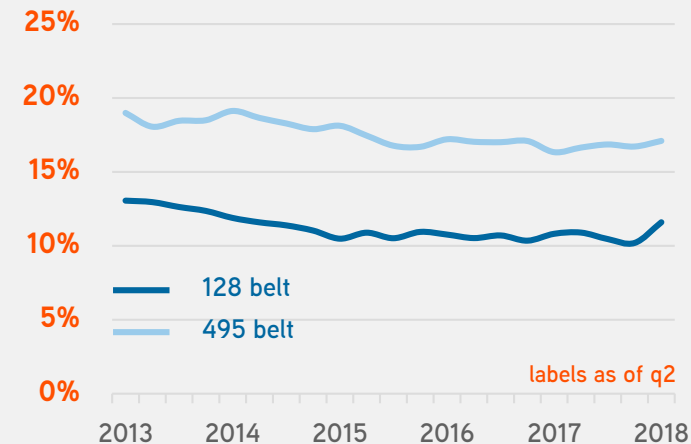
Greater Boston lease transactions 200,000 sf and larger, given year



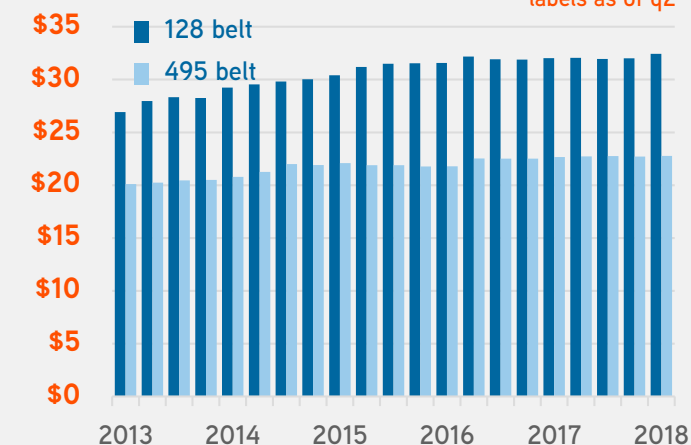
absorption (sf in thousands)



vacancy %



rents \$ class a per sf per year





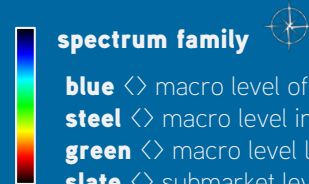
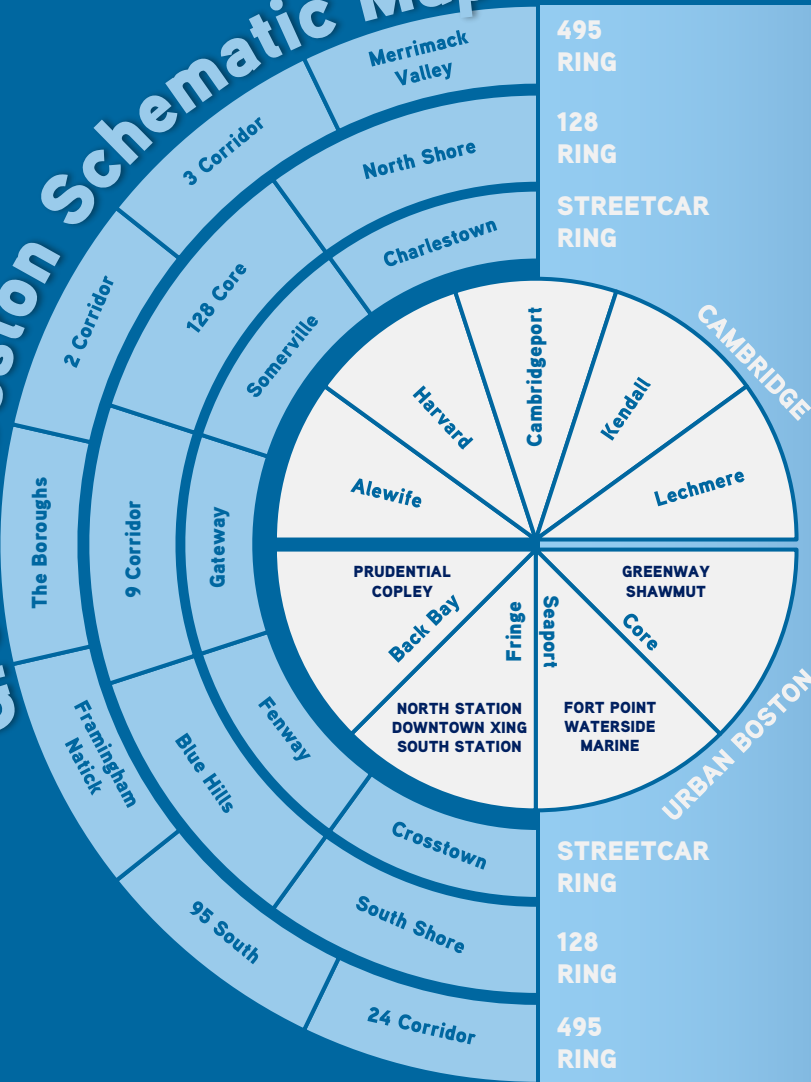
sf in thousands	Absorption				construction**			rent***
	rba	vac%	q2'18	ltm	uc	lease%	ltm	\$cl a
total market	210,024	11.0%	(22)	522	3,449	88%	1,080	\$38.46
urban boston	68,421	7.9%	382	476	1,427	99%	60	\$60.01
core	34,389	8.4%	(51)	94	365	100%	0	\$57.26
greenway	12,454	6.7%	(121)	(294)	0		0	\$60.77
shawmut	21,935	9.4%	70	387	365	100%	0	\$55.70
fringe	7,874	6.9%	(70)	(30)	175	100%	0	\$46.50
downtown crossing	3,139	8.8%	(19)	(11)	0		0	\$48.00
north station	3,208	3.4%	17	63	175	100%	0	\$45.00
south station	1,527	10.1%	(69)	(82)	0		0	
back bay	14,680	8.6%	148	147	0		0	\$72.21
copley	10,699	10.2%	43	(120)	0		0	\$71.30
prudential	3,981	4.5%	105	267	0		0	\$73.72
seaport	11,478	6.3%	356	266	887	98%	60	\$60.28
fort point	3,985	9.3%	286	67	97	100%	0	
marine	2,054	6.3%	39	137	0		0	
waterside	5,440	4.1%	30	62	790	98%	60	\$60.28
cambridge	10,991	2.0%	(121)	(33)	1,010	100%	0	\$62.82
kendall	5,387	1.0%	(2)	5	486	100%	0	\$81.13
central	1,014	1.6%	(7)	67	0		0	
lechmere	1,698	2.1%	4	37	524	100%	0	\$67.50
harvard	1,240	1.4%	(1)	4	0		0	
alewife	1,653	5.9%	(115)	(145)	0		0	\$48.99
streetcar belt	16,189	7.4%	220	202	212	79%	160	\$40.00
charlestown	2,352	3.3%	(33)	(2)	0		0	
somerville	5,134	6.9%	35	13	212	79%	0	\$38.00
gateway	4,108	14.0%	226	198	0		160	\$40.00
longwood	2,356	2.8%	(7)	(8)	0		0	\$42.00
crosstown	2,239	5.6%	(1)	1	0		0	
128 belt	59,059	11.6%	(444)	146	742	52%	680	\$32.44
north shore	13,042	9.4%	1	26	145	0%	0	\$26.50
128 core	22,447	13.0%	54	224	432	50%	425	\$35.10
9 west	6,997	11.7%	9	133	165	100%	255	\$44.25
blue hills	6,520	17.6%	(481)	(350)	0		0	\$28.83
south shore	10,054	7.3%	(27)	112	0		0	\$22.66
495 belt	55,364	17.1%	(60)	(270)	58	100%	180	\$22.78
merrimack valley	8,807	16.9%	31	242	0		0	\$21.85
3 north	15,029	19.4%	(17)	(433)	58	100%	0	\$22.28
2 west	6,015	19.0%	(0)	(84)	0		0	
the boroughs	14,019	15.9%	(15)	47	0		0	\$19.64
framingham natick	6,508	11.3%	58	34	0		180	\$31.26
95 south	3,460	16.6%	(59)	(26)	0		0	\$21.48
24 corridor	1,527	25.2%	(58)	(50)	0		0	\$21.00

rba = rentable building area ltm = last twelve months ** preleased % & last twelve months completions ***rent = \$ per sf per year full service class a

Perry Brokerage strives for complete accuracy in all aspects of its information and analysis, though no guarantee to that effect is made. Sources include Bureau of Economic Analysis, Bureau of Labor Statistics, Esri, Federal Reserve Bank, Google Analytics, Institute for Supply Management, Perry Brokerage Associates.



Greater Boston Schematic Map



spectrum family

- blue** <> macro level office | quarterly
- steel** <> macro level industrial | quarterly
- green** <> macro level laboratory | quarterly
- slate** <> submarket level office series | quarterly
- node** <> transit-accessible office & lab | twice-yearly
- white** <> special interest | twice-yearly or so

Subscribe to Spectrum by texting "pbaresearch" to 228-28



Brendan Carroll <> Director of Intelligence <> bcarroll@perrybrokerage.com