

BUILDING 1 OFFICE
14 LEVELS OF OFFICE

SEE A-1.01 - A-1.04

MBTA
SERVICE
BUILDING

RIVERSIDE MASTER PLAN

SEE A-10.01 - A-10.04

HOTEL
CONDOMINIUM
PARKING (UNDERGROUND)

A-2.03

BUILDING 10 GARAGE
8 LEVELS OF PARKING

BUILDING 9
7 LEVELS OF PARKING
1 LEVEL OF RETAIL

BUILDING 8
6 LEVELS OF RESIDENTIAL
1 LEVEL OF RETAIL

SEE A-8.01

REVISED PARKING ANALYSIS

OFFICE
PARKING

A-3.06






prepared by 128 Business Council
on behalf of Mark Development, LLC

Dated: 2021-05-21 (v.10.0)

GROVE STREET

GROVE STREET

Updated square footage and rates with resulting peak* demands

		ITE rate**	Rate with contextual deductions***	Resulting peak demand
 Residential	550 units	1.12 spaces per unit	1.011 spaces per unit	556.05 spaces
 Office	217,137 square feet	2.39 spaces per 1000 sq ft	2.055 spaces per 1000 sq ft	446.22 spaces
 R&D****	146,440 square feet	2.58 spaces per 1000 sq ft	2.218 spaces per 1000 sq ft	324.80 spaces
 Retail	22,442 square feet	1.95 spaces per 1000 sq ft	1.466 spaces per 1000 sq ft	32.90 spaces
 MBTA (fixed)	-	-	-	1000 spaces

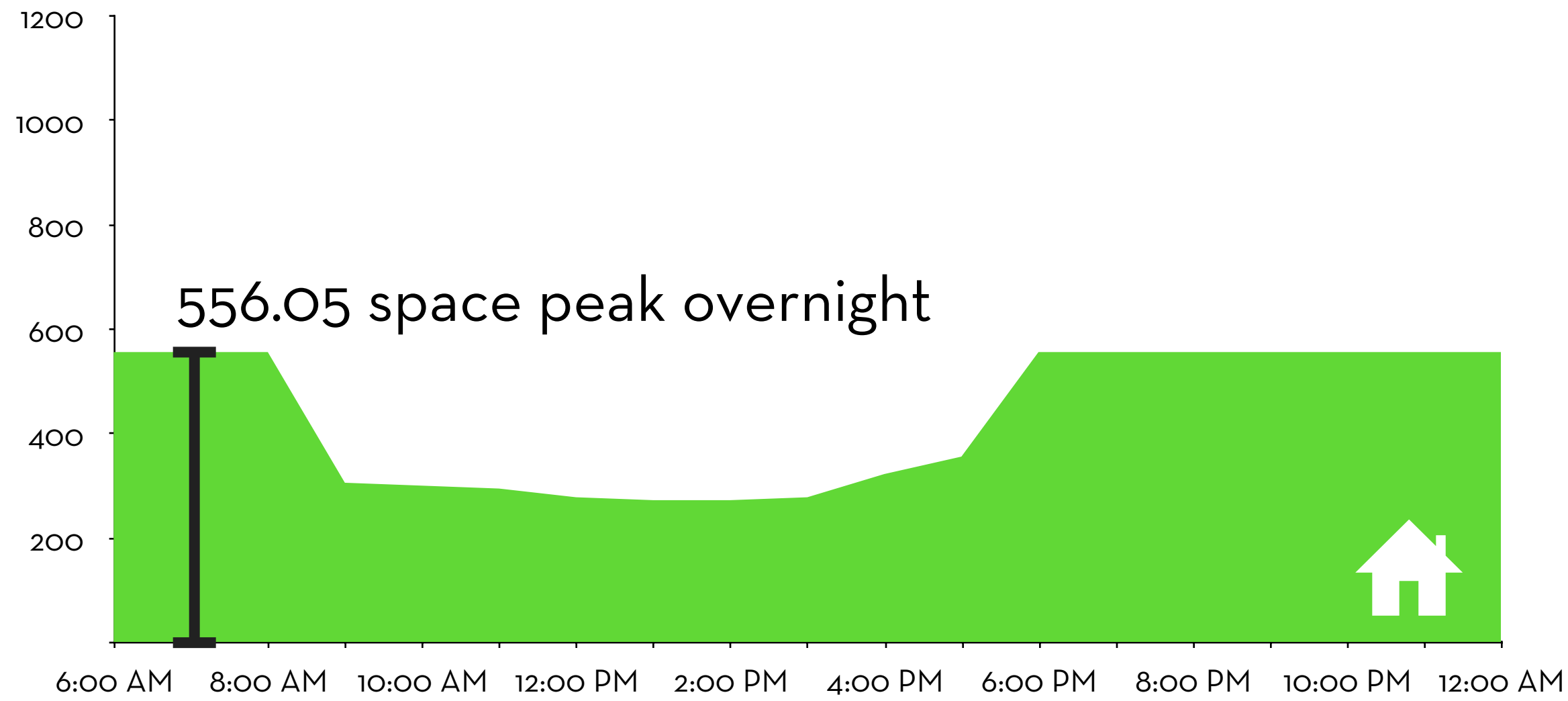
* The three listed peak demands each occur at different times of day from one another, so these four values cannot be added up. See following pages for hour-by-hour breakdowns and the resulting combined peak.

** All rates are taken from ITE's 5th generation parking manual.

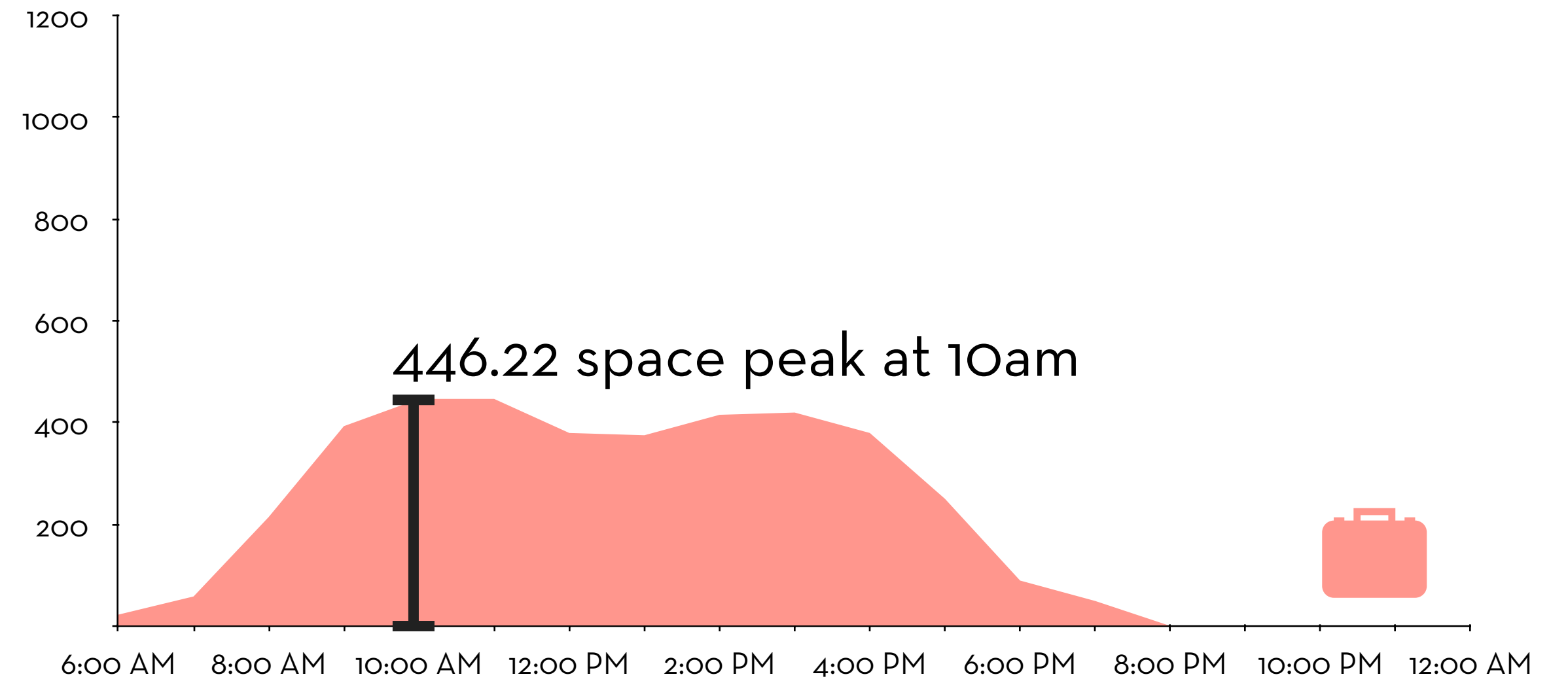
*** For a description of these contextual deductions, see the complete submitted parking presentation dated April 21, 2020.

**** This rate is for the ITE category "Office - Research & Development," which applies to non-manufacturing laboratory spaces based upon a national data set.

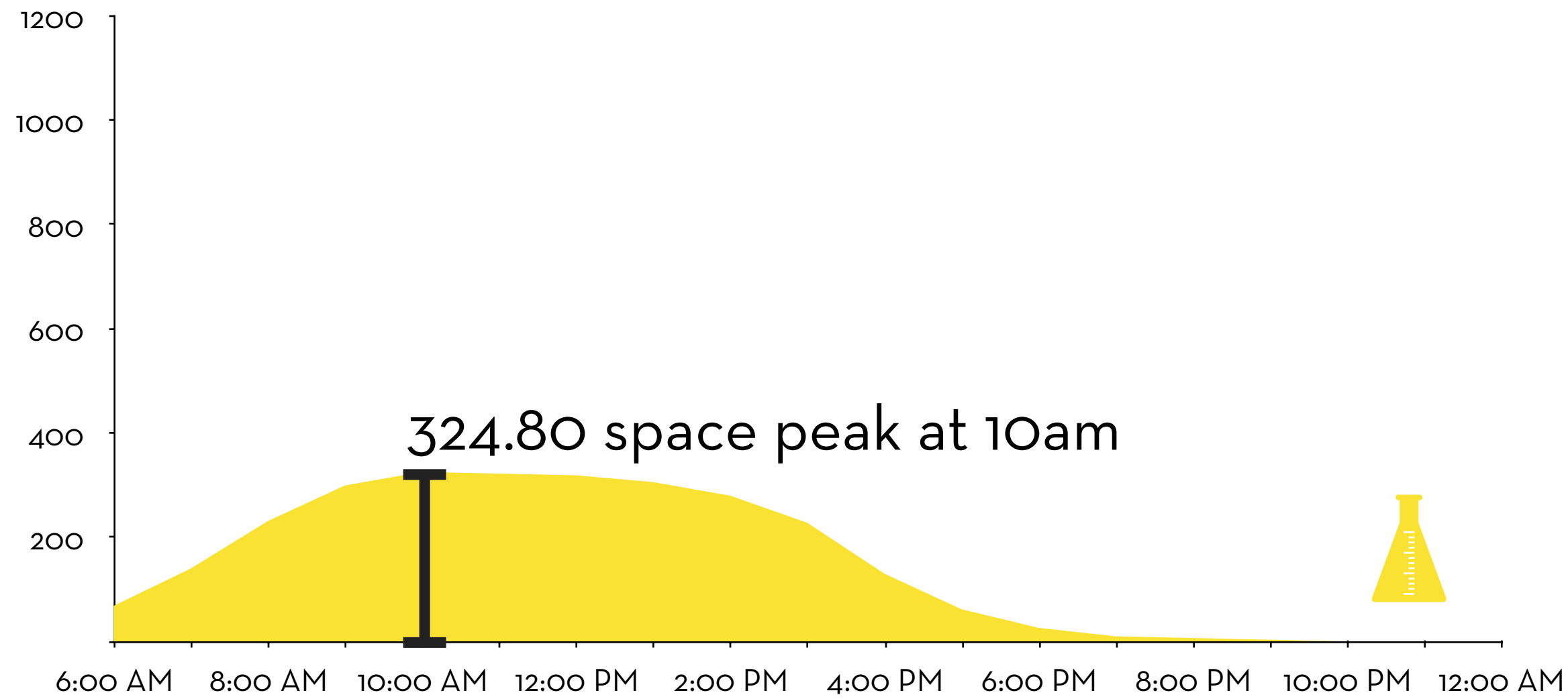
Parking demand as it varies throughout the day: Individual Charts



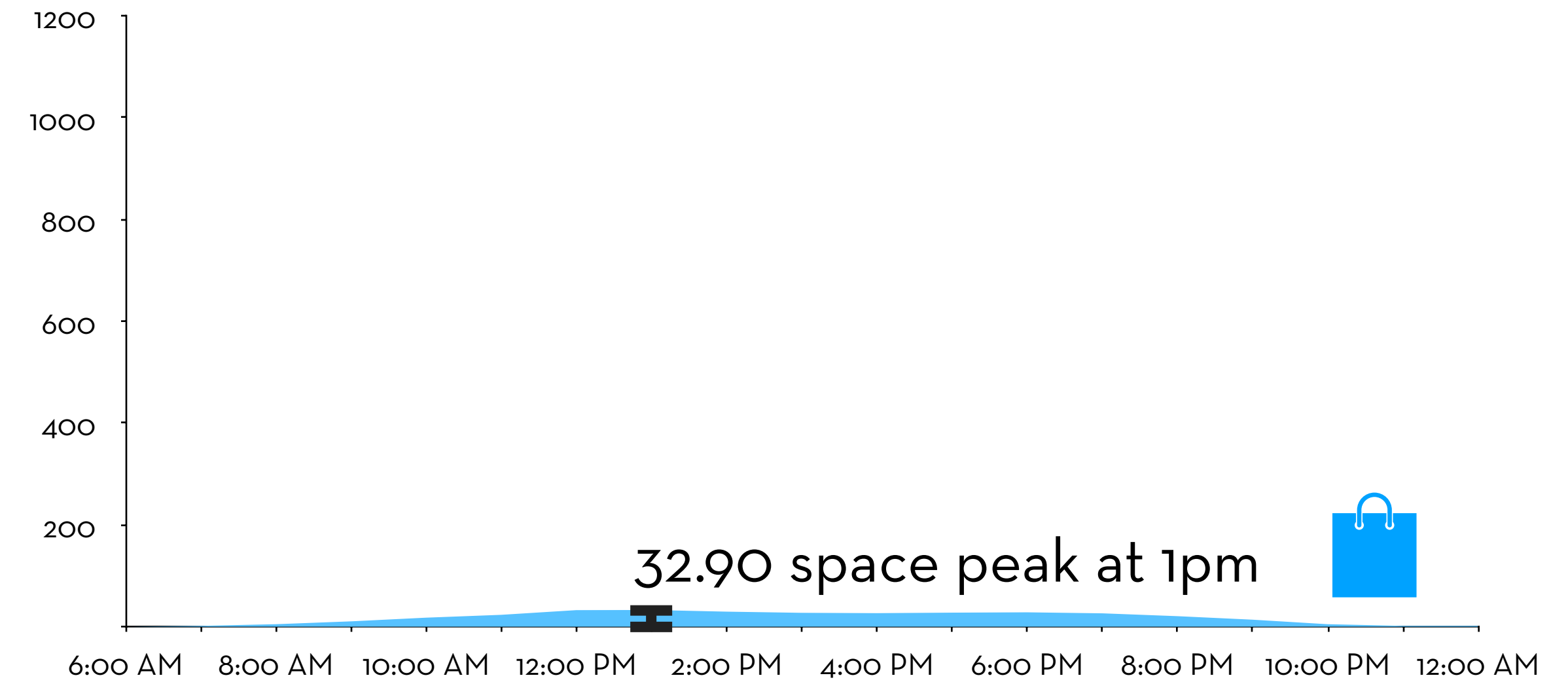
Residential



Office

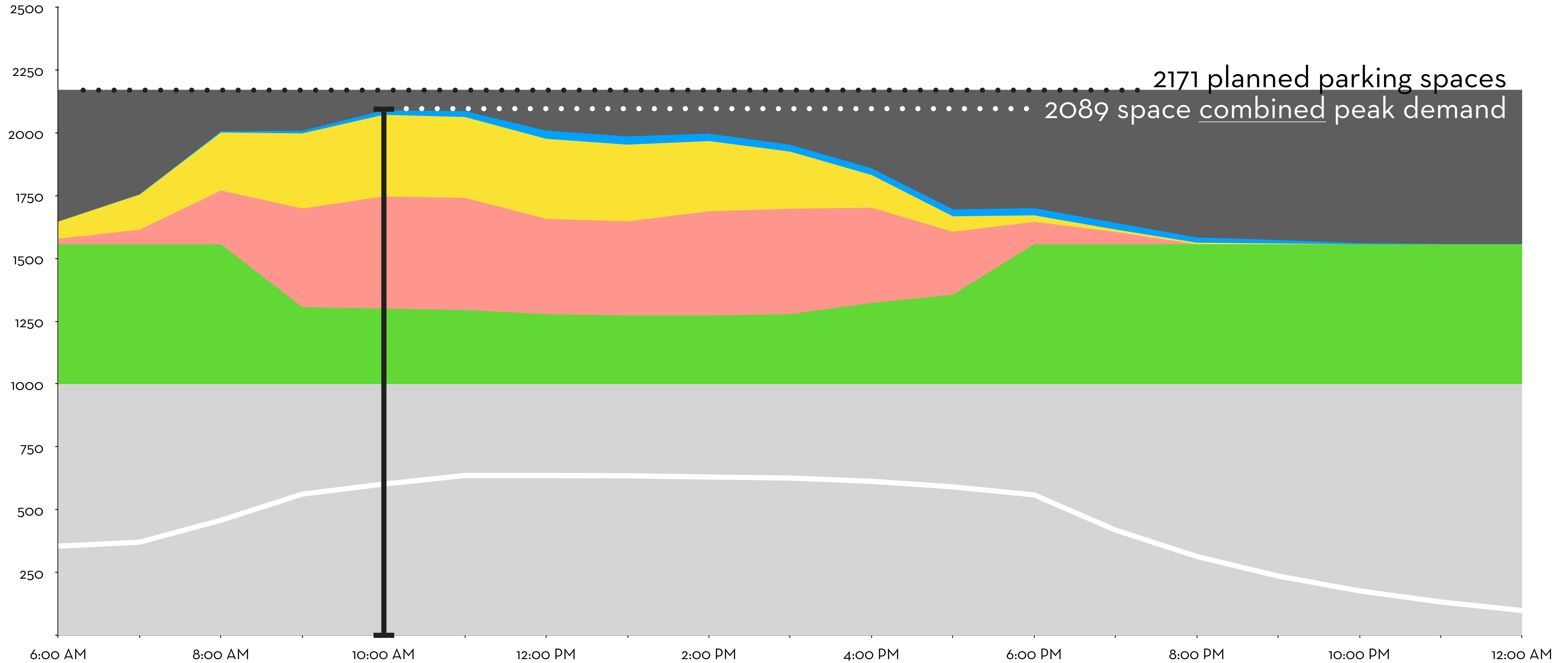


R&D



Retail

Parking demand as it varies throughout the day: Stacked Chart








MBTA demand
 MBTA fixed
 Residential
 Office
 R&D
 Retail
 Parking Stock

Parking demand as it varies throughout the day: Complete table

	MBTA (Observed)	MBTA (Dedicated)	Residential		Office		R&D		Retail		Total
6:00 AM	355	1000	nested	556.05	5%	22.31	21%	68.21	0%	0.00	1646.57
7:00 AM	371	1000	nested	556.05	13%	58.01	43%	139.67	5%	1.64	1755.37
8:00 AM	458	1000	nested	556.05	48%	214.18	71%	230.61	15%	4.93	2005.78
9:00 AM	562	1000	55%	305.83	88%	392.67	92%	298.82	32%	10.53	2007.85
10:00 AM	602	1000	54%	300.27	100%	446.22	100%	324.80	54%	17.77	2089.05
11:00 AM	636	1000	53%	294.71	100%	446.22	99%	321.56	71%	23.36	2085.84
12:00 PM	636	1000	50%	278.03	85%	379.28	98%	318.31	99%	32.57	2008.19
1:00 PM	635	1000	49%	272.46	84%	374.82	94%	305.32	100%	32.90	1985.50
2:00 PM	630	1000	49%	272.46	93%	414.98	86%	279.33	90%	29.61	1996.39
3:00 PM	626	1000	50%	278.03	94%	419.44	70%	227.36	83%	27.31	1952.14
4:00 PM	613	1000	58%	322.51	85%	379.28	40%	129.92	81%	26.65	1858.36
5:00 PM	591	1000	64%	355.87	56%	249.88	19%	61.71	84%	27.64	1695.10
6:00 PM	559	1000	nested	556.05	20%	89.24	8%	25.98	86%	28.29	1699.57
7:00 PM	419	1000	nested	556.05	11%	49.08	3%	9.74	80%	26.32	1641.20
8:00 PM	314	1000	nested	556.05	0%	0.00	2%	6.50	63%	20.73	1583.27
9:00 PM	236	1000	nested	556.05	0%	0.00	1%	3.25	42%	13.82	1573.12
10:00 PM	177	1000	nested	556.05	0%	0.00	0%	0.00	15%	4.93	1560.98
11:00 PM	133	1000	nested	556.05	0%	0.00	0%	0.00	5%	1.64	1557.69
12:00 AM	99	1000	nested	556.05	0%	0.00	0%	0.00	5%	1.64	1557.69

A Closer Look at the 10am peak

		Rate with contextual deductions	Resulting <u>individual</u> peak demands*	Projected % occupancy at 10am	Resulting 10am demand
 Residential	550 units	1.011 spaces per unit	556.05 spaces*	54%	300.27 spaces
 Office	217,137 square feet	2.055 spaces per 1000 sq ft	446.22 spaces*	100%	446.22 spaces
 R&D	146,440 square feet	2.218 spaces per 1000 sq ft	324.80 spaces*	100%	324.80 spaces
 Retail	22,442 square feet	1.466 spaces per 1000 sq ft	32.90 spaces*	54%	17.77 spaces
 MBTA (fixed)	-	-	1000 spaces	n/a	1000 spaces
Total demand at 10am <u>combined</u> peak					2089.05 spaces

* Again, the three listed peak demands each occur at different times of day from one another: residential peak occurs overnight; retail peak at 1pm; and Office and R&D peak at 10am. Thus these non-contemporaneous values cannot be combined.

Non-MBTA parking surplus* throughout the day: Complete table

	Total Parking Demand	Surplus of Non-MBTA Spaces	% Occupancy of Total Parking	% Occupancy of Non-MBTA Parking
6:00 AM	1646.57	524.43	75.84%	55.22%
7:00 AM	1755.37	415.63	80.86%	64.51%
8:00 AM	2005.78	165.22	92.39%	85.89%
9:00 AM	2007.85	163.15	92.48%	86.07%
10:00 AM	2089.05	81.95	96.23%	93.00%
11:00 AM	2085.84	85.16	96.08%	92.73%
12:00 PM	2008.19	162.81	92.50%	86.10%
1:00 PM	1985.50	185.50	91.46%	84.16%
2:00 PM	1996.39	174.61	91.96%	85.09%
3:00 PM	1952.14	218.86	89.92%	81.31%
4:00 PM	1858.36	312.64	85.60%	73.30%
5:00 PM	1695.10	475.90	78.08%	59.36%
6:00 PM	1699.57	471.43	78.29%	59.74%
7:00 PM	1641.20	529.80	75.60%	54.76%
8:00 PM	1583.27	587.73	72.93%	49.81%
9:00 PM	1573.12	597.88	72.46%	48.94%
10:00 PM	1560.98	610.02	71.90%	47.91%
11:00 PM	1557.69	613.31	71.75%	47.63%
12:00 AM	1557.69	613.31	71.75%	47.63%

* For a discussion of projected *MBTA* parking surplus and its role in offsetting the increased demand of, for example, a Red Sox double header, see the complete submitted parking presentation dated April 21, 2020.

Non-MBTA parking surplus throughout the day: Inverted Chart

