SCHLESINGER AND BUCHBINDER, LLP
ATTORNEYS AT LAW

STEPHEN J. BUCHBINDER
ALAN J. SCHLESINGER
LEONARD M. DAVIDSON
A MIRIAM JAFFE
SHERMAN H. STARR, JR.
JUDITH L. MELIDEO-PREBLE
BARBARA D. DALLIS
PAUL N. BELL
KATHERINE BRAUCHER ADAMS
FRANKLIN J. SCHWARZER
RACHAEL C. CARVER
ADAM M. SCHECTER

1200 Walnut Street
Newton, Massachusetts 02461-1267
Telephone (617) 965-3500

www.sab-law.com
Email: sjbuchbinder@sab-law.com

April 21, 2020

BY ELECTRONIC MAIL

Ms. Nadia Khan
Committee Clerk
Land Use Committee
Newton City Council
1000 Commonwealth Avenue
Newton, MA 02459-1449

Re: Riverside Station/355 Grove Street and 399 Grove Street / #26-20 and #27-20

Dear Nadia,

I am forwarding herewith a revised Parking Program, partially revised April 21, 2020 relative to the above matter, prepared by 128 Business Council.

Please let me know if you have any questions.

Sincerely,

Stephen J. Buchbinder/mer
Stephen J. Buchbinder

SJB/mer
Attachment

cc: (By Email w/attachment)
Mr. Neil Cronin
Mr. Damien Chaviano
Mr. David Roach

RIVERSIDE MASTER PLAN

PARKING PROGRAM

prepared by 128 Business Council
on behalf of Mark Development, LLC
Revision: 2020-04-21

Do the 2013 planned parking spaces meet the needs of this development?

	development total		initial estimated demand rate	resulting peak demand
Retail	38,895* ft²	x	1.95 spaces/1000 ft²	75.85
Hotel	150 keys	x	0.74 spaces/key	111.00
Residential	582 units	x	1.12 spaces/unit	651.84
Office	253,838* ft²	x	2.39 spaces/1000 ft²	606.67
MBTA				1000**

Total: 2445.36

* Square footage cited here does not include mechanical penthouse space.
** This is not a peak demand number, but rather an agreed-upon number of dedicated spaces.

Where do these peak demand rates come from?

These rates are based on the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*, 5th edition,* which is widely considered the national standard for evaluating parking demand.

This manual is built upon documented usage comparisons gathered nationwide.

ITE's rates will over-calculate parking needs for:

(a) more modern developments, thanks to the necessarily historic nature of the data pool and shifting trends in mode usage.

(b) environments that have higher rates of alternative transportation usage than the nationwide average.

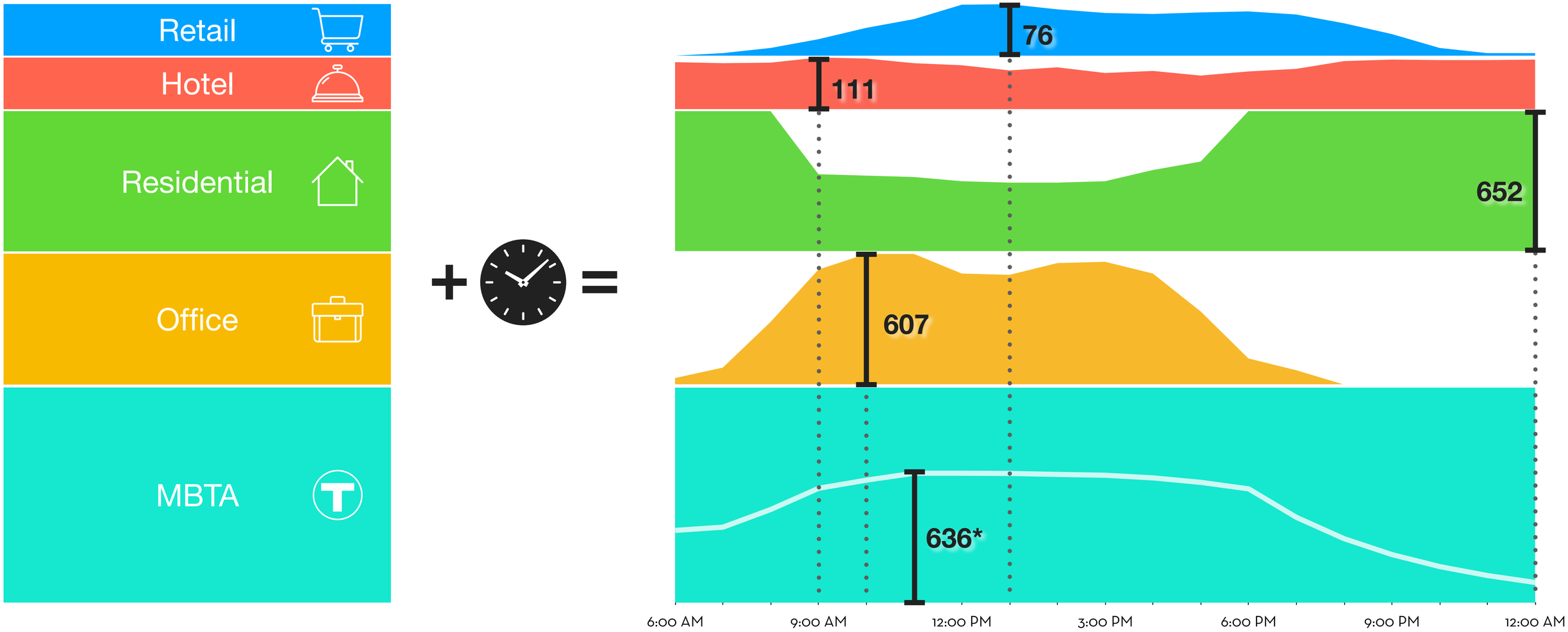
(c) mixed-use environments, since the majority of the cited studies are of single-use suburban developments.

For all of these reasons, the ITE rates cited are meant to be used in conjunction with an in-depth consideration of local conditions. We will return to these local conditions below.

* This is an update from earlier parking study numbers which used the 4th edition.

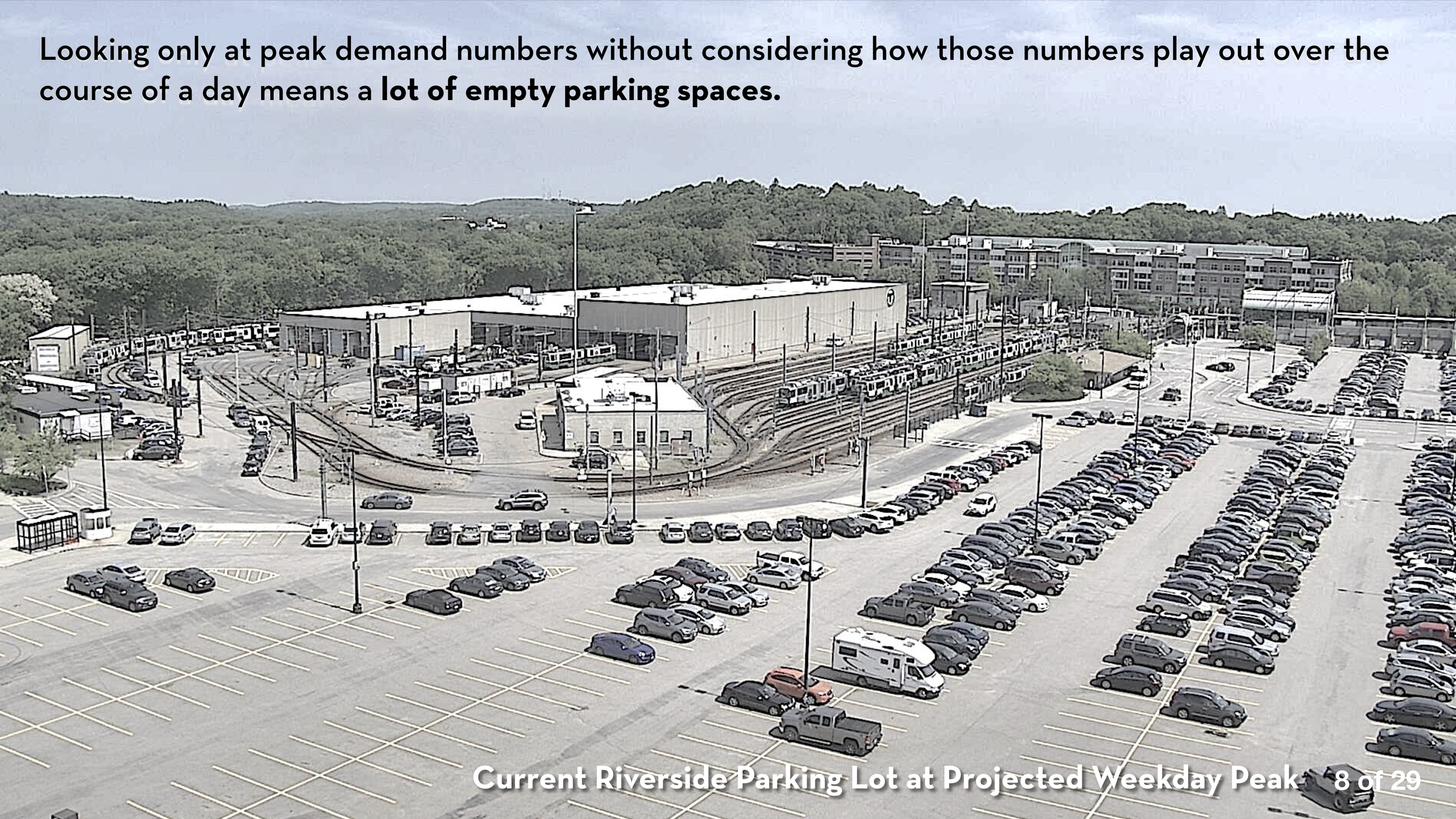
Why aren’t we providing 2445 parking spaces?

Just looking at total peak demand is misleading, because each of these peaks occur at a different time of day. For example, many residential users will have left before most of the office users arrive. When we take into account time of day, the demand on an average weekday looks more like this:



* Per agreement with the MBTA, 1000 spaces are reserved. Current observed demand (shown by the white demand curve) is lower and therefore allows for significant future MBTA ridership growth.

Looking only at peak demand numbers without considering how those numbers play out over the course of a day means a **lot of empty parking spaces.**



Current Riverside Parking Lot at Projected Weekday Peak

Why is too much parking bad?

- There is a predictive correlation between more parking and increased car use.*
- The construction of parking drives up the cost of housing in the midst of an affordability and supply crisis.
- The construction of parking competes for financial and spacial resources with more productive (e.g. tax-producing) land uses.

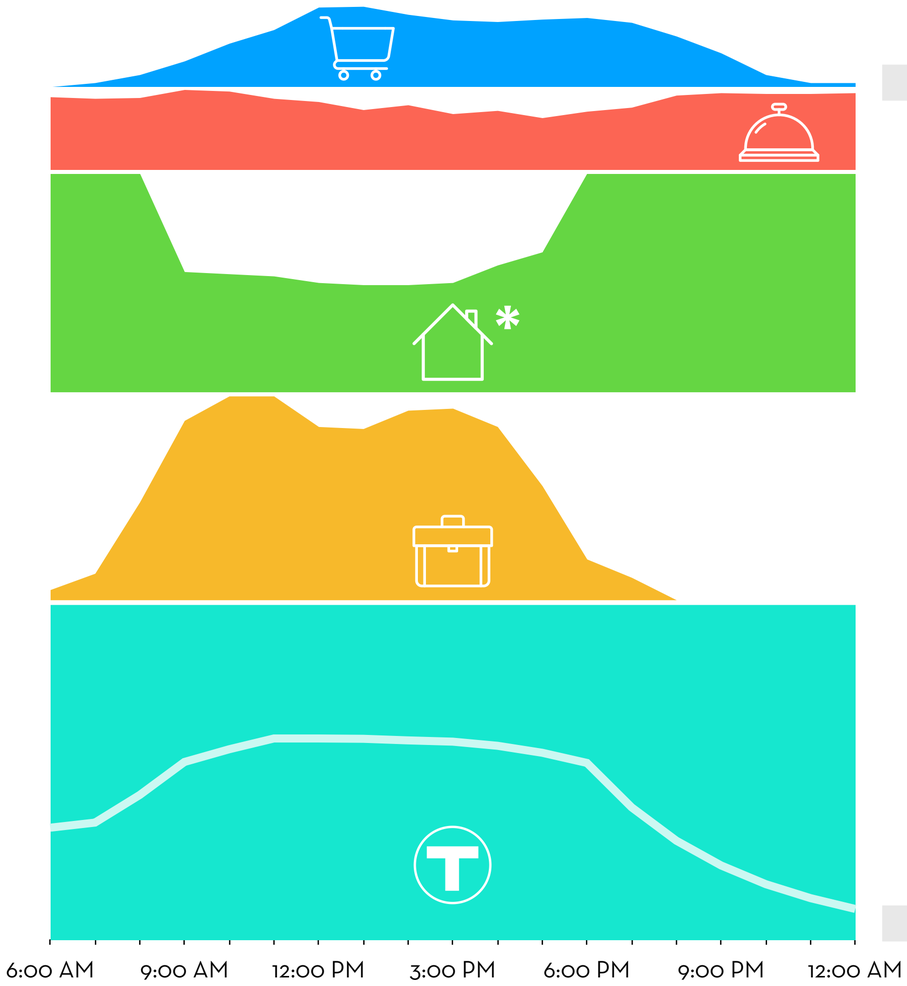
* See, for example, C. McCahill & N. Garrick, "Automobile Use and Land Consumption: Empirical Evidence from 12 Cities" (2012) and R. Weinberger et. al., "Guaranteed Parking, Guaranteed Driving" (2008).

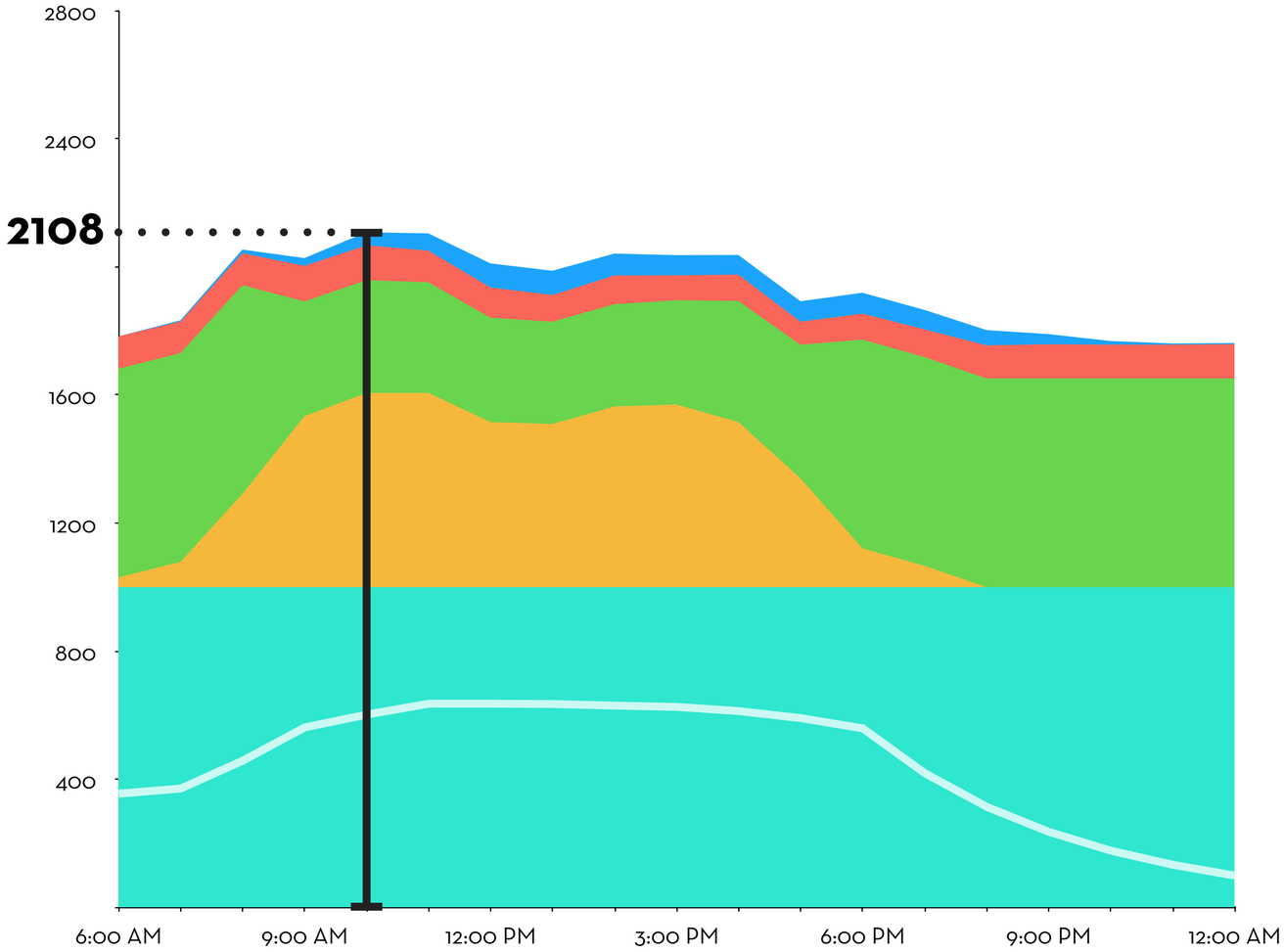
Why is too little parking bad?

- Users end up parking where they aren't supposed to, which can cause a nuisance for surrounding neighborhoods.
- Users drive away from the development's businesses without even leaving their cars.
- Cars backed up looking for parking is an efficiency issue.
- The perception of too little parking makes residential and commercial units harder to rent.

So how do we figure out what is ‘just right’?

In order to determine actual peak demand – peak demand that considers how different types of demand change over the course of the day – we need to identify when combined demand will be the highest. For this development, peak demand across all parking types will occur at **10am**.





* 691 residential spaces are 100% reserved 6pm-8am.

If peak demand is 2108, then how could 2013 spaces be sufficient?

It wouldn't be. However, **this number still isn't realistic**, because it does not yet take into account this particular development's local conditions, nor any TDM measures:

1. **This is a transit-oriented development located directly alongside (and providing significant support for) a major MBTA station.**

It will be a natural destination for folks seeking to live, work, shop, eat or stay without the need for a car, or with reduced reliance upon their car.

2. **We know that people in Newton regularly use other modes.**

According to the 2013-2017 American Community Survey (ACS) conducted by the U.S. Census Bureau **31-45%** (depending upon how you bound the geography) of folks commuting in and out of the area surrounding the development are doing so by some means ***other than driving alone***.

This might mean that they are **carpooling or vanpooling**, **taking public transportation**, **walking or biking**, or **working from home**. We would expect rates of alternative transportation usage to be especially high near a light rail station.

3. **This is a mixed-use development.**

Residents and employees can just walk down the block to fulfill many of the daily needs that would otherwise require a car trip ("Internal Capture"). Internal Capture is a little bit about lifestyle choices. After all, many people will make the choice to live as close as possible to where they work if that option is available to them.

But it is also a lot about basic human laziness. *Why would you drive to get coffee if you can just walk around the corner?* Similarly, why would you drive into a development to *stop* for coffee if you know that that coffee shop will already be full of the development's own residents?

Therefore:

- Employee parking demand (which accounts for most of the office demand and some of the retail) was adjusted downward by 15% for not driving alone.
- Residential parking demand was adjusted downward by 5% for less driving alone leading to lower car ownership on-site.
- Visitor parking demand (which accounts for most of the retail demand and some of the office) was likewise adjusted downward by 5% for not driving alone.

These are far more conservative reductions than would be implied by the American Community Survey (ACS) statistics just cited.

- Retail parking demand was further reduced by 20% for internal capture.
- Residential parking demand was further reduced by 5% for internal capture

These are, again, conservative estimates for internal capture, especially for a transit-oriented development. However, even for those who are skeptical of this latter category of deductions, the combined reduction for alternative transportation modes *plus* internal capture still comes out to be a lower reduction than would be justifiable just on the basis of ACS data.

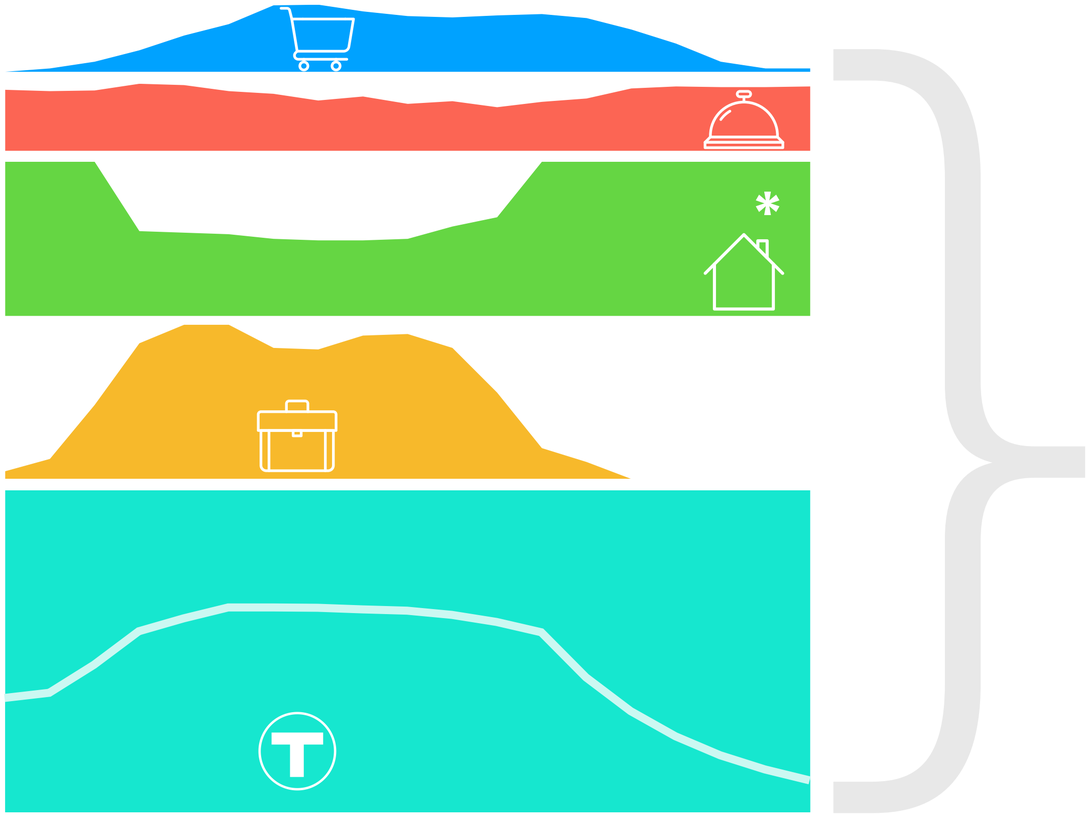
Updated rates and resulting reduced peak values:

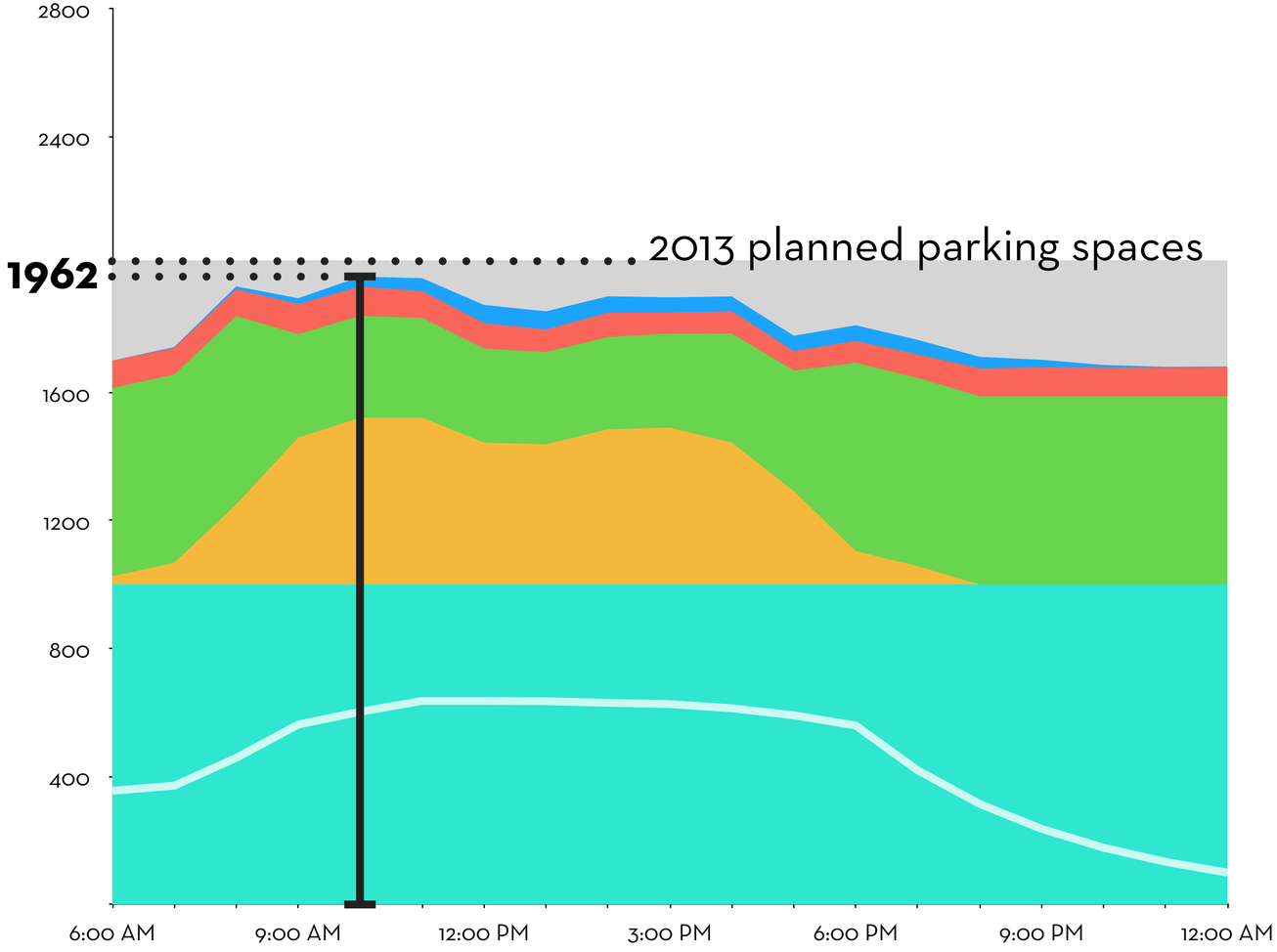
				reduced demand rate	reduced peak demand	*effective* 10am demand rate	10am demand
Retail	38,895* ft²	x	1.466	spaces/1000 ft²	**57.02**	0.792	**30.79**
Hotel	150 keys	x	0.626	spaces/key	**93.90**	0.613	**92.02**
Residential	582 units	x	1.011	spaces/unit	**588.40**	0.546	**317.74**
Office	253,838* ft²	x	2.055	spaces/1000 ft²	**521.64**	2.055	**521.64**
MBTA							**1000****

Total: 1962.19

* Square footage cited here does not include mechanical penthouse space.
** This is not a peak demand number, but rather an agreed-upon number of dedicated spaces.

Taking into account these reductions, our updated graphs look like this. Peak demand across all parking types still occurs at **10am**.





* 624 residential spaces are 100% reserved 6pm-8am, which is the adjusted peak (overnight) demand for 582 residential units.

Here is the full data table behind the graph on the previous slide, with the assumed minimum daytime residential parking highlighted.

	MBTA (Observed)	MBTA (Dedicated)	Office		Residential		Hotel		Retail		Total
6:00 AM	355	1000	5%	26.08	nested	588.40	91%	85.45	0%	0.00	1699.93
7:00 AM	371	1000	13%	67.81	nested	588.40	89%	83.57	5%	2.85	1742.64
8:00 AM	458	1000	48%	250.39	nested	588.40	90%	84.51	15%	8.55	1931.85
9:00 AM	562	1000	88%	459.04	55%	323.62	100%	93.90	32%	18.25	1894.81
10:00 AM	602	1000	100%	521.64	54%	317.74	98%	92.02	54%	30.79	1962.19
11:00 AM	636	1000	100%	521.64	53%	311.85	89%	83.57	71%	40.48	1957.55
12:00 PM	636	1000	85%	443.39	50%	294.20	85%	79.82	99%	56.45	1873.86
1:00 PM	635	1000	84%	438.18	**49%**	**288.32**	75%	70.43	100%	57.02	1853.94
2:00 PM	630	1000	93%	485.12	**49%**	**288.32**	81%	76.06	90%	51.32	1900.82
3:00 PM	626	1000	94%	490.34	50%	294.20	70%	65.73	83%	47.33	1897.60
4:00 PM	613	1000	85%	443.39	58%	341.27	74%	69.49	81%	46.19	1900.34
5:00 PM	591	1000	56%	292.12	64%	376.58	65%	61.04	84%	47.90	1777.63
6:00 PM	559	1000	20%	104.33	nested	588.40	73%	68.55	86%	49.04	1810.31
7:00 PM	419	1000	11%	57.38	nested	588.40	78%	73.24	80%	45.62	1764.64
8:00 PM	314	1000	0%	0.00	nested	588.40	93%	87.33	63%	35.92	1711.65
9:00 PM	236	1000	0%	0.00	nested	588.40	96%	90.14	42%	23.95	1702.49
10:00 PM	177	1000	0%	0.00	nested	588.40	95%	89.21	15%	8.55	1686.16
11:00 PM	133	1000	0%	0.00	nested	588.40	95%	89.21	5%	2.85	1680.46
12:00 AM	99	1000	0%	0.00	nested	588.40	96%	90.14	5%	2.85	1681.40

That means that at the peak period of 10am, there would be 51 surplus spaces in the non-MBTA parking areas.

Non-MBTA parking would be 95.0% full, which provides sufficient buffer now that all of the parking is centralized in Buildings 9 & 10

and given the availability of digital, automated, and smart parking systems that can guide drivers toward available spots.

How does this work in practice?

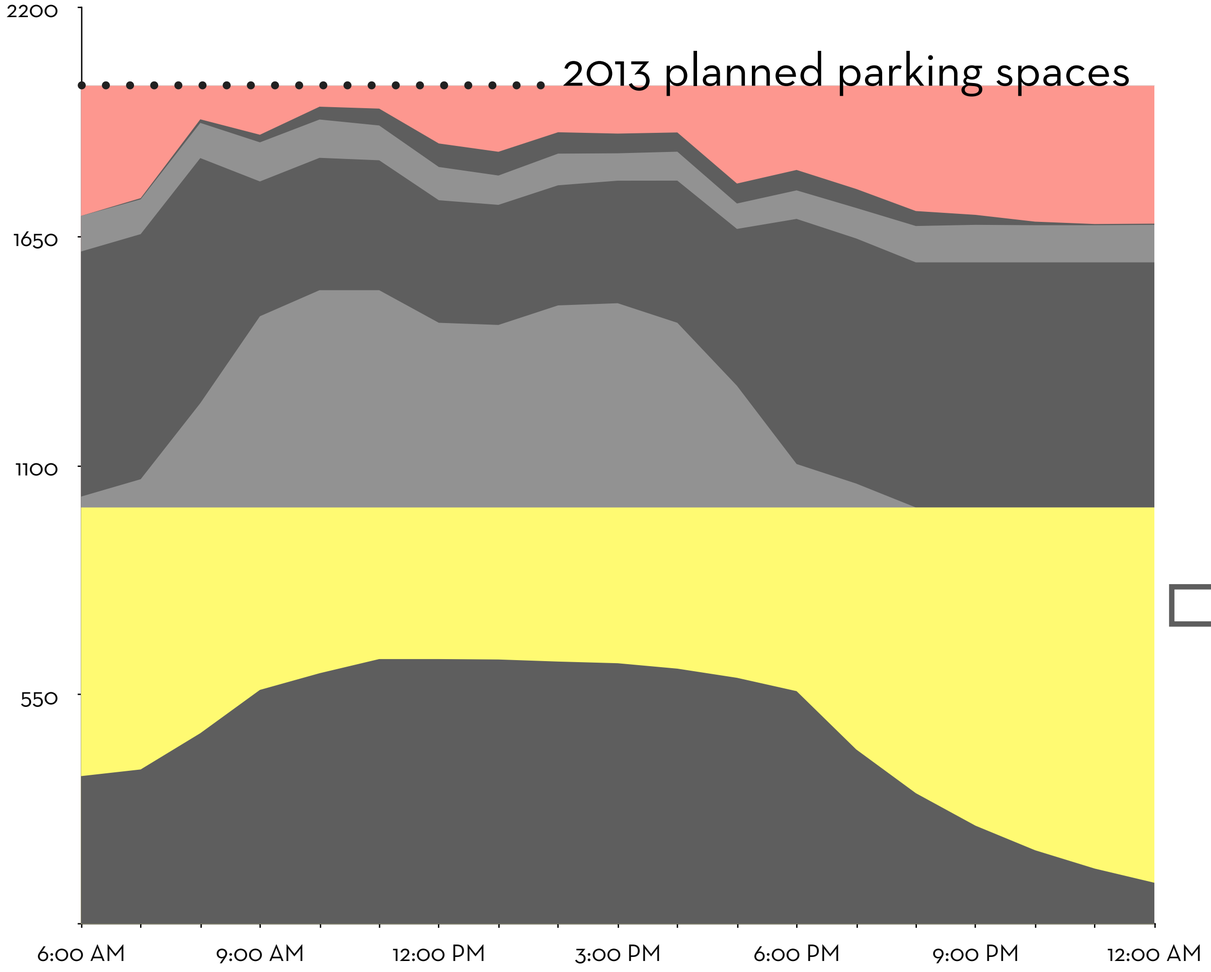
Digital Parking Signage at Providence Place Mall

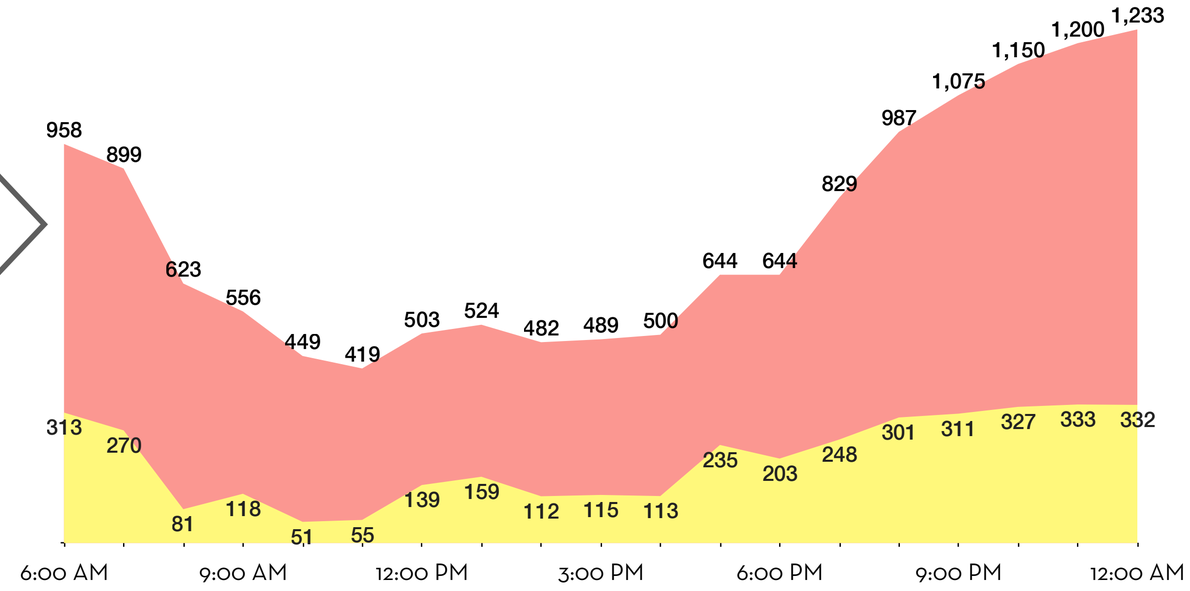
VPNE also has extensive experience with floor valet systems for maximizing parking garage space in unusual situations or high-volume environments.

Floor Valet Example

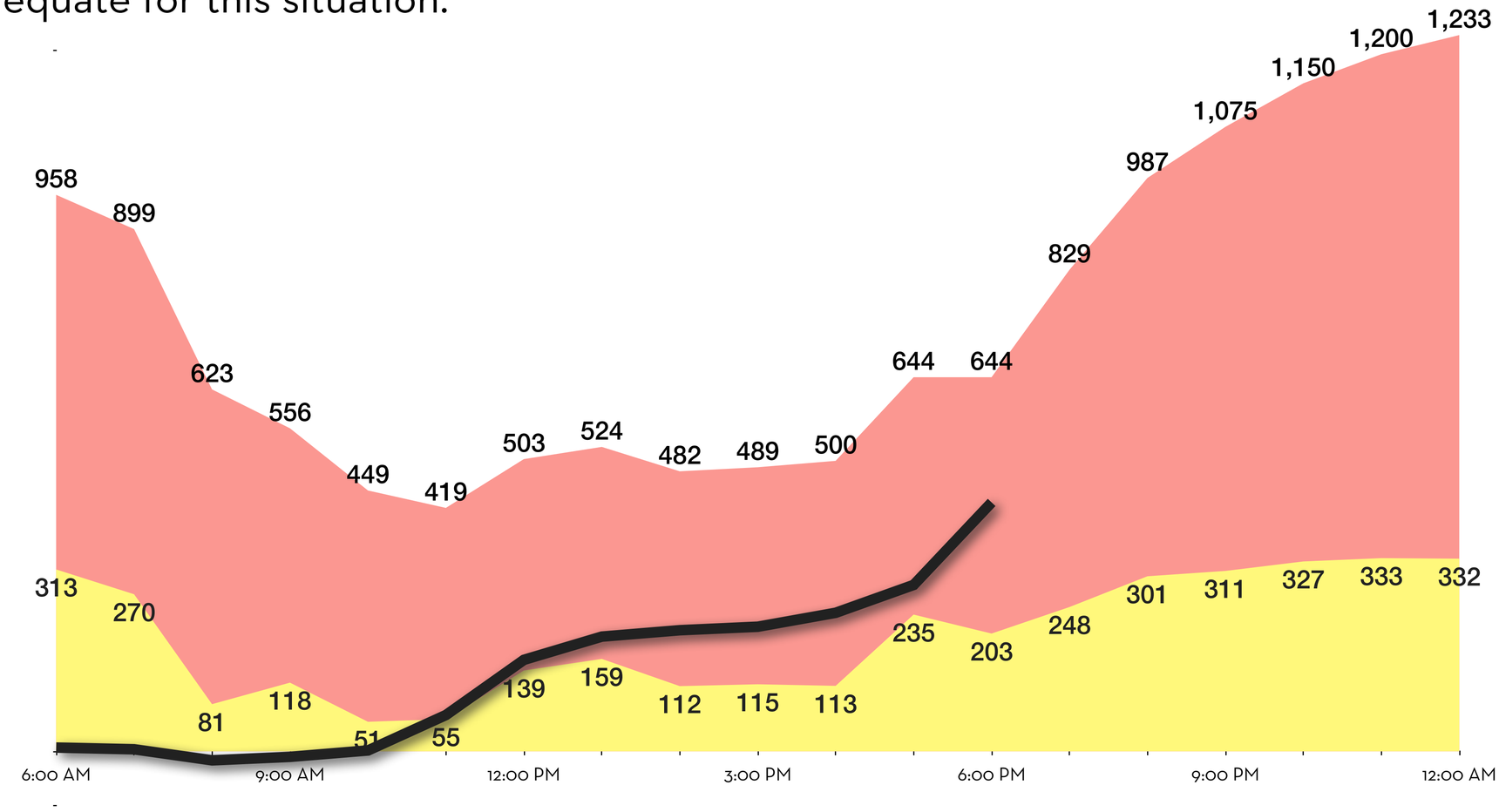
What about a ‘worst case scenario’?

The graphs below highlight the **parking "surplus"** across the workday, combining observed surplus from the MBTA parking field (yellow, which would be used first for most special events) with the planned non-MBTA surplus (pink). Values are provided for the MBTA-specific surplus and the total surplus.





Looking at both observational data and MBTA revenue data, **a weekday Red Sox double-header** constitutes the currently-known 'worst case scenario' for special event parking at Riverside. However, as shown below, the parking surplus is more than adequate for this situation.



The heavy black line shows the increase in cumulative MBTA transactions at Riverside during a weekday double-header, as compared to cumulative transactions on a normal weekday. This model shows **223 additional surplus spaces at 6pm**.