

Parcel 12

CITIZENS ADVISORY COMMITTEE MEETING

AUGUST 05, 2019

**Samuels &
Associates**

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ARCHITECTS



Architecture & Urban Design



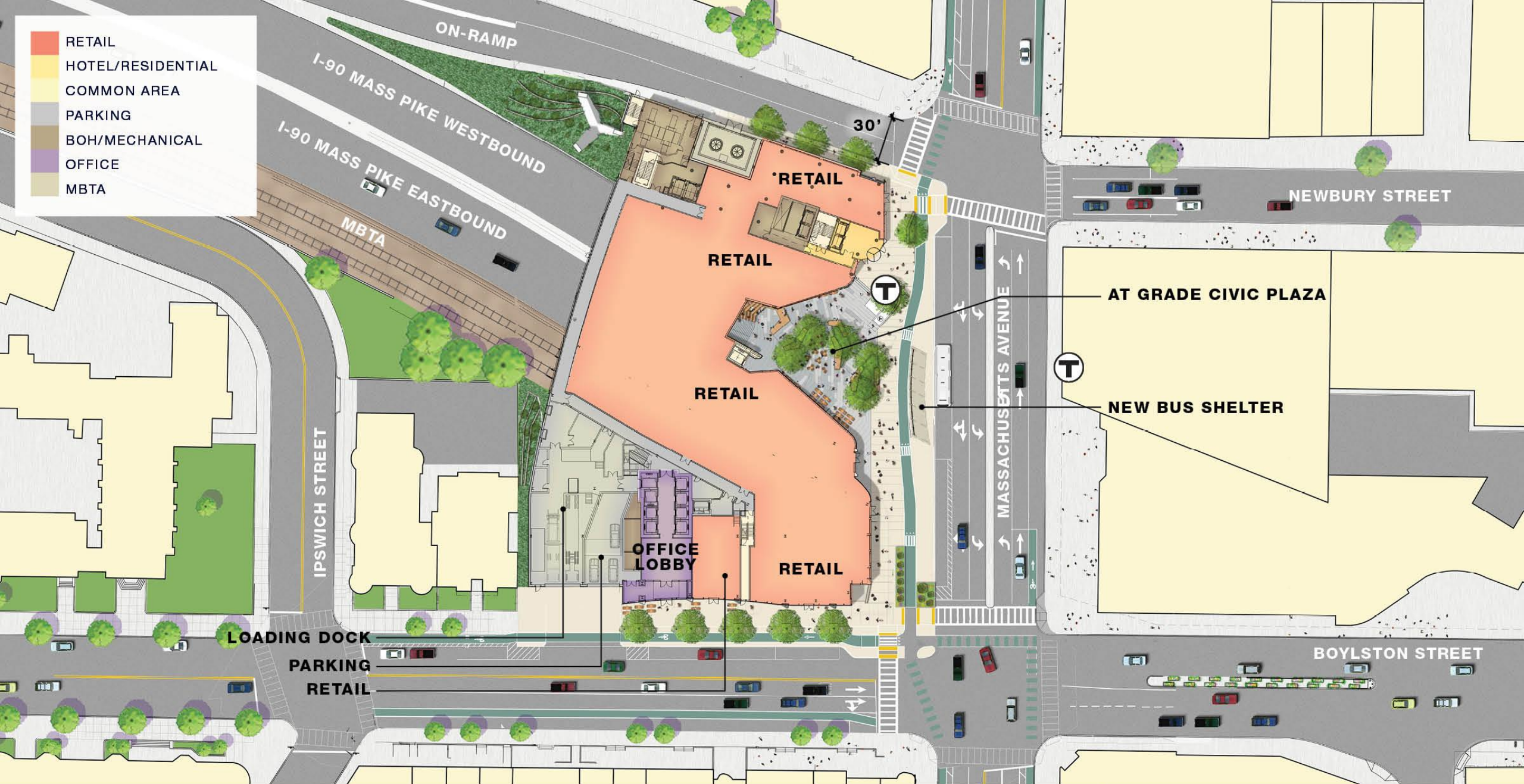
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VIEW OF PLAZA LOOKING WEST

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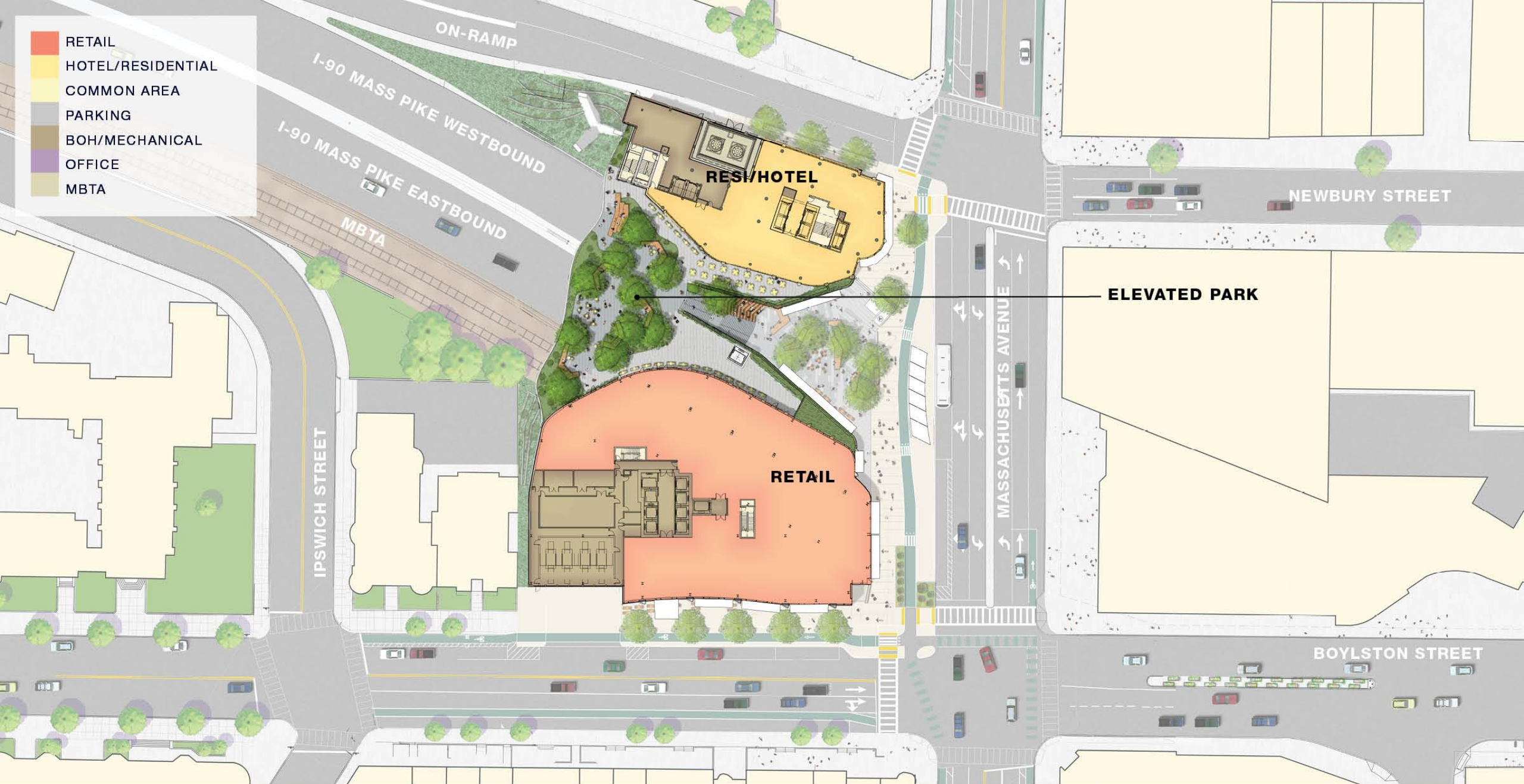
- RETAIL
- HOTEL/RESIDENTIAL
- COMMON AREA
- PARKING
- BOH/MECHANICAL
- OFFICE
- MBTA



STREET LEVEL PLAN



- RETAIL
- HOTEL/RESIDENTIAL
- COMMON AREA
- PARKING
- BOH/MECHANICAL
- OFFICE
- MBTA



PUBLIC TERRACE LEVEL PLAN



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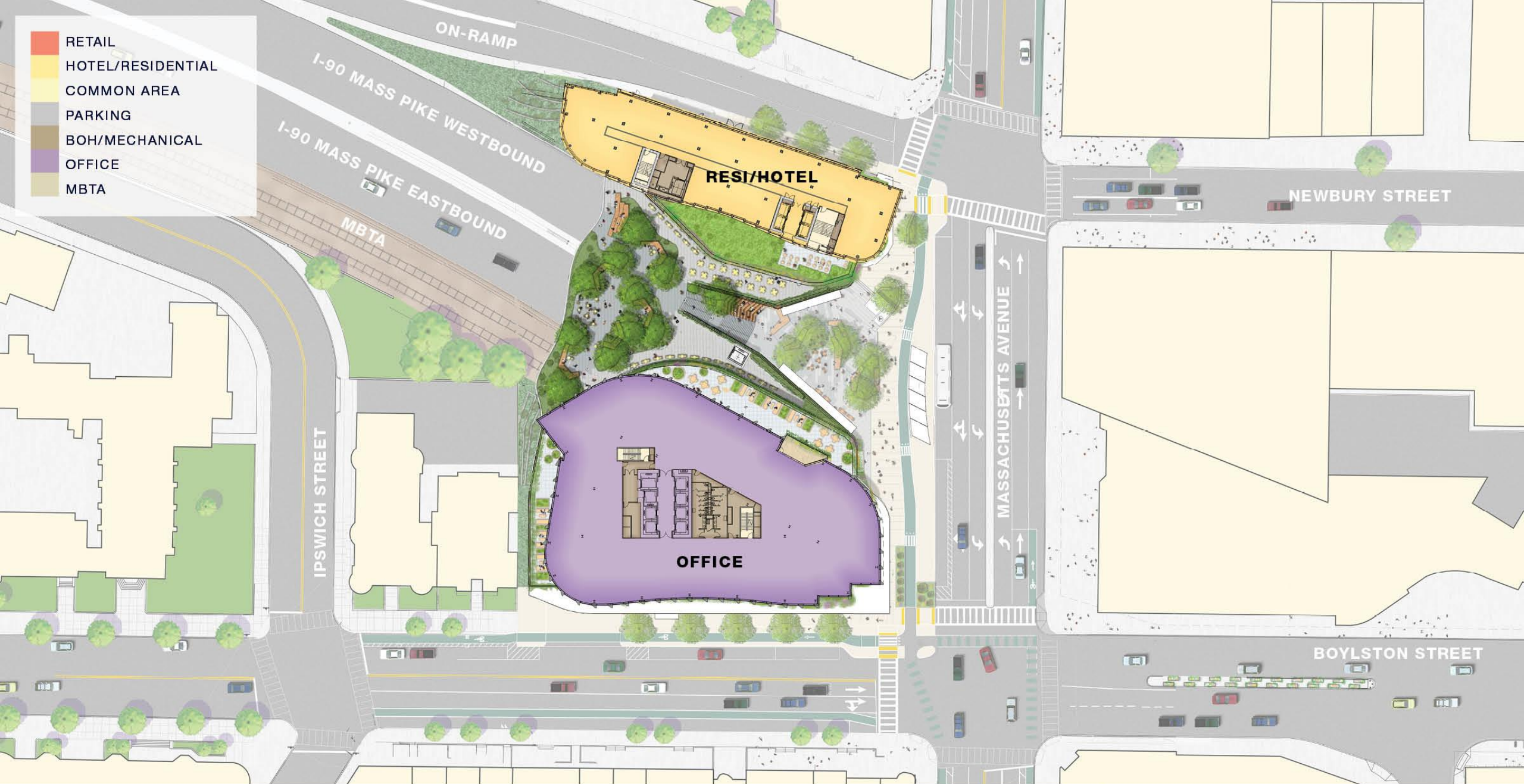
- RETAIL
- HOTEL/RESIDENTIAL
- COMMON AREA
- PARKING
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- OFFICE
- MBTA



LEVEL 3 PLAN



- RETAIL
- HOTEL/RESIDENTIAL
- COMMON AREA
- PARKING
- BOH/MECHANICAL
- OFFICE
- MBTA



TYPICAL UPPER FLOOR PLAN





**RESI/HOTEL
BUILDING
13 STORIES**

**OFFICE
BUILDING
20 STORIES**

**PUBLICLY
ACCESSIBLE
PLAZA AT GRADE
AND LEVEL 2**





VIEW FROM NEWBURY STREET

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VIEW FROM BOYLSTON STREET LOOKING WEST



VIEW FROM MASS PIKE LOOKING EAST

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Wind

BPDA criteria assesses wind comfort conditions and attempts to limit high wind conditions to 1% of the time. Wind conditions are evaluated on an annual basis

Comfort Category	Mean Wind Speed (mph)
Dangerous	> 27
Uncomfortable for Walking	> 19 and \leq 27
Comfortable for Walking	> 15 and \leq 19
Comfortable for Standing	> 12 and \leq 15
Comfortable for Sitting	< 12
* Applicable to the hourly mean wind speed exceeded 1% of the time.	

Wind Acceptability	Effective Gust Speed (mph)
Acceptable	\leq 31
Unacceptable	> 31
* Applicable to hourly mean wind speed exceeded 1% of the time	

The RWDI pedestrian wind criteria, which has been developed by RWDI through research and consulting practices since 1974, are used in the current study. These criteria have been widely accepted by the municipal authorities and the building design and city planning communities.



Comfort Category	GEM Speed (mph)	Description
Sitting	≤ 6	Calm or light breezes desired for outdoor restaurants and seating areas where one can read a paper without having it blown away
Standing	≤ 8	Gentle breezes suitable for main building entrances, bus stops, and other places where pedestrians may linger
Strolling	≤ 10	Moderate winds that would be appropriate for window shopping and strolling along a downtown street, plaza or park
Walking	≤ 12	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering
Uncomfortable	> 12	Strong winds of this magnitude are considered as a nuisance for all pedestrian activities and wind mitigation is typically recommended

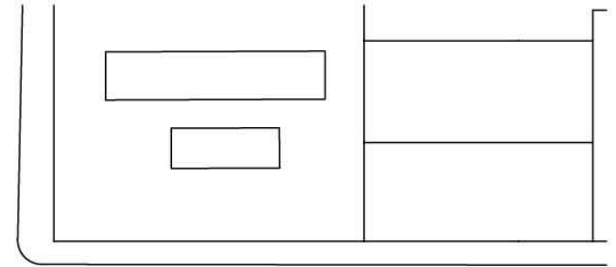
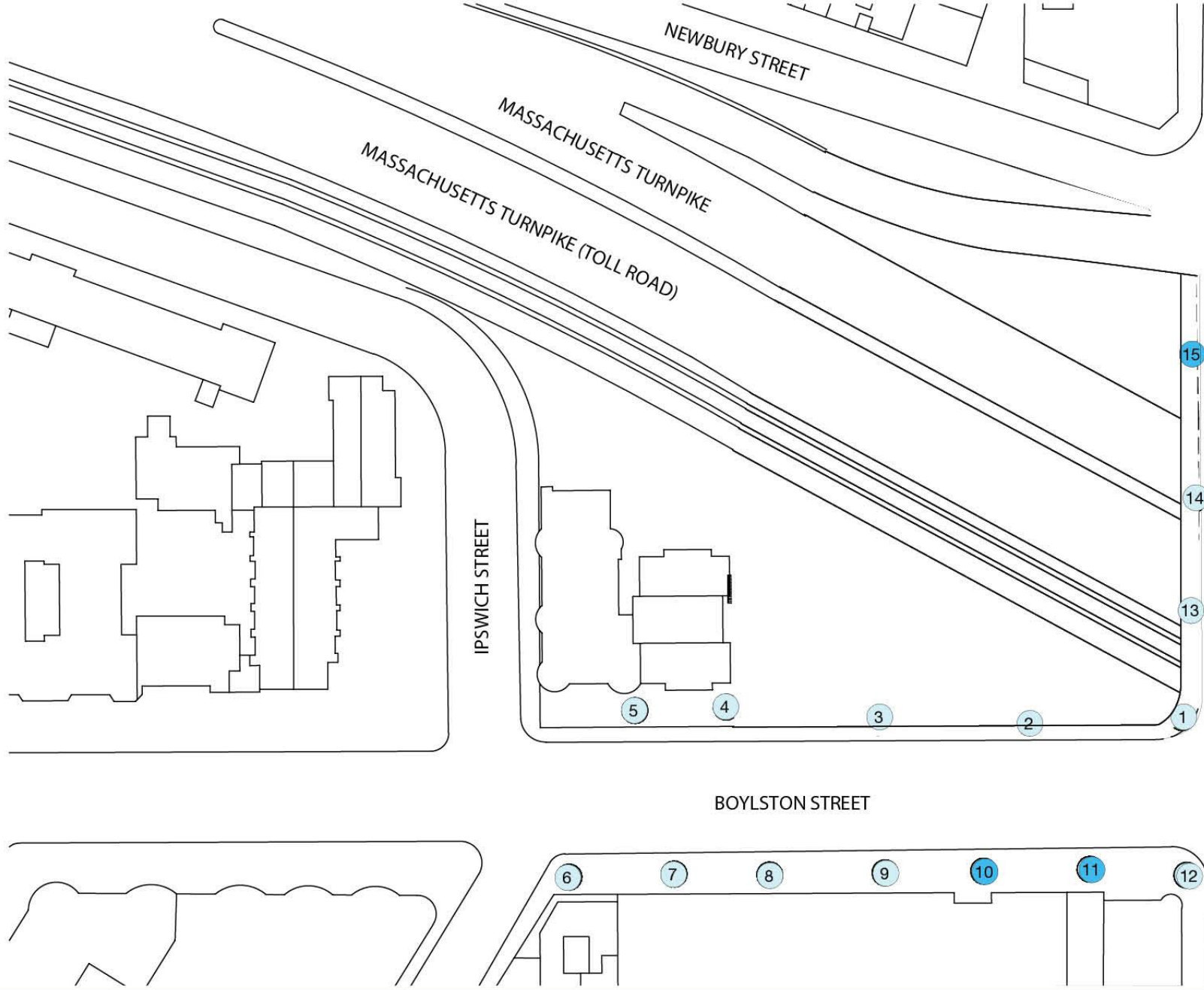
Notes:

- (1) Both mean and gust speeds can affect the pedestrian comfort, thus their combined effect is quantified as the Gust Equivalent Mean (GEM) speed (GEM=max (mean speed, gust speed/1.85).
- (2) GEM speeds listed above are based on a seasonal exceedance of 20% of the time between 6:00 and 23:00. Nightly hours between 0:00 and 5:00 are excluded from the wind analysis for comfort since limited usage of outdoor spaces is anticipated.
- (3) Instead of the standard four seasons, two periods of summer (May to October) and winter (November to April) are adopted in the wind analysis.

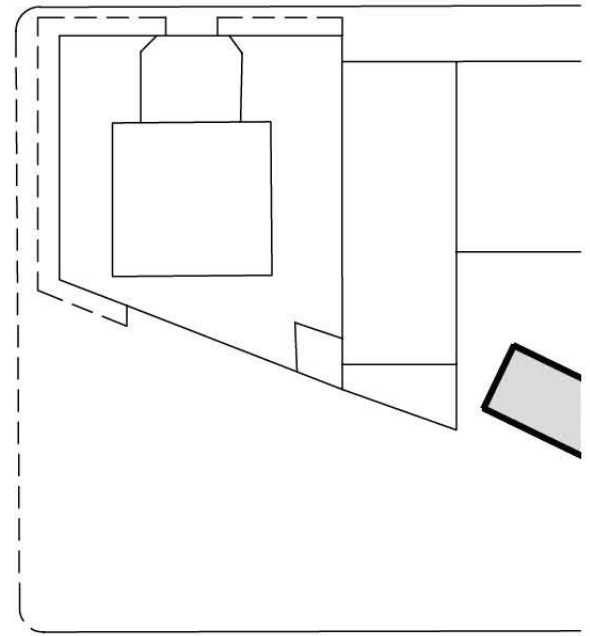
Safety Criterion	Gust Speed (mph)	Description
Exceeded	> 56	Excessive gust speeds that can adversely affect a pedestrian's balance and footing, wind mitigation techniques are typically required

Notes:

- (1) Based on an annual exceedance of 9 hours or 0.1% of the time for 24 hours a day.
- (2) Only gust speeds need to be considered in the wind safety criterion. These are rare events, but deserve special attention in city planning and building design due to their potential safety impact on pedestrians.



NEWBURY STREET



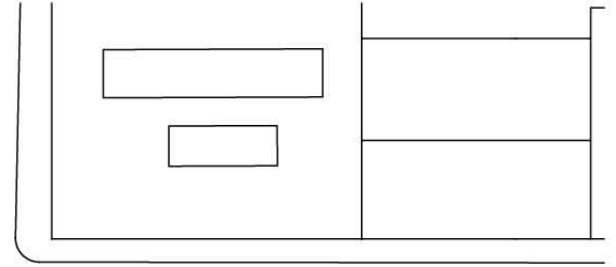
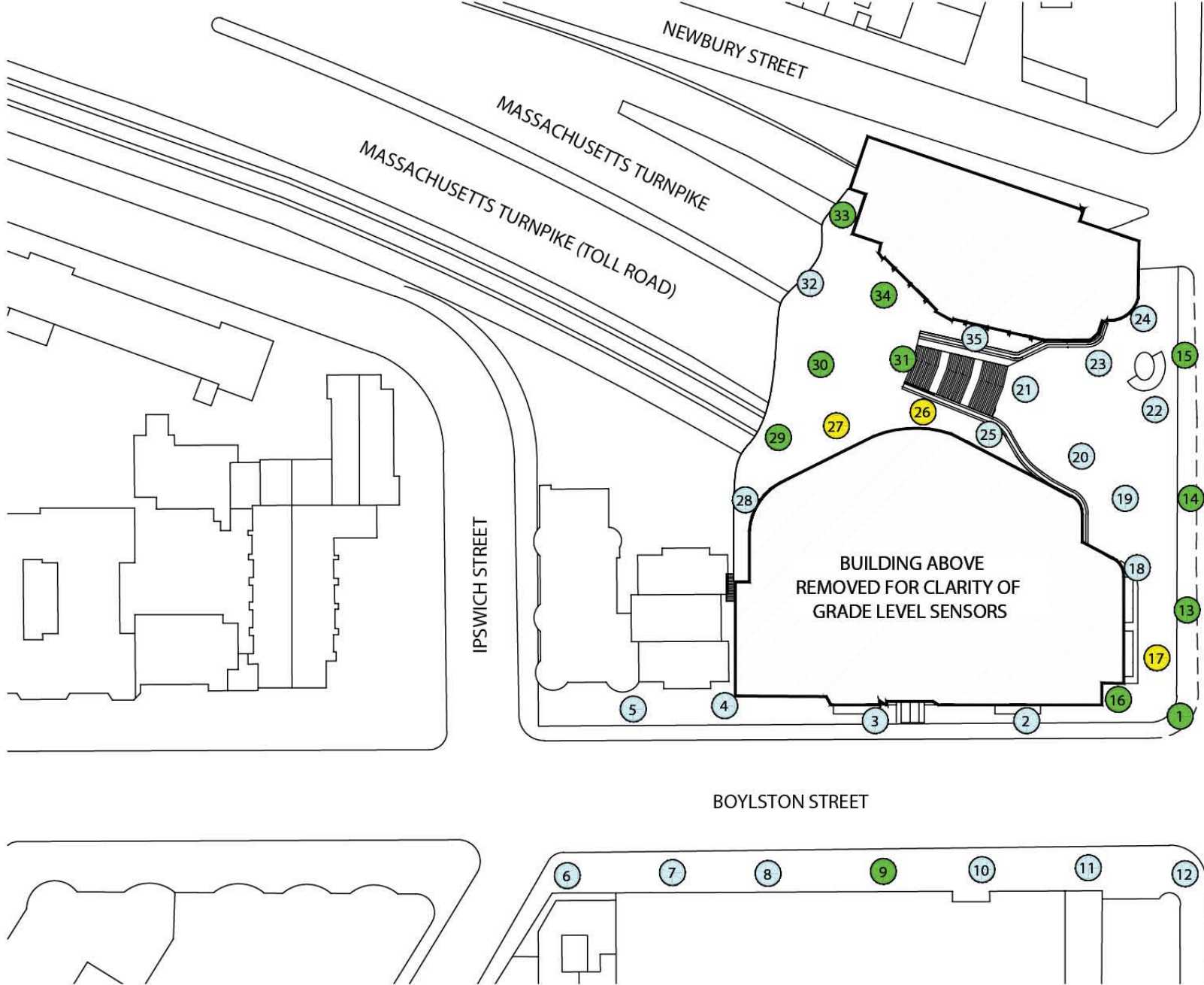
MASSACHUSETTS AVENUE

LEGEND:

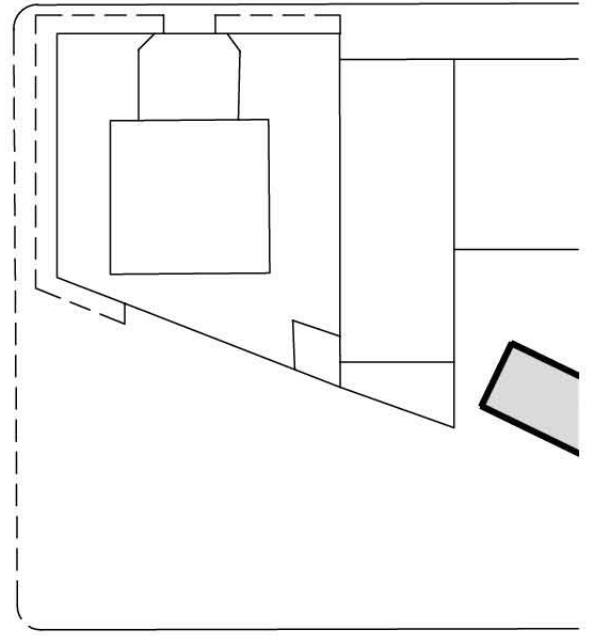
COMFORT CATEGORIES:

Sitting		<6 mph
Standing		<8 mph
Strolling		<10 mph
Walking		<12 mph
Uncomfortable		>12 mph

EXISTING | MAY - OCTOBER AVERAGE CONDITION



NEWBURY STREET



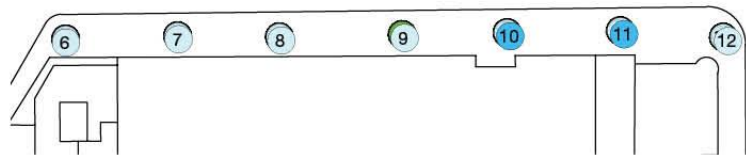
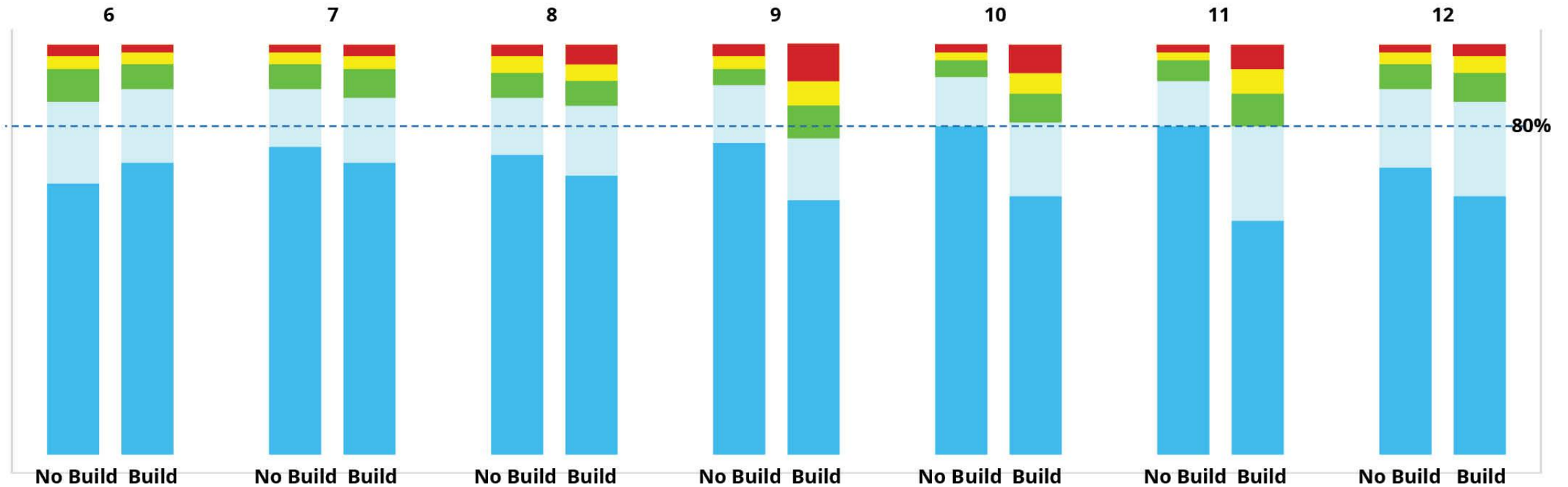
MASSACHUSETTS AVENUE

LEGEND:

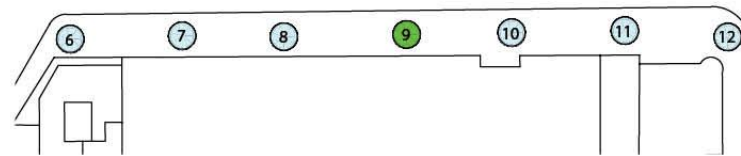
COMFORT CATEGORIES:

Sitting		<6 mph
Standing		<8 mph
Strolling		<10 mph
Walking		<12 mph
Uncomfortable		>12 mph

The plots below use RWDI's criteria to assess the percentage of time a given location is within given comfort range for summer or the outdoor season.



EXISTING CONDITION



BUILD CONDITION

LEGEND:

COMFORT CATEGORIES:

- Sitting — <6 mph
- Standing — <8 mph
- Strolling — <10 mph
- Walking — <12 mph
- Uncomfortable — >12 mph

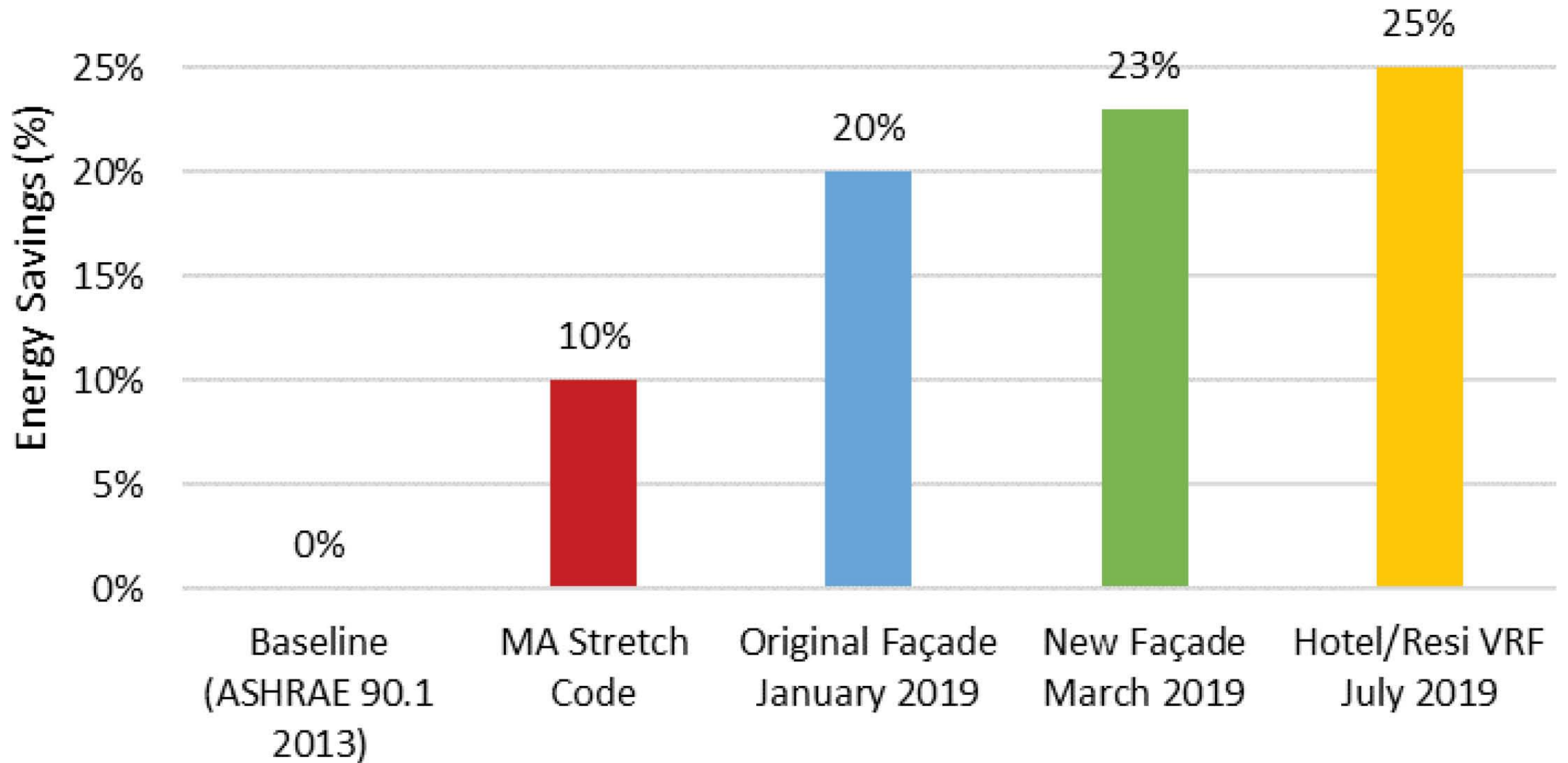


Sustainability

UPDATE

Status Summary - Whole Building Energy Modeling Results

- Building performance improvement from 20% in PNF to 23%, now currently at 25% better than code, 15% better than stretch code
- Hotel/Residential building conversion to electric heat pump HVAC system
- Reduced vision glazing from PNF stage
- High efficiency central plant
- Systems accommodate conversion to electric heat



WHOLE BUILDING PERFORMANCE

Performance Optimization Strategies

- Chiller plant efficiency
- Condensing boilers
- Energy recovery ventilation
- Lighting power density reduction
- Envelope
- Plug load reductions (Energy Star)
- Heat Pump (VRF)

IMPROVED ENERGY SAVINGS

RESI/HOTEL BUILDING

VISION GLASS

- PNF - 60%
- DPIR/Current - 46%

ENERGY SAVINGS (above code)

- PNF - 22%
- DPIR - 26+%
- Current - 34%

OFFICE BUILDING

VISION GLASS

- PNF - 69%
- DPIR/Current - 57%

ENERGY SAVINGS (above code)

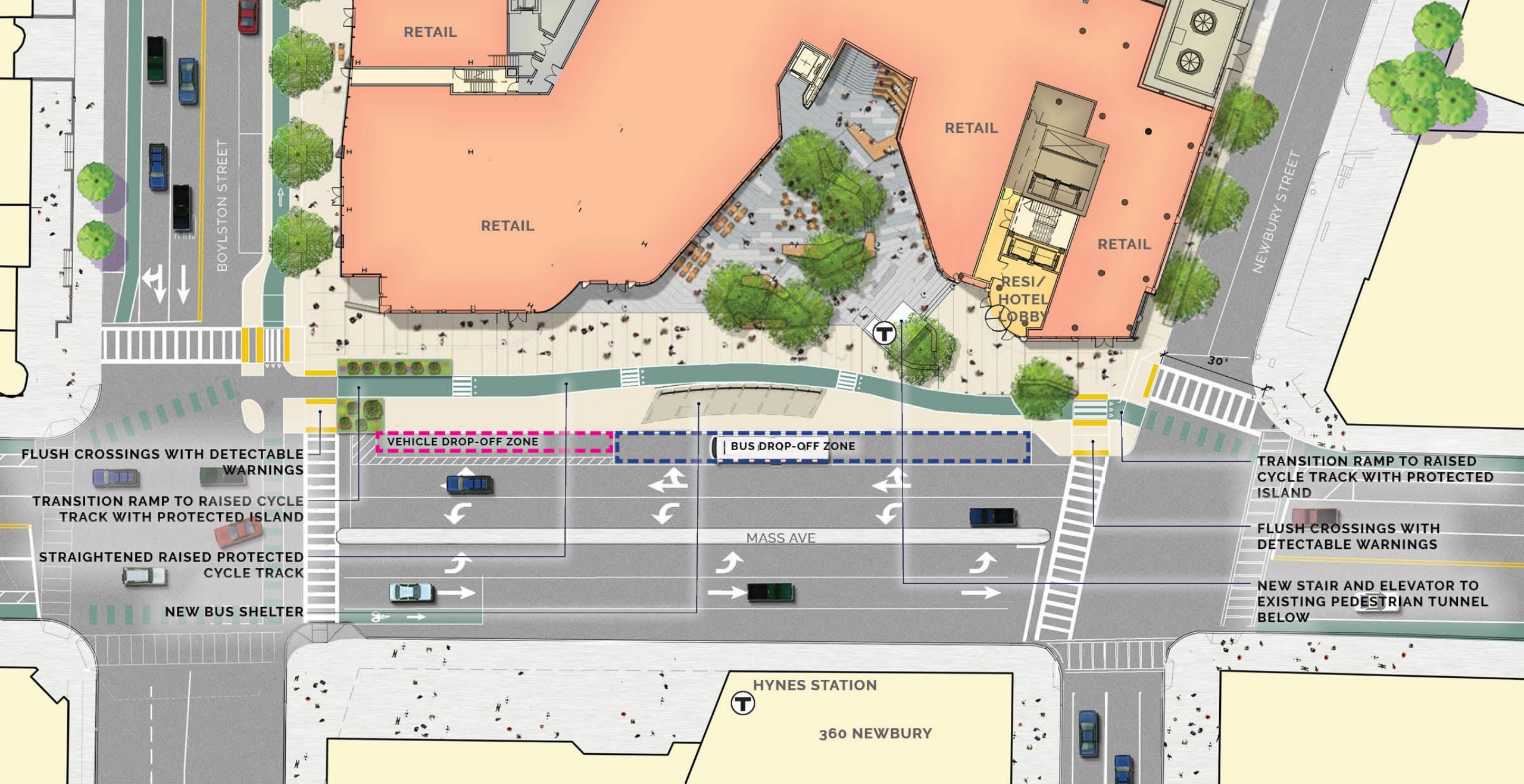
- PNF - 20%
- DPIR - 22+%

COMMITTED TO LEED GOLD RATING





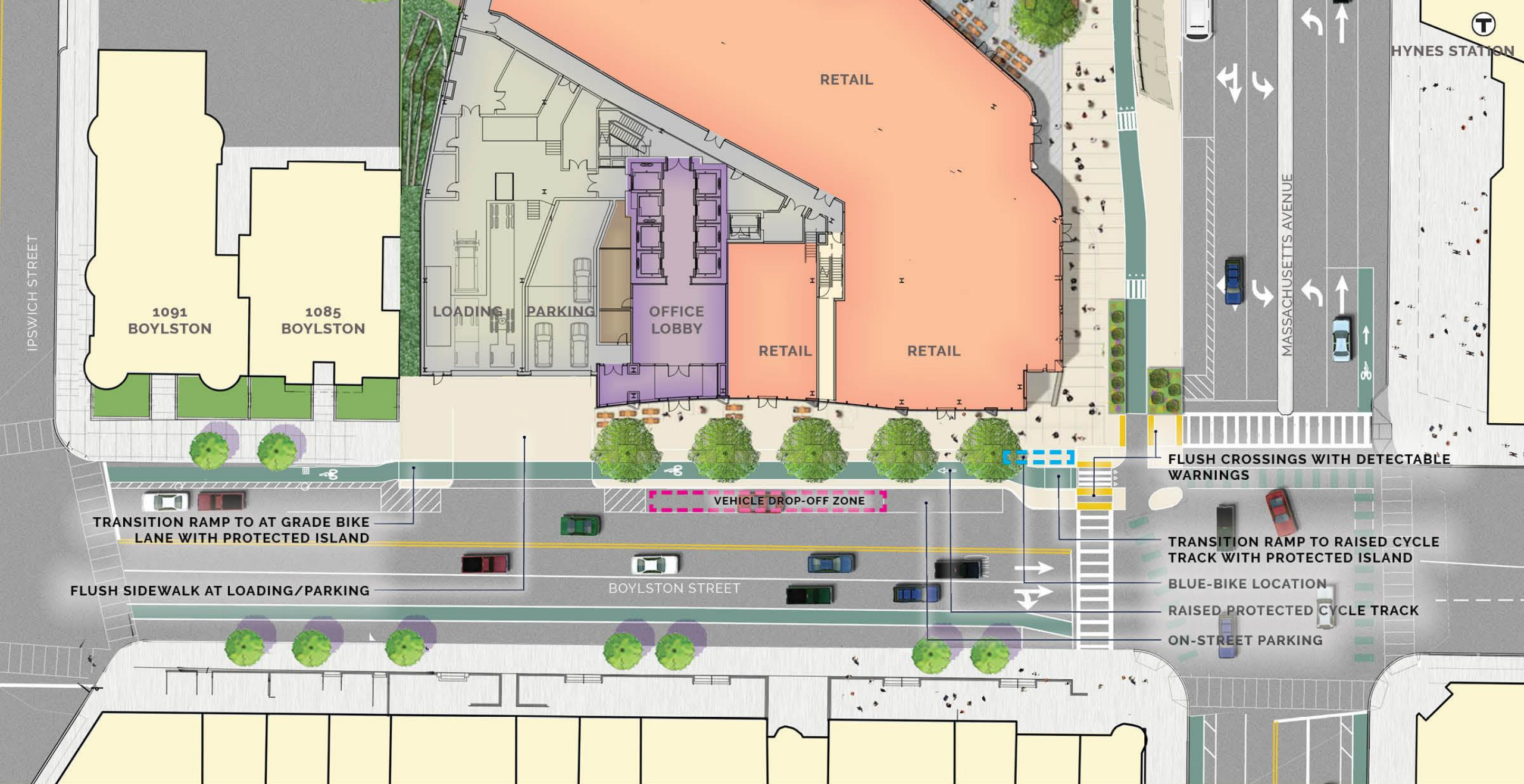
Transportation



MASSACHUSETTS AVENUE PLAN



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TRANSITION RAMP TO AT GRADE BIKE LANE WITH PROTECTED ISLAND

FLUSH SIDEWALK AT LOADING/PARKING

VEHICLE DROP-OFF ZONE

FLUSH CROSSINGS WITH DETECTABLE WARNINGS

TRANSITION RAMP TO RAISED CYCLE TRACK WITH PROTECTED ISLAND

BLUE-BIKE LOCATION

RAISED PROTECTED CYCLE TRACK

ON-STREET PARKING

BOYLSTON STREET PLAN



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NON-GAME DAY VS. GAME DAY

- Non-Game Days: June 19 & 20, 2019 12,540 veh/day (average)
 - Game Days: June 21 & 24, 2019 13,134 veh/day (average)
-
- Busiest hour consistently 813-849 vehicles, regardless of day
 - Game day peak hour shifts to be one hour later

ABILITY OF BOYLSTON STREET TO ABSORB NEW LEFT TURNS

- Queuing observations/counts

Thursday 7/25 Red Sox Game

Monday 7/29 No Red Sox Game

Tuesday 7/30 Red Sox Game

- Drone Observations

Monday 7/29 No Game

4:40:33



5:11:45



5:48:45



5:11:40



MITIGATION PLANNED AT PARCEL 12 DRIVEWAY

- Police detail control during PM peak period
- Traffic Monitoring/Reporting to the BTD
- If operating issues occur, we are flexible in finding a long-term solution

GREEN LINE

- Extensive analysis in DPIR
- Supplemental analysis just completed for the SEIR

Updated on-time performance factor for analysis

Green Line runs near capacity in the near term with background growth and Parcel 12 riders

The Green Line will, over the course of an hour, operate below its capacity

GREEN LINE TRANSFORMATION PROGRAM

- Planned as four phases over the next 11 years
- Includes resiliency, track and station improvements, and procurement of new vehicles
- MBTA has built this program into its Capital Improvement Program (CIP) and it is well underway
- With all four phases implemented, the capacity of the Green Line will be doubled in 2030



Landscape Design



PREVIOUS DESIGN 06-11-19



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SITE FEATURES AND CIRCULATION DIAGRAM





SITE PLAN: STREET LEVEL, LEVEL 2, LEVEL 3



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ENLARGEMENT: AT GRADE CIVIC PLAZA





ACCESSIBLE
ENTRANCE





PERSPECTIVE VIEW FROM BLEACHERS

Summary

MITIGATION & COMMUNITY BENEFIT SUMMARY

Urban Design and Public Realm

- Completing the pedestrian and retail 'loop' between Newbury and Boylston Street
- Repairing Newbury Street / Mass. Ave intersection by moving the I-90 on-ramp to the west
- Over half of an acre of civic space will serve as a gathering space for the city
 - At grade civic space
 - Elevated landscaped open space with sunset views of the western sky
- Contextual architectural design

Streetscape and Transportation Improvements

- Widened Sidewalks
- Rebuilding the Mass Ave intersection with Newbury Street
- Dedicated and separated zones for pedestrians, bicycles, and bus operations
- Renovate the currently closed pedestrian tunnel to the Hynes Green Line Station with a new elevator and stairs
- New MBTA bus accommodations

MITIGATION & COMMUNITY BENEFIT SUMMARY

Sustainability and Greenhouse Gas Emissions

- Energy efficiency measures - 23+% improvement compared to statewide energy code
- Residential/hotel will be first building with high-efficiency electric heating system in Boston (VRF air source heat pumps)
- Pathway to all-electric for the office building
- Significant bicycle, transit, and pedestrian infrastructure improvements
- Limited parking
- Water Conservation, ground water recharge, I/I Mitigation, Climate Resilience

Economic Development Benefits

- Enhanced city and state tax revenues
- Job Benefits- Transit accessible employment center with approximately 2,750 permanent on-site jobs and 1,100 construction jobs

Other Community Benefits

- A \$50,000 contribution for a planning study that includes the South side of Boylston Street
- A \$75,000 contribution to the Charlesgate Alliance for planning and design
- A \$75,000 contribution for Symphony Park for programming and upgrades

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