



Memorandum

To: Cambridge Planning Board
344 Broadway
Cambridge, MA 02139

Date: February 4, 2015

From: M. Junghans

Project #: 12168.00

cc: David Stewart, Boston Properties

Re: Ames Street Residences Article 19: Special Permit Project Review
Response to Comments

The enclosed memo identifies project design changes/revisions to the Article 19 submittal (originally filed on August 8, 2014 and updated on November 17, 2014) on the Ames Street Residences project (the "Project") located at 88 Ames Street in Kendall Square (the "Project Site") based on ongoing discussions with Cambridge Community Development Department (CDD) staff and Planning Board Commission. Boston Properties (the "Applicant") received feedback from the Planning Board at the December 2, 2014 hearing and in letters from the public works and transportation departments (dated November 26, 2014) as well as at follow-up meetings with CDD staff of the on December 17th, January 6th, and January 29th

In summary, the comments fall into the following key categories:

- Architectural
- Landscaping
- On-Site Bike Parking and Hubway
- Pioneer Way
- Loading Dock Management Procedures
- Unit Mix
- Wind Comfort Criteria

The responses below aim to address each key category and refer to specific updated plans and renderings enclosed. Also attached, for completeness, are all other updated plans and figures not specifically referenced in this memo.

All updated project renderings are provided upfront as **Figures 1-5** with notes highlighting key revisions.

Architectural

The following is a summary of building design changes/revisions:

- Exterior Building Materials – Additional figures are attached including images of sample options and views noted with materials.
- 4th Floor Reveal- A description is given and additional figures are attached regarding the design decision to include a reveal between the podium and tower.
- Building Verticality- A description is given regarding the design intention to express verticality over the height of the building.
- Residential Character & Spirit of Innovation- A description is given and figures are revised to convey the intertwined design intentions of expressing residential character and a spirit of innovation. Specific design items include:



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- o Description of window size, spacing, and rhythm as of residential character.
- o Clarification of operable windows.
- o Re-designed residential entrance canopy.
- o Material change at the soffit above the 4th floor reveal.
- o Clarification to planters at the 4th floor reveal.

Height

The permit application submitted by Boston Properties (the "Applicant") provides for a 22-story building, 250 feet in height. It was discussed at the December 2nd Planning Board Hearing that the current design accounts for a structural steel frame building and that there is possibility of selecting a concrete frame structure which would result in a decreased total height of the building. The Applicant has decided to pursue the original height as submitted. A rendering of the building, at 22 stories (250 feet in height) is provided in **Figure 1**.

Sample Board of Material Palette

A sample board of major building materials will be presented at the next Planning Board Meeting. Please refer to the attached views of the building with notes to clarify material locations (**Figures 2a and 2b**).

Character of the Building

The design team carefully studied the massing of the building as a response to the neighborhood, creating a solution that is sensitive to the context and enhances the pedestrian experience. In studying the buildings in Kendall Square, we saw a strong pattern of building base height between three and five stories, and noticed that these buildings had a more successful urban presence than towers that came directly to ground (**Figures 3a and 3b**). Furthermore, zoning requirements and the June 2013 K2C2 Kendall Square Design Guidelines (the "Design Guidelines") recommend creating a strong datum that give and edge to the street and limit the sense of height at street level. The final massing articulation was developed as a response to this study and recommendations, clearly dividing the building in to a base, tower, and top to avoid creating an oppressive volume on the now narrower Ames Street (**Figure 1a**). This massing strategy creates a more consistently scaled building base that ensures a more cohesive pedestrian experience along the street section.

The building design aims to create a strong relationship between the tower and the ground while providing a distinct base expression with enhanced ground floor transparency. These goals are achieved by various methods. The façade's pier language is used as a vertical link between the tower and podium levels as the piers visually connect the two pieces, guiding your sight from sky to ground and vice versa. The building design also takes great care to ensure that the expression of the tower columns is clear all the way to grade in order to give a clear understanding of how the tower is resting on the ground. Columns are carefully aligned with façade piers and will be visible through the glass at the corners for the full height of the building. Furthermore, the columns are expressed as distinct elements at the base not only to ensure their clear perception but also to function as an organizing element for the storefronts, further connecting the base and the ground floor (**Figures 1a, and 4a-b**).

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The intent of the building design is to express a residential character while at the same time reflecting the desire for a distinct, innovative identity as highlighted in the Design Guidelines. The building design embraces the residential character of the building by carefully balancing the ratio of windows and solid piers, which are a typical residential element. This balance achieves a texture of individual windows that reflect the specific modularity of the residential program. Large expanses of glass are minimized to avoid non-residential character. We are also incorporating operable windows that not only provide the units with access to fresh air, but also provide an additional sense of human scale and habitation to the façade. Additional residential cues are incorporated at the building base to bring more dynamism to the pedestrian scale and enhance the residential nature of the building from the street. The residential entrance canopy is design to feel more intimate and either side of the entrance will be clad with a warmer more tactile material that introduces a counterpart to the cleaner aesthetic of the rest of the building. The material is repeated as a soffit at the 4th floor as a clue to the residential nature of the reveal. Flowering planters are also incorporated to the parapet design of this floor to enhance the sense of domesticity of the base. Refer to the updated project renderings (**Figures 2 – 5**).

Landscaping

Pocket Parks

The plant beds, as they face the street, have been given a staggered edge. The edge is set a few feet back from the pedestrian flow of the sidewalk in order to form small gathering areas and create spaces for benches. The benches are designed by "Streetlife." They have a contemporary style, appropriate to the Kendall Square area, with wooden seats and backs and metal supports. The pavement of the pocket parks is scored concrete to match the City's Kendall Square standard. This was done to make it clear that the pocket parks are an extension of the sidewalk and part of the public realm.

The beds are raised 6", 16", or 24" above the sidewalk level – depending upon their location. The planter edge is granite which will be six-inches wide. The granite color will be selected to match the colors in the building facade.

Narrow cylindrical "column" lights add another vertical element. The exact style, size, color, etc. of the lights will be developed as the drawings progress.

The introduction of an art element will be explored. The Applicant will work with the City and its Art Commission to explore having art installations within the pocket park areas.

City standard bike racks have been added to both pocket park areas. A Hubway Station has been added near the north pocket park and will be another element that activates this area.

The pocket parks will have a variety of plant materials of different colors and textures not shown in the previous rendering. The plants will have seasonal interest that includes fall color, spring and summer blossoms, winter berries, and evergreen leaves. (A preliminary plant list with characteristics of each plant is given below.) The plants will be arranged in layers from the tallest shrubs at three feet high stepping down to the 12-inch tall perennials. Canopy trees have been added to create a "roof" to the sitting areas. Three Ginkgo trees will be planted in the north pocket park

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and three Honey Locust will be located in the south pocket park. Narrow cylindrical "column" lights will add another vertical element.

The following planting materials are proposed:

- Trees:
 - North End: Ginkgo (male only) (3)
 - South End: Gleditsia triacanthos inermis (Honey Locust) (3)
- Shrubs:
 - Ilex verticillata nana 'Red Sprite', (Winterberry) 2.5 -3" tall and wide, deciduous with red winter berries, yellow fall color
 - Buxus green gem, (Boxwood) 1.5 -2 feet tall and wide, broad leaf evergreen
 - Ilex opaca 'Maryland Dwarf' (Dwarf American Holly) 3' tall and up to 10' wide, broad leaf evergreen with red berries'
 - Hydrangea quercifolia 'Sikes Dwarf' (Oakleaf Hydrangea) 2' tall, 3' spread, deciduous, oak shaped leaves, flowers in summer, red fall color.
- Ground Cover, Perennials:
 - Epidendrum grandiflorum x rubrum (Red Barrenwort/Bishop's Cap) 12" tall, flowers have red sepals with creamy center bloom in spring.
 - Liriope spicata (Lilyturg) 12" tall, evergreen grass-like foliage with violet flowers in the spring.
 - Tiarella cordifolia (Foam flower) 10-12" tall, white flowers in spring. Leaves turn bronze in the fall.
 - Vinca minor (periwinkle) Evergreen, glossy leaves, blue flowers in spring.

All project renderings that show the landscape (**Figures 1-5**) and landscape plans (**Figures 6-11**) have been modified to reflect the above changes, in response to CDD comments.

Installations

In addition to the cylinder lights currently shown on **Figure 13**, the design team is exploring possible art or other "dynamic" installations in the north pocket park. Such installations will be explored with CDD staff as the final design of the north pocket park is advanced.

On-site Bike Parking and Hubway

The following is a summary of revisions to bicycle facilities:

- The bicycle storage density was modified to allow for a rack spacing of 36 inches on center, as requested by CDD staff. The bicycle storage now meets the rack spacing requirements per zoning. Because of this change, bicycle parking spaces were redistributed and a third level was added to the Multi-level Bike Shelter, as shown in **Figures 14a-d and 15-f**.
- The second floor of the Multi-level Bike Shelter is accessed through the garage levels. The third floor of the Multi-level Bike Shelter is accessed from the garage level, either by the existing garage elevators, or by the freight elevator within the residential building.



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- The ground floor Trailer and Tandem parking was relocated closer to the residential building, as shown on **Figure 14**. The design team will consider improving access to these parking spaces by re-spacing or angling the racks.
- Short-term bicycle parking has been incorporated into the north pocket park, as shown in **Figure 11**.
- The most viable location for the new Hubway station, to be sponsored by the Applicant, is adjacent to the north pocket park (near corner of Ames and Broadway), as shown on **Figures 7 and 11**. This Hubway station location will provide 19 additional Hubway bicycles to Ames Street, for a total of 57 short-term space, and provide additional convenience for users.

The Applicant continues to request relief for the distance from the front door to the bike shed distance and elevator size of the existing elevator because of site constraints.

Pioneer Way Operations

This section provides supplemental information on two specific concerns that have been raised related to traffic operations along the proposed Pioneer Way:

- Vehicle exits from the East Parking Garage
- Sight Distance Concerns at the garage exit and the intersection of Ames Street/Pioneer Way

Garage Exits In response to concerns raised about the potential for vehicle conflicts along Pioneer Way, the Applicant is proposing to make some modification to its future operation of the East Garage. Specifically, the following operational modifications are proposed:

1. Passenger vehicle exits via Pioneer Way will be limited to monthly parking pass holders.
2. During weekdays, all passenger vehicle exits via Pioneer Way will be restricted from 5:00 AM until 3:00 PM.

This restriction will significantly reduce the potential for conflicts between trucks and passenger vehicles – as most weekday loading and service activity generally occurs between 5:00AM and 3:00 PM. Permitting garage exits during the afternoon peak and evening via Pioneer Way will help to limit unintended adverse traffic impacts along Broadway and at other surrounding intersections if all exits were required to be accommodated via the existing Broadway garage exit. The following sections provide more detail to help support these proposed operational modifications.

Loading dock daily logs for the existing 5 Cambridge Center loading dock were compiled and reviewed for the months of April through June 2014. Current loading dock activity at this location confirms that the majority of deliveries occur before 3:00 PM. It is expected that the timing of deliveries will not change after completion of the Project and reconfiguration of the loading dock onto Pioneer Way – with most activity continuing to be handled prior to 3:00 PM. All deliveries will be actively managed to reduce pedestrian and cyclist conflicts on Pioneer Way, but deliveries occurring after 3:00 PM will be strategically accommodated to ensure conflicts between delivery vehicles and exiting garage vehicles are minimized.

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Hourly parking garage entrance and exit data for the Cambridge Center East Garage was also reviewed and compiled. **Table 1** summarizes future daily transportation activity along Pioneer Way, including delivery vehicles, East Garage passenger car exits (with the weekday garage restriction in affect), pedestrians and bicycles.

Table 1
Average Daily Pioneer Way Transportation Activity

Time	Garage Passenger Car Exits	Service Vehicles/Trucks	Bicycles	Pedestrians
Midnight – 1:00 AM	0	0	0	0
1:00 – 2:00 AM	0	0	0	0
2:00 – 3:00 AM	0	0	0	0
3:00 – 4:00 AM	0	0	0	0
4:00 – 5:00 AM	0	0	0	0
5:00 – 6:00 AM	0	2	4	2
6:00 – 7:00 AM	0	2	13	10
7:00 – 8:00 AM	0	4	17	17
8:00 – 9:00 AM	0	4	26	25
9:00 – 10:00 AM	0	5	33	24
10:00 – 11:00 AM	0	4	21	14
11:00 - Noon	0	3	14	9
Noon – 1:00 PM	0	2	14	8
1:00 – 2:00 PM	0	2	15	8
2:00 – 3:00 PM	0	1	16	8
3:00 – 4:00 PM	32	1	20	15
4:00 – 5:00 PM	59	0	27	27
5:00 – 6:00 PM	86	1	28	42
6:00 – 7:00 PM	56	0	25	33
7:00 – 8:00 PM	31	0	16	11
8:00 – 9:00 PM	12	0	8	5
9:00 – 10:00 PM	8	0	5	3
10:00 – 11:00 PM	7	0	4	3
11:00 – Midnight	4	0	2	1



Analysis of Closing Pioneer Way to Vehicle Egress during Morning Peak

It is important that Pioneer Way provide egress from the garage during the busiest exiting hours to help alleviate the demand at the Broadway exit and other nearby intersections. **Figure 19** provides a summary of issues and challenges that would need to be addressed at the East Garage's Broadway exit if it is to accommodate all garage egress in the future – particularly during the evening commute:

- Intersection would need to be widened to accommodate left-turns.
- Would likely require future signalization and coordination with other nearby intersections at Ames Street and Main Street.
- Proximity of these three signalized intersections could create unwanted vehicle flow progression challenges along Broadway.
- Crosswalk to the east would need to be shifted and would not align with the desire line for these pedestrians.
- Exiting garage queues would be longer.
- Increased garage exits would conflict with heavy bicycle movements along Broadway.

An analysis was conducted to understand the impacts of eliminating garage egress onto Pioneer Way during the morning peak hour. A total of 36 morning peak hour trips are estimated to exit the garage and 21 of these trips were assumed to exit via Pioneer Way as illustrated in the certified TIS. Taking into consideration the proposed operational modification that is proposed, all exiting vehicles during the morning peak hour would now exit the garage via the existing Broadway exit. **Figure 20** illustrates the rerouted morning peak hour project generated trips and **Figure 21** illustrates the Build traffic volumes with the proposed Pioneer Way egress restriction in place. **Table 2** provides a comparison of the modified Build Condition and the previously Build Condition presented in the certified TIS. (Note, the traffic operations analysis for the evening peak hour would not be changed by this proposed operational modification to the Pioneer Way garage egress.)

As show in **Table 2**, the impacts of the egress restriction during the morning peak hour are negligible on the surrounding area intersections. The only intersection affected is the garage exit onto Broadway which operates at a Level of Service (LOS) E under Existing and Build Conditions and under the proposed egress restriction it will operate at an LOS F. This impact is directly attributable to the increased exit demand from the garage. There would be no noticeable impact to eastbound traffic on Broadway at this unsignalized intersection location. We have not studied the impacts of this change during other hours of the day, but believe those impacts are very low as garage exits during



those times are low (as shown previously in **Table 1**). A more detailed summary of this modified analysis has been forwarded to the Cambridge TP&T Department for their review and comment.

Sight Distance

In response to questions about provision of adequate sightlines that have been raised by the City of Cambridge the Applicant has modified west corner of the building, as described further below (and illustrated in **Figure 21**) and developed multiple, scaled sight distance studies for two locations:

- East Garage exit to Pioneer Way
- Ames Street/Pioneer Way intersection.

At the East Garage exit, only a pedestrian sight distance analysis has been developed. However, a motorist departing Pioneer Way will need to establish a clear means of egress three separate times as they attempt to cross the sidewalk, the cycle track, and then enter the traffic stream on Ames Street. As such, a parsed analysis has been generated for this location with separate sight distance triangles for pedestrians, bicycles, and motor vehicles, respectively.

Figure 22 provides pedestrian sight distance analysis for both locations that were studied. The analysis takes into consideration the location of the vehicle being approximately 6 feet from the back of sidewalk at the midpoint of the intended egress location. Per City of Cambridge guidelines, a minimum sight distance of 20 feet has been substantiated at both locations. At the garage exit, a 20-foot sight distance minimum has been established that does not conflict with the defined pedestrian desire line down Pioneer Way. This same minimum criteria is exceeded from the back of sidewalk where Pioneer Way meets Ames Street. **Figure 23** provides a rendering of the pedestrian sight distance specifically for the vehicle movement from Pioneer Way onto Ames Street, as requested by the City of Cambridge.

Figure 24 provides sight distance analysis for motorists who have crossed the pedestrian/sidewalk area and are now looking to cross the cycle track. Commonwealth of Massachusetts General Law (*MGL Ch 85, Sec 11B, Subsec 7*) requires at least a 30-foot minimum for a cyclist to stop on a roadway where motor vehicles crossing bicycle infrastructure.

Figure 24 indicates that at least 60-foot sight distance is provided at this location, which exceeds the minimum criteria.

Figure 25 provides vehicle sight distances for motorists entering Ames Street from Pioneer Way. Vehicular sight distances were based on the guidelines of the American Association of State Highway and Transportation Officials (AASHTO). Both Stopping Sight Distance (SSD) and Intersection Sight Distance (ISD) were calculated. A design speed of 20mph was used due to the short nature of Ames Street. All sight distances meet requirements except for northbound on Ames Street. Only SSD can be met Due to the proximity of the Main Street/Ames Street intersection. The ISD is longer than the length from the driveway to the intersection.

Table 2
Pioneer Way Intersection Level of Service Comparison – Morning Peak Hour

Intersection	Approach	2014 Existing Condition				2014 Build Condition Certified TIS				2014 Build Condition with proposed operational modifications in place			
		V/C Ratio	Delay	VLOS	50 th Queue	V/C Ratio	Delay	VLOS	50 th Queue	V/C Ratio	Delay	VLOS	50 th Queue
Broadway / Galileo Galilei Way (Signalized)	EB	0.76	41.2	D	6	0.77	41.2	D	6	0.77	41.4	D	6
	WB	>1.0	>80.0	F	6	>1.0	>80.0	F	6	>1.0	>80.0	F	6
	NB	0.81	35.6	D	3	0.81	33.8	C	3	0.81	33.8	C	3
	SB	>1.0	>80.0	F	11	>1.0	>80.0	F	11	>1.0	>80.0	F	11
	Overall	>1.0	>80.0	F	-	>1.0	>80.0	F	-	>1.0	>80.0	F	-
Main Street / Galileo Galilei Way (Signalized)	EB	0.41	20.0	B	4	0.41	20.0	C	4	0.41	20.0	C	4
	WB	0.31	28.3	C	5	0.33	26.2	C	4	0.33	25.3	C	5
	NB	0.48	22.7	C	4	0.48	22.8	C	4	0.48	22.8	C	4
	SB	0.69	23.9	C	5	0.69	30.5	C	6	0.64	30.5	C	6
	Overall	0.54	23.5	C	-	0.54	25.6	C	-	0.52	25.5	C	-
Main Street / Ames Street (Signalized)	EB	0.79	24.7	C	6	0.82	27.2	C	6	0.82	27.6	C	6
	WB	0.15	11.6	B	2	0.20	12.1	B	2	0.23	12.4	B	2
	NB	0.83	52.0	D	6	0.82	49.0	D	6	0.82	49.3	D	6
	SB	0.73	40.0	D	3	0.73	43.3	D	3	0.70	41.2	D	3
	Overall	0.81	34.1	C	-	0.82	34.1	C	-	0.82	33.5	C	-
Broadway / Ames Street (Signalized)	EB	0.76	20.5	C	7	0.74	22.3	C	3	0.74	22.4	C	3
	WB	0.86	40.4	D	12	0.86	43.0	D	11	0.86	43.0	D	12
	NB	0.41	32.1	C	3	0.43	33.9	C	3	0.41	33.5	C	3
	Overall	0.61	30.9	C	-	0.59	32.7	C	-	0.59	32.7	C	-
	Broadway / Third Street (Signalized)	EB	0.73	20.6	C	6	0.77	21.3	C	6	0.79	22.4	C
WB		>1.0	>80.0	F	15	>1.0	>80.0	F	15	>1.0	>80.0	F	15
SB		0.60	40.1	D	4	0.70	42.1	D	5	0.70	42.1	D	5
Overall		0.85	55.9	E	-	0.90	55.8	E	-	0.90	55.7	E	-

Intersection	Approach	2014 Existing Condition				2014 Build Condition Certified TIS				2014 Build Condition with proposed operational modifications in place			
		V/C Ratio	Delay	VLOS	Intersection	Approach	V/C Ratio	Delay	VLOS	Intersection	Approach	V/C Ratio	Delay
Ames Street/ Cambridge Center East Garage/ Pioneer Way (Unsignalized)	WB	0.03	17.1	C	-	0.13	17.7	C	-	-	-	-	-
Broadway/ Cambridge Center East Garage (Unsignalized)	NB	0.04	37.2	E	-	0.18	45.3	E	-	0.46	>50.0	F	-



Loading Dock Management Procedures

The Project's proposed loading and service area is shown in **Figures 20, 22, and 23** and includes four service bays that can accommodate 35-foot single-unit trucks (SU-35). It is anticipated that the dock will be open from 6:00 AM to 4:00 PM, with the majority of activities occurring in the late morning, between 9:00 AM and 12:00 PM. A typical breakdown of daily truck arrivals, by size, is as follows:

- 8-10 box trucks.
- 14-18 smaller vehicles such as delivery vans.
- 1-2 trash compactor pick-ups.

Larger tractor-trailer trucks will be prohibited from delivering at this location and the Applicant will work with vendors to comply with this requirement.

Loading Dock Operations Management Plan

The following sets forth the Project's loading operations management plan in conjunction with the future construction of the Ames Street Residences project:

- The Applicant has a full time Property Management staff located at 90 Broadway (4 Cambridge Center). The Applicant will staff the loading dock with a full time person as well as a second person during peak delivery periods.
- The new loading and service area on Pioneer Way will be actively managed by dedicated service and security staff. A primary function of these positions is to work with vendors and suppliers to develop a coordinated plan that efficiently regulates the use of the available loading bays and eliminate unnecessary queuing by trucks waiting along Ames Street, which will be strictly prohibited. An additional function of these positions will be to regulate the policies set forth within this operations management plan, particularly during peak periods when truck deliveries could have a negative impact on area traffic conditions.
- The Applicant will coordinate and maximize use of common vendors wherever reasonably and economically feasible in order to minimize weekly truck trips to the new dock.
- Passenger vehicles will not be able to physically enter the East Garage from Pioneer Way.
- Passenger vehicle exits from the East Garage will be permitted after 3pm. Only monthly parking pass holders will be permitted to exit from this location during these limited defined times.
- Larger tractor-trailer trucks will be prohibited from delivering at this location and the Applicant will work with



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vendors to comply with this requirement.

- Idling vehicles at the loading area will be limited to a maximum of 5 minutes in accordance with Commonwealth of Massachusetts law.
- On-street parking/standing/loading will be prohibited on Ames Street. The Applicant will install signage along Ames Street adjacent to Pioneer Way to clearly denote this restriction.
- The dock will be designed to accommodate SU-35 sized box trucks. Trash compactor pick-up will be scheduled to occur primarily during off-peak hours.
- Curb radii at the Pioneer Way/Ames Street curb cut will be specifically designed to accommodate truck turns and improve pedestrian safety at this location.
- The Applicant will set up a hotline for local residents and others to be able to communicate and report violations of the loading operations management plan.

Unit Mix

The current envisioned unit mix, at the Schematic Design stage, consists of 14% micro units, 41% studios, 37% one bedrooms, and 8% two bedrooms. While the exact mix is expected to be refined throughout the design and marketing process, and is therefore subject to change, we anticipate that the tendency towards a large proportion of smaller unit types will remain. This is primarily due to two important trends that are occurring the residential market in the Greater Boston Area: (1) the demand for housing types is shifting from single family home ownership to multiunit rental housing due to demographic changes, consumer behavior, and changes in the makeup of the regional economy (2) the proportion of income that individuals must allocate to rent has been increasing and the only available market responses to this trend are to (a) build smaller units, and (b) increase the supply of units to the market. These trends have been well documented by urban economists including in *The Greater Boston Housing Report Card* (2012 and 2013), prepared by The Kitty and Michael Dukakis Center for Urban and Regional Policy, Northeastern University. Further, these trends are referenced in the recently completed *Cambridge Incentive Zoning Ordinance Nexus Study*, by Karl F. Seidman, et al.

Specifically within the Kendall Square, our own market research has led us to four major target groups who want to live in Kendall Square. The major target groups include:

- Millennials: 20-30 years old who are tech savvy and work for the leading tech or biotech companies in Kendall Square
- Academic/Medical: 25-35 years old, international origination, require short-term living, could be graduate students, visiting professors or researchers
- Empty Nesters: over 55 years old, professionals working for leading Kendall Square companies, require lots of amenities in the building and in the neighborhood

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- Divorcee: 30-40 years old, professionals working for leading Kendall Square companies, require lots of amenities in the building and in the neighborhood

The Project is being designed to appeal to the above four target groups. Also, when you consider the two market trends highlighted above, the appeal of Kendall Square as one of the most important centers of innovation in the country, and the fact that the Project is a transit-oriented sustainable development, we believe that there is pent up demand, and corresponding lack of supply, for the type of project we are proposing, including the unit mix therein.

Wind Comfort Criteria

We were asked by CDD staff to provide a comparison of the RWDI wind comfort criteria and the City of Boston wind comfort criteria. A memo from our wind consultant, RWDI Consulting Engineers & Scientists ("RWDI"), was provided to CDD staff and is attached for reference. A synopsis of the memo and our follow-up discussion with RWDI are as follows:

- RWDI is one of the foremost wind consultants and has a vast global experience. In the United States, RWDI's wind comfort criteria are used in every city except Boston and San Francisco.
- The basic difference in the two criteria is that the RWDI wind comfort criteria allows for a 20% exceedance to determine the comfort category whereas the City of Boston allows for a 1% exceedance. This accounts for the differing wind speed rating for each comfort category.
- The practical outcome of the two different statistical measures, given that the analysis is a relative analysis, is that the conclusions from the wind studies are generally the same in either case.

Shared Street Design

The improvements to Pioneer Way are designed to provide shared space for pedestrian, bicycle and passenger vehicle travel, as well as to accommodate loading and service operations. Currently Pioneer is a well utilized pedestrian and service corridor. The roadway design envisions a level plaza with strategic pavement and edge treatments intended to alert drivers to slow down and be mindful of pedestrians, as well as to promote pedestrian and bicycle use of the public realm. Edge treatments, such as bollards, benches, street lights, trash receptacles, or planters delineate the limits of the roadway without discouraging pedestrian access.

Through proper coordination and restricted vehicular access during peak pedestrian flows, Pioneer Way serve a variety of uses, including:

- Pedestrian connection between 3 and 5 Cambridge Center and Ames Street and between the food court and Ames Street
- Loading and service access
- Route of restricted egress for vehicles exiting garage
- Location of and access to bicycle shed being constructed as part of the Ames Street Residences Project.

Similar shared street designs have been successfully implemented throughout the City and across the world. For reference we have provided examples of similar installments are shown in **Figures 26-37**.

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Revised Graphics Package – WITH REDLINE

Figure #	Description
Introduction (Updated Project Renderings)	
1a	Facade Concept Overall View
1b	Street View Looking North on Ames Street
1c	Street View Looking South on Ames Street
1d	View of Streetscape & Storefront Landscape - Ames Street Looking North
1e	View of Streetscape & Storefront Landscape – Ames Street Looking South
1f	View of Streetscape & Storefront Landscape – Ames
1g	View of South Ames Street Public Open Space
1h	Street View of Pioneer Way
1i	View of North Ames Street Public Open Space
Architectural	
2a	Exterior Building Materials
2b	Exterior Building Materials – Tower
2c	Exterior Building Materials – Base
3a	Neighborhood Building Base Scale - Ames Street
3b	Neighborhood Building Base Scale – Main Street
4	Proposed Development Plan
5	Ground Floor Plan
6a	Building Elevation - South
6b	Building Elevation - West
6c	Building Elevation - North
6d	Building Elevation - East
7a	Pioneer Way - Signage
7b	Pioneer Way - Signage
7c	Pioneer Way - Signage
Landscaping	
8	Site Planning and Landscape
9	Proposed Street and Landscape Design
10	Public Realm Key Plan
11	South Ames Street Open Space Plan
12	Pioneer Way Open Space Plan
13	North Ames Street Open Space Plan
14	Pedestrian Circulation



Figure #	Description
On-Site Bicycle Parking/Hubway	
15a	Proposed Bicycle Parking Layout - Garage Ground Floor
15b	Proposed Bicycle Parking Layout - Garage 2nd Floor
15c	Proposed Bicycle Parking Layout - Garage 3rd Floor
15d	Proposed Bicycle Parking Layout - Garage 5th Floor
16a	Garage Bicycle Parking Structure – Ground Floor
16b	Garage Bicycle Parking Structure – Ground Floor Repair Area
16c	Garage Bicycle Parking Structure – Ground Floor Tandem and Trailer Area
16d	Garage Bicycle Parking Structure – 2 nd & 3 rd Floor
16e	Garage Bicycle Parking Structure – 5 th Floor
16f	Garage Bicycle Parking Structure – Section
Pioneer Way Operations	
17	Proposed Vehicular Parking Access/Egress
18	Truck Turning Movements
19	East Garage Egress Left-Turn Modification Challenges
20	2014 Build Condition Traffic Volumes – Pioneer Way Closed to Exiting Vehicles AM Peak Hour
21	Project Generated Trips Traffic Volumes – Pioneer Way Closed to Existing Vehicles AM Peak Hour
22	Pedestrian Sight Lines
23	Pedestrian Sight Line Rendering
24	Bicycle Sight Lines
25	Vehicular Sight Lines
Shared Street Design (Photos)	
26	Cadys Alley, Washington DC
27	Cadys Alley, Washington DC
28	Covent Garden, London UK
29	Covent Garden, London UK
30	Downtown Crossing, Boston MA
31	East 4 th Street, Cleveland OH
32	East 4 th Street, Cleveland OH
33	Pearl Alley, Columbus OH
34	Winter Street, Boston MA
35	Winthrop Street, Cambridge MA
36	Winthrop Street, Cambridge MA
37	Winthrop Street, Cambridge MA



Existing conditions corrected.

Existing conditions corrected.

Storefront aligned with south facade of tower.

Landscape design updated.

Amenity roof fascia lowered to align with 4th floor soffit.

4th floor planters updated.

Storefront corner opened to provide vehicular sightline.

Source: FXFWLE

Vanasse Hangen Brustlin, Inc.

Figure 1a

Facade Concept Overall View

Ames Street Residences
Cambridge, MA



Amenity roof fascia lowered to align with 4th floor soffit.

4th floor planters updated.

Storefront corner opened to provide vehicular sightline.

Existing conditions corrected.

Planter color updated.

Source: FXFOWLE

Vanasse Hangen Brustlin, Inc.

Figure 1b

Street View
Looking North on Ames Street
Ames Street Residences
Cambridge, MA



4th floor soffit material changed

Amenity roof fascia lowered to align with 4th floor soffit.

Podium elevation simplified by replacing punched louvers with full louver wall.

Landscape updated.

Hubway added.

Source: FXFOWLE

Vanasse Hangen Brustlin, Inc.

Figure 1c

Street View
Looking South on Ames Street
Ames Street Residences
Cambridge, MA



Additional mullions added.

4th floor planters updated.

4th floor soffit material changed.

Amenity roof fascia lowered to align with 4th floor soffit.

4th floor interior life clarified.

Canopy design updated.

Sidewalk paving updated.

Storefront corner opened to provide vehicular sightline.

Vanasse Hangen Brustlin, Inc.

Figure 1d
View of Streetscape & Landscape
(Ames Street Looking North)
Ames Street Residences
Cambridge, MA

Source: FXFWLE



Additional mullions added.

4th floor soffit material changed.

4th floor planters updated.

Bike rack type corrected to Cambridge standard.

Sidewalk paving updated.

Canopy design updated.

Vanasse Hangen Brustlin, Inc.

Figure 1e
View of Streetscape & Landscape
(Ames Street Looking South)
Ames Street Residences
Cambridge, MA

Source: FXFOWLE



Canopy design updated.

Sidewalk paving updated.

Bike rack type corrected to Cambridge standard.

Source: FXFOWLE

Vanasse Hangen Brustlin, Inc.

Figure 1f

View of Streetscape & Landscape
(Ames Street Retail)

Ames Street Residences
Cambridge, MA



4th floor soffit material changed.

4th floor planters updated.

Canopy design updated.

Storefront corner opened to provide vehicular sightline.

Bike rack type corrected to Cambridge standard.

Landscape planters, planting and tree updated.

Planter color updated.

Vanasse Hangen Brustlin, Inc.

Figure 1g

View of South Ames Street
Public Open Space

Ames Street Residences
Cambridge, MA

Source: FXFOWLE



Podium elevation simplified by replacing punched louvers with full louver wall.

Vine pattern on louver wall clarified.

Existing conditions corrected.

Landscape planter, plantings and tree updated.

Hubway added.

Vanasse Hangen Brustlin, Inc.

Figure 1i

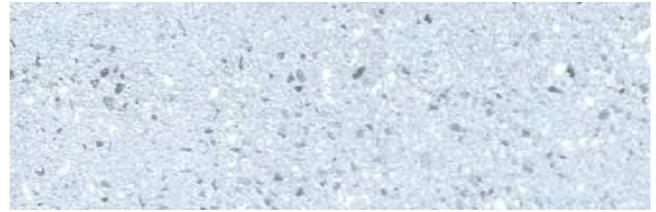
View of North Ames Street
Public Open Space

Ames Street Residences
Cambridge, MA

Source: FXFOWLE



1. Precast Concrete - light neutral colors, 2-3 shades

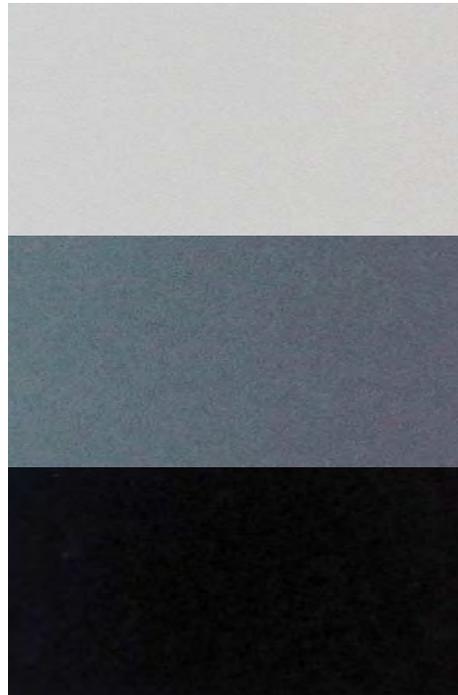


2. Precast Concrete - texture variation

Material colors adjusted.



3. Glass - Neutral, Medium Reflectivity



4. Metal Panel and Window Frames



5. Wood Look Composite Panel

Additional materials shown.

* Materials under consideration

Source: FXFOWLE

Vanasse Hangen Brustlin, Inc.

Exterior Building Materials

Figure 2a

Ames Street Residences
Cambridge, MA



METAL PANEL,
LIGHT GREY

METAL PANEL,
MEDIUM GREY

LOUVER,
MEDIUM GREY

GLASS,
NEUTRAL BLUE-GREY
MEDIUM REFLECTIVITY

OPERABLE WINDOWS,
IN-SWING HOPPER

WINDOW FRAME,
DARK GREY

PRECAST CONCRETE,
DARK GREY

PRECAST CONCRETE,
LIGHT GREY RIBBED

PRECAST CONCRETE,
LIGHT GREY

Vanasse Hangen Brustlin, Inc.

Figure 2b

Exterior Building Materials - Tower

Ames Street Residences
Cambridge, MA



- REVEAL GLASS, NEUTRAL BLUE-GREY LOW REFLECTIVITY
- WINDOW FRAME, DARK GREY
- METAL PANEL COLUMN COVER, MEDIUM GREY
- OPERABLE WINDOWS, IN-SWING HOPPER
- PRECAST CONCRETE FIN, LIGHT GREY
- ALUMINUM FIN, LIGHT GREY
- LOUVER, MEDIUM GREY
- LOADING DOCK DOOR, VINE PATTERN
- STOREFRONT FRAME, LIGHT GREY
- STOREFRONT GLASS, NEUTRAL LOW REFLECTIVITY
- PHENOLIC PANEL, WARM WOOD LOOK

Source: FXFOWLE

Vanasse Hangen Brustlin, Inc.

Figure 2c

Exterior Building Materials - Base

Ames Street Residences
Cambridge, MA



Ames Street Residences Podium Height

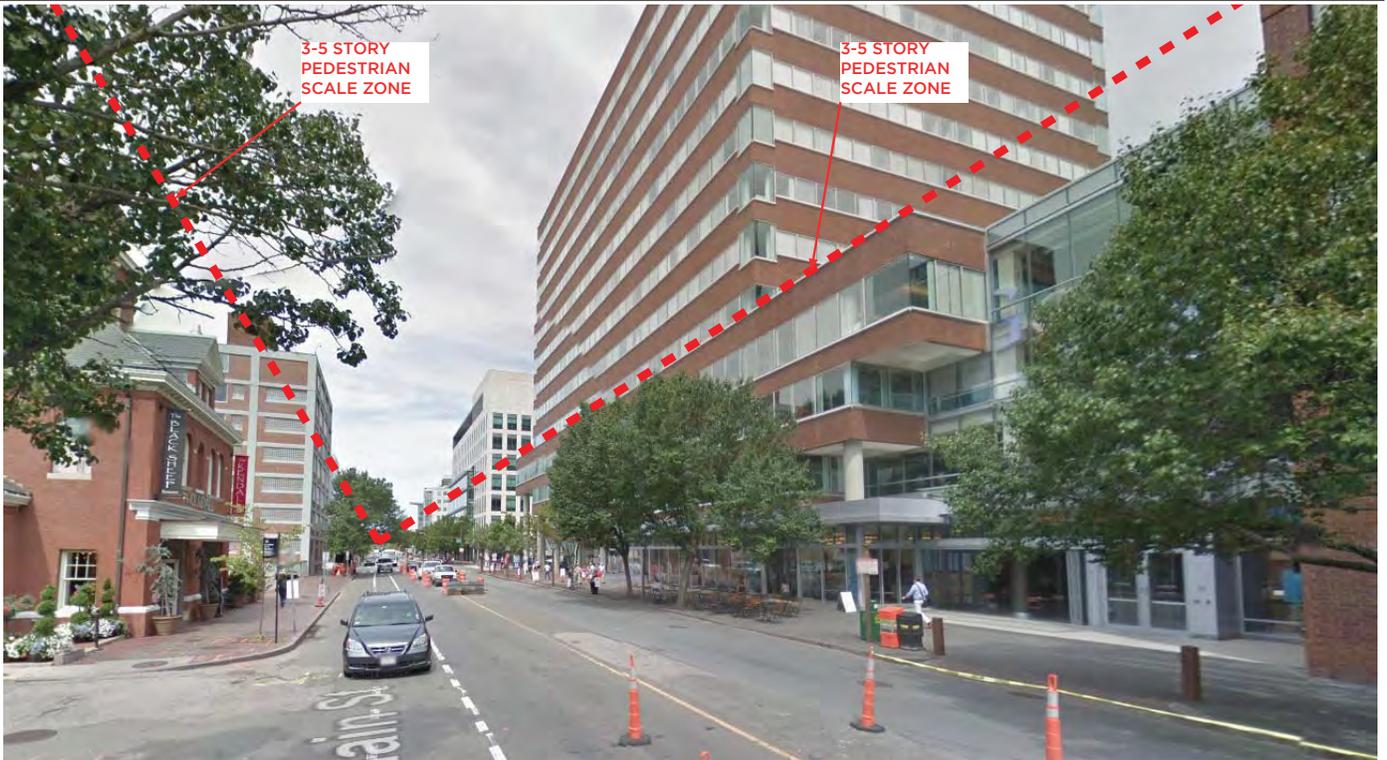


Ames Street Building Base Scale

Vanasse Hangen Brustlin, Inc.

Neighborhood Building Base Scale - Ames St. Figure 3a

Ames Street Residences
Cambridge, MA



Main Street Building Base Scale at Dock Street

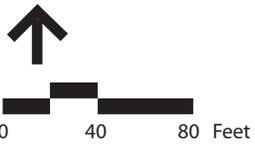


Main Street Building Base Scale at Hayward Street

Vanasse Hangen Brustlin, Inc.

Neighborhood Building Base Scale - Main St. Figure 3b

Ames Street Residences
Cambridge, MA



Source: FXFOWLE

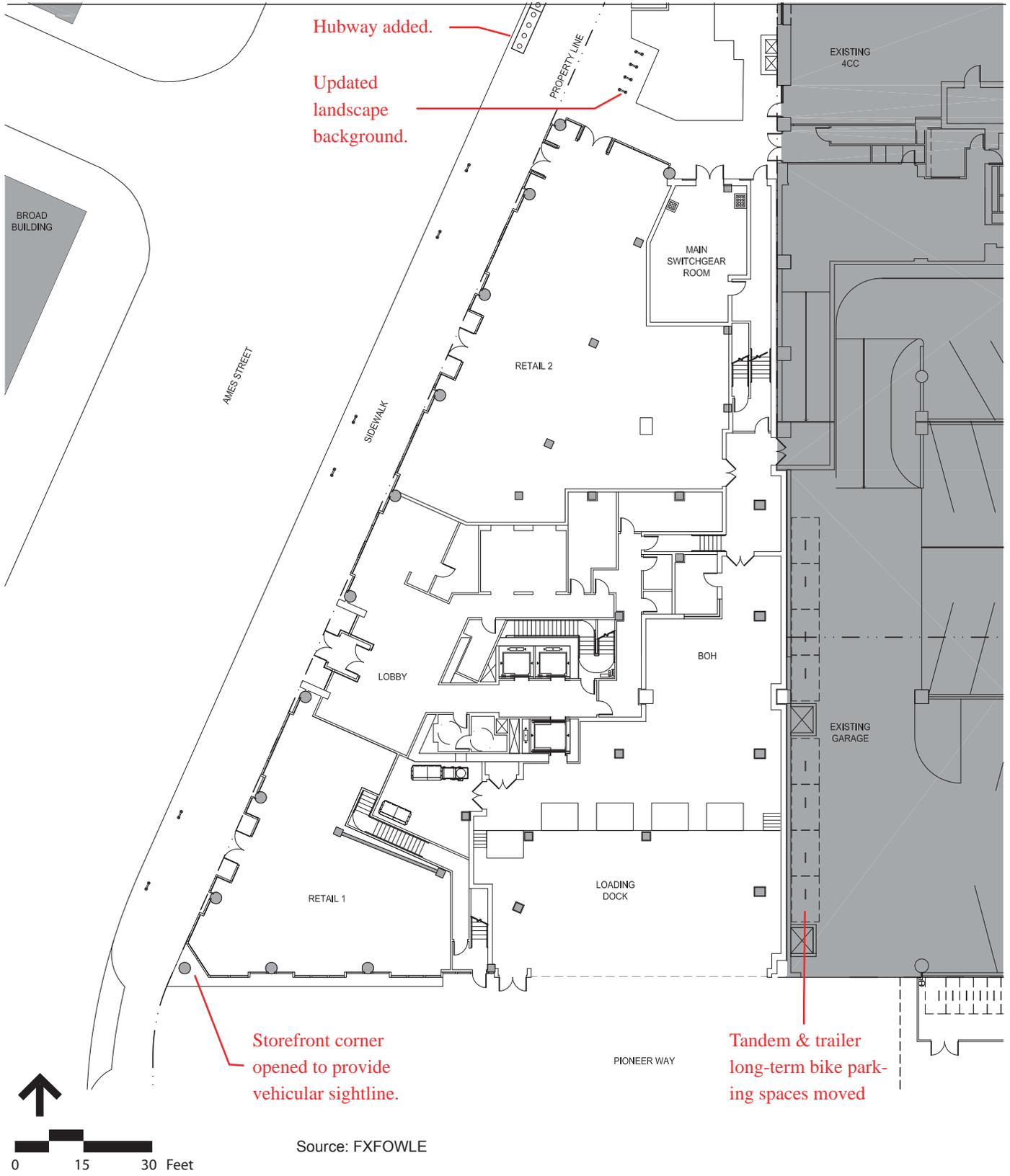
*Updated to show current
Landscape design.

Vanasse Hangen Brustlin, Inc.

Proposed Development Plan

Figure 4

Ames Street Residences
Cambridge, MA

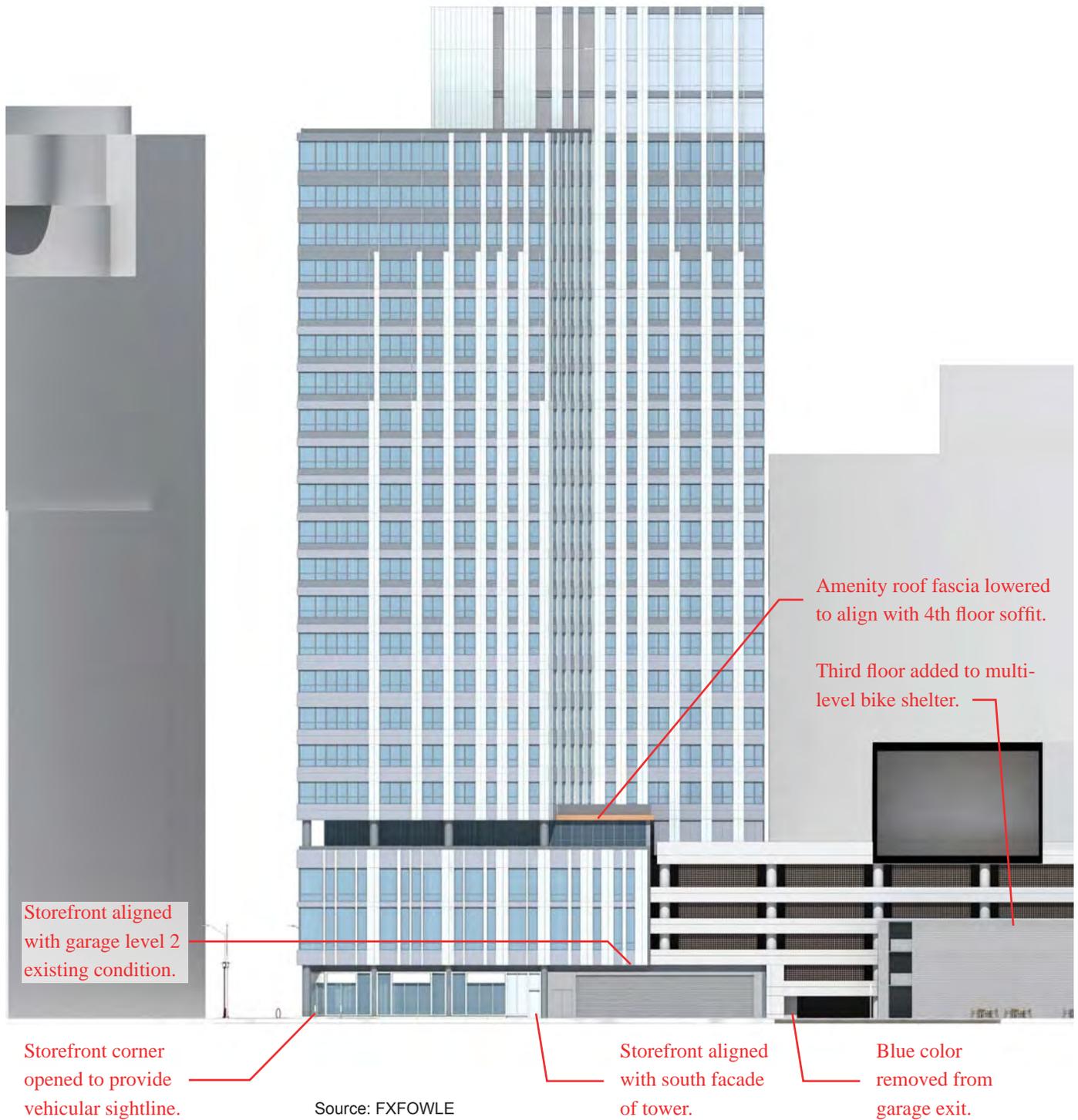


Vanasse Hangen Brustlin, Inc.

Ground Floor Plan

Figure 5

Ames Street Residences
Cambridge, MA

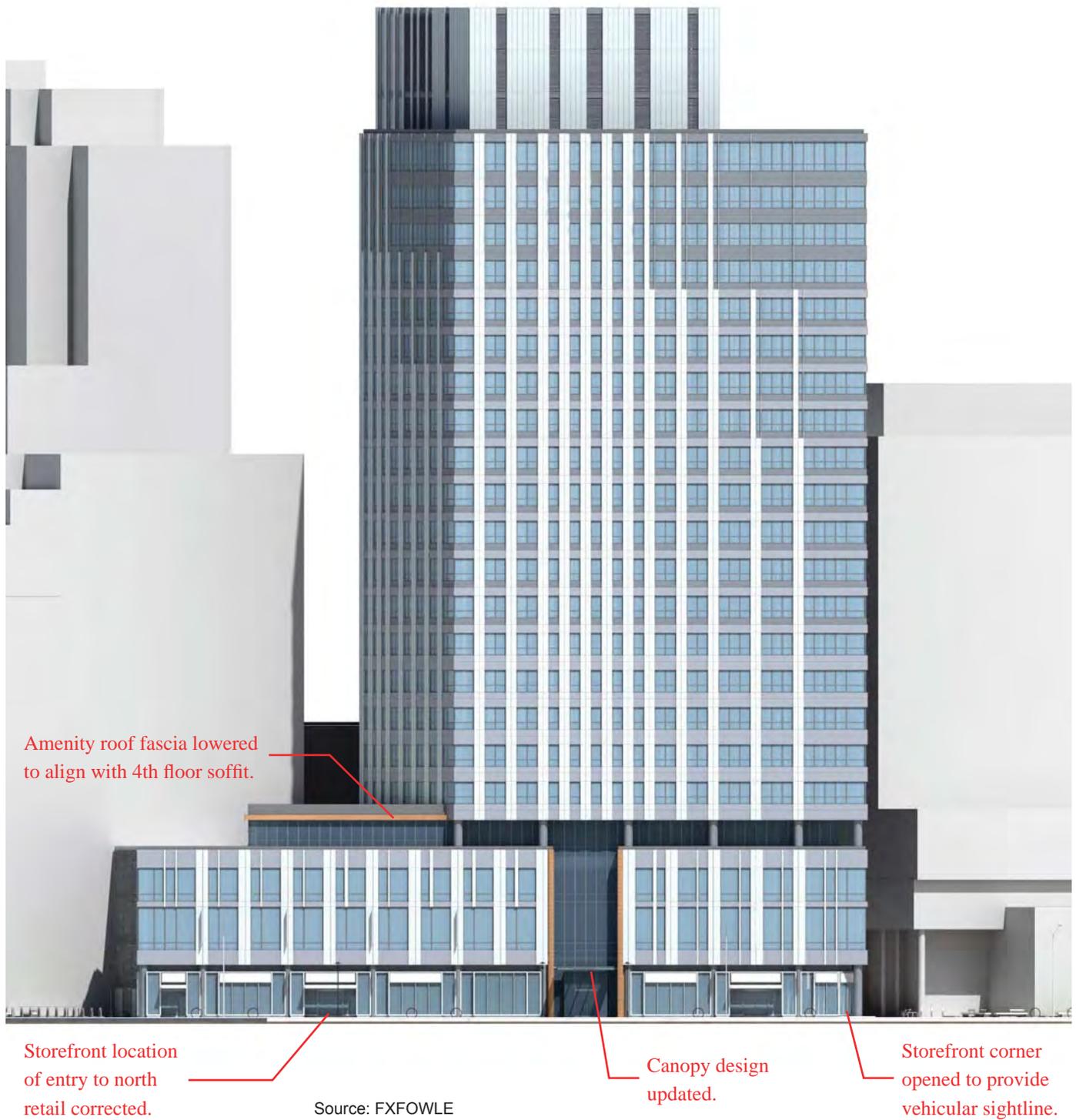


Vanasse Hangen Brustlin, Inc.

Building Elevation - South

Figure 6a

Ames Street Residences
Cambridge, MA



Vanasse Hangen Brustlin, Inc.

Building Elevation - West

Figure 6b

Ames Street Residences
Cambridge, MA



Source: FXFWLE

Vanasse Hangen Brustlin, Inc.

Building Elevation - North

Figure 6c

Ames Street Residences
Cambridge, MA



Third floor added to multi-level bike shelter.

Source: FXFWLE

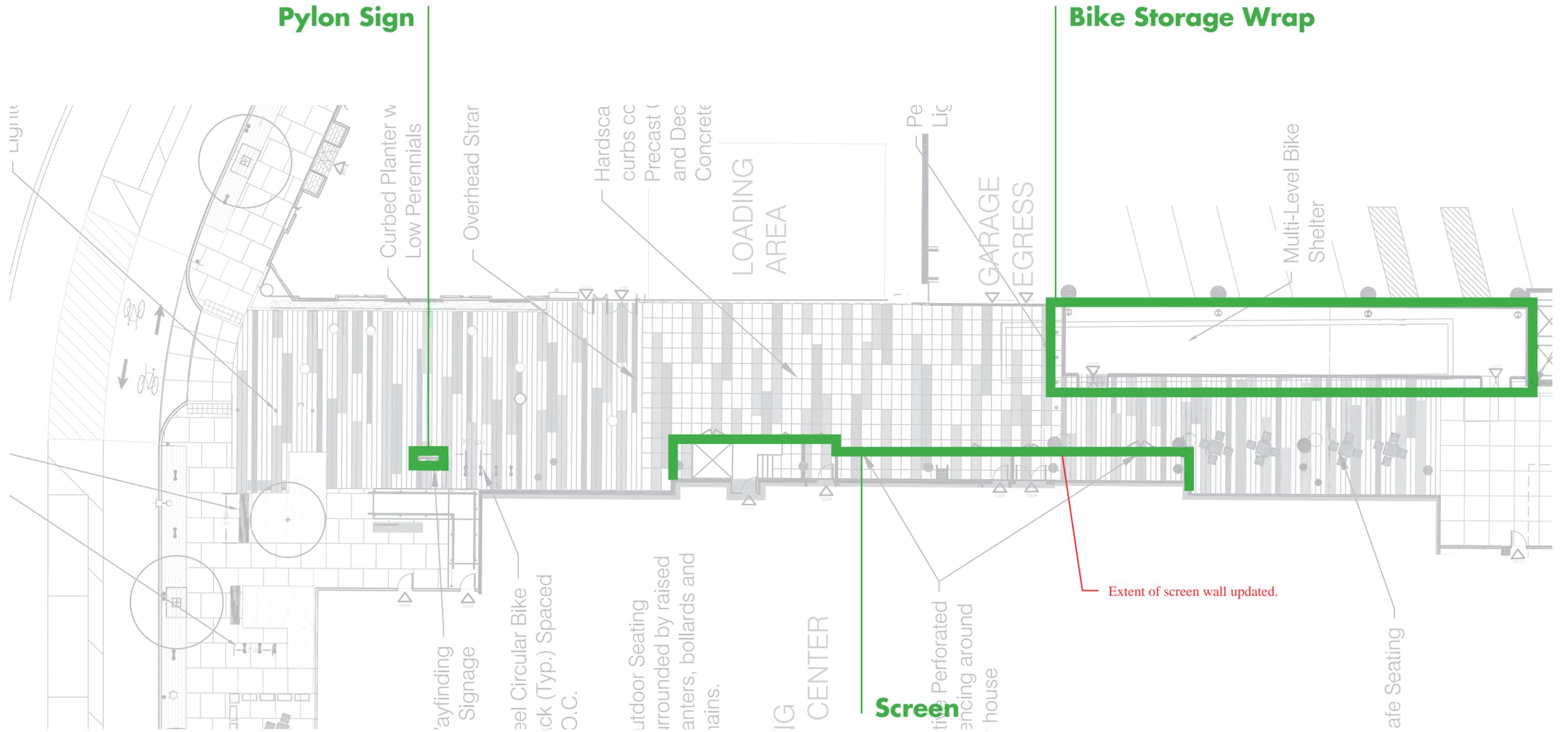
Vanasse Hangen Brustlin, Inc.

Building Elevation - East

Figure 6d

Ames Street Residences
Cambridge, MA

Location Plan



Vanasse Hangen Brustlin, Inc.

Figure 7a

Pioneer Way - Plan
Ames Street Residences
Cambridge, MA

Source: Selbert Perkins

North Elevation: Overview



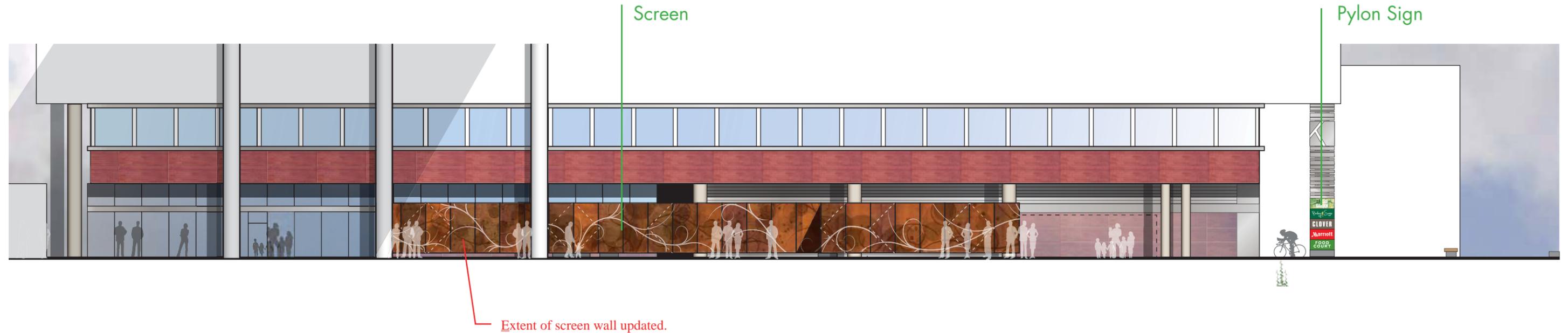
Vanasse Hangen Brustlin, Inc.

Figure 7b

Pioneer Way - North Elevation
Ames Street Residences
Cambridge, MA

Source: Selbert Perkins

South Elevation: Overview



Vanasse Hangen Brustlin, Inc.

Figure 7c

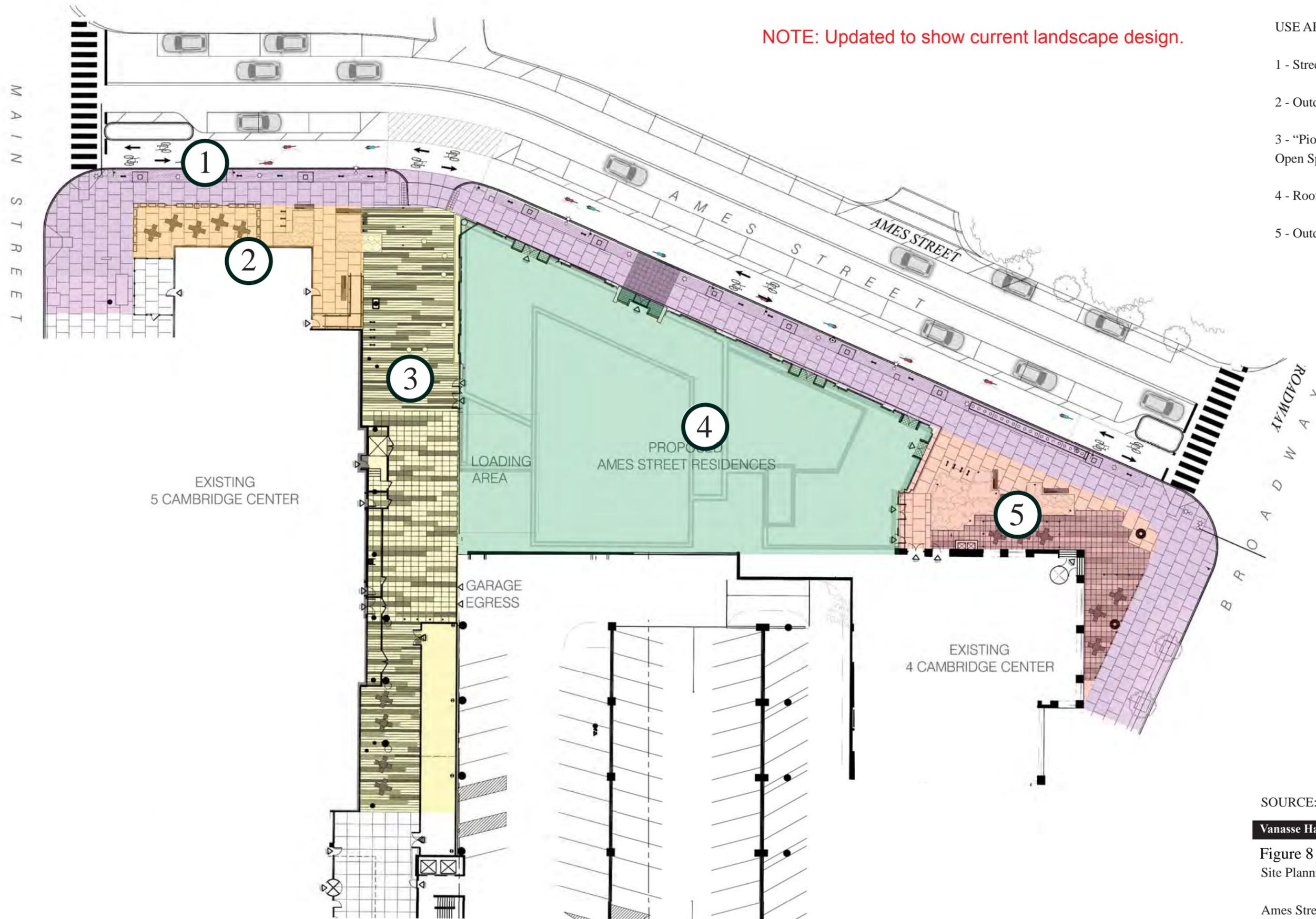
Pioneer Way - South Elevation
Ames Street Residences
Cambridge, MA

Source: Selbert Perkins

NOTE: Updated to show current landscape design.

USE AREAS:

- 1 - Streetscape
- 2 - Outdoor Seating/Open Space
- 3 - "Pioneer Way" Shared Use Path/
Open Space
- 4 - Roof Amenity Space
- 5 - Outdoor Seating/Open Space



AMES STREET | SITE USE ZONES

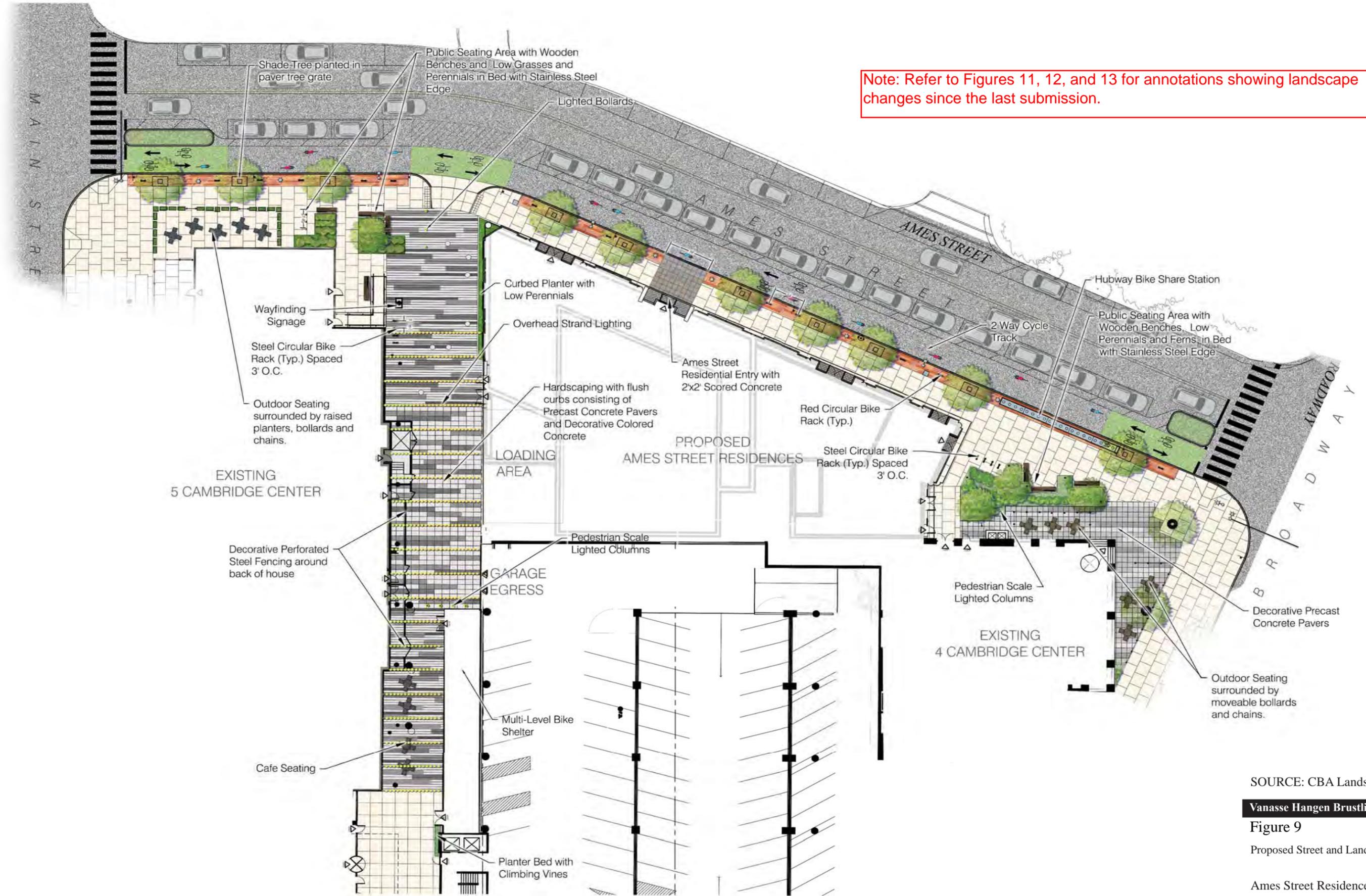
SOURCE: CBA Landscape Architects

Vanasse Hangen Brustlin, Inc.

Figure 8
Site Planning and Landscape

Ames Street Residences
Cambridge, MA

Note: Refer to Figures 11, 12, and 13 for annotations showing landscape changes since the last submission.



AMES STREET | PROPOSED STREET AND LANDSCAPE DESIGN

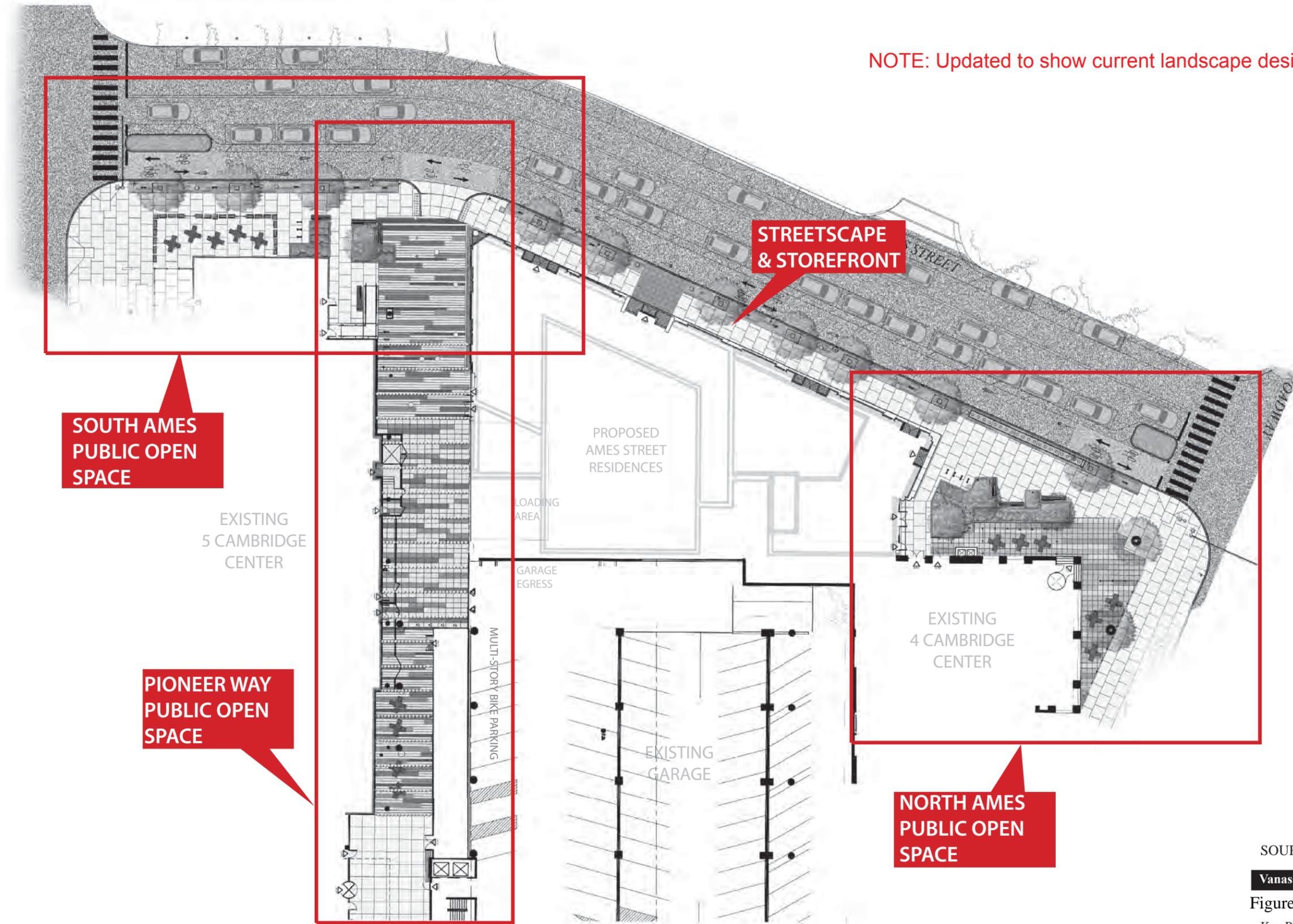
SOURCE: CBA Landscape Architects

Vanasse Hangen Brustlin, Inc.

Figure 9

Proposed Street and Landscape Design

Ames Street Residences
Cambridge, MA



NOTE: Updated to show current landscape design.

AMES STREET | KEY PLAN

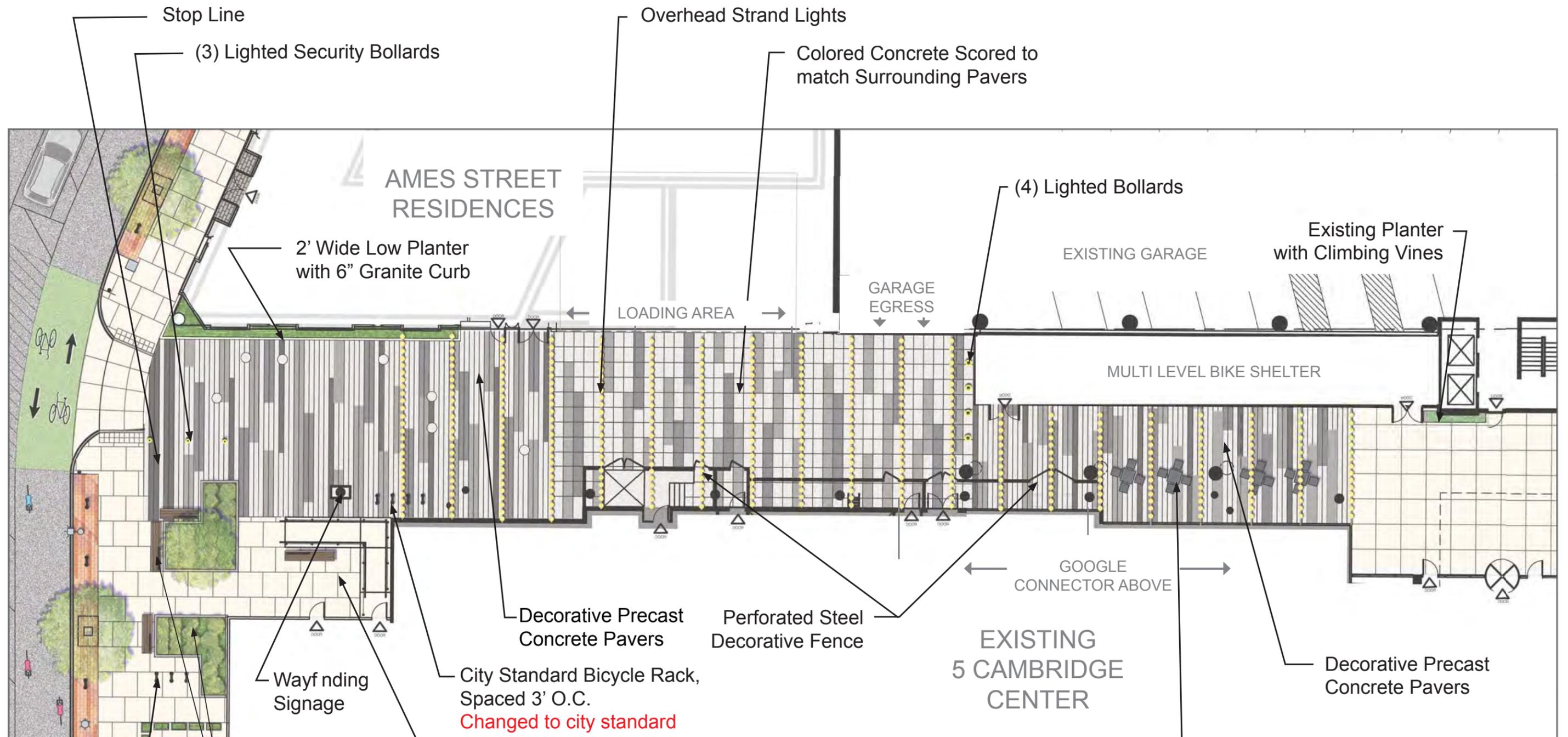
SOURCE: CBA Landscape Architects

Vanasse Hangen Brustlin, Inc.

Figure 10

Key Plan

Ames Street Residences
Cambridge, MA



Stop Line

(3) Lighted Security Bollards

Overhead Strand Lights

Colored Concrete Scored to match Surrounding Pavers

AMES STREET RESIDENCES

2' Wide Low Planter with 6" Granite Curb

LOADING AREA

GARAGE EGRESS

(4) Lighted Bollards

EXISTING GARAGE

Existing Planter with Climbing Vines

MULTI LEVEL BIKE SHELTER

GOOGLE CONNECTOR ABOVE

Decorative Precast Concrete Pavers

Perforated Steel Decorative Fence

EXISTING 5 CAMBRIDGE CENTER

Decorative Precast Concrete Pavers

Wayfinding Signage

City Standard Bicycle Rack, Spaced 3' O.C.
Changed to city standard

Concrete paving
Changed from precast pavers



City Standard Bicycle Rack, Spaced 3' O.C.
Added

Seating Area with Low Plantings and Tree Granite Planters (6" & 16" Height) and Contemporary Wooden Benches
Planters enlarged & made various heights, steel edge changed to granite, canopy tree added, benches shown with backs.

Cafe Seating by Tenant

SOURCE: CBA Landscape Architects

Vanasse Hangen Brustlin, Inc.

Figure 11
Pioneer Way Open Space Plan

Ames Street Residences
Cambridge, MA

AMES STREET | PIONEER WAY OPEN SPACE PLAN



SOURCE: CBA Landscape Architects

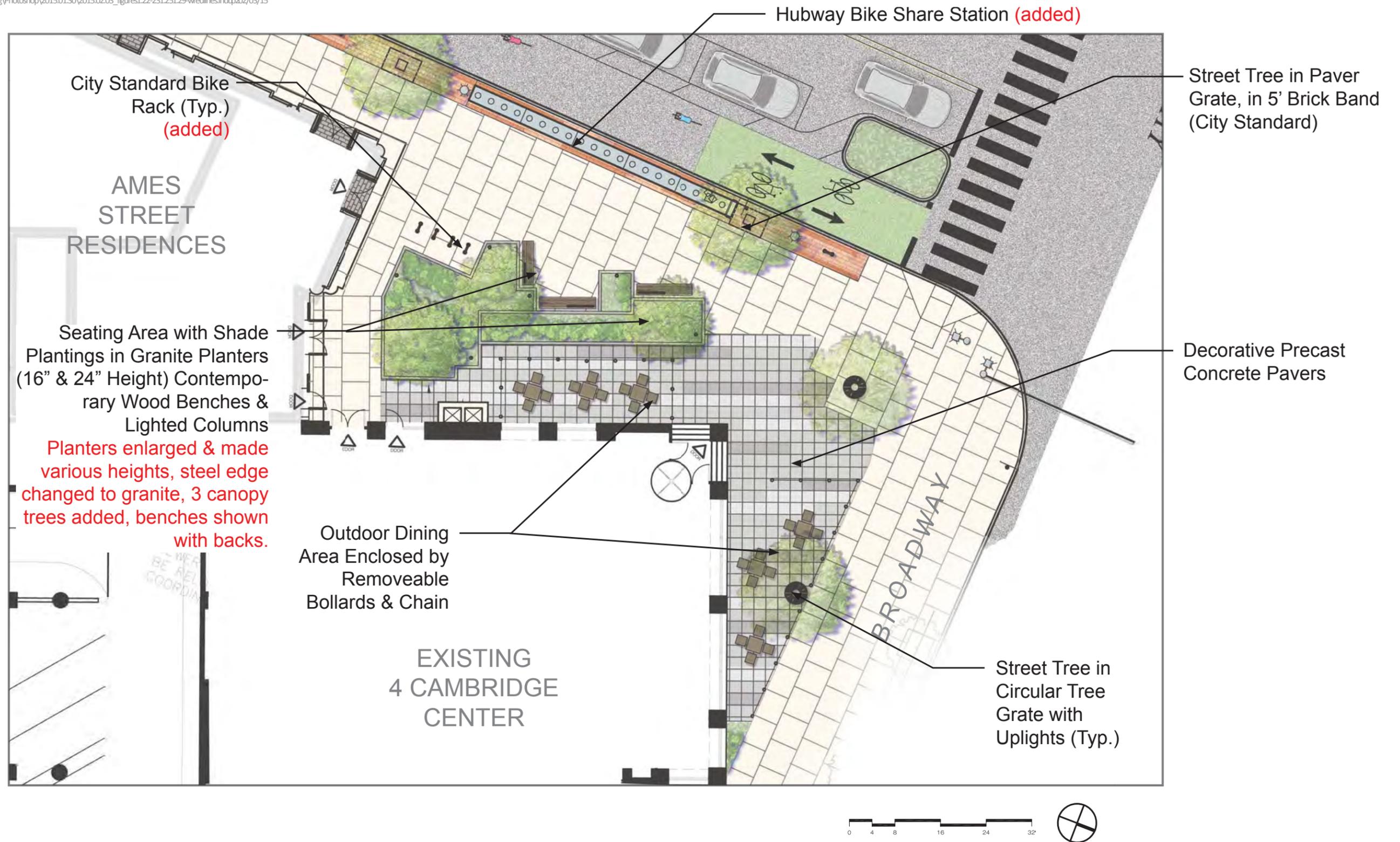
Vanasse Hangen Brustlin, Inc.

Figure 12

South Ames Street Open Space Plan

Ames Street Residences
Cambridge, MA

AMES STREET | SOUTH AMES STREET OPEN SPACE PLAN



SOURCE: CBA Landscape Architects

Vanasse Hangen Brustlin, Inc.

Figure 13

North Ames Street Open Space Plan

Ames Street Residences
Cambridge, MA

AMES STREET | NORTH AMES STREET OPEN SPACE PLAN