



Martin J. Walsh
Mayor

Article 37 Interagency Green Building Committee

January 12, 2018

Michael Connelly
Anchor Line Partners/Jones Land LaSalle
1 Post Office Square
Boston, MA 02109

Re: One Post Office Square, Boston - Article 37 Green Building Comment Letter

Dear Michael Connelly:

The Boston Interagency Green Building Committee (IGBC) has reviewed the Project Notification Form (PNF) and LEED checklist submitted on January 3, 2018 in conjunction with this project for compliance with Boston Zoning Article 37 Green Buildings.

The PNF indicates that the project will use the LEED v4 BD&C Core and Shell rating system and commits the project to earning 53 confirmed points, with an additional 12 unconfirmed points, for a LEED Gold rating. The IGBC accepts the rating system selection.

The IGBC requests that your project make full use of utility and state-funded energy efficiency and clean/renewable energy programs to minimize energy use and adverse environmental impacts. Please provide the IGBC information about all assistance and support afforded to the project throughout the design process. Please provide an executive summary of the whole building energy model.

In support of the City of Boston's GHG emissions reduction goals, the IGBC requests:

- The project commit to pursuing building envelope and systems strategies to further reduce carbon emissions to 30% or more below a comparable building based on the ASHRAE 90.1-2013 performance.
- Solar PV is a cost effective clean renewable energy source that reduces adverse project impacts; solar PV should be included in the project. Please provide system(s) location, size, and output information along with any related analysis.
- Rainwater management systems can help to mitigate the building's impact on City infrastructure during extreme rainfall and other climate change enhanced weather events. Please consider pursuing the associated LEED credits for Rainwater Management.

Please follow up within three weeks (of the date of this letter) with your BRA Project Manager in responding to IGBC comments and provision of the requested information and items.

Please check the [Article 37 Green Building and Climate Resiliency Guidelines](#) page for updated information. In order to demonstrate compliance with Zoning Article 37, the following documents must be submitted to your BRA Project Manager and the IGBC for review and approval:

- Design / Building Permit Green Building Report, including an update LEED Checklist, final building energy model, and supporting information as need to demonstrate how each prerequisite and credit will be achieved.
- xls version of the updated LEED Checklist in line with the accepted LEED formatting.
- Signed Design Affidavit.
- Updated Climate Change Checklist (please note that new Climate Change Checklist was approved in October 2017 and should be used for your next filing).

Please let me know if you have any questions or if I can be of any assistance.

Sincerely,
Benjamin Silverman, LEED GA
On behalf of the Interagency Green Building Committee

Cc: BPDA
IGBC



Six Beacon Street, Suite 1025, Boston, MA 02108
617-523-8448 jclarke@massaudubon.org

January 17, 2018

Michael Sinatra
Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Via Email: michael.a.sinatra@boston.gov

Re: **One Post Office Square Office Tower and Garage Improvement Project**

Dear Mr. Sinatra:

Mass Audubon respectfully submits the following comments on the *One Post Office Square Office Tower and Garage Improvement Project* for your consideration. We encourage the Boston Planning and Development Agency to consider these comments broadly in relation to building façade and landscaping designs for minimizing bird collision hazards. We are concerned that the proposed glass façade may create significant bird collision hazards, and that the proposed new landscaped areas, while positive in other respects, are likely to further increase those hazards.

Collisions with glass windows and facades cause as many as a billion bird deaths annually. Birds are not able to distinguish reflective glass as a barrier, and are at risk of often-fatal collisions. Boston is located along a major migratory bird pathway and these migrants utilize small urban parks, including Post Office Square, as ‘stopover’ or resting habitat during migration. The City of Boston has worked with Mass Audubon and owners of tall buildings to reduce bird collision hazards during nighttime bird migration¹. Building design techniques are also available to minimize bird collision risks during the daytime². In particular, it is important to avoid large, uninterrupted or non-textured areas of reflective glass in close proximity to landscape features that will attract birds, and to adjust lighting in and on tall structures during peak migratory evenings in the spring and fall. These goals can be achieved in ways that are attractive, functional, and energy-efficient.

¹ <https://www.massaudubon.org/our-conservation-work/advocacy/protecting-land-wildlife/protecting-wildlife/lights-out-boston>

² <https://www.fws.gov/migratorybirds/pdf/management/reducingbirdcollisionswithbuildings.pdf>

The project as proposed in the Expanded Project Notification Form (EPNF) includes replacing the existing pre-cast concrete façade from the ground to level 30 with a glass curtainwall system along with other modifications to the building and adjacent parking garage. The EPNF also indicates that the project is targeted to apply the LEED v4 rating system, at the Gold level, to comply with the City of Boston’s Article 37 provisions for Green Buildings which applies to all projects subject to Large Project Review. The proposed credits for this project include establishment of new vegetated roof spaces with native or locally adapted species selected to promote diversity, provide accessible open space, capture rainwater for irrigation and to minimize stormwater runoff, and reduce heat island effects. The EPNF (Section 5.12.13) also states that there are presently no wildlife habitats on or adjacent to the project site. However Post Office Square, despite its small size, is a well-known stopover site for a wide range of migratory birds. The Cornell Lab of Ornithology’s eBird Project allows citizen scientists to record bird observations at various ‘hotspots’ around the world. eBird data for Post Office Square indicate that 91 bird species have been observed at the site.³ A glass-clad building in such close proximity to a well-known bird habitat presents a clear hazard to birds.

The proposed green roofs are attractive features with benefits including open space amenities and water and energy conservation. The placement of plantings in close proximity to large expanses of glass, however, increases the risk to birds attracted to the plantings and unable to distinguish the glass reflections from a continuation of the planted oasis in the urban environment.

LEED has developed a credit for Bird Collision Deterrence⁴. The standard for this credit calls for a project to “Develop a building façade and site design strategy to make the building and site structures visible as physical barriers to birds.” Detailed guidelines are available to achieve this while providing a visually attractive, energy-efficient project. Mass Audubon respectfully requests that the developer and BPDA apply these standards and guidelines to this and other projects.

We would be happy to provide further resources on this topic, or to discuss this project or the City’s standards in more detail. Please feel free to contact Jeff Collins, Mass Audubon’s Director of Conservation Science, at 781-259-2159 or jcollins@massaudubon.org.

Thank you for considering these comments.

Sincerely,



John J. Clarke
Director

³ <http://ebird.org/ebird/barchart?r=L388515&yr=all&m=>

⁴ <https://www.usgbc.org/node/4561982?return=/pilotcredits/Core-and-Shell/v4>



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February 28, 2018

Boston Planning & Development Agency
One City Hall Square, 9th floor
Boston, MA 02201
Attention: Michael Sinatra

Re: One Post Office Square EPNF

Dear Members:

As a member of the Impact Advisory Board for the review of Anchor Line Partners/Jones Lang LaSalle's Expanded Project Notification Form for One Post Office Square, I support many ideas in their proposed replacement of the façade and renovations of the existing tower. I have read the EPNF, attended the BPDA public meetings and spoken with representatives from the proponent and its consultants. I welcome the proposal to update the façade of the tower to better visually align with the lobby renovation completed 10 years ago. I understand why they propose to downsize and automate their parking garage, and given the proximity of the project to our Garage at Post Office Square, we are confident all neighborhood parking needs will be met.

Several arborists were consulted about solar glare impacting the trees in the Norman B. Leventhal Park, and there is little concern. Our biggest concern is the noise and disruption from materials offloading and construction, which have been ongoing around the Park in recent years. We are pleased that materials will be offloaded on Oliver Street, so that travel is not impacted on Pearl Street.

We welcome the continued investment in downtown Boston.

Sincerely,

Pamela C. Messenger
General Manager

ANDERSON KREIGER

ARTHUR P. KREIGER
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March 6, 2018

By Email (brian.golden@boston.gov) and Hand Delivery

Brian Golden, Director
Boston Planning and Development Agency
One City Hall Square, 9th floor
Boston, MA 02201-1007

***Re: One Post Office Square Office Tower and Garage Improvement Project –
The Langham Hotel’s Comments on the Expanded Project Notification Form***

Dear Mr. Golden:

This firm represents the Langham Hotel regarding the proposal by Anchor Line Partners and Jones Lang LaSalle Corporation on behalf of One Post Office Square L.L.C. (“the Applicant”) to renovate and expand the existing tower (“the Tower”) and demolish, replace and expand an adjacent building that houses a parking garage, ground-floor retail and hotel facilities (“the Garage”) (together, “the Project”) at One Post Office Square. On January 2, 2018, the Applicant submitted an Expanded Project Notification Form (“EPNF”) for the Project pursuant to Article 80, Large Project Review of the Boston Zoning Code. This letter provides the Langham’s comments on the EPNF.

The Project described in the EPNF cannot be built without infringing on the Langham’s undisputed property, easement and lease rights, as well as jeopardizing its structural stability. The EPNF fails to address any of those issues. The BPDA should decline to review the Project in its current, unbuildable form. Moreover, the EPNF fails to analyze several significant environmental impacts of the Project adequately, or even at all. Because the EPNF fails to “adequately describe[] the impacts” of the Project, Zoning Code § 80B-5.3(d), the BPDA should not waive further Article 80 review. If it reviews this version of the Project at all, it should require a full Draft Project Impact Report (“DPIR”).

I. The Langham and Its Property and Contract Rights

The Langham occupies one of Boston’s most significant and cherished buildings. Built in 1922 for the Federal Reserve, the building was converted to the Le Méridien Hotel in 1981 and became the Langham in 2003.

The Langham abuts One Post Office Square, occupying the remainder of the block bounded by Pearl, Franklin, Oliver and Milk Streets. It is in a prominent location facing Norman Leventhal Park in Post Office Square. In 1978, the Boston Landmarks Commission designated the building

as a historic landmark, as the Applicant acknowledges. EPNF, p. 7 (“The tower and garage are directly connected to the ... Boston Landmark, Langham Hotel...”).

The Langham not only abuts One Post Office Square, the buildings are structurally and operationally connected, sharing a loading ramp on Oliver Street and underground loading facilities. As described below, they also share space and facilities under several easements and long-term leases granted or entered into by the Applicant’s predecessors. Those easements and leases involve areas of critical importance to the hotel that would be demolished or rendered unusable by the Project. The locations of the Langham, the Tower and the Garage are depicted on Exhibit A.

- The Langham holds an easement over the private street that runs under the Tower from Pearl Street to Oliver Street (“the Breezeway”). Vehicles use that street to access a drop-off/pick-up lane, where passengers enter and exit the hotel lobby. The Breezeway provides the only covered access to and egress from the hotel, as well as an emergency exit. The Langham’s easement runs through 2046, and perpetually thereafter until either party abandons its rights and obligations thereunder. It guarantees a 24-foot wide right-of-way for vehicular and pedestrian traffic, with a minimum clearance of 12 feet. It prohibits the Applicant from building improvements within the Breezeway or obstructing the entrance to the Langham or the passage of vehicles and pedestrians.
- The Langham also holds an easement over the location of its cooling tower equipment on the roof of the Garage. It holds the right to rebuild the cooling tower platform if the Applicant constructs a new building in that location.
- The Langham has a lease to use the Wilson Ballroom – the hotel’s only ballroom – and accessory spaces, located in the Garage. That lease runs through 2046, with a right to extend for an additional 34 years. The ballroom is a key facility for the Langham, where it hosts weddings, dinners, holiday brunches and other functions that are vital to its business. Over the past two years, the ballroom alone has generated over \$800,000 in annual revenue.

Although the lease permits the landlord to demolish the ballroom upon certain notice, it also obligates the landlord to reconstruct the ballroom within a year. If the landlord fails to deliver a new ballroom by that deadline, the Langham may exercise self-help and construct one itself. The magnitude of the Project makes it highly unlikely that the Applicant could meet that one-year deadline. The likelihood that the Langham will be forced to construct its own ballroom at One Post Office Square, in the middle of the construction of the Project, provides another reason that the Applicant’s current proposal should not be approved.

- Finally, the Langham has a lease for the “Esplanade,” located in the Tower two floors above the Breezeway. The Esplanade is a set of function spaces that serves as preparatory and accessory space for events in the ballroom and provides additional seating for the Café Fleuri. *See* Exhibit A. This lease also runs through 2046.

Like the ballroom, the Esplanade contributes substantially to the Langham's financial health. It is flexible space that can be used with Café Fleuri or the ballroom. In various configurations, the Esplanade produces some \$2.5 million in annual revenue. The total revenue from these food and beverage facilities is more than \$8 million. This figure does not even count nearly 14,500 hotel room bookings associated with events in the ballroom and Esplanade, which contribute an additional \$4.7 million in annual revenue.

II. The Project's Infringement on the Langham's Rights

The Applicant filed its plans with the BPDA without consulting the Langham about the Project, much less discussing the infringements of the Langham's property rights. The Langham had no notice that the EPNF would be submitted. The parties discussed a previous, less intrusive version of the Project a year ago, but had no discussion since then. The Langham is amenable to discussing the Project and corresponding modifications to the hotel with the Applicant, but the fact that the parties had no such discussion before the EPNF was submitted is entirely the Applicant's responsibility.

Procedural failure aside, the Project would trample on the Langham's rights. The EPNF depicts new retail space in the drop-off/pick-up lane between the Breezeway and the hotel doors. The Langham undisputedly holds the entire fee interest in that area, as shown by the survey submitted by the Applicant with the EPNF. *See Exhibit B, attached (the drop-off/pick-up area is highlighted on the hard copy).* Simply put – and rather remarkably – the Applicant has proposed to build part of the Project *on property the Langham owns* without even discussing that proposed encroachment with the hotel.

Moreover, the Project would impair the Langham's easement and lease rights described above. The EPNF proposes to close the Breezeway, filling it with new retail space.¹ That closure would eliminate the only covered access to and egress from the hotel, the hotel's primary emergency exit, and the ability of emergency vehicles to pull up to a hotel entrance. The Project would demolish the Langham's ballroom and accessory spaces as part of the demolition of the Garage. And the Project would convert the Esplanade into a new retail or food and beverage space, interfering with the Langham's exclusive right to use the space. The Applicant is prohibited from infringing on the Langham's property and contract rights by proceeding with the Project described in the EPNF.

Finally, the demolition, excavation and construction impacts of the Project on the Langham would jeopardize its appeal and function as a luxury hotel. Even if the Applicant modified the Project to avoid destroying the spaces currently leased and used by the Langham, the vibration, noise, dust and other impacts would substantially interfere with the Langham's rights of quiet enjoyment in the hotel facilities and even the hotel rooms themselves.

¹ The EPNF refers vaguely to securing "required third-party consents." EPNF, pp. 1, 12. The Applicant was fully aware of the Langham's rights in the Breezeway and other facilities, making its failure to discuss the Project with the hotel all the more inexcusable.

The Project would have a significant impact on the Langham's revenues described above, and on its employment. The Project would jeopardize nearly \$13 million of revenue per year, approximately 32% of the hotel's total revenue. Losing that revenue could result in loss of 80 jobs held by long-serving hotel team members.

III. The EPNF's Specific Deficiencies

A. *The EPNF Fails to Adequately Analyze the Project's Vehicular or Pedestrian Impacts.*

The EPNF proposes to increase the gross square footage of office space by 265,000 s.f., more than one-third of the existing space. It also would add 52,100 s.f. of retail and 8,800 s.f. of restaurant space where those uses do not currently exist at all. However, it simultaneously proposes to *reduce* the number of parking spaces in the garage from 371 to 300, reducing the parking area from 158,000 s.f. to 35,100 s.f. EPNF, p. 8.

The EPNF justifies that sleight of hand by proposing a multi-level "automated parking garage." EPNF, p. 1. The notion that adding 1/3 of a million square feet of office, retail and restaurant space would *reduce* the parking demand at One Post Office Square by 20% blinks reality. And even if it did, the notion that the remaining 80% of the cars would be smoothly parked in 20% of the area is equally wishful. If either of those implausible assertions is wrong, and certainly if both are, the Project would significantly increase the demand for parking around an already-congested Post Office Square. The BPDA should require further justification for them.

The impacts of the proposed closure of the Breezeway on the Langham – even assuming that the Applicant can take that step in view of the Langham's easement – are described above. However, that closure would have broader impacts, as well.

First, the Breezeway was a condition of the City's approval of prior amendments to the Planned Development Area that the Applicant now seeks to further amend. Under Section 8-7 of the Zoning Code, parking garages were a conditional use in what was then a restricted-parking district. In seeking permission to build the Tower in 1979, the Applicant's predecessors agreed to limits on the use of the site as a condition of variances and conditional uses from the Zoning Board of Appeal. In authorizing the Tower and Garage, the Board made the following findings:

Traffic and parking studies undertaken by the appellants indicate that the demand for parking generated by the proposed development will greatly exceed the available capacity in existing off-street parking facilities. This demand will not be adequately served by public transportation, and will not contribute significantly to traffic flows during peak traffic periods. **Access to the garage will be by means of a private way connecting Pearl and Oliver Streets; this design will minimize traffic congestion on public streets, and will not create a hazard to vehicles and/or pedestrians.**

See Exhibit C, Section 8-7 (emphasis added). Closing the Breezeway, especially while significantly increasing building square footage and reducing the number of parking spaces, would exacerbate the Project's impacts on vehicular traffic. The EPNF ignores the Board's finding that the Breezeway reduces congestion on neighboring streets.

Closing the Breezeway would affect pedestrian traffic, as well. Adjacent to the Breezeway, under the Tower, a pedestrian walkway connects Pearl Street and Oliver Street. It is marked with signage near Oliver Street, where it crosses the Garage entrance ramp. The Project would close that walkway, eliminating pedestrians' ability to cut through the block or reach the garage from Pearl Street and vice versa. EPNF, p. 8. The EPNF ignores that issue, as well.

B. *The Project Could Cause Significant Lighting Impacts on the Langham, which the EPNF Fails to Even Acknowledge.*

If the Project proceeds, the Langham's closest neighbor will be two glass towers, with effects on sunlight that have not been studied. One of the Langham's most distinctive and charming features – its central, glass-roofed, light-filled atrium – could be irreparably impaired.

The Tower and Garage are located on the northwest side of the Langham. Cladding the Tower in glass and building an additional 13 glass-clad stories over the proposed garage would create significant solar glare for the Langham from morning through mid-day for much of the year. That glare may be most acute in the Café Fleuri and the swimming pool, which are located in the atrium directly below the southeast wall of the Tower. However, it also would be felt in many of the 80 hotel rooms that face the central atrium.

At the same time, the new tower over the garage would block much of the Langham's diffuse, natural light. That light considerably benefits the hotel's facilities and rooms that are lit by or enjoy views of the atrium. Between blocking natural light and air, and creating focused solar glare, the Project would significantly detract from the attractiveness and usefulness of the hotel's spaces below.

The EPNF neglects these potential effects entirely. It analyzes solar glare on drivers, pedestrians and nearby building facades. EPNF, p. 14 and Appendix F – Solar Study. However, it fails to address the Langham and its guests and other occupants. *Id.*, Appendix F at p. 9 (listing 19 other receptors). The EPNF ignores the impact of the Project on the Langham's access to light and air entirely. These omissions are impermissible.

C. *The EPNF Fails to Address the Structural Risks of the Project for the Langham.*

The Applicant proposes to demolish the aboveground and underground parking garage abutting the Langham, including spaces used by the hotel (ballroom, Esplanade, etc.), rebuild the garage and add 13 more stories on top of it, and reclad and infill the Tower directly abutting the hotel. That undertaking would carry enormous risks for the hotel's structural integrity and operations.

The discussion of this complex set of issues in the EPNF is woefully inadequate. The Applicant has merely reviewed unspecified “historic testing boring information.” Its entire geotechnical discussion is that: “Subsurface conditions in the general location of the site consist of miscellaneous fill soils overlaying a relatively thick deposit of glacial soils,” with bedrock approximately 90-96 feet below street level. EPNF § 5.10, p. 40.

That discussion is inadequate in light of the proximity and vulnerability of the Langham. The Project may impair the Langham’s building in any of several ways: (1) vibration during demolition, drilling for piles and construction may cause cracking or settlement, (2) demolishing the Garage may deprive the hotel of lateral support, (3) installing drilled piles may cause settlement, (4) changing from a pressure slab to a relieved slab in the garage may cause settlement. Some of these risks are described in a Memorandum from GZA GeoEnvironmental, Inc., attached hereto as Exhibit D.

These issues are too central to the Project – and too important to the landmark hotel – to be deferred to another agency later in the permitting process. Without a thorough assessment of the structural and subsurface implications of the Project, there is substantial risk that the demolition and construction activities would damage and interfere with the Langham. The BPDA should require the Applicant to meaningfully assess these issues up front in a DPIR.

D. *The EPNF’s Discussion of Construction Mitigation Is Inadequate.*

The EPNF addresses construction impacts and mitigation for four pages. EPNF § 5.12, pp. 41-45. However, the sum total of that discussion is essentially that the Applicant will submit a Construction Management Plan that complies with the City’s Construction Management Program to the Boston Transportation Department. *Id.*, § 5.12.1, p. 41. The discussion refers vaguely to nearby businesses and abutters, but it does not mention the Langham or provide any specific mitigation measures reflecting the hotel’s unique relationship to the Project.

Particularly where the Project is predicted to take nearly 2½ years, *id.* § 5.12.3, p. 41, that is inadequate. As described above, construction will affect the Langham’s operations directly and uniquely, but the EPNF fails to address that. And in some of the few places where the EPNF is specific, it is troublesome. For example, the EPNF notes that “façade removal operations may take place during off peak business hours of 10:00 p.m. to 7:00 a.m.” *Id.* § 5.12.3, p. 42. That plan may work in most circumstances because it avoids daytime interference with neighboring businesses, but it presents a problem where the abutter is a hotel. It promises, in fact, to create a nuisance for hotel guests trying to sleep. The BPDA should require the Applicant to submit a detailed, practical plan to mitigate the construction noise and vibration impacts on the Langham.

The Project’s construction impacts will spill over into the neighborhood, as well. The combination of the demolition of the Garage with its 371 parking spaces, the obstruction of the shared loading docks and entrance that are part of the Garage, and the Project’s demolition equipment and construction vehicles will cause havoc at the site and on the surrounding streets. The BPDA should require the Applicant to submit a detailed, practical plan to mitigate those

traffic impacts now, rather than relying on its vague commitments to consult with the BTM and follow an approved plan.

E. *The EPNF Fails to Analyze All the Relevant Air Quality Impacts.*

The EPNF discusses air quality impacts extensively, but much of that discussion is predicated on a plan for parking in the new, smaller garage that is likely infeasible, as discussed above. In addition, exhaust from the Langham's kitchens is vented near the northeast corner of the hotel, next to the proposed location of the new garage tower. The plans show no setback between that tower and the Langham's property, which means that the tower could impede air flow around the exhaust vents or trap the fumes. The BPDA should require a DPIR to analyze this risk.

IV. Conclusion

The Applicant has submitted an EPNF that completely disregards the Langham, an abutter that shares not only the block but the very buildings it proposes to demolish or renovate, and an abutter that would be uniquely and significantly affected by the Project. The Project would infringe on the Langham's property rights and leasehold interests, jeopardize a historic landmark, and threaten the viability of the hotel's business.

The BPDA should decline to review the EPNF under Article 80 unless and until the Applicant presents a project that it actually can build in light of the Langham's fee, easement and lease rights. It certainly should not reward the Applicant with expedited review when the Applicant failed to consult with the key abutter under these circumstances. At a minimum, if it reviews the current, non-viable proposal at all, the BPDA should not waive further review under Article 80. It should require a full DPIR for the Project, particularly regarding the issues and impacts described above.

Thank you for your attention to these comments.

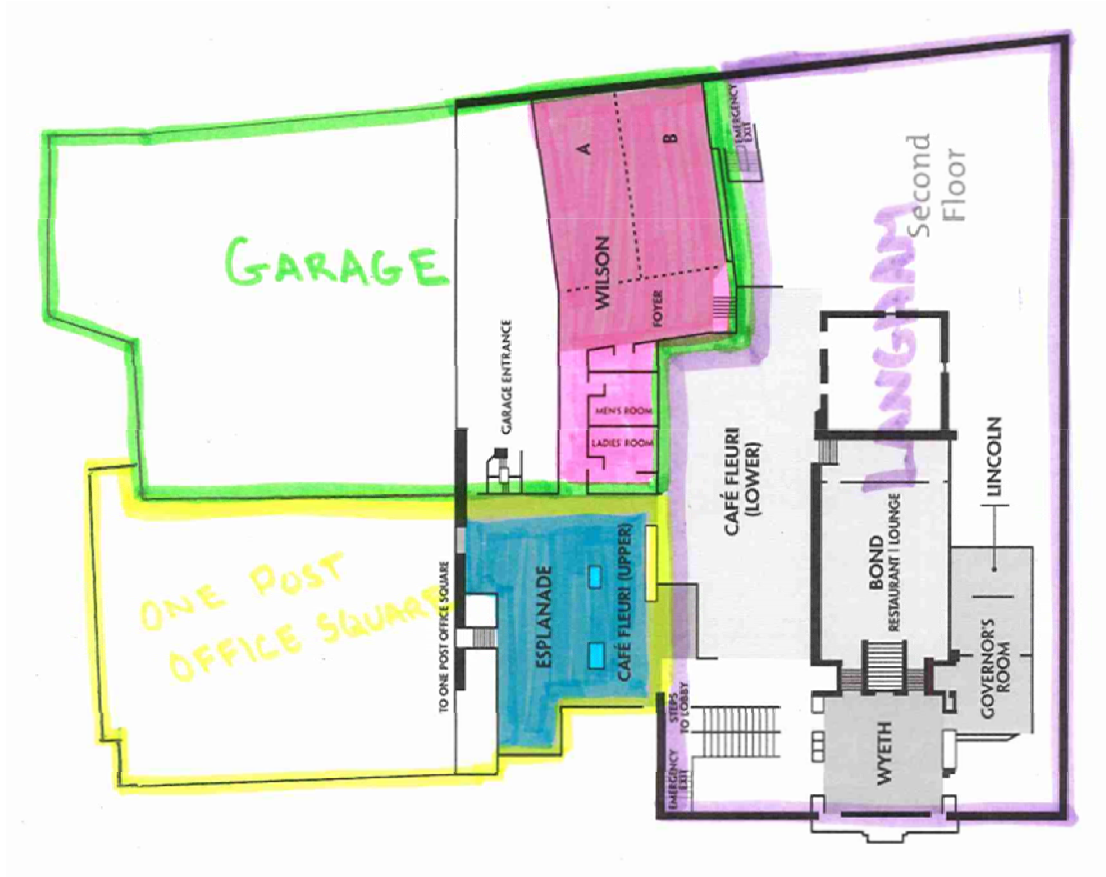
Sincerely,



Arthur P. Kreiger

c: Michael Sinatra, Project Manager, Boston Planning & Development Agency (by email)
Kevin Renna, Esq., Goulston & Storrs (by email)
Client (by email)

Exhibit A



Blue Space: Esplanade Leased Premises (existing)
Pink Space: Ballroom Leased Premises (existing)
Green Line: Perimeter of Existing Garage
Yellow Line: Perimeter of OPOS
Purple Line: Perimeter of Hotel

Exhibit B

NOTES

- 1. COORDINATES IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983...
2. ELEVATIONS, IN U.S. SURVEY FEET, ARE REFERENCED TO BOSTON CITY BASE (BCB) DATUM...
3. SUBSURFACE UTILITY LINES AND FEATURES, AS SHOWN HEREON, WERE COMPILED FROM FIELD EVIDENCE OR AVAILABLE RECORD INFORMATION...
4. LOCATION OF EMERGENCY ACCESS STAIRWELL EASEMENT NOT SHOWN ON THIS PLAN.
5. SEWER AND DRAIN INVERTS ARE NOT SHOWN ON THIS EDITION.

REFERENCES

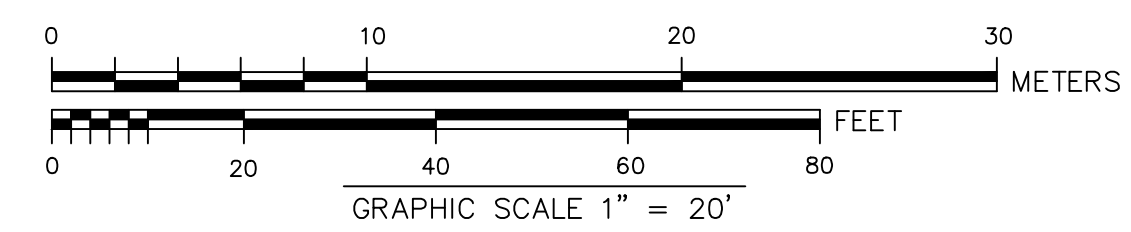
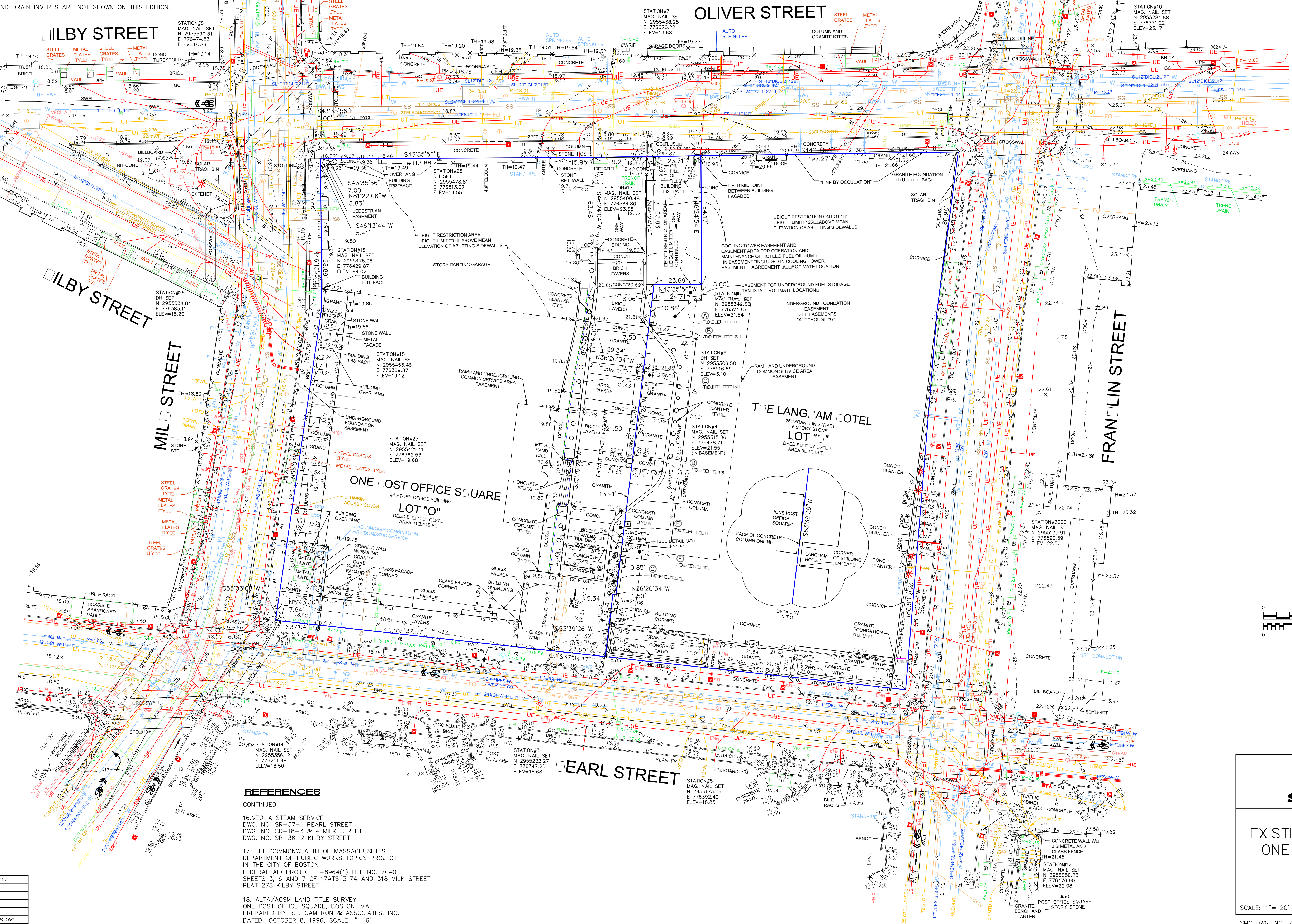
- 1. OLIVER STREET FROM MILK STREET TO PURCHASE STREET-AS-BUILT PLAN NO. 09-308-003, OLIVER W/O1 MILK STREET FROM INDIA STREET TO OLIVER STREET DATED: JUNE 16, 1906, SCALE: 1"=20' PLAN NO. C-615
2. CITY OF BOSTON PUBLIC WORKS DEPARTMENT SEWER AND WATER DIVISION HIGH PRESSURE FIRE SERVICE LOCATION PLAN-PEARL STREET DATED: JUNE 30, 1914, SCALE: 1"=10' PLAN NO. HPF 281
3. CITY OF BOSTON PUBLIC WORKS DEPARTMENT SEWER AND WATER DIVISION HIGH PRESSURE FIRE SERVICE LOCATION PLAN-FRANKLIN STREET DATED: FEBRUARY 3, 1914, SCALE: 1"=10' SHEETS 5 AND 6 OF 7 SHEETS, PLAN NO. HPF 97 & 98
4. CITY OF BOSTON PUBLIC WORKS DEPARTMENT SEWER AND WATER DIVISION HIGH PRESSURE FIRE SERVICE LOCATION PLAN-MILK STREET DATED: FEBRUARY 3, 1914, SCALE: 1"=10' SHEETS 3 AND 6 OF 7 SHEETS, PLAN NO. HPF 297 & 298
5. CITY OF BOSTON PUBLIC WORKS DEPARTMENT SEWER AND WATER DIVISION PEARL STREET FROM MILK STREET TO FRANKLIN STREET DATED: JULY 14, 1942, SCALE: 1"=10' PLAN NO. C-1166

- 6. CITY OF BOSTON PUBLIC WORKS DEPARTMENT SEWER AND WATER DIVISION MILK STREET FROM INDIA STREET TO OLIVER STREET DATED: JUNE 16, 1906, SCALE: 1"=20' PLAN NO. C-615
7. CITY OF BOSTON PUBLIC WORKS DEPARTMENT SEWER AND WATER DIVISION KILBY STREET FROM CENTRAL STREET TO MILK STREET DATED: APRIL 12, 1916, SCALE: 1"=20' PLAN NO. C-743
8. BOSTON WATER AND SEWER COMMISSION WATER AND SEWER GIS PLANS
9. EVERSOURCE ELECTRIC PLAN FOR OLIVER STREET DATED: APRIL 20, 2017, SCALE: 1"=100'
10. NATIONAL GRID GAS FOR POST OFFICE SQUARE PLAT 24 DATED: MARCH 15, 2017
11. COMCAST PLAN OF UNDERGROUND FACILITIES FOR POST OFFICE SQUARE, BOSTON, MA DATED MARCH 17, 2017.

LEGEND

- SB/DH BENCHMARK
FND FOUND
N/F NOW OR FORMERLY
W/ RECORD
(R) EASEMENT LINE
PROPERTY LINE
GUARD RAIL
TREE LINE
DECIDUOUS TREE AND SIZE
EVERGREEN AND SIZE
BUSH
WOOD POST
CHAIN LINK FENCE
WROUGHT IRON FENCE
POST & RAIL FENCE
EDGE OF PAVEMENT
BIT CONC WALK
BIT PATCH
CONCRETE PAD
BITUMINOUS CONCRETE
GRANITE CURB, CONCRETE CURB
TOP OF CURB
BOTTOM OF CURB
METAL HAND RAIL
METAL POST
LANDSCAPE TIMBER
FIBER OPTIC CABLE
LIGHT POLE ON CONC BASE
SIGN SINGLE/DOUBLE POST
PEDESTRIAN TRAFFIC SIGNAL
TRAFFIC SIGNAL/MAST ARM
TRAFFIC SIGNAL CONTROL CABINET
RETAINING
ROOF DRAIN
THRESHOLD
HANDHOLE
MARKED
DRAIN MANHOLE
CATCH BASIN
DROP INLET
RIM
INVERT
NO PIPE VISIBLE
CORRUGATED METAL PIPE
REINFORCED CONCRETE PIPE
CAST IRON PIPE
POLYVINYL CHLORIDE
VITREOUS CLAY PIPE
CORRUGATED PLASTIC PIPE
ASBESTOS CONCRETE
CONNECTION UNDETERMINED
TOP OF SILT, TOP OF WATER
GAS GATE
GAS METER
TELEPHONE MANHOLE
ELECTRIC MANHOLE
ELECTRIC MANHOLE
SEWER MANHOLE
WATER GATE
HYDRANT
CATV MANHOLE
WATER LINE
SEWER LINE
TELEPHONE LINE
ELECTRIC LINE
STORM DRAIN LINE
GAS LINE
CABLE TELEVISION LINE
STEAM LINE
FIBER OPTIC LINE
TRAFFIC SIGNAL LINE
SPOT ELEVATION
SURFACE CONTOURS
MONITORING WELL
TREE WELL
TOP OF EASEMENT

OLIVER STREET



KEVIN HANLEY, PLS MASSACHUSETTS REG. No. 31313

325 WOOD ROAD SUITE 109 BRAintree MA 02184 (781)380-7766 FAX (781)380-7757 SMC SURVEYING AND MAPPING CONSULTANTS

EXISTING CONDITIONS SURVEY ONE POST OFFICE SQUARE BOSTON, MA

PREPARED FOR: TETRA TECH, INC.

REFERENCES

- 16. VEOLIA STEAM SERVICE DWG. NO. SR-37-1 PEARL STREETS DWG. NO. SR-18-3 & 4 MILK STREET DWG. NO. SR-36-2 KILBY STREET
17. THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS TOPICS PROJECT IN THE CITY OF BOSTON FEDERAL AID PROJECT T-8964(1) FILE NO. 7040 SHEETS 3, 6 AND 7 OF 17ATS 317A AND 318 MILK STREET PLAT 278 KILBY STREET
18. ALTA/ACSM LAND TITLE SURVEY ONE POST OFFICE SQUARE, BOSTON, MA. PREPARED BY R.E. CAMERON & ASSOCIATES, INC. DATED: OCTOBER 8, 1996, SCALE 1"=16'

Date: JUNE 20, 2017 Job No: 2017106.00 Drawn By: MN/EP/JF Checked By: KH Cal'd By: EP/JF Drawing No: 201710600WS.DWG Sheet: 1 OF 1

Exhibit C

(An appeal under the Boston Zoning Code to the Board of Appeal must be in writing on this form and filed in quadruplicate with the Building Commissioner of the City of Boston, who shall retain one for his files and transmit one to the Board of Appeal, one to the Boston Redevelopment Authority, and the other to the Zoning Commission.)

APPEAL

under Boston Zoning Code

Boston, Massachusetts, April 12, 1979

RECEIVED
APR 12 4 07 PM 1979
BUILDING DEPARTMENT
CITY OF BOSTON
WPC

To the Board of Appeal in the Building Department of the City of Boston:

The undersigned, being the developer
Here insert words descriptive of interest in lot, such as the owner(s)

of the lot at One Post Office Square City Proper
number street district

hereby appeal(s) under St. 1956, c. 665, s. 8, to the Board of Appeal in the Building Department

of the City of Boston from the following action taken by the Building Commissioner on April 6, 1979
date

(Here copy letter of refusal in full):

conditional use permit pursuant to Section 6-1 and exceptions
This appeal seeks a /pursuant to Section 6A-1. The specific

Here insert: interpretation of Boston Zoning Code
or conditional use permit
or nonconforming use permit
or sub-standard lot permit
or transition zone permit
or variance

are

provision of the Boston Zoning Code involved in this appeal is Sections 8-7, 15-1, 21-1, 24-1
More precisely, what is sought by this appeal, and the grounds on which it is claimed that
what is sought should be granted, are as follows (*here set forth in detail and with particularity
exactly what is sought by this appeal, and the reasons therefor*):

Appellant Post Office Square Company

By Robert J. Perriello

Address One Center Plaza, Boston, Mass.

Telephone number 742-5500

It is anticipated that the proposed development will be part of a Planned Development Area ("PDA") to be designated by the Boston Redevelopment Authority. The PDA will include a 300-room first class hotel to be developed on an adjacent lot as per Application #1730. Appellants propose to erect a 39-story office building and 400-car garage complex on this lot. The complex will include commercial retail and restaurant uses on the ground and second levels, and will be interconnected with the hotel to be built on the adjacent lot. The lot is located in a B-10 zoning district and a restricted parking district.

Section 8-7. Section 8-7 of the code establishes Use Item #59 (Parking Garage), Use Item #71 (Ancillary Off-Street Parking for Use Item #15 on the adjacent lot), and Use Item #72 (Accessory Off-Street Parking for Use Items #34, #37, #38, #41, #43) as conditional uses in a restricted parking district. The proposed garage will service the tenants and visitors to the office building, as well as patrons, guests, and visitors to the adjacent hotel. Traffic and parking studies undertaken by the appellants indicate that the demand for parking generated by the proposed development will greatly exceed the available capacity in existing off-street parking facilities. This demand will not be adequately served by public transportation, and will not contribute significantly to traffic flows during peak traffic periods. Access to the garage will be by means of a private way connecting Pearl and Oliver Streets; this design will minimize traffic congestion on public streets, and will not create a hazard to vehicles and/or pedestrians. The proposed uses will be consistent with the urban fabric of the surrounding uses, and, as such will not create any nuisances, nor will they adversely affect the neighborhood. Provision of ground-level space within the garage for commercial retail use will bring new life and activity to Thomas Whelan Circle and Oliver Street. The site is an appropriate location for the proposed uses, and adequate and appropriate facilities will be provided for the proper operation of the uses. The garage conforms with the development plan to be approved for the PDA by the Boston Redevelopment Authority.

Section 15-1. Section 15-1 establishes a maximum allowable floor area ratio of 10.0 for this site. Appellants propose an office building/garage structure with a total FAR of 21.6. Such a FAR value is consistent with that of other comparable office buildings constructed in the City of Boston, and is desirable in order to establish an architectural presence on Post Office Square. Adequate open space and light already exist in Post Office Square and these qualities will not be significantly impacted by the increased density of the proposed development. The hotel to be constructed adjacent to the office building/garage complex will have a FAR of only 6.6. Thus, the combined FAR of the total PDA will be only 14.6, well below that of many comparable projects in the City of Boston. The increased density of the office building/garage complex will significantly benefit the City of Boston by making a substantial contribution to the tax base, and is required to make the entire PDA (office building, garage and hotel) financially feasible. An exception allowing a FAR of 21.6 for the office building/garage complex, subject to an overall FAR of 14.6 for the total PDA, would be in harmony with the general purpose and intent of the code and would conform to the development plan to be approved for the PDA by the Boston Redevelopment Authority.

Section 21-1. Section 21-1 of the code establishes the required setback of parapets from lot lines as a function of building height and length of parapet. The setbacks required by the code and the minimum setbacks proposed by the appellants are

as follows (only those cases where an exception is required are shown):

<u>Lot Line</u>	<u>Structure</u>	<u>Setback Required</u>	<u>Minimum Proposed Setback</u>
Pearl Street	Office Building	59.5 ft.	17.0 ft.
Milk Street	Office Building	53.5 ft.	1.0 ft.
Oliver Street	Garage	5.5 ft.	0.0 ft.
"O" - "H" Line	Office Building	66.6 ft.	0.0 ft.

Appellants contend that strict compliance with the setback requirements of the code make rehabilitation of the adjacent hotel element of the project financially infeasible. Furthermore, strict compliance with the setback requirements would also adversely impact the proposed development's urban design relationship to Post Office Square. The proposed development has undergone extensive design review by the Boston Redevelopment Authority as part of the PDA process. During this process, the proposed location of the office tower was specified in order to establish an architectural presence on Post Office Square. Adequate open space and light already exist in the square, and these qualities will not be significantly impacted by the proposed location of the office building/garage complex. Rather, the proposed location of the office tower will serve to enhance the architectural and urban design context of Post Office Square. In addition, exceptions from the required setbacks from the Oliver Street Lot Line and the "O"- "H" property line are requested. The former is required to increase the efficiency and economic feasibility of the parking garage design, while the latter is necessary to interconnect the office building/garage complex to the hotel to be developed on the adjacent lot. All the exceptions requested are in harmony with the general intent and purpose of the code, and in conformity with the development plan to be approved for the PDA by the Boston Redevelopment Authority.

Section 24-1. Section 24-1 of the Code establishes the number and dimensions of off-street loading facilities required. Appellants propose to construct ten (10) loading bays of varying dimensions in a joint underground facility serving both the office building/garage complex and the adjacent hotel. Code requirements and proposed conditions are as follows:

<u>Structure</u>	<u>Required</u>		<u>Provided</u>	
	<u>No.</u>	<u>Dimensions</u>	<u>No.</u>	<u>Dimensions</u>
Office Bldg. (Lot "O")	8	10'x25'x14'	1	10'x25'x12.5'
			3	8'x21'x12.5'
Hotel (Lot "H")	3	10'x25'x14'	6	10'x25'x12.5'
Total	11		10	

As indicated above, only four (4) of the ten (10) bays to be provided will be located within the bounds of Lot "O". Thus, although three (3) of the six (6) bays located on the adjacent lot will be available to service the office building, an exception allowing four (4) loading bays of the dimensions specified above for Lot "O" only is requested.

Appellants contend that the off-street loading facilities to be provided on Lot "0" are sufficient to service the proposed 780,000 gross square foot office building. The proposed design provides one (1) loading bay per 195,000 square feet of gross floor area, a ratio which compares favorable with other office buildings constructed recently in Boston (e.g., One Boston Place, 100 Summer Street, 225 Franklin Street, 60 State Street). Operating experience at a comparable office building (Center Plaza) has demonstrated that the proposed 12'-6" height of loading bays will be adequate to receive deliveries from the delivery vehicles that would normally service the office building. Strict compliance with code requirements would impose economic hardship on the appellants due to the constrained site area available for location of off-street loading facilities. The proposed below-grade location of the entire facility will serve to minimize the impact of delivery and service operations on the surrounding area. Furthermore, the provision of a separate access ramp independent of parking, pedestrian and other uses will minimize any hazard, congestion or impediment to pedestrian or vehicular traffic that might otherwise result. The exceptions requested would be in harmony with the general purpose and intent of the code, and would conform to the development plan to be approved for the PDA by the Boston Redevelopment Authority.

Exhibit D



Proactive by Design

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION
MANAGEMENT

31 State Street
8th Floor
Boston, MA 02109
T: 617-963-1000

www.gza.com



MEMORANDUM

To: Arthur Kreiger, David Lyons, Anderson & Kreiger LLP (A&K)
From: Jennifer Lenz, P.E., Bruce Fairless, P.E. GZA GeoEnvironmental, Inc.
Date: March 6, 2018
File No.: 01.0173624.00
Re: **Abutter Protection during Demolition/Construction** – Langham Hotel, Boston

GZA GeoEnvironmental, Inc. (GZA) prepared this memorandum to provide preliminary geotechnical recommendations for protection of the Langham Hotel building at 250 Franklin Street during demolition and construction at the abutting One Post Office Square development in Boston, Massachusetts. This memorandum includes a summary of existing subsurface information and potential geotechnical impacts to the Langham Hotel building during construction. We anticipate that A&K will use these findings when preparing their comments, on behalf of the Langham Hotel, to the Boston Planning and Development Agency (BPDA) regarding the Expanded Project Notification Form (EPNF) for this project.

Elevations cited in this memorandum are referenced to the Boston City Base datum (BCB). This memorandum is subject to the Limitations attached as **Appendix A**.

BACKGROUND

The Langham Hotel building abuts One Post Office Square, which is owned by One Post Office Square LLC. The developers for the One Post Office Square project are Anchor Line Partners and Jones Lang LaSalle Corporation.

Our understanding of the project and site is based on:

- An Expanded Project Notification Form entitled “One Post Office Square Office Tower and Garage Improvement Project,” prepared by TetraTech for Anchor Line Partners/Jones Lang LaSalle on behalf of One Post Office Square LLC, presented to the BPDA, and dated January 2, 2018;
- Erikson, C. & Schoenwolf, D., “Predictions & Observations of Groundwater Conditions During a Deep Excavation in Boston,” Boston Society of Civil Engineers Section’s Civil Engineering Practice Journal, pp. 37-52, Fall/Winter 1993;
- “Report of the Boston Landmarks Commission on the Potential Designation of The Federal Reserve Bank Complex as a Landmark,” dated October 10, 1978;
- Application for Permit to Build in the City of Boston, prepared by the Federal Reserve Bank, dated March 12, 1920;
- A site visit on February 27, 2018 with A&K;
- Our understanding of subsurface explorations at abutting and nearby sites; and
- Discussions with A&K and the Langham Hotel.



EXISTING CONDITIONS

One Post Office Square, located within the city block bounded by Pearl, Milk, Oliver and Franklin Streets in Boston, Massachusetts consists of two connected components: a multi-tenant 41-story office tower located in the northwest corner; and a six-story parking garage with two levels of below grade parking located in the northeast corner. The five-story Langham Hotel, at 250 Franklin Street, is connected on the south side of One Post Office Square. The tower and the garage are both owned by One Post Office Square LLC. The building that currently houses the Langham Hotel was built in 1922 and was used as the Federal Reserve Bank until 1977. The building was renovated for the current hotel use in 1981. The office tower and garage were also both built in 1981. The Oliver Street sidewalk grade is at approximately El. 20 feet and, based on our observations, the lower slab of the garage is approximately 18 feet below sidewalk grade, or approximately El. 2 feet. Based on the original building permit application, the Langham Hotel building is supported on concrete spread footings bearing in Marine Clay deposits. We understand the Langham Hotel has basement areas. At this time, it is unknown how groundwater is controlled beneath the Langham Hotel footprint; there may be basement sump pump(s) that control groundwater. According to the EPNF, the office tower and garage are supported on a combination of pressure injected footings and spread footings. Furthermore, the EPNF indicates the existing garage floor slab is designed to resist hydrostatic groundwater pressures.

PROPOSED CONSTRUCTION

We understand that the existing parking garage will be demolished to allow for the construction of an 18-story building. The new structure will include two levels of below-grade parking, three levels of above-grade parking, and a 13 levels of office space above the garage, plus 2 levels of mechanical space. The above-grade space will be connected to the adjacent tower. The proposed construction will be supported on high-capacity, small-diameter drilled pile foundations extending to bedrock approximately 90 to 96 feet below sidewalk grade. The lowest parking level will be at approximately the same elevation as the existing lowest parking level. However, the existing lowest level garage floor slab will be replaced with a pressure-relieved slab with a permanent slab underdrain system. Groundwater collected in the underdrain system is proposed to be infiltrated beneath the Pearl Street sidewalk.

Although not specifically noted in the documents, we anticipate that the garage demolition may retain the existing exterior foundation retaining walls.

SUBSURFACE CONDITIONS

Based on the Journal article cited above, which addresses the adjacent Post Office Square Garage construction, and the EPNF, the subsurface conditions at the site generally consist of:

Generalized Stratum Description	Thickness (ft)	Approximate Elevation of Top of Stratum (ft)
Fill	2 to 13	20
Marine Deposit (Clay)	35 to 50	7 to 18
Glaciomarine/Glacial Till Deposits	5 to 38	-44 to -32
Weathered Bedrock	-	-70 to -76

The groundwater level is anticipated to be at approximately El. 10 feet and be tidally influenced.



GEOTECHNICAL CONSIDERATIONS AND RECOMMENDATIONS

The developers of One Post Office Square, Anchor Line Partners and Jones Lang LaSalle Corporation (Anchor/JLL), have a duty to protect the Langham Hotel building from adverse effects of their construction. In any event, Anchor/JLL should be responsible for any damage that occurs to the existing hotel building and any resulting disruption to its operations. While the developer is likely to be willing to work with the Langham Hotel to minimize disruption, there is likely to be some level of disruption to hotel operations during construction.

At this time our evaluation presented in this memorandum is based on limited data. GZA has not reviewed a geotechnical report for the proposed construction; nor have we reviewed proposed construction plans. We recommend GZA be provided this information to update or revise the preliminary recommendations provided below.

Risk Mitigation Recommendations

Based on our understanding of existing conditions and the proposed construction, our geotechnical considerations for the proposed One Post Office Square redevelopment as it impacts the Langham Hotel building are as follows:

- The typical site groundwater level is at approximately El. 10 feet and the top of the lowest level slab of the existing and proposed garage is at approximately El. 2 feet. The existing garage slab is waterproofed to resist groundwater pressures. The proposed permanent slab underdrain system below the new relieved basement slab will likely be at least one foot below the top of the slab, or at approximately El. 1 foot. Therefore, the underdrain system will be approximately 9 feet below groundwater levels in the Marine Clay deposit. The Marine Clay deposit will have a low permeability rate; however, it will cause the pore pressures in the clay to lower at some distance away from the underdrains. Lowering of pore pressures in the clay may lead to settlement of the clay and adjacent footings of the Langham Hotel. We recommend additional information be provided on the permeability of the clay, the estimated area of depressed groundwater levels due to the underdrains, and the estimated long-term ground settlement due to the underdrain system. Additionally, we recommend a groundwater monitoring program be established and reviewed prior to construction to monitor the groundwater levels adjacent to the construction.
- The proposed high-capacity, small-diameter drilled pile foundations is an appropriate method of foundation support for the proposed 18-story building, in our opinion. However, poor drilling practices, such as not fully casing the pile during drilling, may lead to loss of soil outside of the casing and could lead to settlement. We recommend GZA review and comment on the drilled pile foundation specification before being issued for bid, to confirm “best practice” drilling methods are specified.
- Vibrations during demolition and construction may cause settlement and cracking of existing slabs and walls. Because the Langham Hotel is a historic landmark structure, it may be more sensitive to vibration damage. Additionally, humans perceive vibrations at lower levels than can cause damage to a building; such vibrations may impact hotel operations, even if building damage is not caused. We recommend a vibration monitoring program be established and reviewed prior to construction, with low limiting vibration values for sensitive structures to limit the potential for complaints from hotel guests and disruption to operations and to limit possible settlement and cracking of the building.



- During demolition, the temporary unloading of the existing garage footprint and removal of existing walls, if required, may cause settlement of the Langham Hotel building foundations and slabs. We recommend a monitoring program be established and reviewed prior to construction that monitors the vertical and lateral deformations of the slabs and walls of the Langham Hotel building and other abutting structures. The installation of monitoring points and collection of data should be performed at locations and times to limit disruption to the Langham Hotel's operations. Before reviewing monitoring plans, GZA will need a better understanding of the limits of demolition, including how the existing foundation retaining wall to remain will be braced after the basement slabs, currently providing lateral support, are removed.

The above recommendations are based on our preliminary understanding of the project and not specific construction plans and specifications. Once we obtain additional geotechnical design and construction information, we may need to update our recommendations. We recommend GZA be engaged to review and comment on foundation design, construction dewatering, permanent groundwater control systems, earth support and geotechnical instrumentation specifications before they are issued for bid. In addition, we recommend that GZA be engaged to review the contractor's designs relative to the potential geotechnical impacts to the Langham Hotel building.

We recommend that the Langham Hotel retain a structural engineer to evaluate the potential effects of settlement on the Langham Hotel building. Included in this evaluation should be setting an allowable differential settlement the building can withstand without significant risk.

Please do not hesitate to contact the undersigned if you have any questions.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Handwritten signature of Jennifer A. Lenz in blue ink.

Jennifer A. Lenz, P.E.
Technical Specialist

Handwritten signature of Mary B. Hall in blue ink.

Mary B. Hall, P.E.
Consultant/Reviewer

Handwritten signature of Bruce W. Fairless in blue ink.

Bruce W. Fairless, P.E.
Principal

Attachments: Appendix A – Limitations



Appendix A – Limitations



USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of Anderson & Kreiger, LLP, and the Langham Hotel for the stated purpose(s) and location(s) identified in the Agreement and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the current available information as part of the Scope of Services set forth in Agreement and/or Report, and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. If conditions other than those described in this report are found at the subject location(s), or the design has been altered in any way, GZA shall be so notified and afforded the opportunity to revise the report, as appropriate, to reflect the unanticipated changed conditions. The findings in this report will be revised based on additional subsurface explorations performed as part of final design.
3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made.
4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our report are based on widely-spaced subsurface explorations performed by others and are intended only to convey trends in subsurface conditions. GZA cannot be responsible for the accuracy of the data. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs.
6. In preparing this report, GZA relied on certain information provided by Client, state and local officials, and other parties referenced therein which were made available to GZA at the time of our evaluation. GZA did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this evaluation.
7. Water level readings have been made in test holes at the specified times and under the stated conditions. GZA cannot be responsible for the accuracy of the data. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The water table encountered in the course of the work may differ from that indicated in the report.



8. GZA's services did not include an assessment of the presence of oil or hazardous materials at the property. The project's Licesnsed Site Professional shall be responsible for considering the potential impacts (if any) that contaminants in soil or groundwater may have on construction activities, or the use of structures on the property.
9. Recommendations for foundation drainage, waterproofing, and moisture control address the conventional geotechnical engineering aspects of seepage control. These recommendations may not preclude an environment that allows the infestation of mold or other biological pollutants.

COMPLIANCE WITH CODES AND REGULATIONS

10. We used reasonable care in identifying and interpreting applicable codes and regulations. These codes and regulations are subject to various, and possibly contradictory, interpretations. Compliance with codes and regulations by other parties is beyond our control.