

# **Feasibility Study Addendum North Lot Property Seattle, Washington**

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Prepared for

**North Lot Development, LLC**

**and**

**255 S. King Street LP**

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## EXECUTIVE SUMMARY

This Feasibility Study Addendum was prepared to document proposed changes to the Feasibility Study (Landau Associates 2011b) approved by the Washington State Department of Ecology (Ecology; 2011) for the property known as the “North Lot Property” in Seattle, Washington (Property). The proposed changes are related to changes in the planned development on the east parcel of the Property. 255 S. King Street LP is currently negotiating with North Lot Development LLC (NLD) regarding the proposed purchase of the east parcel of the Property. On April 27, 2012, 255 S. King Street LP sent a letter to Ecology (Foster Pepper 2012) requesting permission to become a party to the existing Prospective Purchaser Agreement/Consent Decree (PPA/CD) for the Property. Ecology responded with a desired protocol for evaluating and negotiating the proposed remedial activities to be performed by 255 S. King Street LP. This Feasibility Study Addendum is submitted in accord with that protocol.

The Remedial Investigation (RI) and Feasibility Study (FS) reports (Landau Associates 2011a,b), and Cleanup Action Plan (CAP; Landau Associates 2011c) for the Property were prepared to be consistent with NLD’s development plan at the time the reports were prepared. NLD is developing the west parcel of the Property as planned, and no changes are proposed to the RI/FS or CAP related to the west parcel.

NLD is negotiating the sale of the east parcel of the Property to 255 S. King Street LP, which was a potential option discussed in Section XIV of the PPA/CD. After purchase, 255 S. King Street LP would execute a development plan for the east parcel of the Property, which would include construction of a high-rise hotel and commercial/retail building with one level of below-ground parking. The design for the proposed development would maximize the size of the building footprint within the east parcel leaving minimal area for walkways or driveways and landscaping. 255 S. King Street LP’s proposed excavation for construction of the below-ground parking represents a “substantial change” (as defined in Section XVI of the PPA/CD) from the development plan identified for the east parcel by NLD. This FS Addendum has been prepared to document this change. The required amendments to the CAP and the PPA/CD to reflect 255 S. King Street LP’s development plan are being made in conjunction with preparation of this FS Addendum.

The Property is located in Seattle, Washington’s south end Central Business District adjacent to Qwest (now CenturyLink) Field, as shown on Figure 1. The Property consists of 3.85 acres located southeast of the intersection of South King Street and Occidental Avenue South in Seattle, Washington (Figure 2). Prior to the start of development activities, the Property consisted of a paved parking lot, which was used for commuter parking and parking for events at Qwest Field. The development of the

west parcel is in progress. The east parcel of the Property remains paved pending the start of cleanup and development activities. Current property conditions are shown on Figure 3.

Based on the investigations conducted to date, the Property contains areas where the contaminant concentrations detected in soil and groundwater are greater than the site-specific, established cleanup levels (Landau Associates 2011c). Analytical data indicate that the extent of impacts to groundwater from the soil contamination at the Property is limited, and that contamination in groundwater does not pose a threat to human health or the environment; therefore, groundwater treatment options were not evaluated. The proposed remedial activity on the west parcel of the Property has already been completed and building construction is underway.

The locations where soil samples were collected on the east parcel of the Property and the areas of soil contamination to be addressed are shown on Figure 4, and the contamination in the soil column on the east parcel of the Property is shown on the revised conceptual model (Figure 5). The Property consists of heterogeneous fill that was placed over the native tidelflat surface to allow development of the area in the vicinity of the Property. The soil contamination on the east parcel of the Property includes one distinct, localized area of creosote-like material present at the base of the fill in the northeastern corner of the east parcel. Within this localized area, the contaminant concentrations are above the cleanup levels due to the creosote-like material, which is a remnant of historical operations. Property-wide concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals associated with the heterogeneous fill material are above cleanup levels. PAHs have been detected in various shallow soil samples [0 to 2 feet (ft) below ground surface (BGS)], but are also anticipated to be dispersed throughout the fill.

The selection of the preferred alternative in the FS included an extensive and detailed disproportionate cost analysis (DCA). The DCA was conducted as part of the comparative analysis of the remedial action alternatives to determine which alternative is permanent to the maximum extent practicable for the Property. Based on the evaluations in the FS, including the DCA, the preferred remedial action alternative for the Property was Alternative 3. Alternative 3 was determined to be compatible with the development planned for the Property at the time the FS was completed, and the NLD development plans were modified to be consistent with Alternative 3. The development plan currently contemplated by 255 S. King Street LP would incorporate additional construction and development efforts that need to be evaluated independently by Ecology.

As described above, the pending purchase of the east parcel of the Property by 255 S. King Street LP would result in a new development plan for the east parcel of the Property. The contemplated development activities by 255 S. King Street LP, which would include additional soil excavation by 255 S. King Street LP for the construction of a below-grade parking garage, represent a substantial change to the preferred remedial action (Alternative 3) that was selected and approved by Ecology in the FS. The

proposed revisions to Alternative 3 for development of the east parcel of the Property and a demonstration that the revisions for Alternative 3 continue to comply with MTCA requirements are summarized below.

The additional excavation on the east parcel required as part of 255 S. King Street LP's development plan would result in the removal of a greater volume of low-level contaminated soil from the east parcel of the Property than was identified as part of Alternative 3 in the FS. As part of the revised development plan, shallow fill material between 0 and approximately 17.5 ft BGS would be excavated from within the building footprint and disposed of off site under an appropriate material management plan. A steel sheet pile wall would be installed around the perimeter of the building footprint to aid in construction, including soil excavation and dewatering, and would remain in place as part of building structure. The excavation would be deeper than 17.5 ft BGS in localized areas for installation of pile caps, elevator pits, grade beams, and other building components. Some of the localized areas of deeper excavations may intersect the creosote-like material located at the base of the fill material. Where encountered, the creosote-like material and any associated affected soil would be removed and properly handled and disposed of under a materials management plan. A conceptual cross section showing the east parcel following implementation of the revised development plan is shown on Figure 6.

Based on the current construction plan, an estimated 33,439 cubic yards of material would be excavated by 255 S. King Street LP as part of the potential construction on the east parcel. This volume does not include any additional soil that would be excavated below 17.5 ft BGS in localized areas for the below-ground building components listed above. Excavated material, including shallow contaminated soil, removed during construction would be disposed of off site consistent with MTCA regulations. Any water generated during dewatering for project construction would also be handled and disposed of per the applicable regulations.

Concentrations of benzene and gasoline above the cleanup levels are present in soil adjacent to the creosote layer at the base of the fill material, and could pose a vapor intrusion risk to users of the below-ground parking structure. To mitigate the potential for vapor intrusion, a vapor barrier would be installed as part of the building construction in conjunction with a water barrier, and the below-grade parking structure would be properly vented with positive pressure. The vapor barrier and associated indoor air sampling that would be conducted following building construction will be detailed in the compliance monitoring plan included in the Revised CAP.

Consistent with Alternative 3 in the FS, the revised remedial action approach for the east parcel would include:

- Additional soil excavation in conjunction with development activities, as discussed above
- Added measures considered to be equally effective in preventing contact with shallow contaminated soil within the Property boundary outside of the footprint of the building

foundation on the east parcel including capping with concrete (walkways or driveways) or excavation of surface soil to 5 ft BGS, and backfilling with clean soil (landscaped areas)

- Institutional controls including provisions for a soil management plan for any future work requiring disturbance of the cap and provisions to prohibit groundwater use
- Groundwater compliance and indoor air monitoring.

255 S. King Street LP's current conceptual development plan for the east parcel is provided on Figure 7. An updated development plan will be provided if there are changes prior to the start of construction that affect the proposed remedial action alternative.

The revisions to Alternative 3 detailed above are consistent with the MTCA threshold requirements that were evaluated as part of the FS and, therefore, the planned remedial action continues to represent a viable cleanup alternative under MTCA. The revised alternative provides for equal or greater benefits under each of the MTCA evaluation criteria including: requirement for a permanent solution to the maximum extent practicable; requirement for a reasonable restoration timeframe; and requirement for consideration of public concerns. Overall, the contemplated cleanup action continues to provide a net environmental benefit by reducing the risk to human health and the environment due to exposure to contamination at the Property. The revised cleanup action is consistent with the alternative selected in the FS in that it ensures that the risk to human health and the environment is reduced and there is a net environmental benefit. The proposed revised cleanup action for the east parcel of the Property would provide expedited remediation of contaminants, reduce potential threats to human health and the environment, is permanent to the maximum extent practicable, is consistent with the preferred alternative selected in the FS, and therefore, is the preferred alternative.

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## LIST OF ABBREVIATIONS AND ACRONYMS

BGS	Below Ground Surface
CAP	Cleanup Action Plan
DCA	Disproportionate Cost Analysis
Ecology	Washington State Department of Ecology
FS	Feasibility Study
ft	Feet
ft <sup>2</sup>	Square Feet
MTCA	Washington State Model Toxics Control Act
NLD	North Lot Development
PAH	Polycyclic Aromatic Hydrocarbon
PPA/CD	Prospective Purchaser Agreement/Consent Decree
Property	North Lot Property
RAO	Remedial Action Objective
RI	Remedial Investigation
WAC	Washington Administrative Code



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## 1.0 INTRODUCTION

This Feasibility Study Addendum was prepared to document proposed changes to the Feasibility Study (Landau Associates 2011b) approved by the Washington State Department of Ecology (Ecology; 2011) for the property known as the “North Lot Property” in Seattle, Washington (Property). The proposed changes are related to changes in the planned development on the east parcel of the Property. 255 S. King Street LP is currently negotiating with North Lot Development LLC (NLD) regarding the proposed purchase of the east parcel of the Property. As part of the process for potential acquisition of the east parcel of the Property, 255 S. King Street LP sent a letter to Ecology (Foster Pepper 2012) requesting permission to become a party to the existing Prospective Purchaser Agreement/Consent Decree (PPA/CD) for the Property. Ecology responded with a desired protocol for evaluating and negotiating the proposed remedial activities to be performed by 255 S. King Street LP. This Feasibility Study Addendum is submitted in accord with that protocol.

The PPA/CD for the Property was developed between NLD and Ecology to facilitate NLD’s purchase and cleanup of the Property for Transit-Oriented Development consisting of approximately 1.5 million gross square feet (ft<sup>2</sup>) of buildable area. The development as originally planned included two podiums (west and east blocks) containing first- and second-floor parking and retail space, third- and fourth-floor parking and residential space, and parking/office/residential space above the fourth floor. The west block includes three high-rise structures with more than 400 units of new housing, and a single office tower was planned for the east block/parcel. The Remedial Investigation (RI) and Feasibility Study (FS) reports (Landau Associates 2011a,b), and Cleanup Action Plan (CAP; Landau Associates 2011c) were deemed to be consistent with NLD’s development plan for the Property.

NLD is developing the western portion of the Property as planned. NLD is currently negotiating the sale of the east parcel of the Property to 255 S. King Street LP. After purchase, 255 S. King Street LP would execute a development plan for the east parcel of the Property, which would include construction of a high-rise hotel and commercial/retail building with one level of below-ground parking.

255 S. King Street LP’s proposed excavation for construction of the below-ground parking represents a “substantial change” from the development plan identified for the east parcel by NLD, requiring an addendum to the FS, as well as amendments to the CAP for the Property and the PPA/CD. This FS Addendum has been prepared to document the changes to the FS due to the proposed changes in the development plan for the east parcel of the Property associated with 255 S. King Street LP’s prospective purchase of the east parcel. The required amendments to the CAP and the PPA/CD to reflect 255 S. King Street LP’s development plan are being made in conjunction with preparation of this FS Addendum.

NLD has conducted multiple investigations to characterize soil and groundwater conditions (including a data gaps investigation and a soil vapor investigation) at the Property, and these investigations are thoroughly documented in the RI and FS reports (Landau Associates 2011a,b). In addition, the FS developed and evaluated remedial action alternatives and identified a preferred remedial alternative to address the contamination at the Property. The preferred remedial alternative was approved by Ecology prior to preparation of the CAP (Landau Associates 2011c) and the start of remedial activities at the Property. NLD has completed the cleanup action tasks for the west parcel of the Property consistent with the CAP and is proceeding with construction of the ground-level portions of the development, which will provide for containment of the underlying soils per the development plan described in the FS and CAP.

As noted above, the development plan for the east parcel currently proposed by 255 S. King Street LP would require changes in selected elements of the approved remedial action alternative in the FS for the Property. In anticipation of 255 S. King Street LP's purchase of the east parcel, this FS Addendum has been prepared to document the changes in the preferred remedial alternative for the east parcel associated with the proposed development plan, and to demonstrate that this proposed development plan and remedial approach remain consistent with the requirements of the Washington State Model Toxics Control Act (MTCA; Chapter 173-340 WAC) and the FS and CAP for the Property.

The sections below provide a brief summary and description of the findings presented in the FS report (Landau Associates 2011b) that remain applicable to this FS Addendum. Please refer to the FS report for detailed descriptions of the Property background, the investigations conducted to date, physical conditions at the Property, areas and volumes of media that require remedial action, identification and screening of remedial technologies, and the detailed analysis of remedial action alternatives that was used to select the preferred remedial action for the Property.

## **1.1 PROPERTY DESCRIPTION AND BACKGROUND**

The Property is known as the "North Lot Development" and is located in Seattle, Washington's south end Central Business District adjacent to Qwest (now CenturyLink) Field, as shown on Figure 1. The Property consists of 3.85 acres located southeast of the intersection of South King Street and Occidental Avenue South (Figure 2). Prior to the start of development activities, the Property consisted of an asphalt paved parking lot, which was used for commuter parking and parking for events at Qwest (now CenturyLink) Field. The development of the west parcel is in progress. The east parcel of the Property remains paved pending the start of cleanup and development activities.

The Property was originally undeveloped tideflats of Elliott Bay that, along with other properties in the area, were filled in the late 1890s and early 1900s to allow development in the area. The Property

was operated as a rail yard from the late 1800s until the late 1960s. The heterogeneous fill material at the Property was placed over the former tideflat surface and is composed of dredged sediments, wood, and demolition debris including material resulting from the Seattle Fire of 1889, and remnants of the former rail yard operations and construction debris (i.e., brick, metal, and concrete). Prior to the placement of the fill, the area that includes the Property was developed with streets, buildings, and railroad tracks elevated on and supported by pilings. Several sets of railroad tracks were formerly present on the Property.

Structures associated with the rail yard included engine maintenance buildings, paint shops, track switching areas, and materials storage areas. In addition, two gasoline stations were formerly located in the northwestern portion of the Property at different times between the late 1930s and approximately 1966.

The Property has been used as a parking lot since the 1970s (Landau Associates 2007). King County purchased the Property in the 1970s to facilitate construction of the Kingdome stadium to the south of the Property with the vision that the site would ultimately become a mixed-use/mixed-income housing development. The Kingdome was later demolished and replaced with the current Qwest (now CenturyLink) Field development, and in 2005 King County initiated a process for the selection of a developer to purchase and complete the vision for the Property.

The current conditions at the Property do not present a risk to Property users because contaminated soil on the west parcel has been addressed by the cleanup and redevelopment activities and the east parcel is capped by the existing asphalt pavement, and groundwater at the Property is not used. Current conditions on the east parcel of the Property, which is the focus of this FS Addendum, are shown on Figure 3.

Similar to NLD's development of the west parcel of the Property, the east parcel would be developed as part of Transit-Oriented Development that would be compatible with surrounding land uses, pedestrian corridors, public access, transportation connections, and other stakeholder requirements. As noted above, the revised development plan for the east parcel includes a high-rise hotel and commercial/retail building, with one level of underground parking and associated uses.

## **1.2 PROPERTY INVESTIGATIONS AND PHYSICAL CONDITIONS**

The investigations conducted to characterize soil and groundwater at the Property and facilitate preparation of the RI and FS reports include the Phase II investigation, the RI field investigation, the supplemental investigation, and the data gaps investigation. An investigation of soil vapor in the northwestern portion of the Property was also conducted as part of the preparation of the FS.

The stratigraphy within the depth range of the explorations at the Property consists primarily of four geologic units identified as fill, native marine sediments, alluvial deposits, and glacial deposits. The

borings and monitoring wells used to characterize the nature and extent of soil and groundwater contamination at the Property were focused on the fill unit overlying the native marine sediments. The unconfined water table aquifer beneath the Property is present within the fill. The groundwater flow at the Property is locally affected by a foundation drain system at the King Street Center building at 201 South King Street to the north of the Property. The foundation drain system, which is a passive groundwater collection system, creates a low in the elevation of the groundwater table resulting in localized flow toward the building. As shown on Figure 14 of the FS, the groundwater low locally affects groundwater flow in the central and eastern portions of the Property, with flow from the Property to the northeast, north, or northwest, toward the King Street Center building, depending on location.

### **1.3 EAST PARCEL: AREAS THAT REQUIRE REMEDIAL ACTION**

Based on the investigations conducted to date, the Property contains areas where the contaminant concentrations detected in soil and groundwater are greater than the cleanup levels identified in the FS. The areas on the west parcel of the Property have already been addressed by the completed cleanup and building construction there is underway. Analytical data indicate that the extent of impacts to groundwater from the soil contamination at the Property is limited and that contamination in groundwater does not pose a threat to human health or the environment; therefore, groundwater treatment options were not evaluated.

The locations where soil samples were collected on the east parcel of the Property and the areas of soil contamination to be addressed, based on the RI and FS, are shown on Figure 4. The cleanup action alternatives for the Property were developed in the context of the nature and extent of the soil contamination as it relates to the conceptual model of the shallow subsurface at the Property. As stated above, cleanup activities have already been completed on the west parcel of the Property; therefore, only the contamination in the soil column on the east parcel of the Property is shown on the revised conceptual model (Figure 5).

The Property consists of heterogeneous fill that was placed over the native tidelflat surface to allow development of the area in the vicinity of the Property. The soil contamination on the east parcel of the Property includes one distinct, localized area of creosote-like material present at the base of the fill in the northeastern corner of the east parcel. Within this localized area, the contaminant concentrations are above the cleanup levels due to the creosote-like material, which is a remnant of historical operations. Property-wide concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals that are associated with the heterogeneous fill material are above the cleanup levels. PAHs have been detected in various shallow soil samples [0 to 2 feet (ft) below ground surface (BGS)], but are also anticipated to be dispersed throughout the fill.

As mentioned above, the extent of impacts to groundwater from soil contamination appears to be limited. There is no evidence of soil contaminants leaching to groundwater, or of contaminants in groundwater migrating off site at concentrations greater than the cleanup levels. The need for long-term groundwater monitoring and a groundwater treatment contingency is addressed in the groundwater treatment contingency plan included in the CAP (Landau Associates 2011c), and will also be included in the Revised CAP.

As identified in the RI and FS reports, concentrations of benzene and gasoline above the cleanup levels are locally present in deeper (approximately 20 ft BGS) soil and groundwater in the northeastern portion of the Property adjacent to the creosote layer at the base of the fill material. These concentrations of benzene and gasoline pose a potential vapor intrusion threat to users of the below-ground parking planned for the east parcel. As discussed in Section 2.0, the potential for vapor intrusion would be addressed as part of the planned building construction.

#### **1.4 DESIGNATION OF POINTS OF COMPLIANCE**

The standard point of compliance established in the FS remains applicable to the proposed development plan for the east parcel. The point of compliance where soil cleanup levels protective of direct human contact must be met is throughout a site from the ground surface to 15 ft BGS, in accordance with Washington Administrative Code (WAC) 173-340-740(6)(d). The standard point of compliance where soil cleanup levels protective of groundwater must be met is throughout the soil column, in accordance with WAC 173-340-740(6)(b). For the Property including the east parcel, the proposed soil point of compliance would be throughout the soil column throughout the Property.

The standard point of compliance for groundwater is throughout groundwater at the Property, including the east parcel. The proposed conditional point of compliance for groundwater for protection of surface water quality is the Property boundary or as close to the Property boundary as practicable. For a conditional point of compliance [in accordance with WAC 173-340-720(8)(c, d)], there must be a demonstration that it is not practicable to meet the cleanup levels throughout the site in a reasonable restoration timeframe and that all practicable methods of treatment are to be used in the site cleanup. As established in the FS, the preferred cleanup action alternative is permanent to the maximum extent practicable and remains so with the revisions presented in this FS Addendum, and meets the necessary criteria. Therefore, the proposed conditional point of compliance is the Property boundary for most of the Property, and as close to the Property boundary as practicable in the northeastern portion of the Property. Due to the presence of the creosote-like material along the Property boundary, it is not feasible to install a compliance monitoring well in the creosote-like material, so the proposed conditional point of compliance

for the northeastern portion of the east parcel would be as close to the Property boundary as practicable, and would be the Property boundary for the remainder of the east parcel.

The compliance monitoring plan, which will be re-evaluated to include any necessary considerations or revisions related to the proposed changes in Property development, will be included in the Revised CAP. The revised compliance monitoring plan will identify the approach to document groundwater quality at the conditional point of compliance and a contingency for groundwater treatment will be included in the CAP. Groundwater treatment is an option that could be implemented if the compliance groundwater monitoring shows a significant increase in contaminant concentrations in groundwater and evidence of offsite migration of groundwater with contaminant concentrations greater than the cleanup levels or a significant change in site conditions.

## **1.5 REMEDIAL ACTION OBJECTIVES**

Remedial action objectives (RAOs) define the goals of the cleanup that must be achieved to adequately protect human health and the environment. The RAOs presented in the FS remain applicable to the proposed development plan for the east parcel of the Property. The current conditions at the Property do not present a risk to Property users because contaminated soil has been addressed by cleanup activities on the west parcel, the east parcel is capped by the existing asphalt pavement, and groundwater at the Property is not used. For cleanup of the Property (including the east parcel) based on the characterization of Property conditions and the identified cleanup levels, the action-specific and media-specific RAOs identified for the Property consist of:

- RAO-1: Prevent direct human contact with soil containing contaminants from the Property at concentrations greater than the direct contact soil cleanup levels.
- RAO-2: Prevent human ingestion of groundwater containing contaminants from the Property at concentrations greater than the groundwater cleanup levels.
- RAO-3: Prevent groundwater containing contaminants from the Property at concentrations greater than the groundwater cleanup levels from migrating off site.
- RAO-4: Prevent human inhalation of volatile petroleum hydrocarbons (including benzene) from Property contaminants at concentrations in indoor air that may cause an incremental increase in risk greater than acceptable levels.

Each of these RAOs can be achieved by preventing exposure to the contaminated media through containment and monitoring, or through treatment or removal of the contaminated media. The changes to the remedial action alternative selected in the FS to accommodate the proposed development plan for the east parcel continue to achieve these four RAOs and meet all of the MTCA threshold requirements.

## **1.6 REMEDIAL ACTION ALTERNATIVES DEVELOPED AND EVALUATED IN THE FEASIBILITY STUDY**

Six alternatives that meet regulatory requirements and that could be undertaken with the NLD development plan were evaluated in the FS to address contaminated media at the Property. The six alternatives incorporated the most viable cleanup action technologies within the general response action categories of containment, source removal (i.e., excavation), treatment, and institutional controls. The six alternatives that were evaluated in the FS consist of:

- Alternative 1: Containment including a Vapor Barrier
- Alternative 2: Hotspot Excavation and Containment
- Alternative 3: Hotspot Excavation, Focused Treatment of Residual Gasoline/Benzene, Containment, and Added Measures to Prevent Contact with Shallow Contaminated Soil Outside the Footprints of the Building Foundations
- Alternative 4: Hotspot Excavation, Focused Treatment of Residual Gasoline/Benzene, Focused Treatment of Creosote Area, and Containment
- Alternative 5: Hotspot Excavation, Focused Treatment of Residual Gasoline/Benzene, Excavation of Fill Material Across the Property to 5 ft BGS, and Containment
- Alternative 6: Complete Excavation of Fill Material.

The alternatives were developed with the understanding that the proposed use of the Property (on both the west and east parcels) includes structures, incorporating commercial/retail, upper-floor office, and upper-floor residential uses, over the entire Property (except for Center Drive Lane).

## **1.7 SELECTION OF THE PREFERRED ALTERNATIVE IN THE FEASIBILITY STUDY**

The selection of the preferred alternative in the FS included an extensive and detailed disproportionate cost analysis (DCA). The DCA was conducted as part of the comparative analysis of the remedial action alternatives to determine which alternative is permanent to the maximum extent practicable for the Property. Based on the evaluations in the FS, including the DCA, the preferred remedial action alternative for the Property is Alternative 3, which consists of hotspot excavation of contaminated soil from the northwestern portion of the Property (former gasoline station area) to the groundwater table, enhanced bioremediation for residual soil/groundwater impacted by gasoline and benzene near the elevation of the water table in the area of the hotspot excavation, a surface cap over the entire property, added measures to prevent contact with shallow contaminated soil outside the footprints of the building foundations, institutional controls, and groundwater monitoring.

Alternative 3 was deemed to be compatible with the development planned for the Property at the time the FS was completed. The pending purchase of the east parcel of the Property by 255 S. King



Street LP will necessitate a revised development plan for the east parcel of the Property. The development changes contemplated by 255 S. King Street LP, which include additional soil excavation by 255 S. King St. LP for the construction of a below-grade parking garage, represent a substantial change to the preferred remedial action (Alternative 3) that was selected and approved by Ecology in the FS. The proposed revisions to Alternative 3 for development of the east parcel of the Property and a demonstration that the revisions continue to comply with MTCA requirements are presented in Sections 2.0 and 3.0, respectively.

## 2.0 REVISIONS TO THE SELECTED REMEDIAL ACTION

The development proposed by 255 S. King Street LP for the east parcel would include a high-rise hotel and commercial/retail building, with one below-ground level of parking. The proposed schematic design for the high-rise building (which is still in development and may be subject to change) is provided in Appendix A. Below-ground parking was not included in NLD's development plan for the east parcel of the Property. The proposed additional below-ground excavation for construction of the parking garage is a substantial change in the development plan and associated remedial action for the east parcel.

The additional excavation required as part of the revised development plan would result in the removal of a significant volume of low-level contaminated soil from the east parcel of the Property as compared to what was previously identified as part of Alternative 3 in the FS. As part of the revised development plan, shallow fill material between 0 and approximately 17.5 ft BGS would be excavated from within the building footprint and disposed of off site under an appropriate material management plan. A steel sheet pile wall would be installed around the perimeter of the building footprint to aid in construction, including soil excavation and dewatering, and would remain in place as part of building structure. The design for the proposed development would maximize the size of the building footprint within the parcel leaving limited areas for walkways or driveways and landscaping. The excavation would be deeper than 17.5 ft BGS in localized areas for installation of pile caps, elevator pits, grade beams, and other building components. The conceptual pile and excavation schematic is provided in Appendix B. Some of the deeper excavations in localized areas may intersect the creosote-like material located at the base of the fill material. Where encountered, the creosote-like material and any associated affected soil would be removed and properly handled and disposed of under a materials management plan.

Based on the current construction plan, an estimated 33,439 cubic yards of material would be excavated by 255 S. King Street LP as part of the proposed construction. This volume does not include any additional soil that would be excavated below 17.5 ft BGS in localized areas for the below-ground building components listed above. Additional soil would also be excavated to a depth of 5 ft in any landscaped areas outside the building footprint that are not capped with concrete. Excavated material, including shallow contaminated soil, removed during construction would be disposed of off of the Property consistent with MTCA regulations. Any water generated during dewatering for project construction would also be handled and disposed of per the applicable regulations. A conceptual cross section showing the east parcel following implementation of the revised development plan is shown on Figure 6.

Concentrations of benzene and gasoline above the cleanup levels are locally present in soil adjacent to the creosote layer at the base of the fill material, and could pose a vapor intrusion risk to users of the below-ground parking structure. Vapor mitigation would be developed to be protective for the proposed below-ground uses including showers, storage, and offices. To mitigate the potential for vapor intrusion, a vapor barrier would be installed as part of the building construction in conjunction with a water barrier, and the below-grade parking structure would be properly vented with positive pressure. The vapor barrier and associated indoor air sampling that would be conducted following building construction will be detailed in the compliance monitoring plan included with the Revised CAP, and in the Engineering Design Report prepared for implementation of the remedial action.

Consistent with Alternative 3 in the FS, the revised remedial action approach for the east parcel would include added measures considered to be equally effective in preventing contact with shallow contaminated soil within the Property boundary but outside of the footprint of the building foundation. Preparation for construction of the planned development would include removal of the existing surface material to a depth of approximately 1.5 ft BGS across the entire east parcel, including the existing asphalt surface, associated subgrade, and shallow soil/fill. Areas within the Property outside of the building footprint would be capped with concrete (walkways and driveways) or excavated to 5 ft BGS and backfilled with clean soil (landscaped areas). As noted above, the landscaped areas where soil would be excavated to 5 ft BGS and the areas where the concrete cap would be installed will be relatively limited, and would be determined as the development plans are finalized. 255 S. King Street LP's conceptual development plan for the east parcel is provided on Figure 7.

Future construction and maintenance activities at the east parcel following development would be limited by the concrete cap and structures associated with parcel development. Following excavation to approximately 17.5 ft BGS below the building footprint (which would cover most of the east parcel), the volume of low-level contaminated soil remaining in place below the cap would be significantly reduced. However, future construction workers would be made aware of the potential presence of residual contamination remaining beneath the building foundation and beneath the concrete cap and landscaped areas outside the building footprint by institutional controls and plan documents, which would restrict access to Property soil. Institutional controls would include, as required, provisions for a soil management plan and health and safety plan for any work, including any post-development activities at the Property such as additional utility installation, requiring disturbance of the cap.

Use of groundwater at the east parcel would continue to be prohibited under the revised Alternative 3 through institutional controls. Long-term groundwater monitoring following completion of the excavation activities would also be conducted as outlined in the Revised CAP to document attainment

of groundwater cleanup levels. Groundwater monitoring would be limited to annual monitoring, unless results indicate the need for more frequent monitoring.

After the sale of the east parcel of the Property to 255 S. King Street LP, the cleanup activities would be conducted as part of the planned development that would be constructed consistent with the City of Seattle Master Use Permit in accordance with market conditions. The groundwater compliance monitoring plan included in the CAP would be implemented Property-wide following cleanup and development of the west and east parcels.

In the event that compliance groundwater monitoring shows a significant increase in contaminant concentrations in groundwater and evidence of offsite migration of groundwater with concentrations greater than the cleanup levels or a significant change in site conditions, groundwater treatment options would be evaluated to prevent contaminated groundwater from passing the conditional point of compliance. One potential treatment option that would be evaluated as part of the contingency plan is the installation of extraction wells along the Property boundary for the east parcel to collect groundwater before it flows off the eastern portion of the Property. Collected groundwater would be treated using a granular-activated carbon treatment system and pumped into the sanitary sewer system for further treatment and disposal. With regard to the east parcel, groundwater extraction could be considered for implementation along the northeastern boundary of the east parcel to address creosote-like material contamination to groundwater. This treatment is included only as a contingency; as noted above. Under current conditions, groundwater does not pose a threat to human health or the environment. The details for the proposed groundwater monitoring will be included in the compliance monitoring plan in the Revised CAP.

### **3.0 CONTINUED COMPLIANCE WITH MODEL TOXICS CONTROL ACT REQUIREMENTS**

The revisions to Alternative 3 detailed above, including the additional soil excavation on the east parcel of the Property, are consistent with the MTCA threshold requirements that were evaluated as part of the FS and, therefore, the planned remedial action continues to represent a viable cleanup alternative under MTCA.

As specified in WAC 173-340-360(2), all cleanup actions are required to meet the following threshold requirements:

- Protect human health and the environment
- Comply with cleanup standards
- Comply with applicable state and federal laws
- Provide for compliance monitoring.

In the FS, it was extensively demonstrated that the selected Alternative (Alternative 3) met each of the threshold requirements listed above. The revised alternative presented in this FS Addendum meets the threshold requirements while providing for the additional removal of low-level contaminated soil (to approximately 17.5 ft beneath the building footprint) from the east parcel. The revised alternative provides for equal or greater benefits under each of the MTCA evaluation criteria including:

#### **Requirement for a Permanent Solution to the Maximum Extent Practicable**

WAC 173-340-200 defines a permanent solution as one in which cleanup standards can be met without further action being required at the site being cleaned up or any other site involved with the cleanup action, other than the approved disposal off of the Property of any residue from the treatment of hazardous substances. In the FS, Alternative 3 was selected as the most permanent practicable alternative. The revised alternative proposed in this FS Addendum that includes additional excavation and removal of low-level contaminated soil provides for an equal or greater level of permanence than the alternative selected in the FS, and is permanent to the maximum extent practicable.

#### **Requirement for a Reasonable Restoration Timeframe**

WAC 173-340-360(6)(a) specifies that the following factors be considered when determining whether a cleanup action provides for a reasonable restoration timeframe:

- Potential risks to human health and the environment
- Practicability of achieving a shorter restoration timeframe
- Current use of the Property, surrounding areas, and associated resources that are, or may be affected by releases from the Property

- Availability of alternative water supplies
- Likely effectiveness and reliability of institutional controls
- Ability to control and monitor migration of hazardous substances from the Property
- Toxicity of the hazardous substances at the Property
- Natural processes that reduce concentrations of hazardous substances and have been documented to occur at the Property or under similar Property conditions.

The revisions to the remedial action to allow for the proposed development plan do not affect the evaluation of the reasonable restoration timeframe and provide for an equally protective restoration timeframe.

### **Requirement for Consideration of Public Concerns**

Consideration of public concerns is an inherent part of the cleanup process under MTCA (see WAC 173-340-600). 255 S. King Street LP and NLD plan to work collaboratively with Ecology on the development and implementation of a public participation plan to ensure that the public is provided timely information and has the opportunity to provide input regarding the revisions to the remedial action approach associated with the revised development plan for the east parcel of the Property. This FS Addendum and the Revised CAP will be made available for public review, per MTCA requirements.

Overall, the revised cleanup action presented in the above sections continues to provide a net environmental benefit by reducing the risk to human health and the environment due to exposure to contamination at the Property. The proposed revised cleanup action is consistent with the alternative selected in the FS in that it ensures that the risk to human health and the environment is reduced and there is a net environmental benefit. The proposed revised cleanup action for the east parcel of the Property would provide expedited remediation of contaminants, reduce potential threats to human health and the environment, is permanent to the maximum extent practicable, is consistent with the preferred alternative selected in the FS, and therefore is the preferred alternative.

## 4.0 PROPOSED DEVELOPMENT SCHEDULE

255 S. King Street LP and NLD are negotiating a final Purchase and Sale Agreement for the East Parcel of the Property. Separately, 255 S. King Street LP and NLD are negotiating jointly with Ecology on a Consent Decree that will supersede the PPA/CD. 255 S. King Street LP and NLD have proposed that negotiations for the new Consent Decree, the review and approval of the technical documents, and the related public participation plan be completed by October-November 2012. The real estate transaction for the east parcel will close prior to the execution and filing of the new Consent Decree in King County Superior Court.

A proposed schedule was outlined in the formal request that 255 S. King Street LP submitted to Ecology to become a party to the existing PPA/CD (Foster Pepper 2012). Ecology responded with a desired protocol for evaluating and negotiating the proposed remedial activities to be performed by 255 S. King Street LP, and with a desired protocol for negotiating and finalizing a new Consent Decree that will supersede the existing PPA/CD. The anticipated schedule is as follows, with slight adjustments from the schedule proposed in the formal request:

- April 2012: Formal Submission of Request to Amend PPA/CD and Initiation of Negotiations – Completed
- May 2012 – October 2012: Negotiations to Formulate and Finalize New Consent Decree that will Supersede the Original PPA/CD and that will have both NLD and 255 S. King Street LP as Parties
- June 2012 – July 2012: Submittal of Draft FS Addendum to Ecology and Ecology Review of Document – Completed
- July 2012: Submittal of Draft Revised CAP to Ecology – Completed
- July 2012: Receipt of Ecology comments to Draft FS Addendum and Preparation of Revised Draft FS Addendum and 2<sup>nd</sup> Draft of Revised CAP – Completed
- August 2012: Submittal of Revised Draft FS Addendum to Ecology and Ecology Review of Document – Completed
- August 2012: Submittal of 2<sup>nd</sup> Draft Revised CAP to Ecology and Ecology Review of Document – Completed
- September 2012: Development of Public Participation Plan and State Environmental Policy Act Notice
- September 2012: Finalize FS Addendum and Revised CAP and Ecology Review of Document
- October – November 2012: Public Notice and Responsiveness Summary; Finalize Consent Decree and Exhibits
- November – December 2012: Completion of the Sale of the East Parcel to 255 S. King Street LP

- November – December 2012: Lodging of new Consent Decree in King County Superior Court
- July 2013: Initiation of East Parcel Development, including Implementation of Remedial Action.



## 5.0 USE OF THIS REPORT

This report was prepared for the exclusive use of 255 S. King Street LP, NLD, and applicable regulatory agencies, for specific application to the North Lot Development Property, including review by the public. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied. This document was prepared under the supervision and direction of the undersigned.

LANDAU ASSOCIATES, INC.



Colette M. Griffith  
Project Engineer



Timothy L. Syverson, L.G.  
Senior Associate Geologist

CMG/KJH/TLS/ccy

## 6.0 REFERENCES

Ecology. 2011. Letter: *Opinion Pursuant to WAC 173-340-515(5) on the Draft Final Feasibility Study for the Following Hazardous Waste Site: Name: North Lot Development; Property Address: 201 South King Street, Seattle, WA 98104; Facility/Site No.: 5378137; VCP Project No.: NW1986*. From Jing Liu, Northwest Regional Office Toxics Cleanup Program, Washington State Department of Ecology, to Kevin Daniels, Daniels Development Co., LLC. March 25.

Foster Pepper. 2012. Letter: *Formal Request to Become a Party to Existing Prospective Purchaser Agreement/Consent Decree for North Lot Development Site*. From Ken Lederman, Foster Pepper PLLC, to Dori Jaffe, Ecology Division, Office of the Attorney General, and Russ Olsen, Voluntary Cleanup Program, Washington State Department of Ecology. April 27.

Landau Associates. 2011a. *Remedial Investigation Report, North Lot Development, Seattle, Washington*. Prepared for North Lot Development, LLC. May 23.

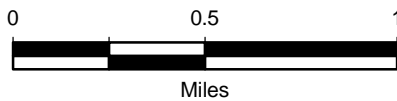
Landau Associates. 2011b. Report: *Feasibility Study, North Lot Development, Seattle, Washington*. Prepared for North Lot Development, LLC. May 23.

Landau Associates. 2011c. *Cleanup Action Plan, North Lot Development, Seattle, Washington*. Prepared for North Lot Development, LLC. July 20.

Landau Associates. 2007. Report: *Phase I Environmental Site Assessment, Qwest Field North Lot, Seattle, Washington*. Prepared for Nitze Stagen & Co., Inc. and Opus Northwest LLC. March 28.



Y:\Projects\1014001\Mapdocs\North Lot RI\Revised\3\_23\_11 Revisions\Fig1.mxd 7/20/2011



Data Source: ESRI 2008

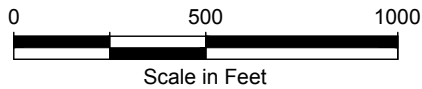
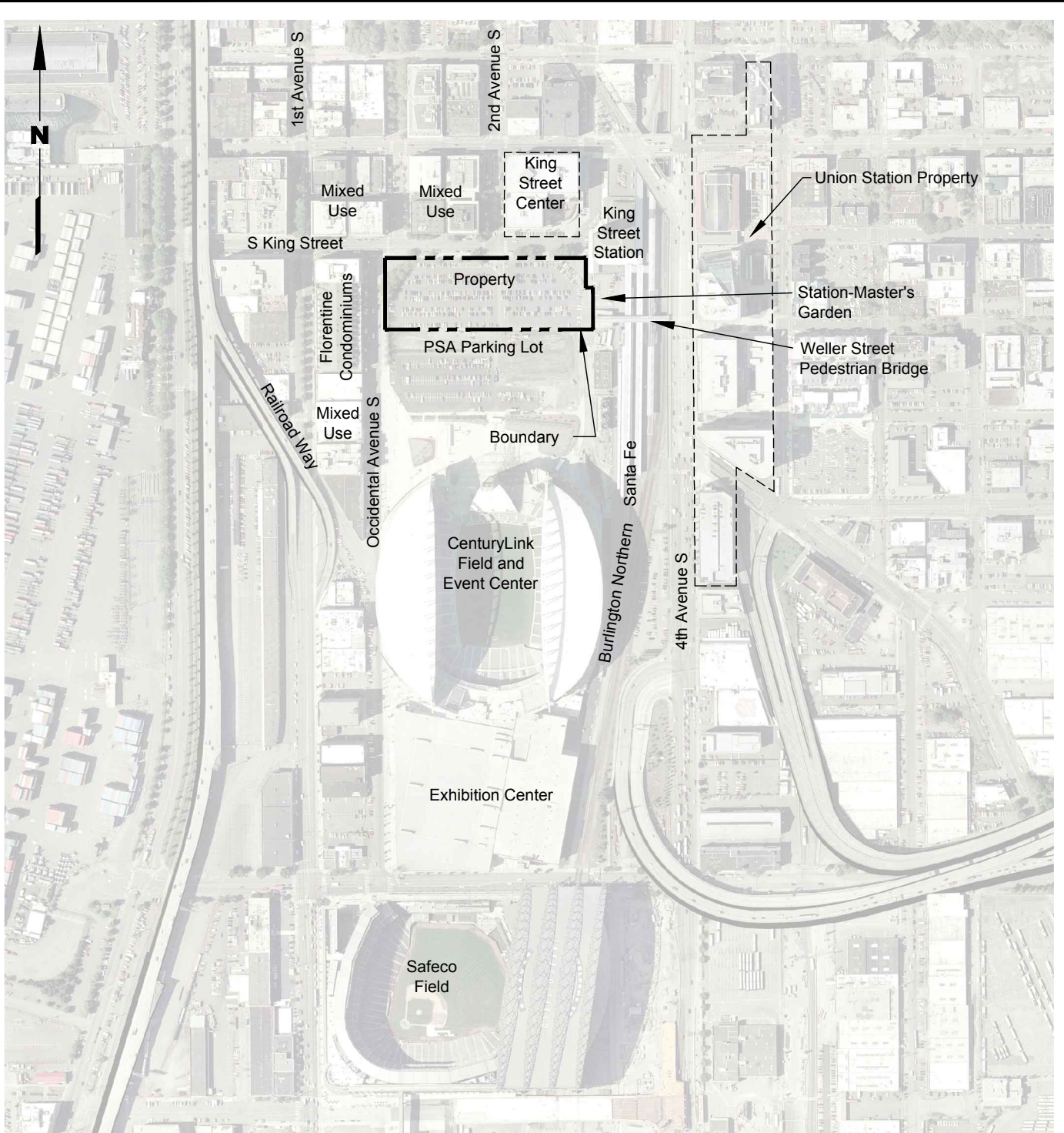


North Lot Development  
Seattle, Washington

Vicinity Map

Figure  
**1**

North Lot | V:\1307\001\010.012\Figure 2.dwg (A) "Figure 2" 6/6/2012

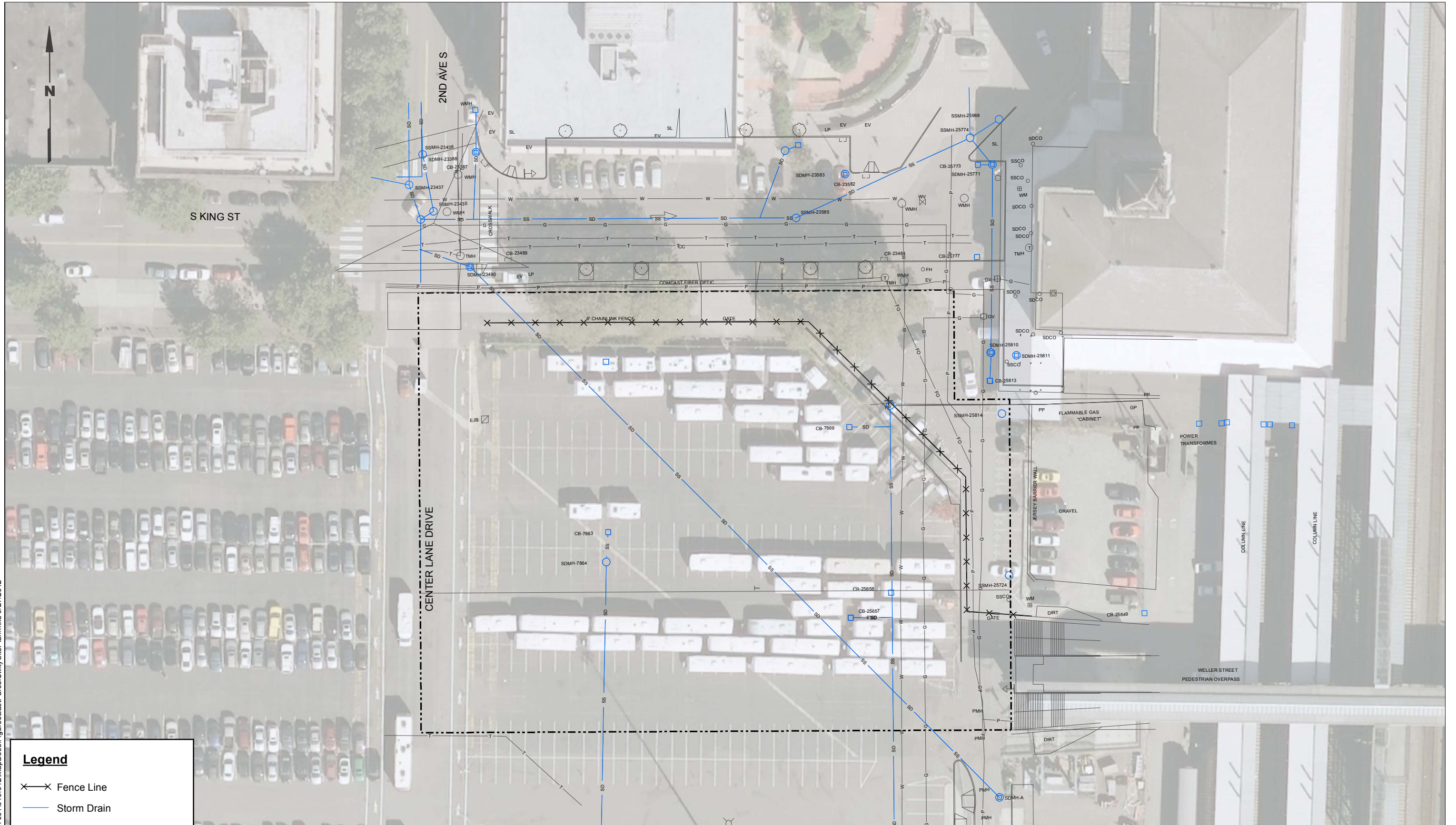


North Lot  
Development Property  
Seattle, Washington

Property Plan and  
Surrounding Area

Figure  
2

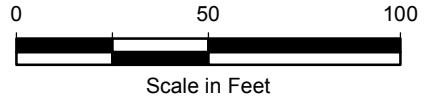
Y:\Projects\130700\1010\1012\MapDocs\Figures3\EastParcelUtilityStepPlan.mxd 9/27/2012



**Legend**

- X—X Fence Line
- Storm Drain
- Utilities and Other Features

**Note**  
 1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

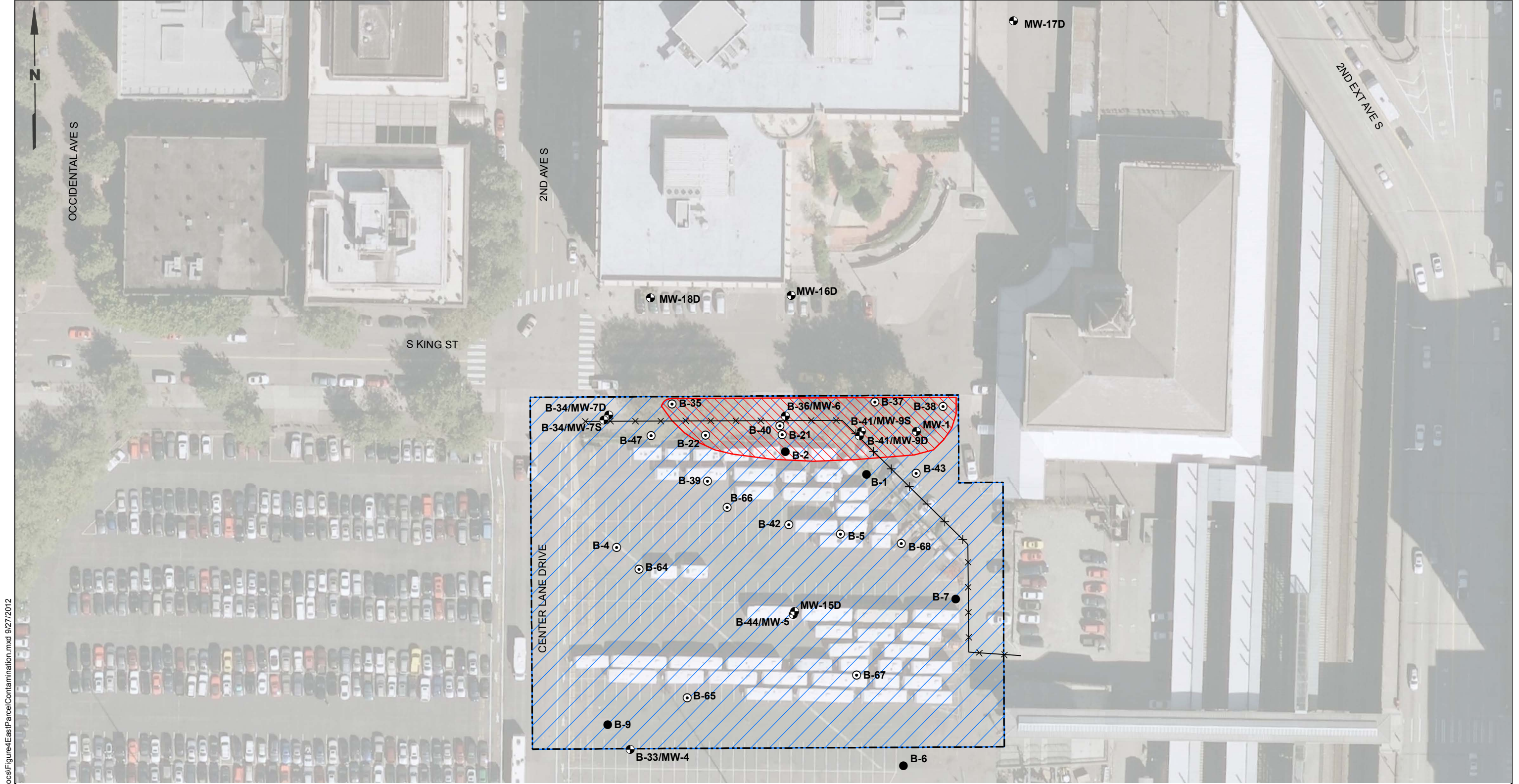


Data Source: Triad Boundary Survey, King County

North Lot Development  
Seattle, Washington

**East Parcel Plan  
and Existing Features**

Figure  
**3**



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**Legend**

- Direct-Push Soil Boring and Monitoring Well Location
- Direct-Push Soil Boring Location
- Direct-Push Soil Boring and Groundwater Sample Location
- ✕✕✕ Fence Line
- Property Boundary

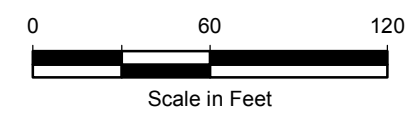
**Approximate Extent of Contaminant Concentrations in Soil Greater than the Cleanup Levels:**

- Creosote-Like Material; Localized Concentrations Greater than MTCA Method B Cleanup Levels
- cPAHs and Metals Concentrations Greater than MTCA Method B Cleanup Levels

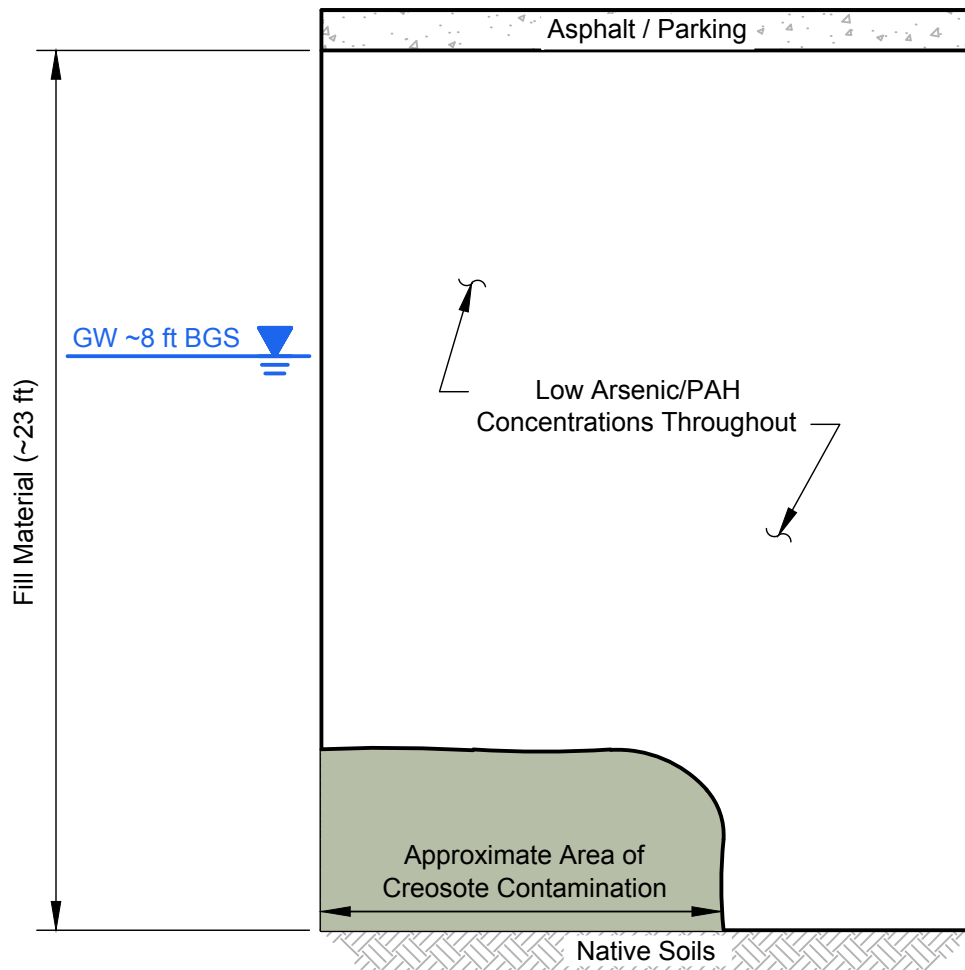
**Notes**

1. Cleanup alternatives that address remedial action for areas of contamination defined above are evaluated in the FS.
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Data Source: Triad Boundary Survey, King County



North Lot | V:\1307\001\010.012\Figure 5\_6.dwg (A) \*Figure 5\* 9/27/2012

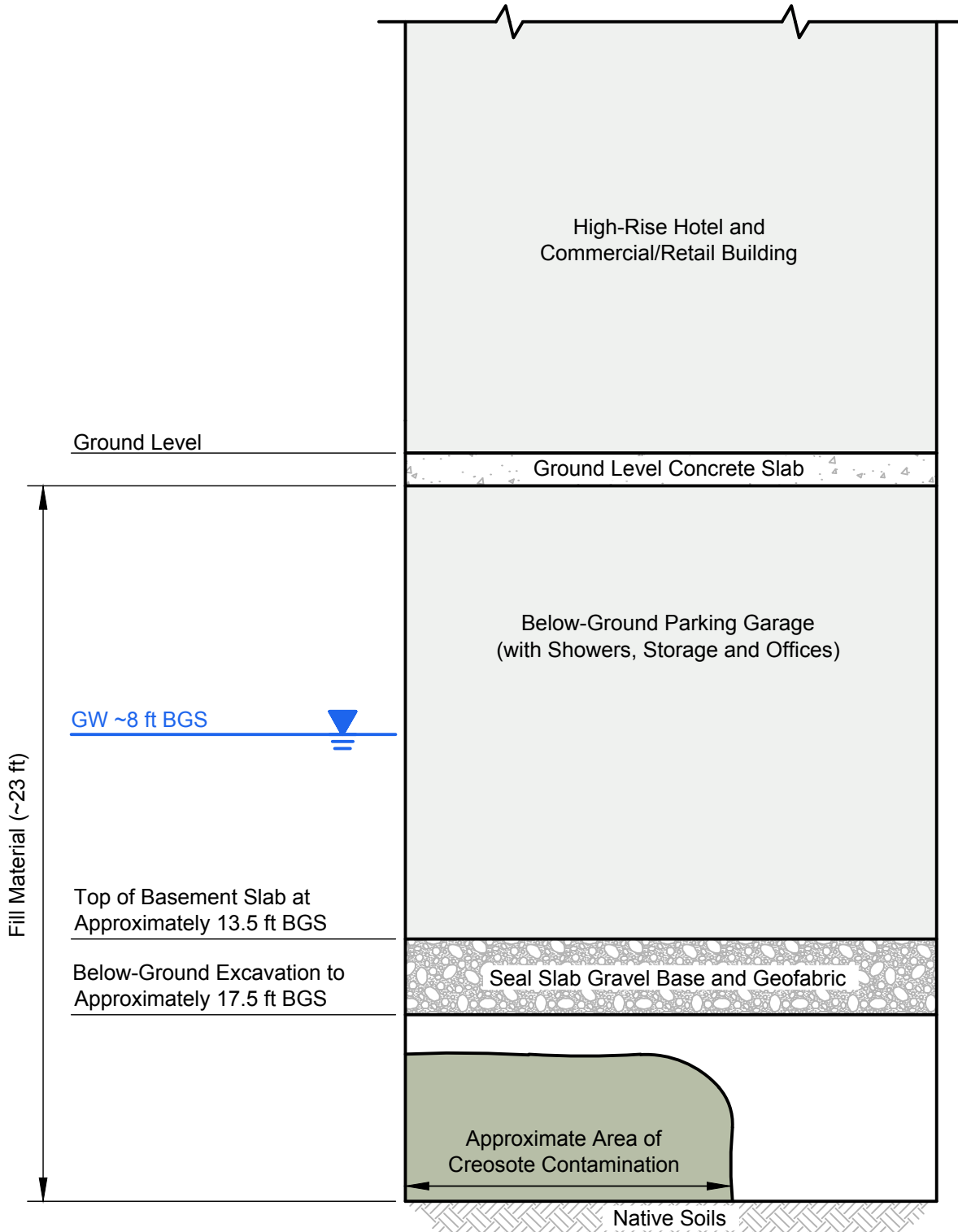


North Lot  
Development Property  
Seattle, Washington

**Conceptual East Parcel  
Cross Section: Current  
Property Conditions**

Figure  
**5**

North Lot | V:\1307\001\010.012\Figure 5\_6.dwg (A) "Figure 6" 9/27/2012



**Note**

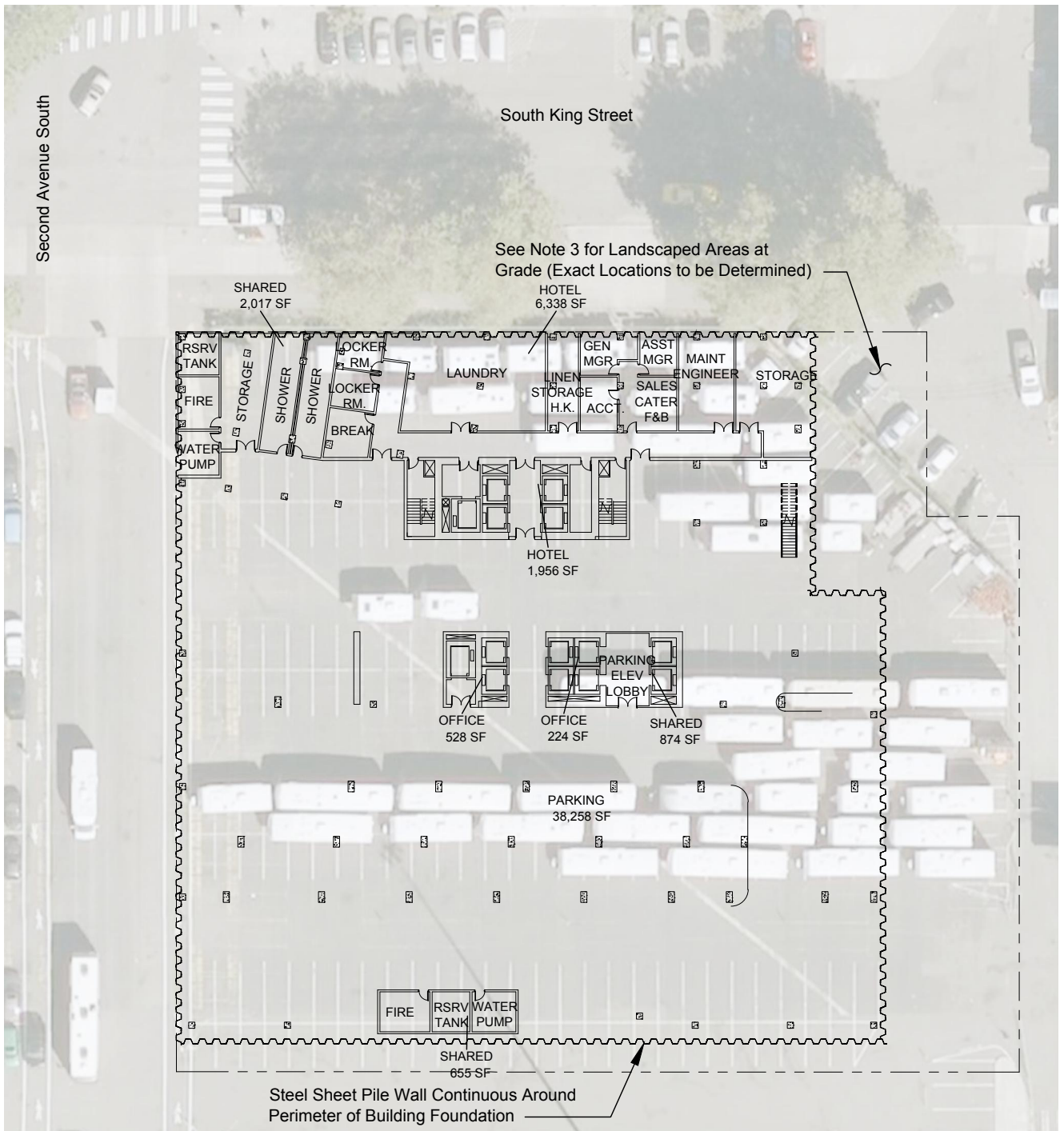
- 1. Seal slab base layer and garage wells will include water and vapor barrier.



North Lot Development Property Seattle, Washington	<b>Conceptual East Parcel Cross Section: Post-Revised Development Plan</b>	Figure <b>6</b>
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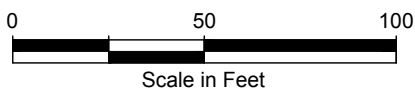


North Lot | V:\1307\001010.012\Figure 7.dwg (A) "Figure 7" 9/27/2012



**Notes**

1. Excavation within building footprint for below-ground parking garage shall be approximately 17.5 ft.
2. Approximately 18 inches of material to be removed across entire site. Cap non-landscaped areas outside of building footprint with concrete.
3. Landscaped areas - excavate to 5 ft BGS and provide membrane. Fill with clean soil.
4. Scope of work is within property line.



Base map source: 300 South King Street LP Team (June 5th, 2012)



<p>North Lot Development Property Seattle, Washington</p>	<p><b>Conceptual East Parcel Plan Development</b></p>	<p>Figure <b>7</b></p>
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# North Lot Schematic Design

**SCHEME 15 - F.A.R. CALCULATIONS**

Date: 05/06/2012

Parcel Area: 167,539

STADIUM PLACE- West Half of development						STADIUM TOWERS- East Half of development										
Level	Datum Ht.	Residential	Retail (NC)	Parking (NC)	Floor total	Level	Datum Ht.	Level	Datum Ht.	Hotel	Office	Retail (NC)	Parking (NC)	Shared	Floor total	
<b>0 TO 85 FEET (Unlimited coverage allowed)</b>						<b>Proposed coverage: 70%</b>										
Residential Tower						Office Tower					Hotel Tower					Max. Total Floor Plate: 116,576
Level A	18'-0"	16,649	21,784	34,182	72,615	Level A	18'-0"	Lobby	18'-0"	9,012	2,887	14,704	7,157	10,201	43,961	
Level B	27'-0"	9,735		33,268	43,003	Parking 1	33'-6"	Hotel 02	35'-0"	7,941	1,129		26,543	736	36,349	
Level C	36'-0"	40,031		32,584	72,615	Parking 2	42'-6"	Hotel 03	48'-0"	13,340	1,118		26,547	736	41,741	
Level D	45'-8"	40,031			40,031	Parking 3	51'-6"	Hotel 04	57'-8"	13,332	1,129		26,671	736	41,868	
Level 1	55'-4"	51,907			51,907	Parking 4	60'-6"	Hotel 05	67'-4"	10,227	1,127		26,339	738	38,431	
Level 2	66'-4"	43,837			43,837	Conference	75'-6"	Hotel 06	78'-0"	29,732	1,118			736	31,586	
Level 3	75'-10"	43,837			43,837											
<b>85 TO 120 FEET (65% coverage allowed)</b>						<b>Proposed coverage: 42%</b>										
Level 4	85'-4"	43,837			43,837	Club 01	95'-6"	Hotel 07	87'-8"	10,089	1,118	8,144		736	20,087	
Level 5	94'-10"	43,837			43,837			Hotel 08	97'-4"	9,831					9,831	
Level 6	104'-4"	43,837			43,837	Club 02	109'-6"	Hotel 09	107'-0"	9,841	1,118	15,968		354	27,281	
Level 7	113'-10"	32,663			32,663			Hotel 10	116'-8"	9,831					9,831	
<b>120 TO 200 FEET (50% coverage allowed)</b>						<b>Proposed coverage: 35%</b>										
Level 8	123'-4"	29,062			29,062	Tower 03	125'-0"	Hotel 11	126'-4"	9,831	18,863			175	28,869	
Level 9	132'-10"	27,739			27,739	Tower 04	138'-0"	Hotel 12	136'-0"	9,831	18,863			175	28,869	
Level 10	142'-4"	27,739			27,739	Tower 05	151'-0"	Hotel 13	145'-8"	9,831	18,863			175	28,869	
Level 11	151'-10"	27,739			27,739	Tower 06	164'-0"	Hotel 14	155'-4"	9,831	18,863			175	28,869	
Level 12	161'-4"	27,739			27,739	Tower 07	177'-0"	Hotel 15	165'-0"	9,831	18,863			175	28,869	
Level 13	170'-10"	27,739			27,739	Tower 08	190'-0"	Hotel 16	174'-8"	9,831	18,863				28,694	
Level 14	180'-4"	27,739			27,739			Hotel 17	184'-4"	9,831					9,831	
Level 15	189'-10"	24,443			24,443			Hotel 18	194'-0"	9,831					9,831	
Level 16	199'-4"	24,443			24,443											
<b>ABOVE 200 FEET (30% coverage allowed)</b>						<b>Proposed coverage: 27%</b>										
Level 17	208'-10"	15,678			15,678	Tower 09	203'-0"	Hotel 19	203'-8"	9,831	18,863			175	28,869	
Level 18	218'-4"	12,956			12,956	Tower 10	216'-0"	Hotel 20	213'-4"	9,831	18,863			175	28,869	
Level 19	227'-10"	11,603			11,603	Tower 11	229'-0"	Hotel 21	223'-0"	9,831	18,863			175	28,869	
Level 20	237'-4"	11,603			11,603			Hotel 22	232'-8"	9,831					9,831	
Level 21	247'-8"	11,603			11,603	Restaurant	243'-0"	Hotel 23	242'-4"	9,831	366	14,066			24,263	
Roof	258'-0"					Roof	258'-0"	Roof	258'-0"	4,311	4,569				8,880	
		<b>718,026</b>	<b>21,784</b>	<b>100,034</b>						<b>255,290</b>	<b>185,446</b>	<b>52,882</b>	<b>113,257</b>	<b>16,373</b>		
	Gross Chargeable:	722,800		Total Gross:	839,844		Gross Chargeable:			495,287		Total Gross:			623,248	
	3.5% Mech. reduction:	25,298					3.5% Mech. reduction:			17,335						
	Total Chargeable:	697,502					Total Chargeable:			477,952						
	Residential FAR:	<b>4.16</b>					Commercial FAR:		<b>2.77</b>						Total FAR:	<b>6.93</b>
	Max Residential FAR:	8.00					Max Commercial FAR allowed:		4.00						Max Total FAR Allowed:	8.00
							Theoretical Max Chargeable:		670,156						FAR Under MUP:	6.69
															Exceeding FAR (SF):	39,914
															Percentage Residential:	0.53
															Residential Needed:	72,181

SCHEME 15 - PROJECT METRICS

Date: 05/06/2012

	Hotel Gross	Hotel Tenant Area	Efficiency	Office Gross	Multi-Tenant Area	Efficiency	Single Tenant Area	Efficiency	Retail Gross	Retail Tenant Area	Efficiency	Parking Gross	Shared Gross			
<b>HOTEL</b>				<b>OFFICE</b>					<b>RETAIL</b>				<b>MISC</b>			
Basement	8,294	6,338	0.76	Basement	752				Basement			Basement	38,258	3,545		
Lobby	9,012	5,485	0.61	Lobby	2,887				Lobby	14,704	14,704	1.00	Lobby	7,157	10,201	
Hotel 02	7,941	5,663	0.71	Parking 01	1,129				Parking 01				Parking 01	26,543	736	
Hotel 03	13,340	9,718	0.73	Parking 02	1,118				Parking 02				Parking 02	26,547	736	
Hotel 04	13,332	9,710	0.73	Parking 03	1,129				Parking 03				Parking 03	26,671	736	
Hotel 05	10,227	6,605	0.65	Parking 04	1,127				Parking 04				Parking 04	26,339	738	
Hotel 06	36,495	32,881	0.90	Conference	1,118				Conference				Conference		736	
Hotel 07	10,089	6,871	0.68	Club 01	1,118				Club 01	10,604	10,604	1.00	Club 01		736	
Hotel 08	9,841	6,821	0.69	Club 02	1,118				Club 02	15,968	15,968	1.00	Club 02		354	
Hotel 09	9,831	6,811	0.69	Office 01	18,863	15,377	0.82	17,571	0.93							
Hotel 10	9,831	6,811	0.69	Office 02	18,863	15,377	0.82	17,571	0.93							
Hotel 11	9,831	6,811	0.69													
Hotel 12	9,831	6,811	0.69													
Hotel 13	9,831	6,811	0.69	Office 03	18,863	15,377	0.82	17,571	0.93							
Hotel 14	9,831	6,811	0.69	Office 04	18,863	15,377	0.82	17,571	0.93							
Hotel 15	9,831	6,811	0.69	Office 05	18,863	15,377	0.82	17,571	0.93							
Hotel 16	9,831	6,811	0.69	Office 06	18,863	15,377	0.82	17,571	0.93							
Hotel 17	9,831	6,811	0.69	Office 07	18,863	15,377	0.82	17,571	0.93							
Hotel 18	9,831	6,811	0.69													
Hotel 19	9,831	6,811	0.69													
Hotel 20	9,831	6,811	0.69	Office 08	18,863	15,377	0.82	17,571	0.93							
Hotel 21	9,831	6,811	0.69	Office 09	18,863	15,377	0.82	17,571	0.93							
Hotel 22	9,831	6,811	0.69													
Hotel 23	9,831	6,811	0.69													
<b>Total</b>	<b>266,036</b>	<b>192,257</b>	<b>0.72</b>	<b>Total</b>	<b>181,263</b>	<b>138,393</b>	<b>0.76</b>	<b>158,139</b>	<b>0.87</b>	<b>Total</b>	<b>59,985</b>	<b>59,619</b>	<b>0.99</b>	<b>Total</b>	<b>151,515</b>	<b>18,518</b>
<b>PROJECT TOTALS</b>																
<b>EFFICIENCY - MULTIPLE OFFICE TENANTS</b>				<b>EFFICIENCY - SINGLE OFFICE TENANTS</b>				<b>PARKING COUNT</b>				<b>ROOM COUNT</b>				
Building Gross:	677,317			Building Gross:	677,317			Small:	152			Total:	278			
Tenant Gross:	390,269			Tenant Gross:	410,015			Medium:	57							
Overall Efficiency:	0.58			Overall Efficiency:	0.61			Large:	159							
								Barrier Free:	8							
								Loading Berth:	3							
								Total:	379							
<b>NOTES</b>																
Tenant areas do not include any floor or building common areas, vertical penetrations, or amenities. Areas are measured to the inside of the exterior wall where applicable																

SCHEME 15 - HOTEL ROOM INVENTORY

Date: 05/06/2012

HOTEL	Type 5 (Embassador)	Type 6 (King)	Type 7 Type 8 (Double/Queen)	(King)	Type X (Compact)
Basement	-	-	-	-	-
Lobby	-	-	-	-	-
Hotel 02	-	-	-	-	-
Hotel 03	-	6	4	3	-
Hotel 04	-	6	4	3	-
Hotel 05	-	-	-	-	24
Hotel 06	-	6	4	3	-
Hotel 07	-	6	4	3	-
Hotel 08	-	6	4	3	-
Hotel 09	-	6	4	3	-
Hotel 10	-	6	4	3	-
Hotel 11	-	6	4	3	-
Hotel 12	-	6	4	3	-
Hotel 13	-	6	4	3	-
Hotel 14	-	6	4	3	-
Hotel 15	-	6	4	3	-
Hotel 16	-	6	4	3	-
Hotel 17	-	6	4	3	-
Hotel 18	-	6	4	3	-
Hotel 19	-	6	4	3	-
Hotel 20	-	6	4	3	-
Hotel 21	-	6	4	3	-
Hotel 22	-	6	4	3	-
Hotel 23	7	-	-	-	-
<b>Total</b>	<b>7</b>	<b>114</b>	<b>76</b>	<b>57</b>	<b>24</b>
<b>Percentage</b>	<b>3%</b>	<b>41%</b>	<b>27%</b>	<b>21%</b>	<b>9%</b>
<b>Grand Total</b>	<b>278</b>				



TYPE 5: EMBASSADOR



TYPE 6: KING



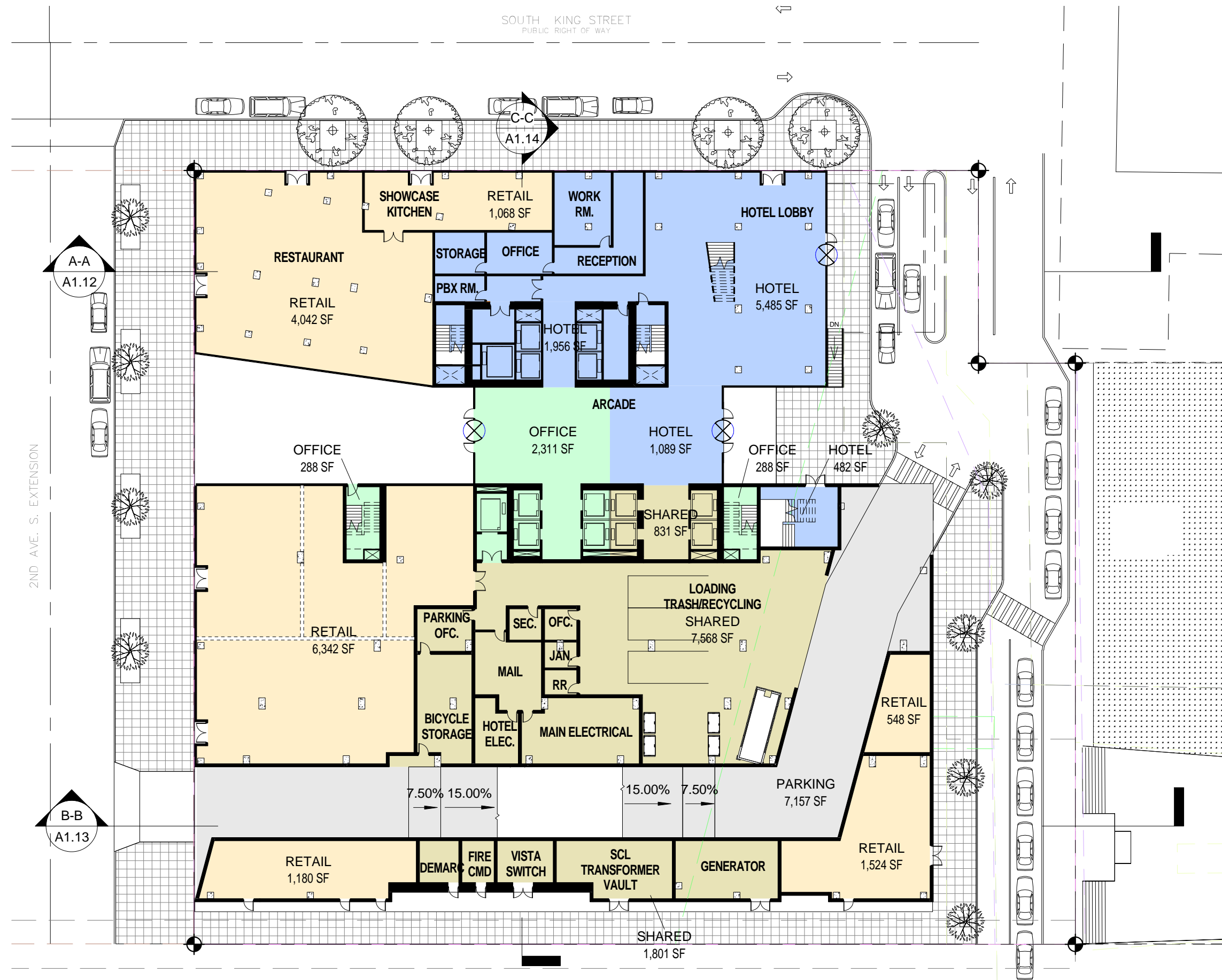
TYPE 7: QUEEN DOUBLE



TYPE 8: KING



- LEGEND
- HOTEL
  - OFFICE
  - SHARED
  - PARKING



- LEGEND**
- HOTEL
  - OFFICE
  - RETAIL
  - SHARED
  - PARKING

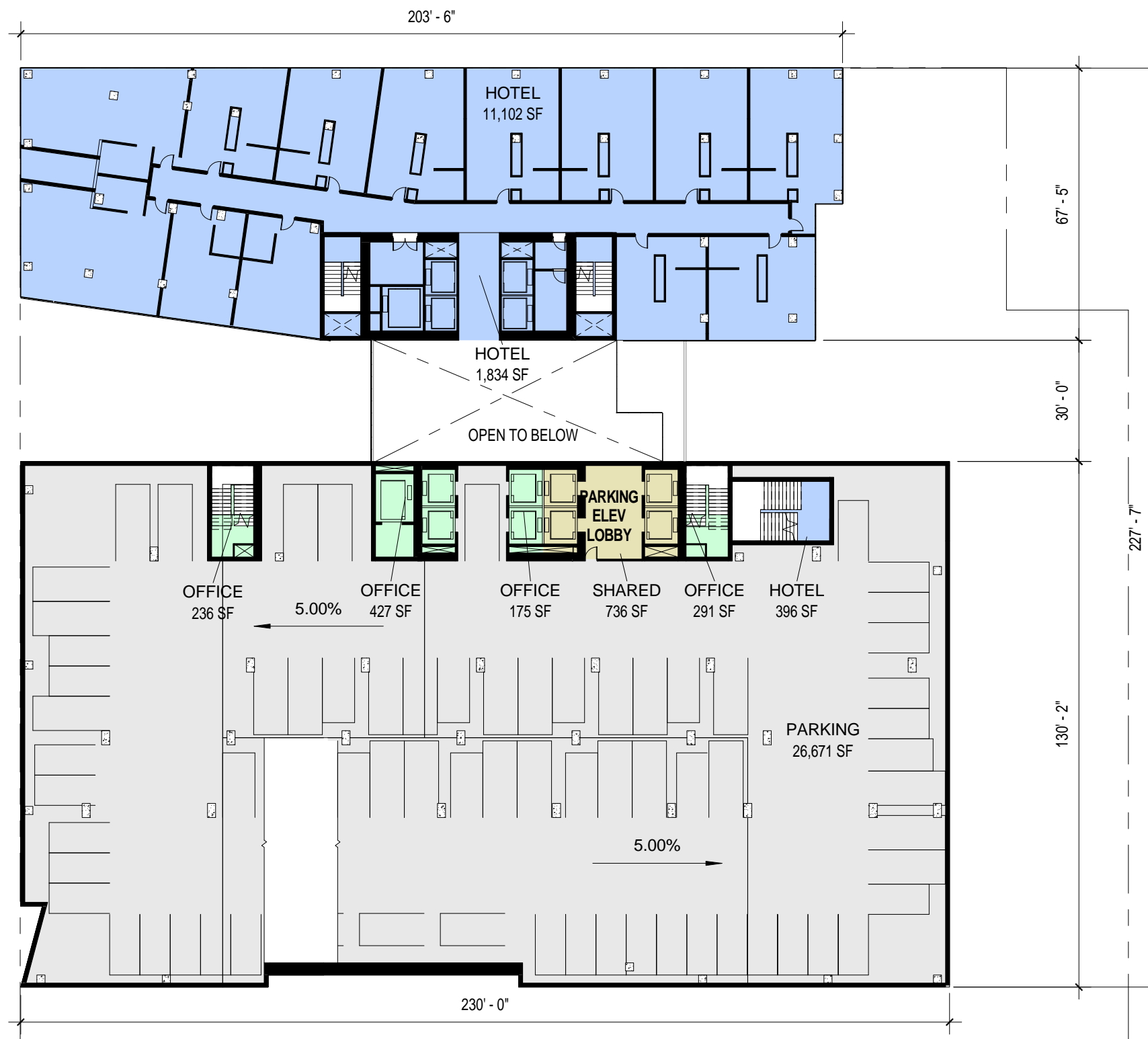


- LEGEND
- HOTEL
  - OFFICE
  - SHARED
  - PARKING





- LEGEND
- HOTEL
  - OFFICE
  - SHARED
  - PARKING



- LEGEND
- HOTEL
  - OFFICE
  - SHARED
  - PARKING



- LEGEND
- HOTEL
  - OFFICE
  - SHARED
  - PARKING



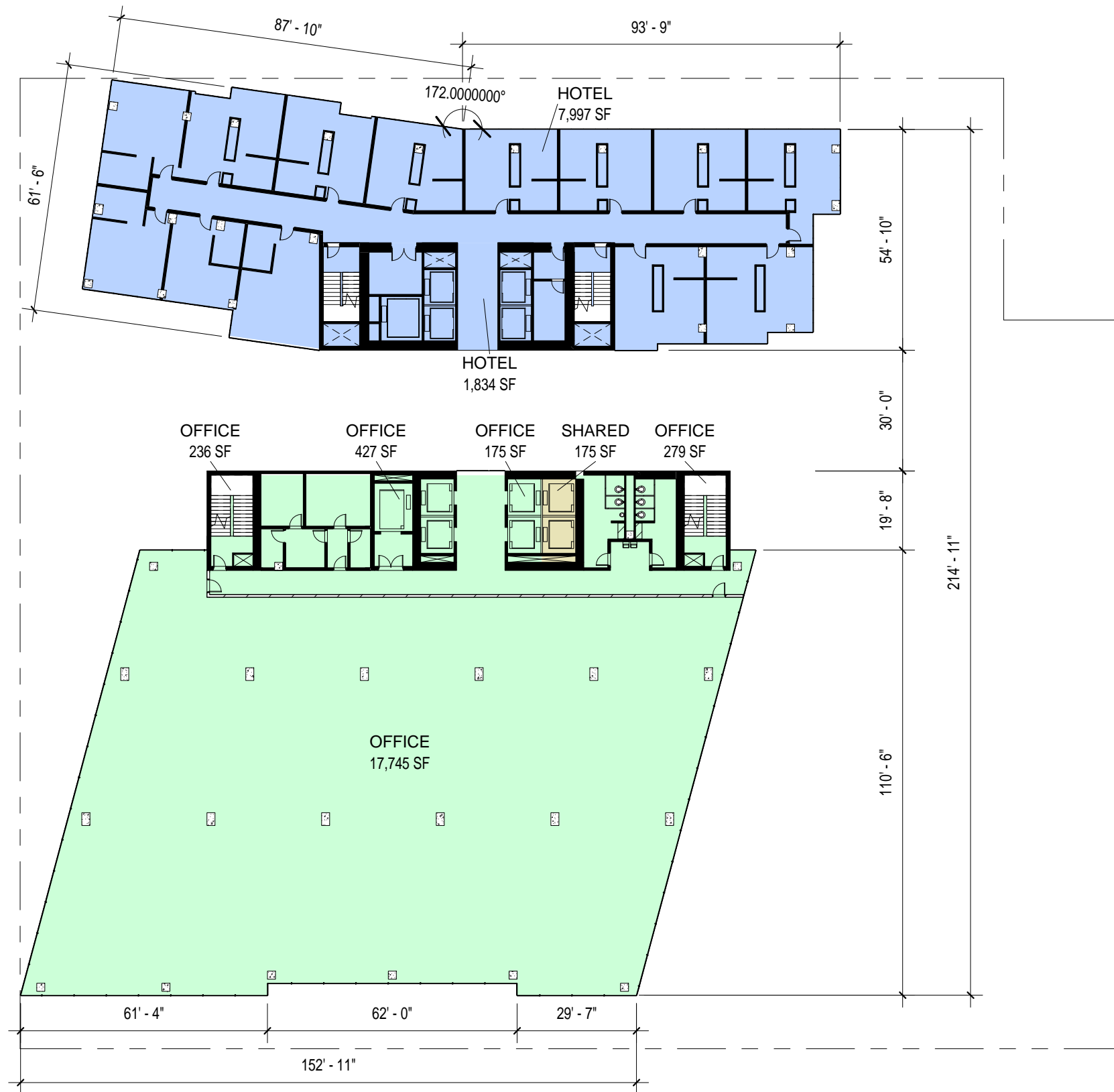
- LEGEND
- HOTEL
  - OFFICE
  - SHARED





LEGEND

- HOTEL
- OFFICE
- RETAIL
- SHARED





LEGEND

- HOTEL
- OFFICE
- RETAIL

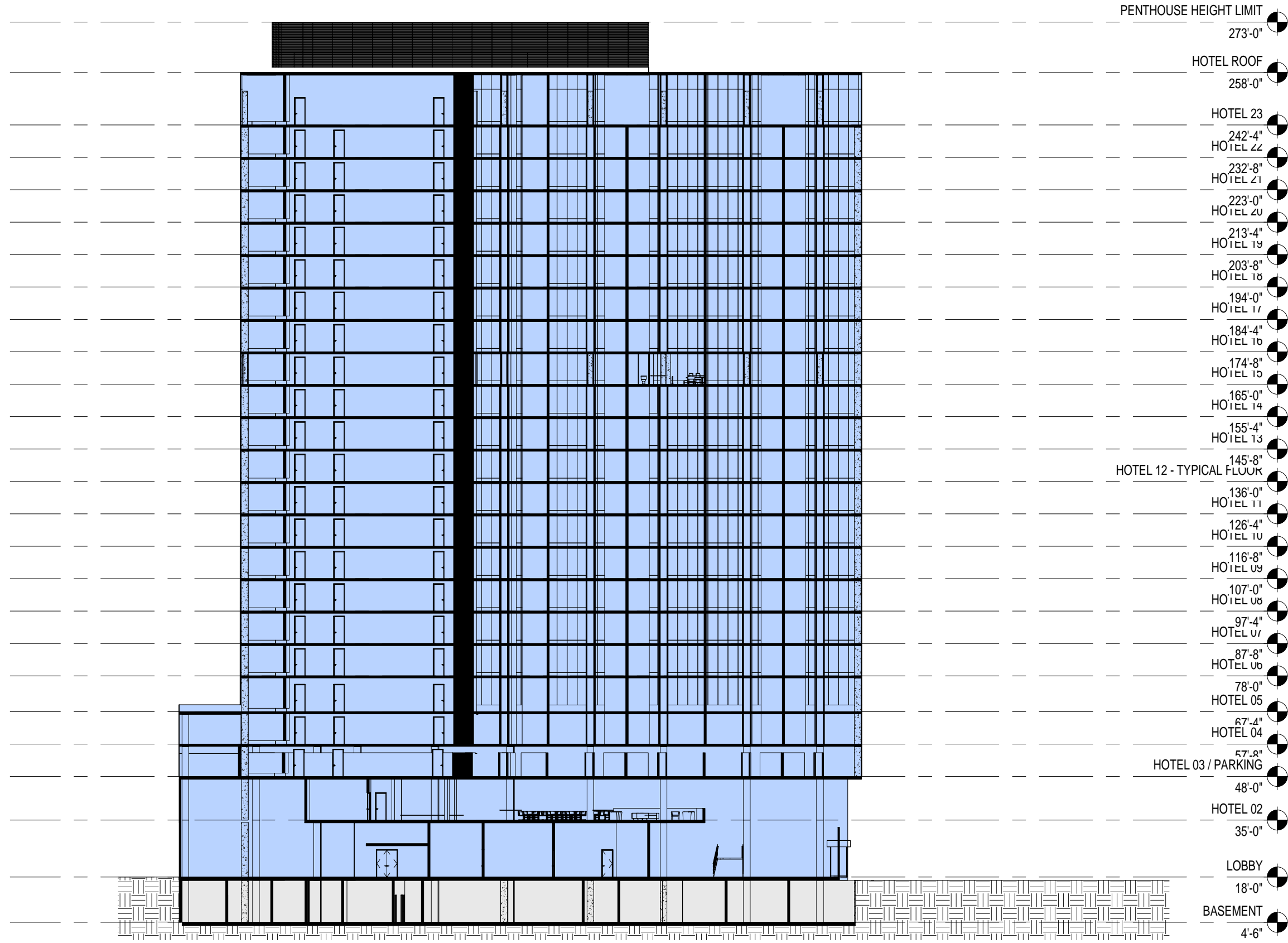


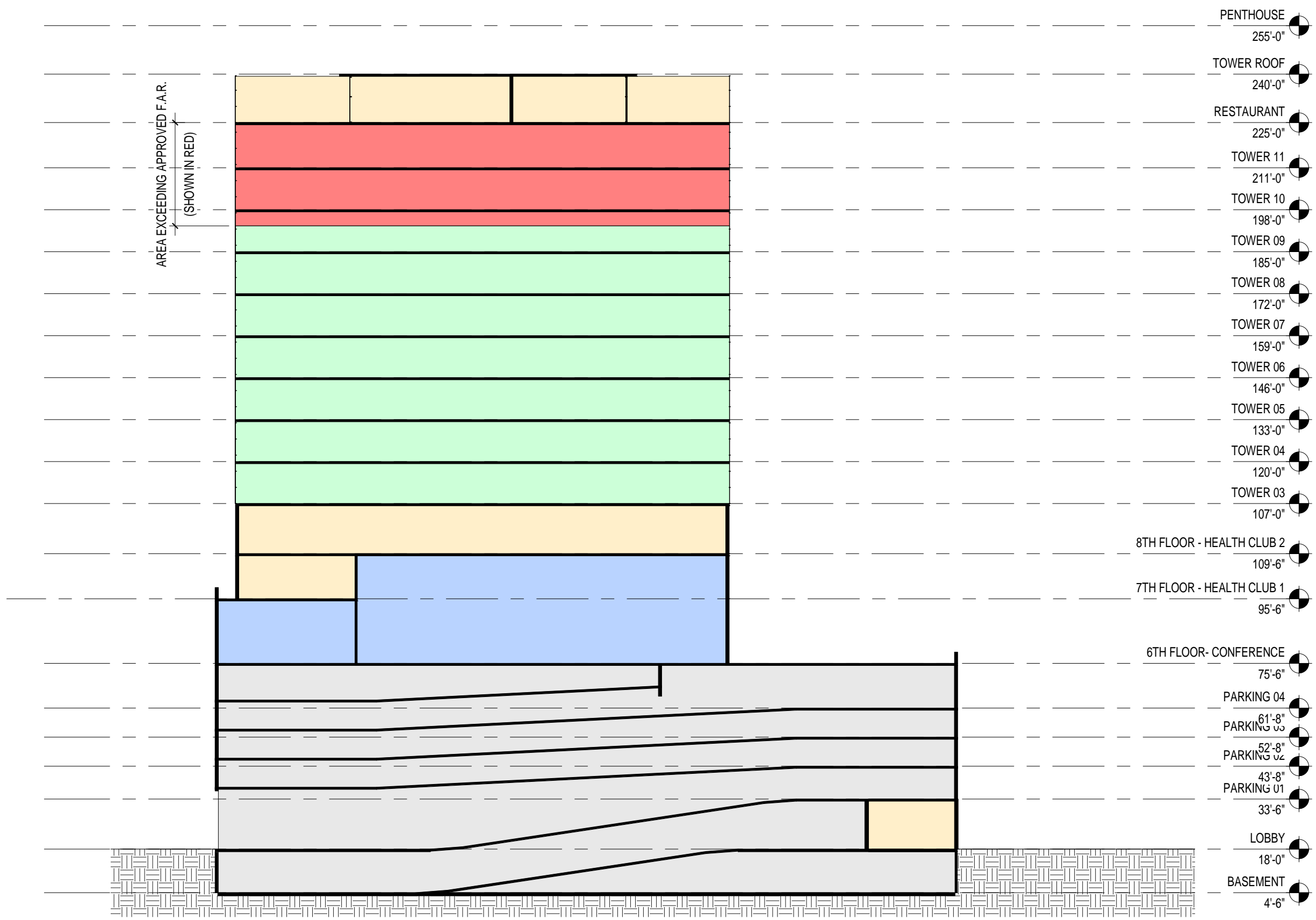


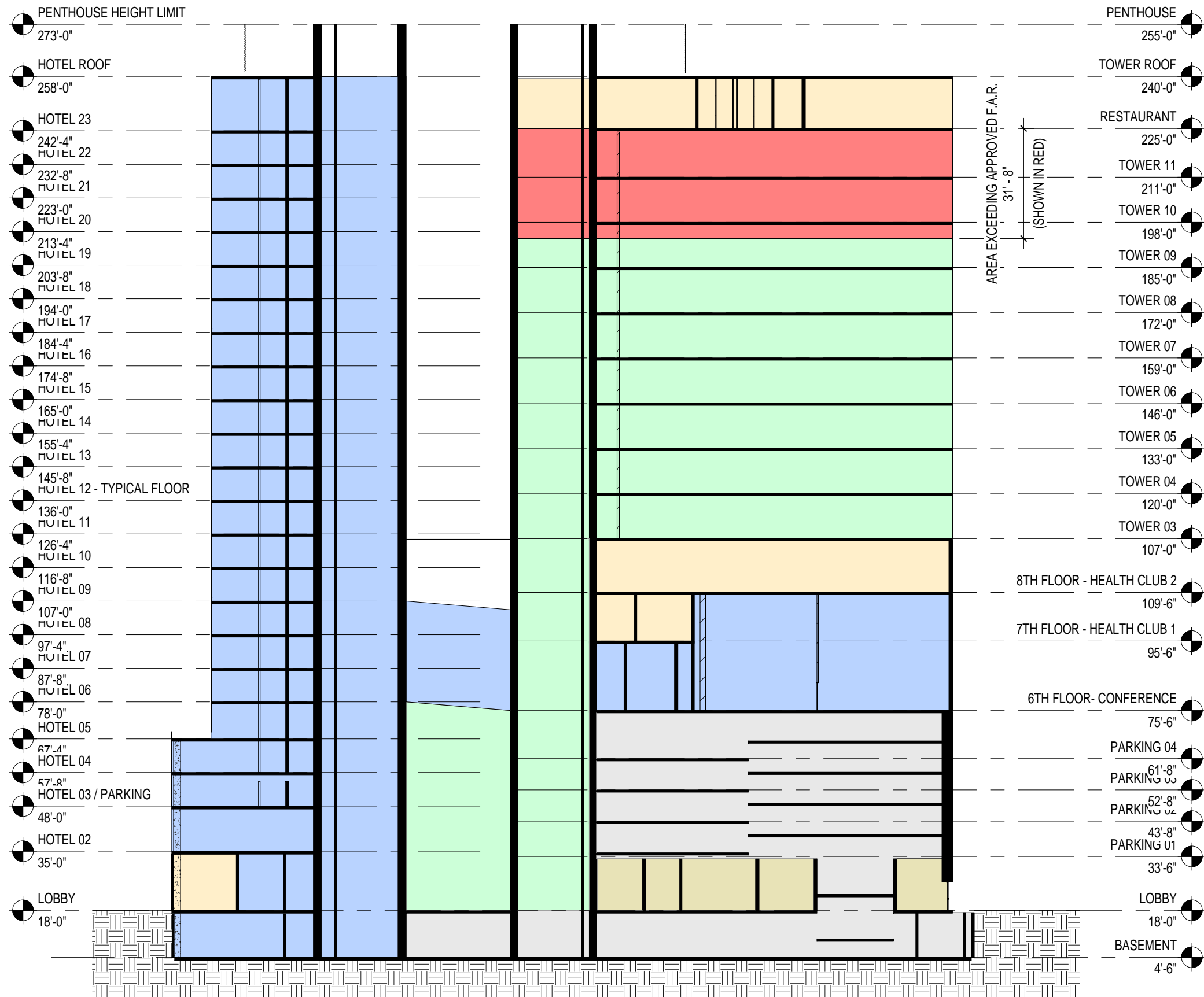
LEGEND

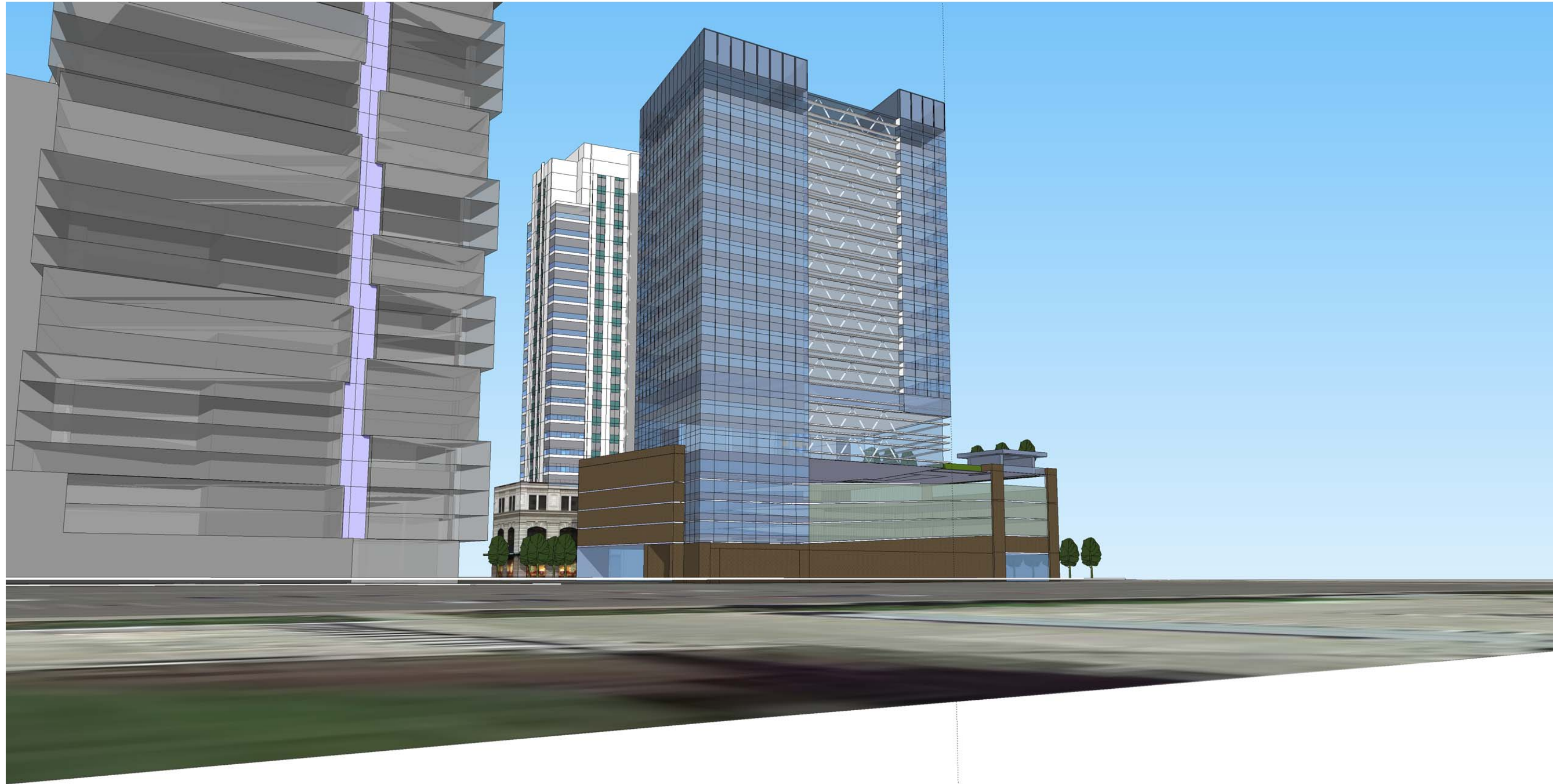
■ HOTEL

■ OFFICE

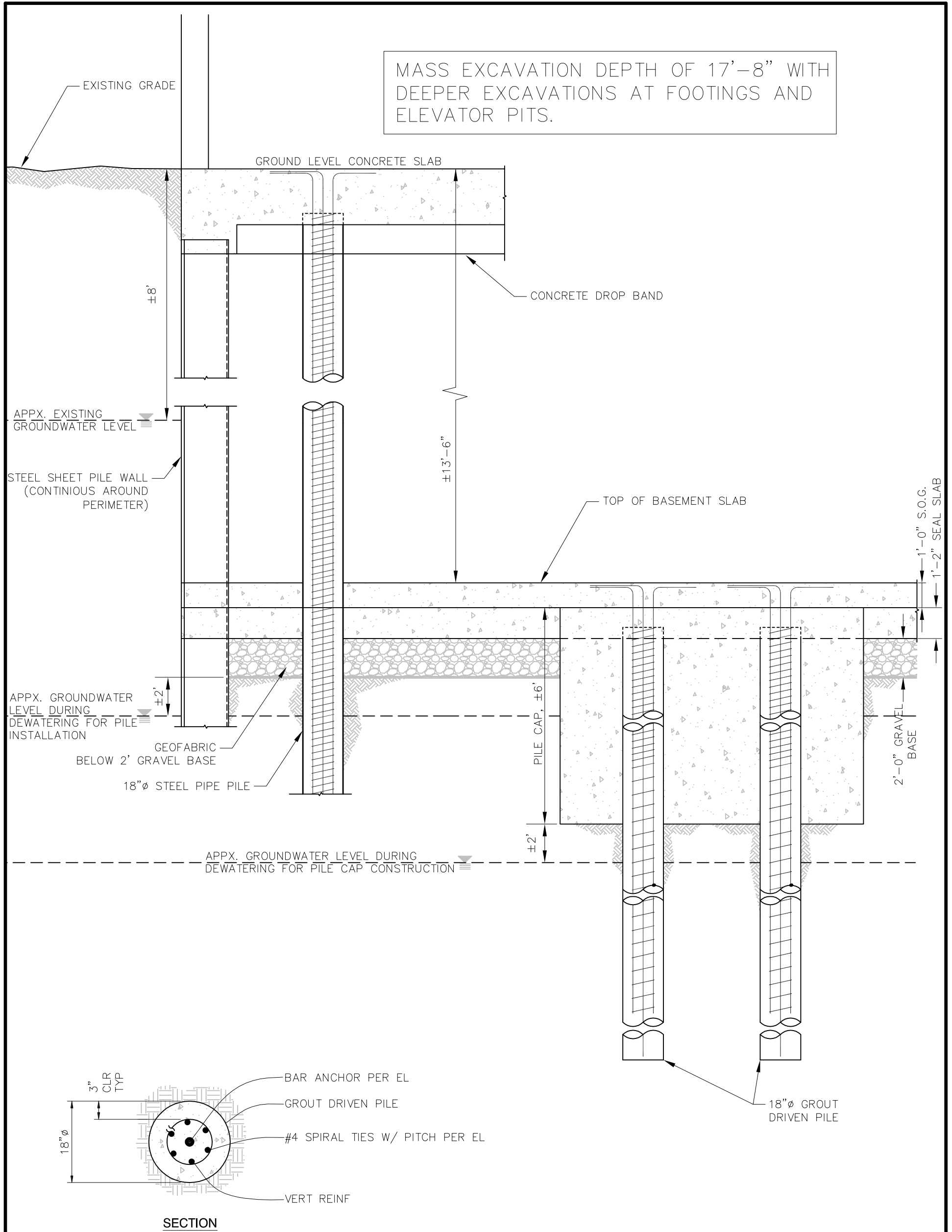








**North Lot Pile and Excavation Exhibit  
(Not to Scale)**



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**NORTH LOT**  
**PILE AND EXCAVATION EXHIBIT**  
 NOT TO SCALE

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