



City of Richmond

Report to Development Permit Panel

To: Development Permit Panel

Date: April 24, 2019

From: Wayne Craig
Director of Development

File: DP 18-816029,
HA 18-840922,
ESA DP 18-840993

Re: **Application by Oval 8 Holdings Ltd. Inc. No. 0805724 for a Development Permit at 6811 Pearson Way, a Heritage Alteration Permit (HA) at 6900 River Road, and an Environmentally Sensitive Area (ESA) DP at 6900 River Road and portions of 6899 Pearson Way and 6811 Pearson Way**

Staff Recommendation

1. That a Development Permit (DP 18-816029) be issued, which would
 - (a) Permit construction of 3 residential towers consisting of approximately 459 units at 6811 Pearson Way on a site zoned "High Rise Apartment and Olympic Oval (ZMU4) – Oval Village (City Centre)".
 - (b) Vary the provisions of Richmond Zoning Bylaw 8500 to:
 - (i) Waive the requirement for on-site large size loading spaces.
 - (ii) Increase the maximum permitted building projection into the Pearson Way public road setback from 1 m up to 2.5 m for proposed Tower F and G balconies.
2. That a Heritage Alteration Permit (HA 18-840992) be issued to permit construction of an elevated public walkway and installation of heritage interpretative panels at 6900 River Road.
3. That an Environmentally Sensitive Area Development Permit (ESA DP 18-840993) be issued to permit construction of a public walkway and to introduce ecological enhancements at 6900 River Road and portions of 6899 Pearson Way and 6811 Pearson Way.


Wayne Craig
Director of Development

WC:dn
Att.

Staff Report

Origin

Oval 8 Holdings Ltd. Inc. No. 0805724 (“Oval 8”) has applied to the City of Richmond for a series of permits, which are discussed in this report and include:

- A Development Permit (DP 18-816029) for permission to develop 3 residential towers, with approximately 459 units and below grade parking at 6811 Pearson Way (“Lot 17”).
- A Heritage Alteration Permit (HA 18-840992) to permit construction of an elevated public walkway at 6900 River Road (“Lot 14”) and to install historical interpretation signage.
- An Environmentally Sensitive Area Development Permit (ESA DP 18-840993) to permit construction of an elevated public walkway at 6900 River Road (“Lot 14”) and to introduce ecological enhancements at Lot 14 and 6811 Pearson Way (“Lot 17”).

Attachment 1 includes a summary of the subject lot locations.

The subject site was included in a larger rezoning application (RZ 09-460962) and associated Servicing Agreements (SA) which required the applicant to:

- Dedicate, design and construct upgrades to introduce final road conditions and interim sidewalks across the subject sites’ street frontages at Pearson Way and River Road. Works also included storm sewer and sanitary system upgrades, and related works (i.e. various traffic signals, frontage and pedestrian enhancements, and related features). (SA11-564833).
- Design and construct interim dike road access and a temporary perimeter swale (SA 13-633918).

Additional notable requirements of the rezoning application included:

- Registration of a “No Development” covenant (CA5349574) that requires the owner of Lot 17 to obtain a Heritage Alteration Permit (HAP) and Environmentally Sensitive Area Development Permit (ESA DP) for Lot 14 as a condition of a permit being issued for Lot 17. The “No Development” covenant includes additional terms that are discussed in a subsequent section of this report.
- Registration of a Public Open Space Area statutory right of way that both secured a temporary 920 m² (0.23 acres) public open space on the adjacent western property, 6633 Pearson Way (“Lot 9”) and the obligation to design and construct the permanent Public Open Space Area, which includes no less than 4,325 m² (1 acre) of area at Lot 17.

Development Information

Attachment 1 includes a series of location maps that identify the location of the separate and related development applications that are discussed in this report (i.e. DP 18-816029, ESA DP 18-840993, HA 18-840992). Please refer to the attached Development Application Data Sheet (Attachment 2) for a comparison of the proposed development data with the relevant Bylaw requirements.

Background

“River Green” Development Background

The subject properties are part of the “River Green” development, which includes approximately 11 hectares (27 acres) of riverfront property in the City Centre’s Oval Village. The River Green development extends between the No. 2 Road Bridge and Gilbert Road and is bisected by the Richmond Olympic Oval. It is a multi-phased, high rise, high-density, mixed use development that includes new streets, parks and open spaces, and related public amenities.

DP 18-816029 (Lot 17)

The proposed redevelopment of Lot 17 is the final phase of residential redevelopment proposed by the applicant within the portion of the River Green development that is east of Hollybridge Way (i.e. between the Richmond Olympic Oval and Gilbert Road). The proposal to develop Lot 17 (DP 18-816029) includes:

- Three residential towers (G, H and F) that would introduce approximately 459 residential units and below grade parking.
- Common outdoor amenity space (7,125 m² [76,690 ft²]) and indoor amenity space (1,820 m² [19,590 ft²]) would be secured for use by all residents in the development.
- Delivery of the applicant’s obligation to design and construct, at the developer’s sole cost, at least 4,325 m² (1 acre) and 920 m² (0.23 acres) of Public Open Space Area at Lot 17 and Lot 9 respectively.

Heritage Alteration Permit (HA 18-840992)

Lot 14 is a designated heritage property under Heritage Designation Bylaw No. 5572 -1990, Amendment Bylaw 8794 (6900 River Road). The narrow, L-shaped property is a remnant of the original larger Brighthouse Homestead. Samuel Brighthouse was one of Richmond’s early pioneers and the site’s primary heritage value is its historical association with Samuel Brighthouse. There is no building or structure on the site but some trees that were planted by Samuel Brighthouse or his descendants remain on the site and are historically significant.

Environmentally Sensitive Area DP (ESA DP 18-840993)

The Official Community Plan (OCP) designates all of Lot 14, as well as portions of Lot 13, Lot 17 and the Gilbert Road right of way as a contiguous Environmentally Sensitive Area (ESA) Development Permit area. In December 2011, Council issued ESA DP 11-593370, which permitted pre-construction activities (i.e. site clearing, preloading, dewatering containment) within the ESA identified on Lots 17 and 13, and secured commitments to compensate for disturbance of valued ecosystem components. Servicing Agreement SA 11-564833 (completed in March, 2016) also permitted encroachment into the ESA from the east and the south in order to permit road works and the construction of connecting platforms for the future elevated public walkways. Compensation was provided within the remaining natural areas within the Gilbert Road right of way.

The proposed ESA DP 18-840993 provides an approach for protecting, compensating and minimizing the impacts of development on the remaining valued ecosystem components within the ESA, to provide a net gain in ESA area and function.

Riparian Area Regulation (RAR)/Riparian Management Area (RMA)

The City of Richmond applies a Richmond specific riparian management approach to meet the provincial Riparian Areas Regulation (RAR). The City identifies watercourses where the RAR applies and establishes Riparian Management Areas (RMA). The Department of Fisheries and Oceans (DFO) was consulted during the rezoning process. It was determined that although the Gilbert Road watercourse, which parallels the eastern edge of Lot 14, is a fragmented drainage watercourse that is uninhabited by fish, it does provide food and nutrients to downstream fish habitat. The watercourse was designated a 15 m RMA (measured horizontally from top of bank) with acknowledgement that area within the 15 m RMA had already been impacted by development. A conservation strategy was established to mitigate impacts to the RMA using best management practices that include habitat off-sets to ensure no net loss of habitat (quality and/or quantity).

Applications for a HAP and ESA DP are consistent with the terms of the No Development covenant that is registered on both Lot 17 and 13 (i.e. residential development at Lot 17 and future development of a child care facility at Lot 13 is conditional to issuance of an ESA DP and HAP). The proposed ESA DP and HA permit would:

- Introduce “Gilbert Greenway”, which is a north/south public pedestrian walkway that would provide a direct connection between River Road and the waterfront. The pathway would include an elevated public walkway at Lot 14 that connects to a public walkway constructed on the parking structure at Lot 17. Five interpretive panels would be installed along Gilbert Greenway to commemorate the historical significance of the original Brighthouse Homestead. Gilbert Greenway is part of the Council supported River Green Village Parks and Open Space Plan.
- Introduce ecological enhancements at Lot 14 and 17 to compensate for encroachments into the ESA. The proposed Habitat Restoration Plan proposes a modified natural successional approach which includes removing invasive plant species, dense re-planting of native understory species and a mix of native and suitable non-native tree species in keeping with the heritage values associated with Lot 14.

Site and Surrounding Development

The subject applications consider three adjoining properties that are located in the Oval Village in the City Centre Area Plan (CCAP). The properties are located east of Hollybridge Way and are in an area defined by Pearson Way, River Road, Gilbert Road and the waterfront (Attachment 1).

Lot 17 and Lot 13 are zoned “High Rise Apartment and Olympic Oval (ZMU4) – Oval Village (City Centre)” and designated “Urban Centre T5 (45m)” and “Village Centre Bonus” in the Oval Village Specific Land Use Map. Lot 14 is owned by the City and is zoned “School and Institutional Use (SI)” and designated “Park” in the Oval Village Specific Land Use Map (Attachment 3). There is no rezoning application associated with the subject proposal.

There are currently no residential uses on the subject properties. Lot 17 was previously developed as an office building, which required a Development Variance Permit (DV 89-367) to

permit the proposed building height. The DV permit would be discharged from title of the property as a consideration of DP issuance.

Development surrounding the subject properties is as follows:

To the north, dike, future Waterfront Park and the Middle Arm of the Fraser River. The crest of the existing dike would be raised to 4.7 m geodetic, including transition to retain existing grade at Dinsmore Bridge. Extension of the Waterfront Park would be designed and constructed through an SA as a condition of Building Permit issuance. The area is zoned “High Rise Apartment and Olympic Oval (ZMU4) – Oval Village (City Centre)” and designated “Park” in the oval Village in the City Centre Area Plan (CCAP).

To the east, Gilbert Road approach to the Dinsmore Bridge. Beyond the bridge, existing light industrial lands that are zoned “Industrial Business Park (IB1)” and designated “Park” in the Aberdeen Village in the CCAP.

To the south, Pearson Way, a new residential development including two high rise and one low rise building at 6699/6655 River Road, 6622/88 Pearson Way (“2 River Green”) that is currently under construction (DP 16-743848); River Road and a constructed mixed use high-rise development at 6911 Pearson Way (“River Park Place”, DP 12-617639). The properties are zoned “High Rise Apartment and Olympic Oval (ZMU4) – Oval Village (City Centre)” and “Residential/Limited Commercial (RCL3)” respectively and are designated “Urban Centre T5 (45 m) and (25m)” and “Village Centre Bonus (VCB)” in the Oval Village in the CCAP.

To the west, a residential development that includes two high rise towers at 6611/6633 Pearson Way (“2 River Green”) has been constructed (DP 11-587954). The property is zoned “High Rise Apartment and Olympic Oval (ZMU4) – Oval Village (City Centre)” and is designated “Village Centre Bonus (VCB)” in the Oval Village in the CCAP.

Rezoning and Public Hearing Results

The subject site was included in a comprehensive rezoning application (RZ 09-460962) for the “River Green” development area east of Hollybridge Way (adopted October 24, 2011). A subsequent zoning text amendment application (ZT 12-610289) that proposed a voluntary Affordable Housing (AH) Value Transfer cash in lieu contribution of \$6.79 million to the City’s Capital AH Reserve Fund was adopted by Council (September 23, 2013). Proposed changes to the approved subdivision plan required an associated zoning text amendment (ZT 15-695231), which was adopted by Council on July 25, 2016. There were no written submissions or submissions from the floor and no concerns about the proposed zoning text amendment were expressed at the Public Hearing.

Staff Comments

The proposed development scheme attached to this report generally complies with the provisions of the existing zoning and the urban design form and character objectives of the Official Community Plan (OCP) and the City Centre Area Plan (CCAP) and associated Development Permit Guidelines except for the zoning variances noted below.

Zoning Compliance/Variances (staff comments in **bold**)

The applicant requests to vary the provisions of Richmond Zoning Bylaw 8500 to:

- 1) Waive the requirement for on-site large size loading spaces.

(Transportation staff support the proposed variance based on the operating characteristics of the site. The site would simultaneously accommodate up to three medium size loading vehicles and parcel and courier deliveries would use the auto-court and on-site concierge service. The applicant has provided a statement certifying that occupied phases of River Green are rarely serviced by a large size truck (WB-17) during move-in/out and/or delivery.)

- 2) Increase the maximum permitted building projection into the Pearson Way public road setback from 1 m up to 2.5 m for proposed Tower F and G balconies.

(Staff support the proposed variance as the proposed projections are limited to balconies on the south elevation of proposed Tower G and west elevation of proposed Tower F. The proposed variance would apply to balconies at and above the third building storey and would not interfere with public pedestrian circulation or vehicle sightlines. The proposed projections would articulate the building façade and maximize the functional width of the proposed balconies.)

Established Phased Delivery of Public Amenities

During the rezoning process, legal agreements were registered on title to establish a strategy to facilitate the phased delivery of public amenities associated with developing “River Green” east of Hollybridge Way, which includes development of the subject sites. Supplementary to the rezoning and associated text amendment reports, the River Green Village Parks and Open Space Plan, which was presented to the Parks, Recreation and Cultural Services Committee and endorsed by Council on February 12, 2013, summarized a variety of public open space areas that are being implemented on a lot by lot basis through incremental Development Permit applications, including the subject applications.

Waterfront Park and Dike Construction

A conceptual design for the Waterfront Park and Dike from Hollybridge Way to the Dinsmore Bridge was established during the rezoning review process. The dike works include raising the height of the dike from 3.3 m to 4.7 m geodetic, as well as a required transition to existing elevation at the Dinsmore Bridge. The Waterfront Park includes separate pathways for pedestrians and cyclists set at the crest of the dike, illumination, and enhanced native planting within the foreshore. The Waterfront Park and dike improvement obligations are secured by a legal agreement registered on title of the lot and the applicant would be required to enter into SA agreements for final design and construction as a condition of Building Permit (BP) issuance.

Gilbert Greenway

Gilbert Greenway, a north/south public pedestrian walkway that would provide a direct connection between River Road and the waterfront, would include an elevated public walkway at Lot 14 that connects to a public walkway constructed on the parking structure at Lot 17. Both

sections of Gilbert Greenway are required to enter into SA agreements for final design and construction as a condition of Building Permit (BP) issuance as outlined in Attachment 15.

Public Open Space Area

In accordance with registered legal agreements, the developer constructed a temporary 920 m² (9,902 ft²) Public Open Space Area along the eastern edge of Lot 9 at the time the property was developed. The temporary park has since been removed to facilitate pre-construction activity and future construction at Lot 17 in accordance with the terms of the registered agreement. As a consideration of DP issuance, the developer would discharge the covenant (CA5349576) that is associated with temporary public space at Lot 9.

The developer is obligated to design and construct, at the developer's sole cost, the permanent Public Open Space Area, which includes the eastern portion of Lot 9 and at least 4,325 m² (1 acre) of Public Open Space Area at Lot 17 (Attachment 4). The developer would be required to enter into a SA agreement for final design and construction as a condition of BP issuance. The Public Open Space Area is conceptually shown in the attached plans and includes:

- A large public open space on a western portion of Lot 17 that would be seamlessly connected to the Public Open Space Area located on an eastern portion of Lot 9. The space would be programmed to include both active play and passive uses. The space would include approximately 624 m² (6,716 ft²) of programmed children's play area, an open lawn area for recreation and sports, planting that references the river landscape, a contemporary orchard with historical references, and public pathways.
- An approximately 4 m wide area along the northern edge of Lot 17 that facilitates transition between the private outdoor amenity area and the public waterfront. The area would be planted with native vegetation and would support the City's emerging Ecological Network Management Strategy.
- The northern portion of Gilbert Greenway. An approximately 3.6 m wide public pedestrian pathway is proposed on the top of the parking structure along the eastern edge of Lot 17 abutting Lot 14. The exposed parkade elevation would be screened with vegetation to visually extend the adjacent Environmentally Sensitive Area (ESA) and heritage corridor. The public pathway would seamlessly connect to the southern portion of the pathway that is proposed as an elevated public walkway at Lot 14 to provide a direct connection between River Road and the dike pathway.
- An approximately 3 m wide pedestrian pathway located along the southern edge of the drive court (between Towers G/H and Tower F) that provides an east/west connection through the site and a connection between Gilbert Greenway and Pearson Way, which is consistent with CCAP objectives to maximize pedestrian permeability within this neighbourhood.

Public Art

The developer's public art obligations for the River Green development were established by the Public Art Plan that is embedded in the No Development Covenant and registered on title. As a condition of DP issuance, the applicant would provide a voluntary contribution towards the provision of on-site public art (\$211,000.00). The Richmond Public Art Advisory Committee (RPAAC) considered and supported the applicant's proposal to introduce public art at the south west corner of Lot 17 within the Public Open Space Area on October 16, 2018.

The registered plan also identifies the entrance to Gilbert Greenway at Lot 14 as a preferred location for public art. As a consideration of the associated HA permit, and in accordance with the covenant that is registered on title, the applicant would provide a public art contribution for Lot 14, as well as a contribution toward public art that supports the heritage value of the site (\$41,000.00 + \$42,000.00) in accordance with the established public art selection process (i.e. a separate report to Council).

Child Care

The developer is required to construct a minimum 464.5 m² (5,000 ft²) turnkey child care facility and related outdoor areas at Lot 13 and to transfer the facility and the land to the City, at no cost to the City, prior to occupancy of any residential unit at Lot 17. A concept plan for a single storey building with underground parking and an outdoor play area is attached (Attachment 5).

On July 23, 2018, Council considered and supported the applicant's request to modify the existing legal agreement to allow permits for Lot 17 to be issued in advance of those required for the child care facility. Occupancy of the proposed residential units at Lot 17 remains tied to delivery of the child care facility. As additional security, the developer has provided a Letter of Credit (LOC) for \$4.75 million to ensure timely delivery of the building.

Advisory Design Panel Comments

The Advisory Design Panel (ADP) reviewed the proposal to redevelop Lot 17 on January 8, 2019. The Panel was supportive of the proposed form and character subject to the applicant giving further consideration to the Panel's comments. The applicant's response to the Panel's comments includes design development to:

- The ground level treatment of Tower G to increase visual permeability of the ground level uses to pedestrians.
- Screen mechanical equipment that is located within the common outdoor amenity area.
- Encourage public access and use of the Public Open Space Area.
- The southern edge of Building F to soften the interface with the future child care facility at Lot 13.

A copy of the relevant excerpt from the ADP Minutes from January 8, 2019 is attached for reference (Attachment 6). The design response from the applicant has been included immediately following the specific comments from members of the ADP and is identified in '**bold italics**'.

Richmond Heritage Commission

The development proposal was presented to the Richmond Heritage Commission (RHC) on January 24, 2019. The Heritage Commission supported the proposal to construct an elevated public walkway at Lot 14 and the removal of 16 heritage trees. The Commission agreed that the proposed interpretive panels capture the overall history of the site and the area. The proposed HAP incorporates responses to comments from the Heritage Commission including reducing the

length of the text on the historical interpretive signage. A copy of the relevant excerpt from the RHC Minutes from January 24, 2019 is attached for reference (Attachment 7).

Analysis

The proposed development is characterized by its riverfront location, connected public open spaces, environmental and heritage preservation and enhancement features, below grade parking, and the terraced tower massing of Towers G and H. The subject development proposal is consistent with OCP, CCAP and Zoning Bylaw intentions.

Analysis: Development Permit for Lot 17 (DP 18-816029)

The proposal is a single phase development and no air space parcels are proposed.

Conditions of Adjacency

The proposed development of Lot 17 would have minimal impacts on existing and future surrounding development as follows:

- The distance between on-site towers and between on and off-site towers is greater than 24 m, which is consistent with CCAP design guidelines.
- Consistent with CCAP design guideline objectives, varying building setbacks are proposed for Tower G and H. Tower G is uniquely sited at an angle, which would:
 - Minimize overlook impacts on both Tower H residents and residents in the adjacent “2 River Green” development at Lot 9.
 - Maintain a view corridor to the river for the future residents of the “River Green 3” development, which is currently under construction southwest of the subject site at 6699 River Road (“Lot 12”).
 - Maximize the width of the Pearson Way access to the Public Open Space Area and establish an inviting gateway to the Public Open Space Area.
 - Minimize building shadow impacts on the Public Open Space Area and future children’s play area.
- Proposed Tower F would be separated from a future single storey child care facility by a 7.5 m wide right of way that would provide access to the future child care facility and would be used by collection and delivery vehicles accessing Lot 17(Attachment 15/Sketch A). To maximize pedestrian comfort in this space, the applicant proposes vertical stone pillars along this façade to add texture to the wall at ground level, downcast lighting that would be integrated into the building’s design, and a pattern of natural and charcoal colored concrete for the drive aisle.
- The proposed development would be required to register a covenant on title prior to DP issuance that notifies residents that they may be affected by on-site, as well as off-site impacts that are typical in high density, mixed-use neighbourhoods (e.g. loss of view, shading, overlook, privacy, ambient noise and nighttime ambient light, etc.).

Urban Design and Site Planning

Public Realm – Public Open Space Area and Street Frontage: Consistent with the CCAP’s objective to create a destination Waterfront Park and to enhance public access to the waterfront by securing public open space on private property in locations where it supports an integrated

open space system, the obligation to provide a minimum of 5,245 m² (1.3 acres) of Public Open Space Area at Lots 9 and 17 that was secured through the associated rezoning would be constructed.

- Adjacencies to the Public Open Space Area include the following:
 - Two storey residential townhouse units and common amenity spaces with supplementary private outdoor space, defined entrances and a slightly raised private patio elevation (0.5 m) are proposed next to the Public Open Space Area on the western portion of Lot 17.
 - Private residences with slightly raised private patios (0.5 m) and a landscaped planter are proposed adjacent to the northern portion of the Gilbert Greenway (an approximately 3.6 m wide public pathway that is proposed on the parking structure). The public pathway would overlook the adjacent ESA area where enhancement works are proposed.
 - To establish pedestrians as the priority over vehicles within the auto-court area, an intermittent fountain, horizontal bands of stone paving (black, salt and pepper and light grey granite) and landscaping that visually and physically narrows the entry to the auto-court are proposed.
- Although Lot 17 is large, it has limited street frontage. The narrowest building elevations are oriented toward the street frontage and the applicant proposes to animate the buildings' limited street frontages with common outdoor amenity space uses at ground level that incorporate vision glass and patio spaces. The design of proposed Tower F would manage a limited area of exposed parking structure by increasing the setback and treating the area with high quality materials and finishing details.
- The proposed development must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204. A flood indemnity covenant was registered on title prior to adoption of the rezoning bylaw.
- A BC Hydro Vista box is not required to service the site. The applicant has provided correspondence from BC Hydro that advises only a junction box would be required to provide hydro service to the site. The box would be installed flush with grade within the boulevard in a location that is determined through the SA process.

Vehicle and Truck Access: The site's limited road frontage and extensive perimeter Public Open Space Area informed the overall site and functional planning.

- Resident and visitor parking would be provided within two levels of mainly below grade parking that would be accessed via the proposed auto-court.
- Waste collection and delivery vehicles would access the site via a proposed drive aisle along the southern property line. The drive aisle would also provide access to the future child care facility at Lot 13 and accommodate its independent waste collection and loading requirements, which has been reviewed and is supported by Transportation staff. As a result, the total buildable area at Lot 13 would be increased. The developer would be required to register a right of way agreement to secure public use of the drive aisle as a condition of DP issuance.
- Fire access has been reviewed by Fire staff and the applicant has confirmed that the proposed auto-court facilitates truck access and turn around to service Towers G and H. The developer has confirmed that the design and construction of the auto-court, including the proposed water feature, would support the weight of a fire truck. Tower F would be accessed from Pearson Way.

- Three on-site medium size (SU-9) loading spaces are provided. The developer has demonstrated to staff's satisfaction that collection and delivery trucks can turn around on-site.

Parking and Waste Collection: The proposed vehicle, bicycle and truck parking is consistent with the site specific bylaw (ZMU4).

- Proposed residential vehicle parking slightly exceeds the bylaw requirement and the proposal complies with bylaw requirements for visitor parking. Eleven tandem parking stalls are proposed and as a consideration of DP issuance, the applicant would be required to register an agreement on title that requires tandem parking to be assigned to a single unit.
- Residential bicycle storage is located in secure rooms within the parkade within close proximity of building elevators. Short term bicycle parking is provided in visually prominent locations (i.e. lobby entrances, auto-court perimeter, adjacent to Public Open Space Area).
- There are three designated waste storage areas within the upper parking level. The collection space proposed in Tower F would accommodate Tower F residents and also provide short-term waste storage and a pickup area for the overall development.

TDM Measures: Although the development proposal meets on-site parking requirements, on-site Transportation Demand Management (TDM) amenities are proposed. Three bike maintenance and repair areas are proposed and residents would have access to the River Green concierge shuttle service that provides transportation to local destinations.

To ensure that the required vehicle and bicycle parking and associated amenities are available and accessible at all times, the developer would be required to register agreements as a consideration of DP issuance that prohibit conversion of bicycle parking and repair/maintenance areas, and prohibit conversion or assignment of visitor parking.

Wayfinding: As part of the required Servicing Agreement for Gilbert Greenway and the Public Open Space Area, Parks staff would oversee the design and installation of a signage strategy that is consistent with the City's Parks wayfinding standards. Signage would be installed in key locations as shown in Attachment 8 (i.e. at each entry to Gilbert Greenway and at both entries to the east/west pedestrian connection that bisects the residential development).

Common Indoor Amenity Space: A total of 1,820 m² (19,590 ft²) of indoor amenity space is proposed, which meets CCAP guidelines. The common indoor amenity space is distributed between the buildings and includes two low-rise buildings that are linking architecture between the proposed residential towers. An agreement would be registered on title to secure equal access to the amenities (indoor half basketball court, indoor pool, fitness centre, party and study rooms, play room, music room, etc.) and associated outdoor patio areas for all residents.

Architectural Form and Character

Massing:

- The proposed development scheme is characterized by the absence of an above ground parking podium, tower floor plates that continue to ground level, and terraced building massing above the eighth storey for Towers G and H.

- While the building floorplates are generally larger in this neighbourhood, the development scheme proposes varying floorplate shapes and terraced building massing for proposed Tower G and H, which is consistent with CCAP objectives to support distinctive building forms.
- The Vancouver Airport Authority (VAA) has submitted an application to Transport Canada for new Airport Zoning Regulations (AZR) that affect CCAP supported building heights at Lot 17. The building heights proposed by the developer at Lot 17 would not meet the height restrictions imposed by the new AZR but would comply with proposed special height provisions that would maintain safety criteria as determined by the VAA. The VAA has confirmed that the proposed building heights are consistent with the proposed special provisions, which are subject to approval by Transport Canada (Attachment 9). These provisions affect building heights on the northeastern portion of the site and have shaped the terraced building massing that is proposed for Tower G and H. Proposed Tower H is most impacted by the proposed new flight approach slope, which is reflected in its distinctive, dynamically terraced building form. Proposed Tower F is a rectangular tower form and is not affected by the VAA's application.
- The towers are connected by low rise indoor amenity and common areas. The linking architecture between proposed Tower F and H would be constructed on columns and elevated above ground level to facilitate pedestrian connectivity and use below.
- The elevated building corridor between proposed Tower F and the amenity building, as well as limited balcony encroachments and architectural building elements (i.e. fin walls) are proposed to encroach into the east/west pedestrian pathway that is part of the Public Open Space Area and provides a connection between Gilbert Greenway and Pearson Way. The attached Development Permit Considerations include proposed modification to the Public Open Space Area covenant to permit the building encroachments (Attachment 15).

Building Articulation

- Articulation of the development's horizontal expression would include different combinations of balcony sizes and shapes, large patios at terraced building storeys and the use of varied cladding materials in muted hues including stone cladding (light and dark grey), spandrel and metal panels (grey), metal cladding (white, silver), architectural painted concrete (hues of grey and white), louvers (grey hues), and tempered glass guardrails. Dark grey louvers would screen rooftop mechanical equipment and the rooftop elevator shaft.
- Exposed columns, double height spaces and cantilevered building elements would create interesting spaces at ground level.
- The applicant proposes cantilevered building frame elements, exposed structural vertical columns and associated building recesses, and projecting vertical building fins to enhance visual interest of the building elevations.
- Proposed varying roof forms, which includes rooftop balcony skylights and glass awning, in addition to terraced building forms and parapets, would enhance the skyline in both plan and elevation view.
- Color and materials would be used to differentiate between the towers including:
 - Creating the impression of taller, slimmer towers by:
 - Using vertical bands of stone cladding, in combination with spandrel panels, at narrow building elevations (proposed Towers G and H).

- Wrapping building corners with stone cladding (Tower G).
- Applying vertical stone cladding to highlight breaks in building massing along long building elevations (Tower H).
- Identifying townhouse unit entries with vertical dark grey stone cladding bands.
- Adding depth and texture with exposed structural columns.
- Cladding limited areas of exposed parking with stone (Tower F).

Landscape and Open Space Design

Residential Open Space

- The common residential outdoor amenity space, which is in addition to the Public Open Space Area, would be located at ground level and at a series of patios associated with common indoor amenity areas. The ground level common residential outdoor amenity spaces are designed as passive spaces with a contemporary riverfront theme that would visually extend the waterfront experience into the development and would be characterized by paver patterns, water pools, wood decks, trellis structures, boulders, and benches integrated into planters. A zen/tai chi garden on the rooftop of a proposed half basketball court would feature a shore pine and Japanese maples along the perimeter of the patio.
- The applicant proposes to landscape the northern portion of the site that abuts the future Waterfront Park with native trees, shrubs and groundcovers (vine maple, shore pine, hardhack, red stem dogwood, salal, dull Oregon grape, baldhip rose, red elderberry, red huckleberry), which is consistent with environmental objectives for this site.
- Sedum green roofs are proposed for both low-rise indoor amenity buildings and the rooftops would be irrigated.
- Individual patio depths range between approximately 2 m to 18.5 m and private patio landscaping would be required to comply with YVR's application for new aeronautical zoning.
- As a consideration of Development Permit issuance, the developer would provide a Letter of Credit for \$2,403,302.00 for landscaping on Lot 17 that excludes costs associated with the Public Open Space Areas on Lot 17, which will be part of a separate Servicing Agreement (SA).

Public Open Space Area: Conceptual plans for the Public Open Space Area, which would be subject to a separate SA, are included in the attached plans. The SA is a consideration of Building Permit issuance and would include design and construction details.

Tree Replacement (Lot 17)

A survey submitted by the applicant confirms that there are no existing bylaw trees on the site. No tree protection is required for Lot 17. In accordance with terms established by ESA DP 11-593370, which facilitated pre-construction works at Lot 17 and Lot 14, 162 replacement trees, including 56 specimen trees, are required to be planted (i.e. 3 to 1 replacement ratio and 1 in 3 specimen trees). The proposed landscape plan includes 155 trees on the subject site, including 46 trees that are larger trees (i.e. 8 cm calipers). Ten additional specimen trees would be planted within the boulevard and selected through the standard SA process. In accordance with rezoning terms, some of the replacement trees will be located off-site on adjacent developments as summarized below.

Table 2: Pre-construction ESA (Lot 17 & 14) Tree Replacement & Lot 17 Landscaping Summary

	#non-specimen trees	# specimen trees	TOTAL
Lot 17 Total	109	46	155
Lot 9 (including Public Open Space Area)	10	0	10
Lot 12	30	0	30
Total	149	46	195

Note: 10 additional specimen trees would be planted within the Lot 17 boulevard along Pearson Way as a condition of the required SA, which is part of a larger compensation strategy for the removal of trees on City property, as established by the Heritage/Environmental Conservation Plan (December 2011).

Sustainability

BC Energy Step Code: The subject application complies with grandfathering provisions including in the amended Building Regulation Bylaw (Bylaw 9769) and the developer is electing to proceed in accordance with the energy efficiency requirements that applied prior to the adoption of the bylaw amendments. In order to achieve this, the applicant must submit a Building Permit application to the City before December 31, 2019 or be subject to the Energy Step Code requirements.

District Energy Utility (DEU): The subject site is located within the Oval Village District Energy Utility service area. The development would connect to and be serviced by the District Energy Utility (DEU). As a condition of DP issuance, the applicant would register a legal agreement on title regarding the developer's commitment to connect to the Oval Village District Energy Utility, including the operation of and use of the DEU and all associated obligations and agreements as determined by the Director of Engineering.

LEED: The subject application will target LEED (version 4) silver equivalency. A preliminary equivalency scorecard was prepared by the applicant and is attached to this report (Attachment 10).

Electric Vehicle (EV) Charging Infrastructure

The applicant proposes to provide an energized outlet (Level 2 receptacle) for every residential parking stall. The applicant intends to install an EV Management System to control the electrical demand for the EV charging to ensure minimum charging levels are achieved over an eight hour overnight period. The development would also provide charging infrastructure in the secured bicycle storage areas (1 receptacle for every 10 lockers).

Livability

Accessibility: All of the proposed units would incorporate aging in place features to accommodate mobility constraints associated with aging. These features include lever-type handles for plumbing fixtures and door handles, and solid blocking in washroom walls to facilitate future grab bar installation beside toilets, bathtubs and showers. Barrier-free access and/or accessibility provisions (i.e. wheelchair platform lift) are provided to facilitate access to building lobbies and to indoor and outdoor amenity spaces throughout the building.

Basic Universal Housing (BUH): The proposal includes 51 units that would be constructed to be fully accessible in accordance with the Basic Universal Housing (BUH) features outlined in Section 4.16 of the Zoning Bylaw. The Zoning Bylaw supports a density exclusion of 1.86 m² (20 ft²) per BUH unit, which the developer proposes to apply.

Noise Mitigation: Noise related covenants were registered on title at the time the site was rezoned, including a Mixed Use Airport Noise Covenant, Industrial Noise Covenant and a Residential Airport Noise Covenant. The applicant has provided an acoustical and mechanical thermal report, prepared by a qualified professional, that demonstrates compliance with Aircraft Noise Sensitive Development (ANSND) policy for internal noise and thermal comfort.

Crime Prevention Through Environmental Design (CPTED): The applicant has provided a summary of feature CPTED measures which focus on:

- Encouraging passive surveillance through design (i.e. activating public spaces, avoiding sudden changes in grade and/or reducing sightlines, clear glazing at entrances and ground level amenity spaces); and
- Creating well defined spaces (i.e. designing with wayfinding in mind including distinguishing between public, semi-private and private spaces, and signage and lighting strategies) (Attachment 11).

To minimize impacts on the natural environment at Lot 14 and to ensure public safety, the southern portion of Gilbert Greenway, which would be located at Lot 14, is proposed as an elevated public walkway. The Environmental Impact Assessment (EIA) suggests measures to minimize risks and nuisance such as unsanctioned paths and litter (i.e. elevated walkway with railings, perimeter fencing where appropriate, barrier planting, and illumination). In addition, a five year monitoring program would be established and would assess whether additional measures maybe be implemented in the future.

Site Servicing and Frontage Improvements (Existing Legal Encumbrances)

All off-site Engineering, Transportation, and Parks requirements for the “River Green” development were identified and secured through the original rezoning (RZ 09-460962). Legal agreements are registered on title that require necessary improvements to be designed and constructed, at the developer’s cost, on a phase by phase basis using the City’s standard Servicing Agreement and/or Development Permit process.

Modifications to schedules in the registered “No Development” covenant that relate to the timing of the SAs associated with the development proposal are proposed to specify that the required SAs are a consideration of Building Permit issuance. These modifications are included in the attached Development Permit Considerations (Attachment 15).

Analysis: Heritage Alteration Permit (HA 18-840992)

Boardwalk

A portion of the Gilbert Greenway located on Lot 14 will be an elevated boardwalk. The proposed boardwalk alignment has been chosen to minimize environmental disturbance and any

negative impacts on the heritage value of the site, particularly heritage trees. The proposed boardwalk material is steel grate to allow light and water penetration and prevent slipping. A wire panel guard is proposed with wood top tiling. The existing (historic) site grades will remain unchanged and the elevated boardwalk on Lot 14 will connect to the greenway proposed on Lot 17.

Heritage Trees

The heritage value of Lot 14 mainly lies in the unique collection of heritage trees planted by Samuel Brighthouse and continued by his descendants. The Statement of Significance for the site and the trees is attached (Attachment 12). The Arborist Report submitted for the Heritage Alteration Permit (HAP) application identifies a total of 150 trees on the subject site and in vicinity. Out of 150 trees, 45 trees that are approximately 60 to 100 years old are considered heritage trees that are believed to be planted by Samuel Brighthouse or his descendants. Based on the assessment, the Arborist identified the following seven heritage tree species: American Elm, English Oak, Green Ash, Horse Chestnut, Little-leaved Linden, Lombardy Poplar and Scots Pine.

A total of 16 of the heritage trees, including one tree that has failed and been converted to a wildlife stem, are deemed hazardous and are proposed to be removed (1 tree) or converted into wildlife stems (15 trees). In order to compensate for the loss of the heritage trees, the applicant would provide 48 replacement trees (5cm to 7cm caliper) at a 3:1 ratio. The species of the replacement trees reflect the heritage species, and the locations respect the existing patterns of the tree planting. The heritage tree management plan is summarized in Attachment 13. Twenty nine heritage trees would be retained and protected.

Heritage Interpretation

To commemorate the overall site history, five interpretive panels would be installed on top of the wood railing along the proposed boardwalk to capture the historical themes and cultural significance of the site. The proposed topics of the panels are:

- Evolution of the Middle Arm and the Brighthouse Estate
- Remnants of the Brighthouse Cultural Landscape - the Woodlot
- Historic Windrow and Ditch and their Ecological Function
- Historic Sloughs Replacement by Dikes and Ditches
- Brighthouse Estate and its Dikes and Ditches

The plans attached to the proposed HAP identify the proposed locations and design details of the panels. The locations of the panels have been proposed to interpret what the public can see from the boardwalk.

As a consideration of HAP issuance, the applicant is required to:

1. Enter into a legal agreement regarding the following:
 - Submission of a letter of credit in the amount of \$93,600 (\$1,950/tree) for 48 heritage replacement trees and its terms and conditions and release schedule.

- Submission of a letter of credit in the amount of \$42,500 to ensure that the heritage interpretation panels are installed in accordance with the plans and maintained for five year and its terms and conditions and release schedule.

The landscape LOCs may be reduced to reflect the costs of landscape works secured through the SA.

2. Submission of a public art voluntary contribution of a total of \$83,000 (\$41,000 with additional \$42,000 for enhanced heritage interpretation) to the Public Art Program administration 7500-10-000-90337-0000 for a heritage-themed public art project near the south entrance to Gilbert Greenway.

Analysis: Environmentally Sensitive Area (ESA) (ESA DP 18-840933)

Environmentally Sensitive Area (ESA) Detailed Assessment

The proposed elevated public walkway extends through the City-owned lot at 6900 River Road, which is entirely designated as ESA. The ESA is classified as “Upland Forest” and extends off-site slightly to the east, south and west. The Gilbert Road watercourse is situated immediately east of Lot 14, and as a result, a 15 m Riparian Management Area overlaps over the majority of the Upland Forest ESA.

The contiguous “Upland Forest” ESA totals approximately 7,695 m² (82,828 ft²), and connects to the “Shoreline” ESA that encircles Lulu Island. Within this OCP designated area, the following has been historically removed:

- 276 m² (2,970 ft²) of ESA vegetation on Lot 17 was approved for removal through ESA DP 11-593370; and,
- 318 m² (3,422 ft²) mapped on Lot 13 was also subject to ESA DP 11-593370, however, at the time of application and issuance of that ESA DP, neither the ESA designation nor significant vegetation was present on the lot. Vegetation on Lot 13 currently consists primarily of invasive blackberry species with some tree canopy extending over the site from Lot 14. Removal of vegetation on Lot 13 is proposed to be compensated for at a ratio of greater than 1:1, as discussed below.

The resulting Upland Forest ESA area, based on existing conditions, is 7,101 m² (76,434 ft²) and is designated as a “site” in the Ecological Network Management Plan (See Plan #1 in the attached ESA DP).

Proposed Impacts to ESA

Impacts to the ESA and RMA will result from alignment of the elevated walkway from River Road to the south, through Lot 14, and connecting to Lot 17 to the west (ESA DP 18-840993 Plans 1-7). The installation of cast-in-place boardwalk footings with vertical support columns and steel grate boardwalk platforms would encroach into the ESA by 200 m² (2,152 ft²) as calculated in an environmental report submitted by PGL Environmental Consultants (PGL):

- 71 m² (764 ft²) for the area impacted by footings, calculated as 100% encroachment into the ESA due to complete and permanent impacts. Some footings are within the ESA/RMA overlap area; and
- 128 m² (1,377 ft²) for the surface area of the boardwalk platforms, calculated as 50% encroachment because vegetation can be maintained underneath the elevated boardwalk, and the steel grate material will allow light and water to penetrate to the understory. Some portions of the walkway are within the ESA/RMA overlap area.

Biophysical Inventory

In the environmental impact assessment submitted by PGL (completed in March 2019), the quality of vegetation within the subject ESA was found to vary between lots:

- On Lot 14, vegetation is heavily influenced, restricted and degraded by human activities and invasive species. Most species found on-site, including trees, are non-native species (approximately 95%). Some of the non-native trees have historical values dating back to the Brighthouse family. Small pockets of native species red alder, red elderberry and salmonberry were found on site.
- Within the Gilbert Road statutory right of way east of Lot 14, vegetation is limited to the area west of the Gilbert Road sidewalk and travel lane. The ESA below the road was restored through SA 11-564833 and is characterized by a dense plant community of young woody species with lesser amounts of young coniferous trees. A live-planted geobag wall provides a transition between the Gilbert Road sidewalk at a higher elevation, and the vegetated portion of the ESA/RMA to the west. The restoration area has completed year 5 of success monitoring and is considered by PGL to be healthy and functioning.
- On Lot 13, vegetation is almost entirely characterized by Himalayan blackberry. Significant vegetation was not found at the time of issuance of DP.
- Within Lot 17, all vegetation that previously existed has been removed as part of lot preparation activities approved through DP 11-593370.

No rare plants or species at risk were identified within any portion of the ESA.

Wildlife Survey

PGL completed two field visits (May and December 2018), and describes the ESA within the project area as a tertiary wildlife corridor that provides connectivity between the Fraser River foreshore and the woodlot. The corridor likely provides habitat and nesting opportunities for song birds. Several species of song bird were observed. Some trees may be large enough to support raptors; however, no raptors were observed. The tree canopy cover and understory also provide opportunities for wildlife foraging, nesting and cover, however, no mammals or amphibians were observed.

Tree Inventory

The arborist report submitted by Arbortech identified 150 trees within the ESA, including 72 Bylaw-sized trees and 78 undersized trees (Attachment 14). Forty one trees and 12 undersized trees are proposed for removal or conversion to wildlife stems (i.e. a tree that may be alive or dead that provides present and/or future wildlife habitat). This includes 16 heritage trees noted

in an earlier section of this report and 25 Bylaw sized trees as outlined below. A total of 57 large and 641 undersized trees are proposed as part of this application.

Of the trees proposed for removal, 25 bylaw-sized trees were assessed to be dead or dying and would represent hazards to the public.

- 22 Bylaw-sized trees are proposed to be wildlifed (tree tags #302, 303, 305, 307, 308, 313, 316, 317, 319, 328, 329, 330, 334, 340, 341, 342, 343, 344, 345, 375, 887, and 888) are in poor condition and would represent hazards to the public based on the proposed alignment of the walkway;
- 1 tree, tree tag #377, is dead and has previously been modified as a wildlife tree. No changes are proposed;
- 2 Bylaw-sized trees are proposed to be removed (tree tags #327 and 386).

12 additional undersized trees are proposed to be removed from the ESA:

- 1 tree (ST1APR) conflicts with the walkway;
- 8 trees within 3 stands (ST11A, ST2RP, #885) are invasive species (holly and black locust), and are proposed to be removed to support ESA objectives; and
- 3 trees within 1 stand (ST1TPD) are dead.

Mitigation

The location of the walkway and its footings have been intentionally sited to limit impacts to significant environmental features, including the watercourse, trees and their structural roots, and notable native plant populations. While the attached plans provide conceptual locations for all walkway footings, the ultimate locations would be field-fit with the assistance of a Qualified Environment Professional at the time of construction to ensure impacts to tree roots are minimized. The walkway is intentionally designed to be as straight as possible to limit the surface area impacted within the ESA. Low impact construction methods will be used to further limit impacts, including hand-construction, hand-digging and use of small machinery where possible.

Proposed Compensation and Landscape Restoration

The enhanced and protected ESA area is proposed to be expanded to include a portion of Lot 17, ensuring a net gain of 726 m² (7,814 ft²) in the total area of ESA post-development (from 7,101 m² (76,434 ft²) to 7,827 m² (84,249 ft²) as noted in Table 3).

To compensate for impacts, the ESA and RMA west of the Gilbert Road watercourse will be enhanced using a modified natural successional approach (note that the ESA and RMA east of the watercourse was enhanced through SA 11-564833 and are considered successful). The total area of ESA and RMA proposed to be enhanced is 3,523.5 m² (37,926 ft²) (see Table 3 below).

Table 3: Habitat Enhancement Balance Sheet

	ESA	RMA
ESA/RMA Enhanced West of Gilbert Road Watercourse	2,001 m ²	
ESA enhanced within non-RMA	1,043 m ²	

	ESA	RMA
ESA/RMA Enhanced Below Walkway and over parkade (calculated at 50%)	191 m ²	
ESA Created on Lot 17 over Parkade (calculated at 50%)	79.5 m ²	
RMA Enhanced on City Land		209 m ²
Total Habitat Restored	3,523.5 m² (37,926 ft²)	

The modified successional approach focuses on removal of invasive species and dense re-planting with native understory plants with a combination of native and suitable non-native tree species. The restoration plan would maintain connectivity to the Fraser River, enhance the natural environment, and improve biodiversity (See Plan #2, 3 in the attached ESA DP).

The proposed restoration area proposes a variety of native plant species suited to shaded, riparian environments. The planting list is refined into 8 zones, based on specific location and anticipated post-development sun exposure.

- Zone 1 – ESA/RMA along the edge of the Gilbert Road watercourse (~97 m²):
 - Low-growing aquatic plants and shrubs at ~ 3 plants/m².
- Zone 2 – ESA/RMA interface with Developed Lands(~231 m²):
 - Shrubs and small trees at ~ 4 plants/m².
- Zone 3 –ESA/RMA and ESA-only under the elevated walkway (~356 m²)
 - Groundcover and shrubs at ~ 3 plants/m².
- Zone 4 – Geobag wall within ESA/RMA, along Lot 17/Lot 14 property line (~ 90 m length, height ranging from 2.3 m to 3.4 m)
 - Shade tolerant ferns and shrubs at ~ 2-3 plants/geobag.
- Zone 5 – ESA/RMA forested riparian management area (~979 m²):
 - Native trees species with shade-tolerant shrubs and groundcover at ~ 3 plants/m².
- Zone 6 – Former Brighthouse Estate Woodlot, predominantly ESA/non-RMA (~405 m²):
 - Shrubs and groundcover at ~3 plants/m².
- Zone 7 – All areas within 5 m of replacement trees (~ 1,536 m²):
 - Shrubs and groundcover at 4 plants/m².
- Zone 8 – ESA created over parkade within RMA, on Lot 17 (~ 173 m²)
 - Shallow-rooted shrubs and groundcover at ~ 3 plants/m².

To compensate for removal of 16 heritage trees, the proposed restoration plan includes 48 6-8 cm caliper replacement trees (ratio of 3:1), as discussed above within the HAP description. To compensate for removal of non-heritage trees from the ESA, 6 Pacific dogwood trees and 3 vine maple trees (sized 6-8 cm) are proposed to be planted within the ESA as replacement trees. The

proposed restoration plan also includes 641 undersized trees (plugs, #1 and #2 pot size), which are expected to establish within the park better than larger, more mature trees (405 black hawthorn, 100 bitter cherry, 60 red alder, 51 Pacific dogwood, 15 Douglas-fir, and 10 grand fir). Due to site constraints and accessibility, replacement tree sizes may be reduced by the Parks Department based on the planting space available at the time of planting. Tree replacement would be provided at a ratio of 17:1.

In total, 57 larger sized trees (6-8 cm caliper) and 641 small sized trees will be planted in the ESA.

The result would be a total of 3,523.5 m² (37,926 ft²) of enhanced natural area within ESA and RMA, which represents a net gain in habitat function and ecosystem services by:

- Enhancing 3,314.5 m² (35,676 ft²) of ESA and 209 m² (2,249 ft²) of RMA;
- Supplementing the existing tree canopy cover with 698 new trees;
- Improving the density and diversity of native plant species with 12,606 native plants and shrubs; and
- Improving connectivity with the contiguous Shoreline ESA and the Ecological Network as a result of removing invasive species and enhancing the function of contiguous natural areas.

For details on the proposed compensation and landscape restoration, refer to ESA DP 18-840993, Plans #1 – 7.

Table 4: ESA Enhancement Summary

	Existing	Proposed			Change summary
ESA area	7,101 m ² (76, 445 ft ²)	7,827 m ² (84,249 ft ²)			Net gain: 726 m ² (7,803 ft ²) more ESA area
Tree inventory	72 Bylaw sized trees	Hazard: Remove 2	Hazard: Wildlife 23	Retain 47	3,523.5 m ² (37,926 ft ²) of enhanced natural area including 57 large trees and 641 undersized trees (plugs)
	78 undersized trees	Remove 12 (dead, invasive, conflict with walkway)			
	45 Heritage Trees	Hazard: Remove 1	Hazard: Wildlife 15	Retain 29	

Monitoring and Maintenance

To ensure that the proposed enhancements have the best chance of survival and that invasive species are controlled, monitoring, maintenance and annual reporting by a Qualified Environmental Professional (QEP) will occur for 5 years following completion of the landscape restoration plan. Reports will be provided to the City.

Development Permit considerations include bonding for the costs of the landscape restoration including plants, soil, irrigation and the five year monitoring program; tree security for non-heritage trees within the ESA; installation of tree and ESA protection fencing, and the registration of legal agreements on Lot 17 to ensure protection and retention of ESA on private land as outlined in ESA DP 18-840993, Plans #1 – 7.

Financial Impact or Economic Impact (DP 18-816029, HA 18-840992, ESA DP 18-840993)

The development proposal is anticipated to result in the following estimated Operational Budget Impacts (OBI):

- Engineering: Approximately \$70,000.00, which considers the anticipated ongoing maintenance of road works, sidewalks, bike paths, street trees and dike. These costs will be considered as part of the 2020 Operating budget.
- Parks:
 - Approximately \$32,000.00, which considers the anticipated ongoing maintenance of plant beds and furnishings within the Waterfront Park.
 - Approximately \$21,000.00 for maintenance of the elevated walkway and plant beds at Lot 14.

Conclusion

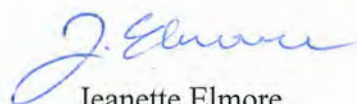
Staff recommend support for the subject Development Permits (DP) and Heritage Alteration (HA) permit on the basis that DP 18-816029, HA 18-840992, and ESA DP 18-840993 would:

- Meet applicable policies and DP Guidelines;
- Expand and enhance public open space within the Oval Village neighbourhood; and
- Preserve and improve access and exposure to the area's environmental and historic significance.


Staff recommend that the Development Permits and Heritage Alteration permit be endorsed, and issuance by Council be recommended.



Diana Nikolic
Senior Planner/
Urban Design



Jeanette Elmore
Planner 2



Minhee Park
Planner 2

Attachment 1: Location Map

Attachment 2: Data Sheet

Attachment 3: Oval Village Specific Land Use Map

Attachment 4: Public Open Space Area Plan (highlighted in yellow)

Attachment 5: Concept Plan: Future Child Care Facility

Attachment 6: Advisory Design Panel Minutes & Applicant Responses (inserted in bold italics)

Attachment 7: Richmond Heritage Commission Minutes

Attachment 8: Proposed Wayfinding Signage Strategy

April 24, 2019

- 23 -

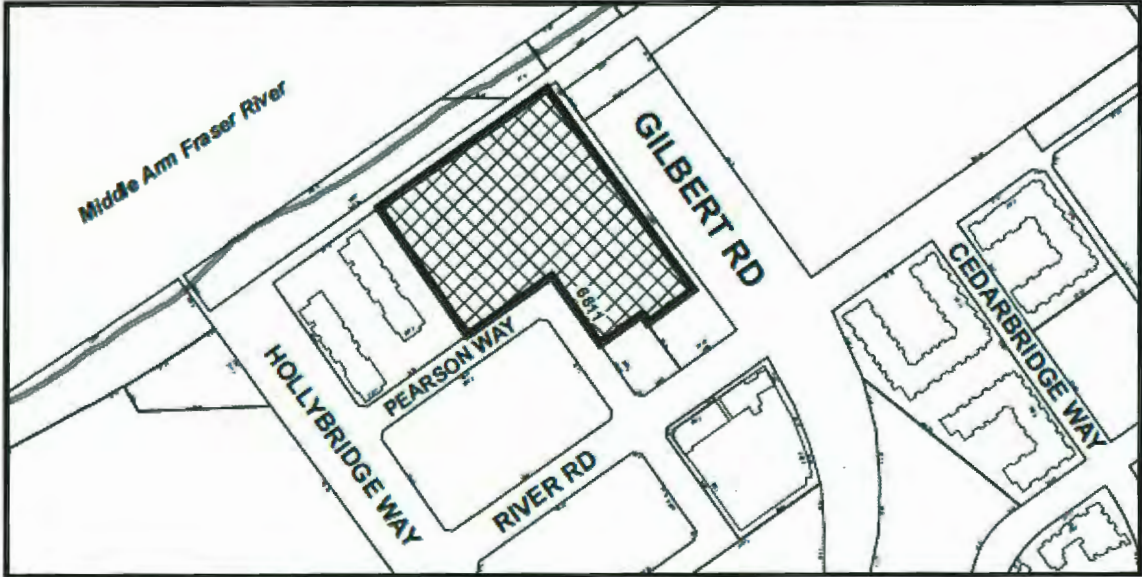
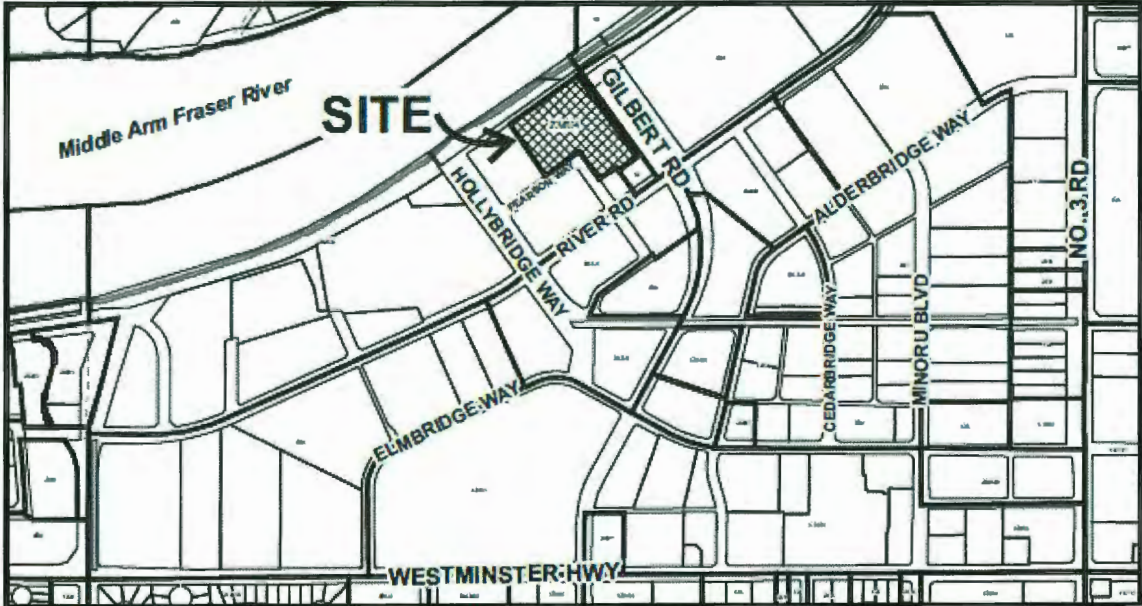
DP 18-816029
HA 18-840992
ESA DP 18-840993

Attachment 9: Letter from YVR/Special Height Provisions
Attachment 10: LEED Equivalency List (provided by applicant)
Attachment 11: Crime Prevention Through Environmental Design Summary (provided by applicant)
Attachment 12: Heritage Statement of Significance
Attachment 13: Heritage Tree Management Plan
Attachment 14: ESA Tree Summary Table
Attachment 15: Development Permit, Environmentally Sensitive Area Development Permit, Heritage Alteration Permit Considerations

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City of
Richmond



DP 18-816029

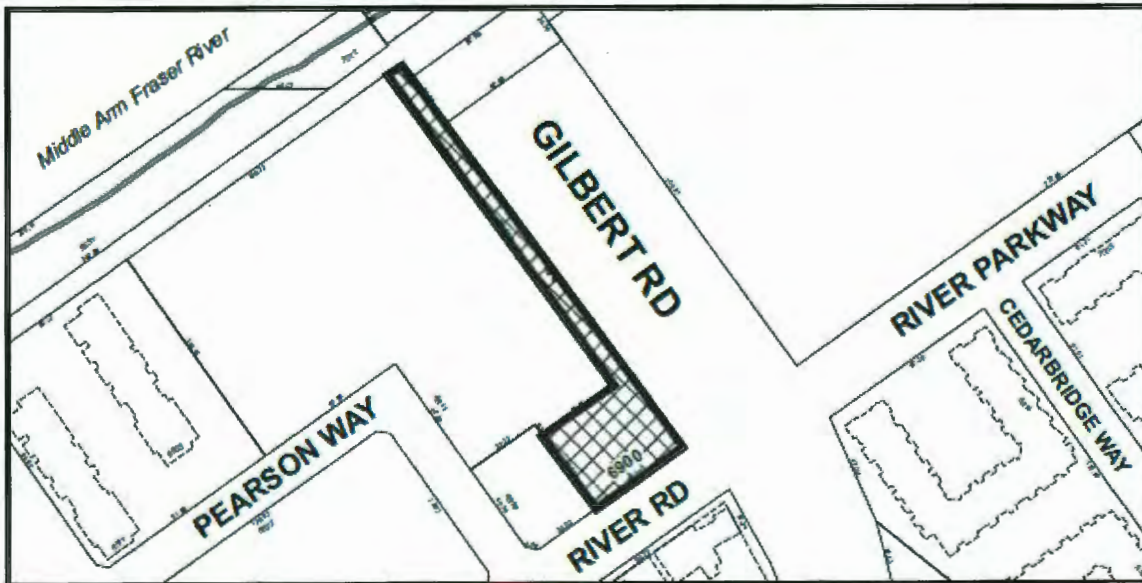
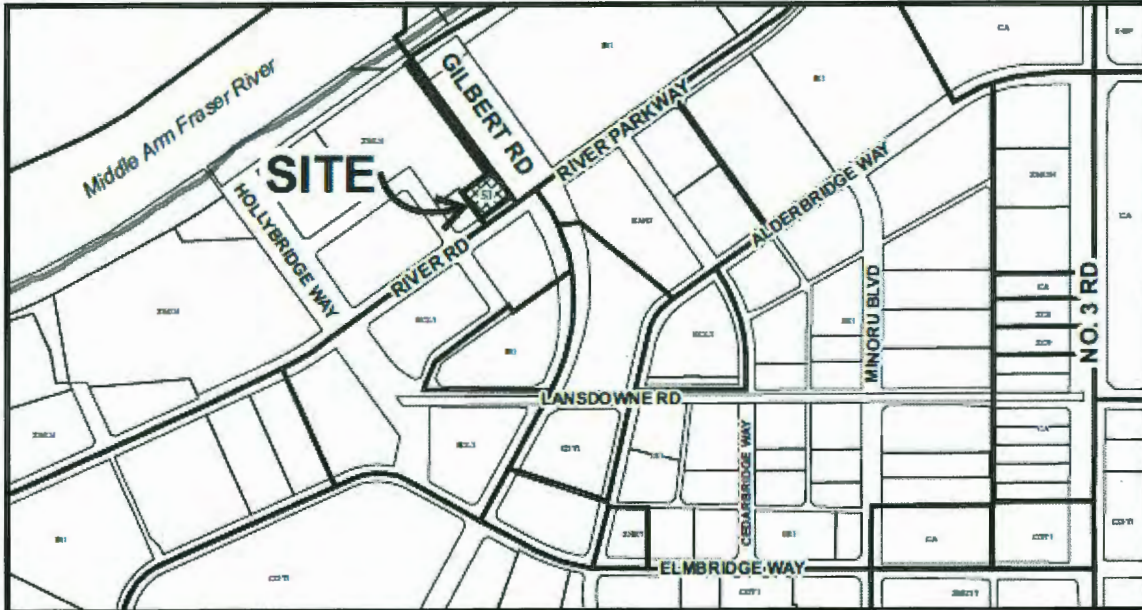
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Revision Date:

Note: Dimensions are in METRES



City of
Richmond



HA 18-840992

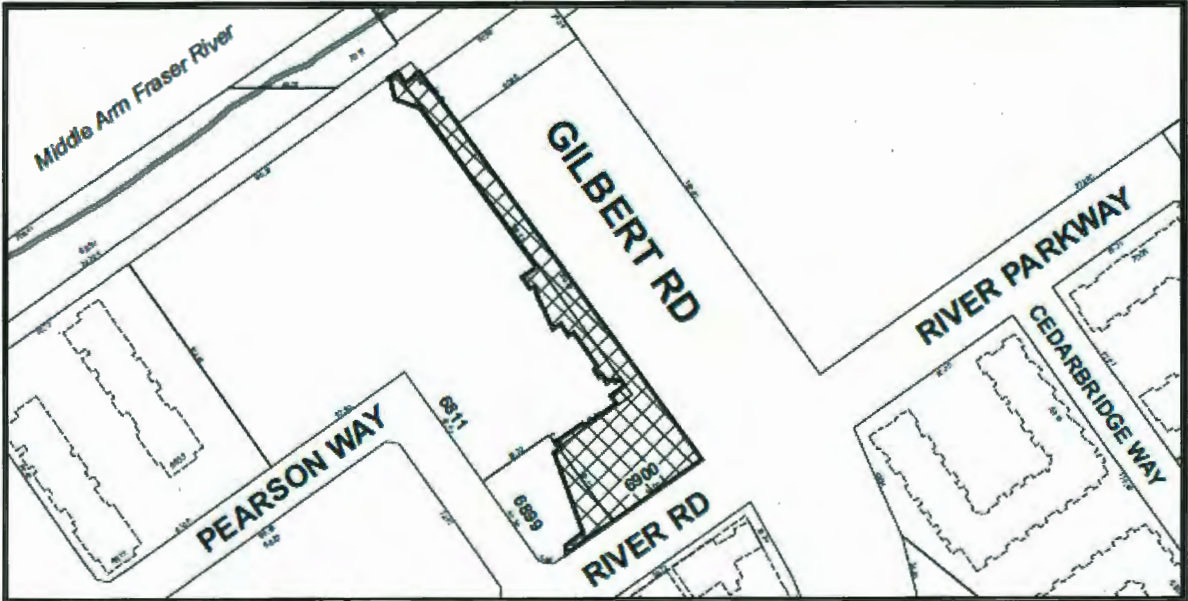
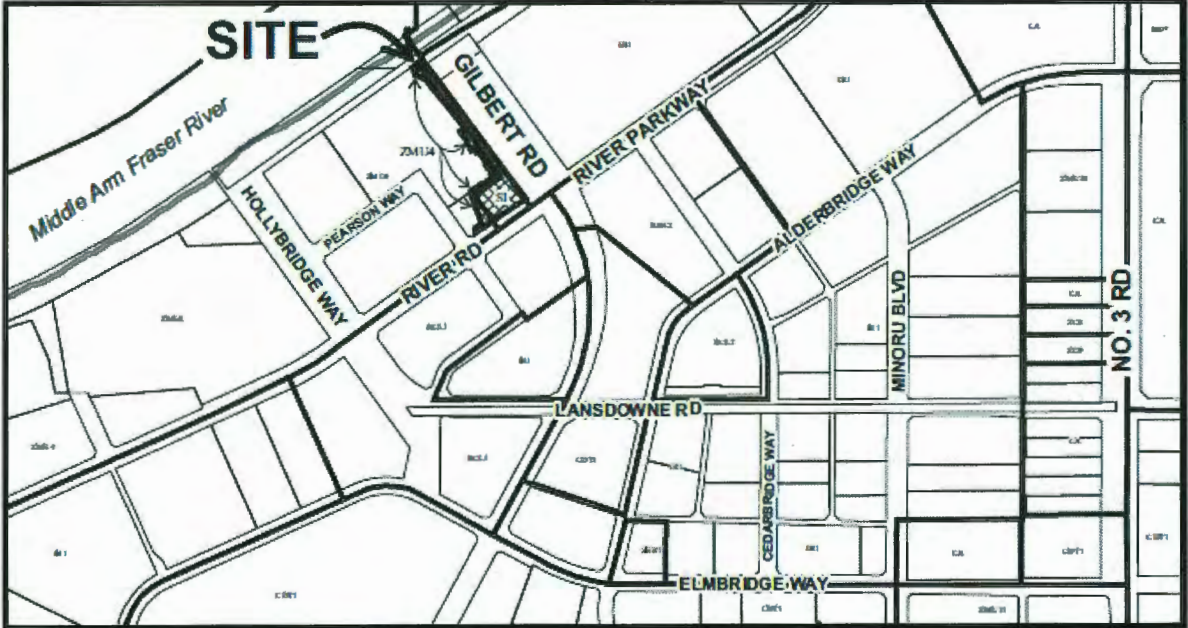
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Note: Dimensions are in METRES



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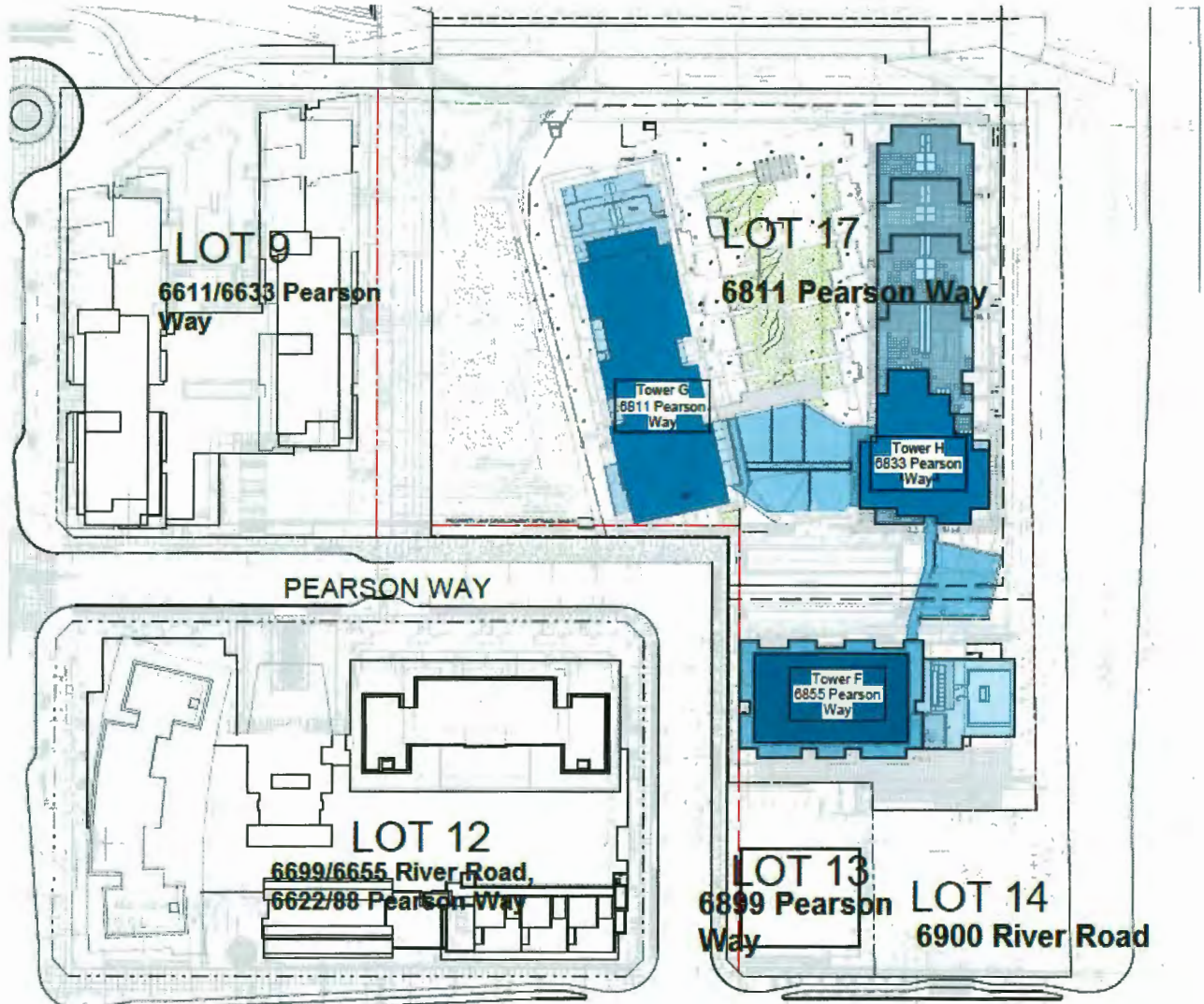


ESA DP 18-840993

Original Date: 12/05/18

Revision Date: 04/23/19

Note: Dimensions are in METRES





City of Richmond

Development Application Data Sheet

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

DP 18-816029

Address: 6811 Pearson Way

Applicant: Oval 8 Holdings Ltd

Owner: Oval 8 Holdings Ltd.

Planning Area(s): City Centre Area Plan (Oval Village)

Floor Area: Gross: 54,290 m²

Net: 48,991 m²

	Existing	Proposed
Site Area	18,208 m ²	18,208 m ²
Land Uses	vacant	residential
OCP Designation	Mixed Use	No change
CCAP Designation	Urban Center T5 (25 m), VCB (Lot 14: Park)	No Change
Zoning:	High Rise Apartment and Olympic Oval (ZMU4) – Oval Village (City Centre)	High Rise Apartment and Olympic Oval (ZMU4) – Oval Village (City Centre)
Number of Units	0	Total: 459

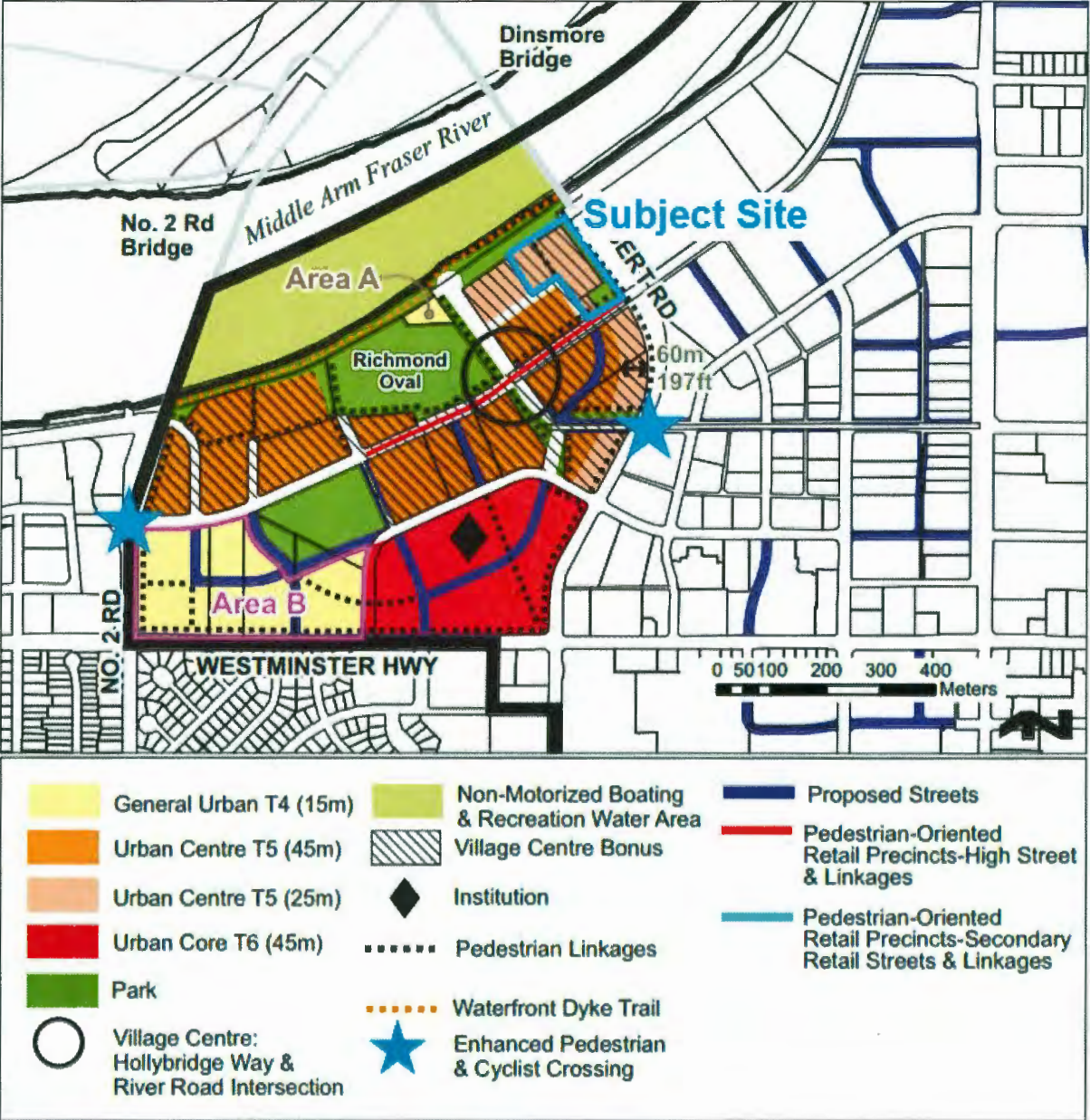
	ZMU4	Proposed	Variance
Floor Area Combined maximum floor area supported by the ZMU4 zone for Lot 12 and Lot 17 is 83,227.5 m ² for residential uses (and 3,261.9 m ² for other uses (provided that all non-residential uses are located on Lot 13).	A Development Permit for Lot 12 was issued for 34,231 m ² of residential floor area and 1,562 m ² of commercial floor area; therefore the maximum permitted floor area at Lot 17 is 48,996.5 m ²	48,991 m ² of residential floor area	None permitted
Floor Area Ratio		2.69	None permitted
Minimum Lot Size	Min. 18,000 m ²	18,208 m ²	None

	ZMU4	Proposed	Variance
<p>Lot Coverage For the area identified as J in ZMU4, Lot coverage means the % of the total horizontal lot area that is covered by buildings and all enclosed and/or supported structures, including landscaped roofs over parking spaces where such roofs are situated above finished site grade, but excluding eaves, balconies, unroofed patios and raised decks, and landscaped roofs over parking spaces where such landscaped roofs are situated at or below finished site grade. A minimum of 40% of the lot shall be covered by a combination of trees, shrubs, native and ornamental plants or other landscape material</p>	<p>Max. 37% Landscape minimum 40%</p>	<p>Lot coverage: 34% Landscape minimum: 66%</p>	<p>none</p>
<p>Setback – Public road setback</p>	<p>Min. 3 m -Parking structures entirely located below finished grade may project (subject to DP) -Permitted building projection: 1 m</p>	<p>TWR F: Pearson Way – West face setback 3m TWR G: Pearson Way – South face setback 3.19m TWR H: Not Applicable as it doesn't face any public street Amenity Building: West Face setback 41.1m <i>Building Projections</i> TWR F: Balcony projection: 1.92 m for balconies from level 3-12 TWR G: Balcony projection: 2.5 m for balconies from level 3-12 Parkade: Located entirely below grade within setback zone on sides facing Public Roads</p>	<p>Variance Increase the maximum permitted building projection into the Pearson Way public road setback from 1 m up to 2.5 m for proposed Tower G and F balconies.</p>

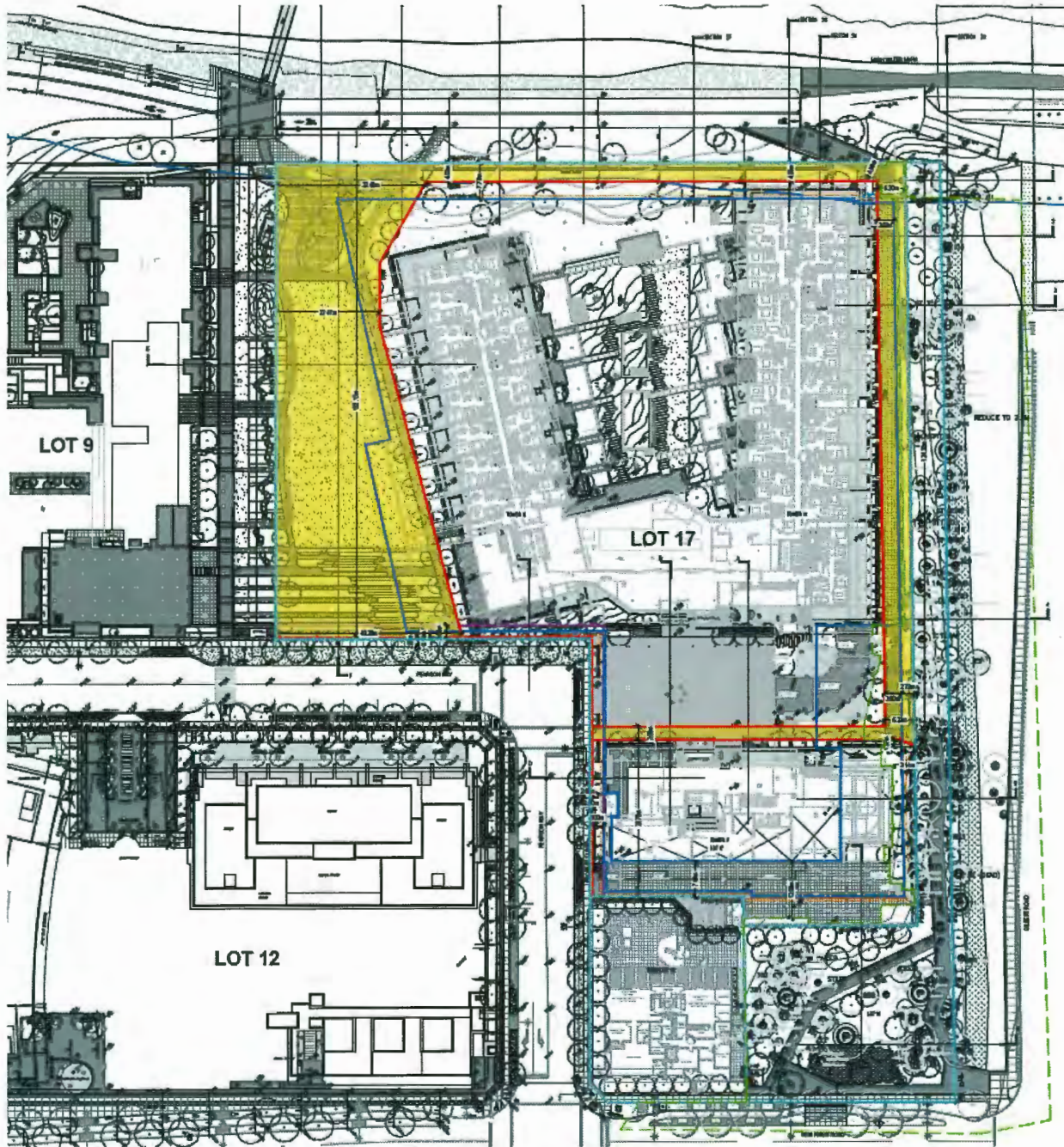
	ZMU4	Proposed	Variance
Setback – Side Yard, Rear yard	Min. 3.0 m	<p>TWR F: South Face setback 5.69m East Face setback 6.69m North Face setback: 125.6m</p> <p>TWR G: West Face setback 26.71m East Face setback 69.3m North Face setback: 18.8m</p> <p>TWR H: West Face setback 102m East Face setback 9.56 North Face setback: 8.62m</p> <p>Amenity Building: East Face setback 7.57m</p>	none
<p>Encroachments</p> <p>-Awnings, canopies and similar shading/weather protection and signage may project 2 m</p> <p>-Parking entirely below grade may project</p>	2 m beyond required road setback for B/L specified encroachments	<p>Awning/weather protection: None</p> <p>Architectural appurtenances: None</p> <p>Signage: None</p> <p>Vertical Fin/sunshade: 2 m</p> <p>Parking Structure: East facing Parking structure projects 0.4m into side yard and is landscaped</p>	none
Height (m)	Max. 47 m geodetic subject to a DP	<p>Tower G: 47m</p> <p>Tower H: 33.5m</p> <p>Tower F: 47m</p>	none
Lot Size	ZMU4: Min. 18,000 m ²	18,208 m ²	none
Off-street Parking Spaces – Resident City Centre Zone 2	<ul style="list-style-type: none"> ▪ Min. residential at 1.2/unit: 551 ▪ Min. residential visitors: 0.2/unit: 92 	<p>Residential: 574</p> <p>Residential visitors: 92</p>	none
Off-street Parking Spaces – Accessible	<ul style="list-style-type: none"> ▪ Min accessible: 2% ▪ Max. small car: 50%. 	<p>Accessible: 14 stalls (12 residential, 2 visitor)</p> <p>Small Car: 41%</p>	none
Tandem Parking Spaces	<ul style="list-style-type: none"> ▪ Permitted where 2 spaces serve 1 unit 	11 tandem stalls	none
Loading	<ul style="list-style-type: none"> ▪ Medium size: 1 space plus 1 space per each additional 160 dwelling units over 240 units: 3 medium spaces ▪ Large size: 1 space for every 2 buildings: 2 large spaces 	3 medium sized loading spaces	Variance Waive requirement for on-site large size loading
Class 1 Bike Storage (Secure) Rate: Residential (1.25/unit)	<ul style="list-style-type: none"> ▪ Min. 1.25/dwelling unit: 574 	575	none
Class 2 Bike Storage (Unsecured) Rate: Residential (0.1 /unit)	<ul style="list-style-type: none"> ▪ Min. 0.2/dwelling unit: 92 	94	none
Electric Vehicle (EV) Charging– Vehicle	All residential parking spaces (excluding visitor parking spaces) to feature energized outlet (minimum Level 2 charging)	Residential: 100%	none

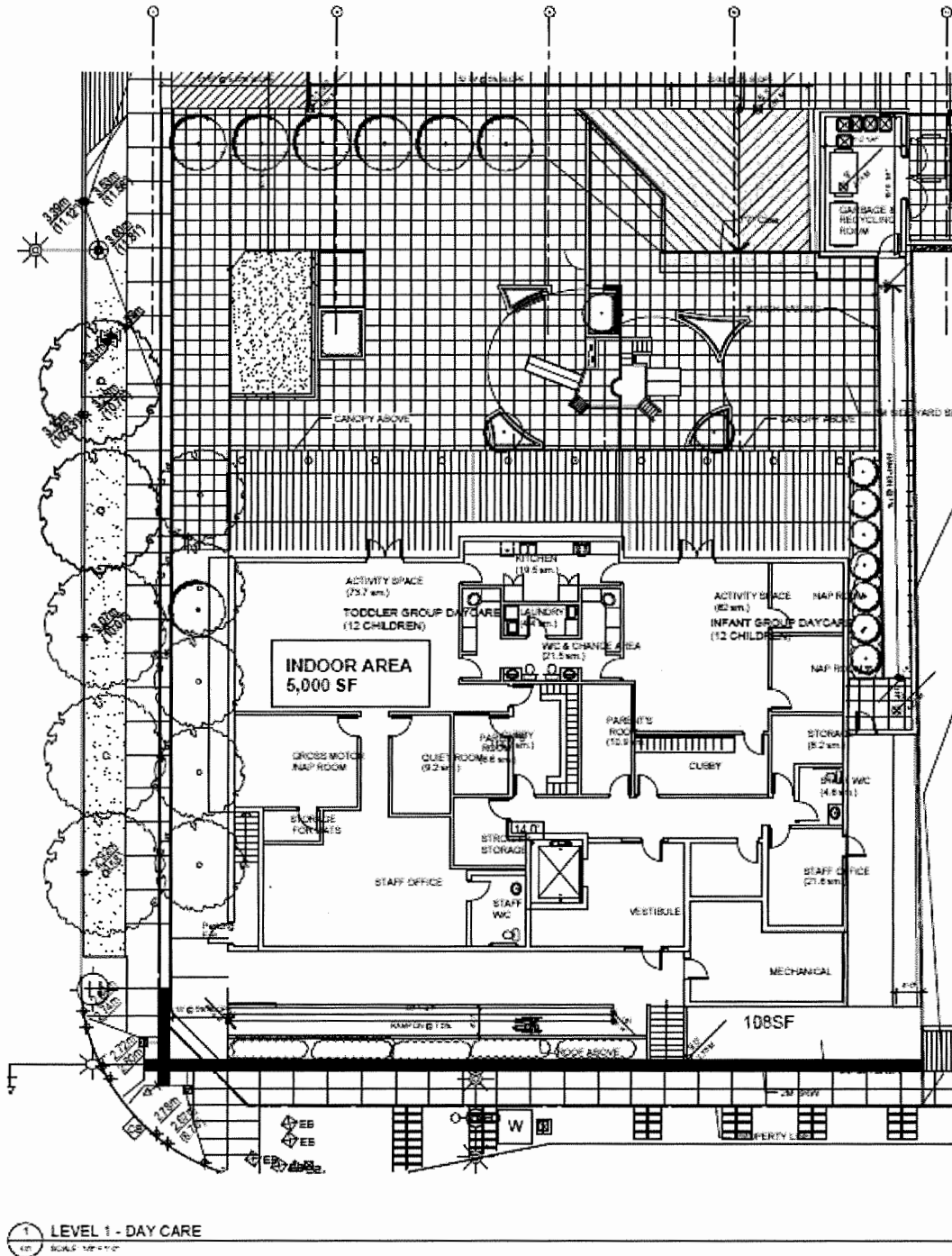
	ZMU4	Proposed	Variance
Electric Vehicle (EV) Charging – bicycle	10% of spaces	1 charging receptacle provided for every 10 bicycles	none
Outdoor Amenity Space	<ul style="list-style-type: none"> ▪ OCP: Min. 6.0 m²/unit, including 600 m² for children's play space (i.e. 2,754 m² based on 459 units) plus ▪ CCAP: Min. 10% of net site (i.e. 1,820 m² based on 18,208 m²) =4,574 m² ▪ Private outdoor space: minimum area 9 m², minimum depth 2.5 m 	<p>Overall outdoor amenity: 7,125 m² Onsite common outdoor amenity: 3,337 m² On-site Public Open Space Area: 3,977 m² Children's play total: 624 m² (includes 414 m² on Lot 17 and 212 m² on Lot 9).</p> <p>Private outdoor space Balconies: 17,742 m² Range of balcony areas: 6 m² – 296 m²</p>	none
Indoor Amenity Space	<ul style="list-style-type: none"> ▪ 2 m² /unit: 918 m² (based on 459 units) ▪ ZMU4 permits an additional 0.1 FAR provided that it is entirely used to accommodate amenity space: 1,820 m² = 2,738 m² 	1,820 m ²	none
Basic Universal Housing (BUH)	Not required	51 BUH	none

Specific Land Use Map: Oval Village (2031) Bylaws 8685, 8701
2011/10/24

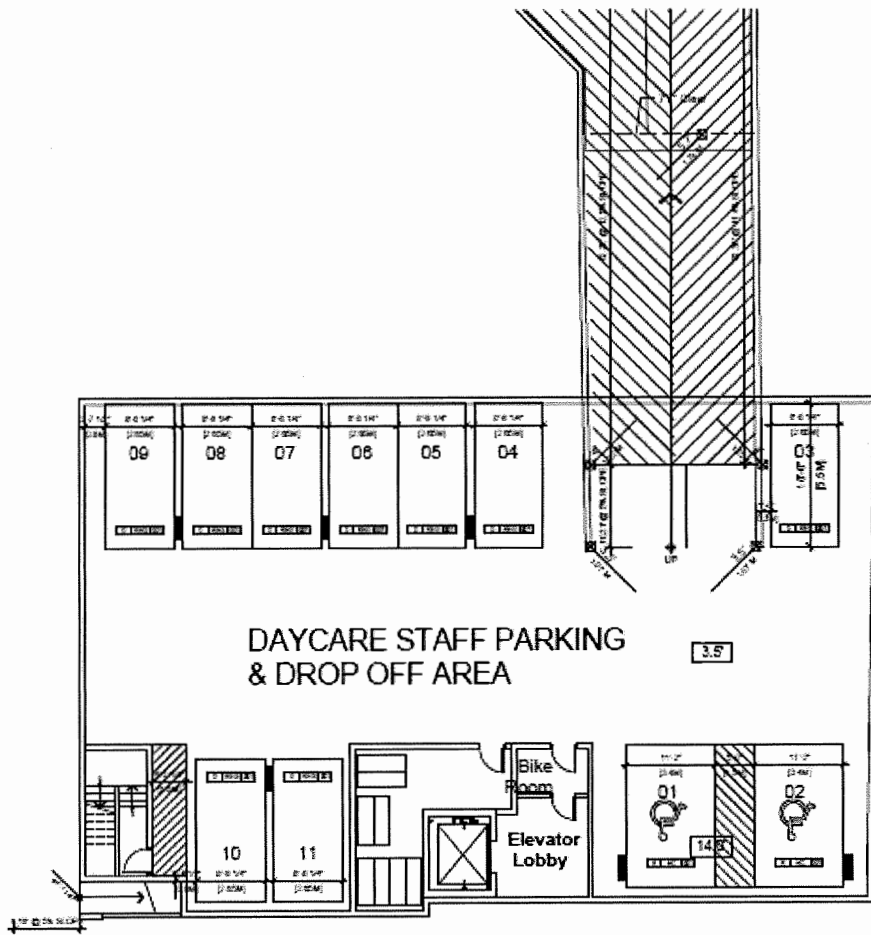


Lot 17 Public Open Space Area (highlighted in yellow)

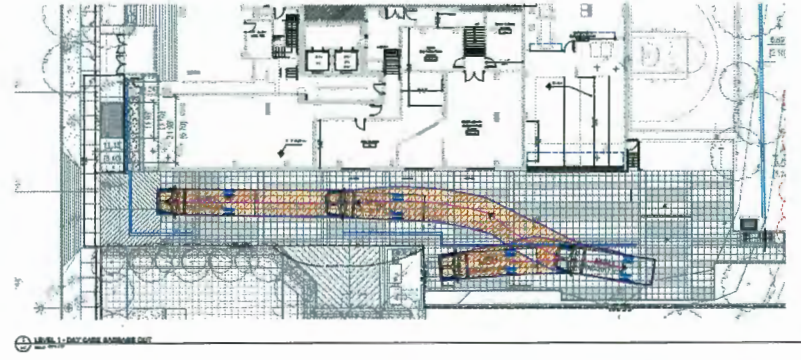
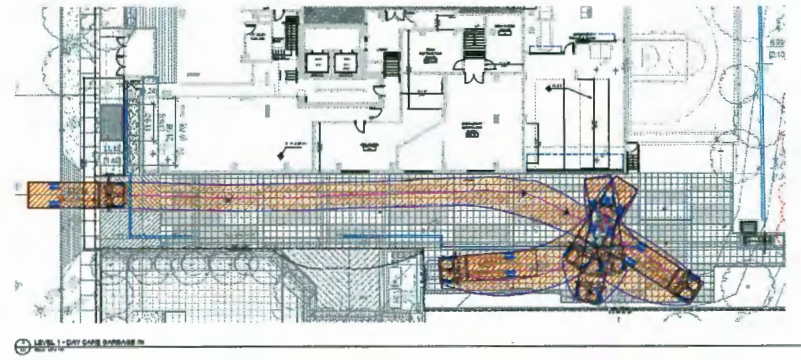
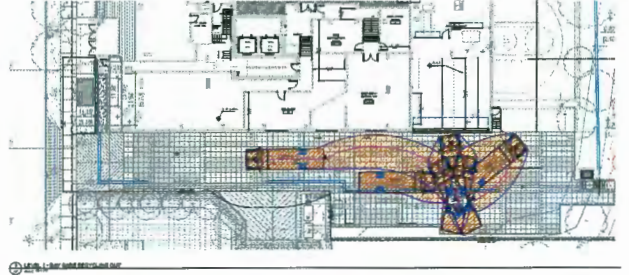
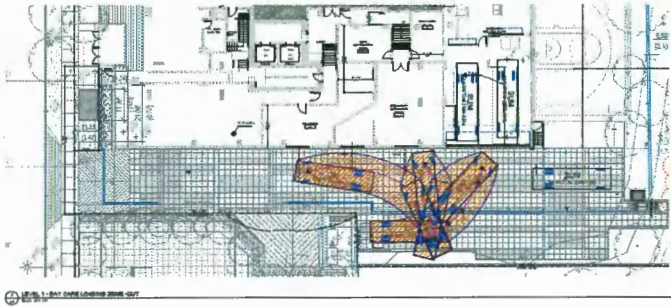
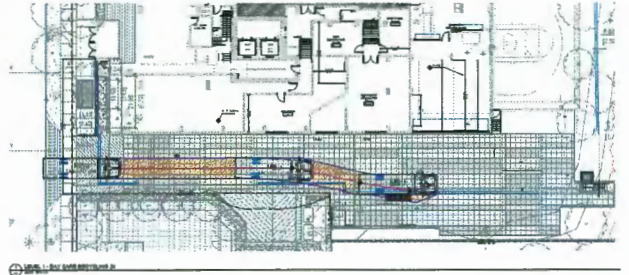
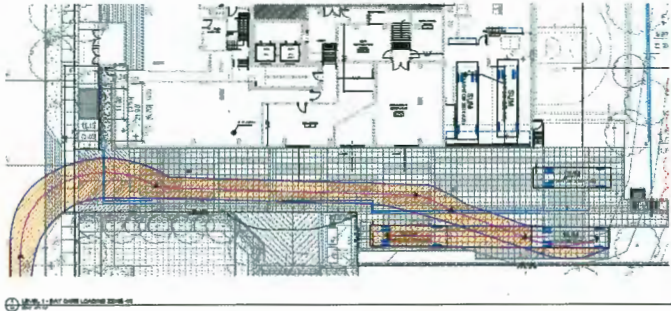
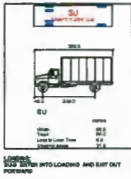




ATTACHMENT 5



ATTACHMENT 5



Advisory Design Panel

Tuesday, January 8, 2019

1. DP 18-816029 – THREE-TOWER CITY CENTRE RESIDENTIAL DEVELOPMENT

ARCHITECT: IBI Group Architects

LANDSCAPE ARCHITECT: PFS Studio

PROPERTY LOCATION: 6811 Pearson Way

Applicant's Presentation

Martin Bruckner and Gwyn Vose, IBI Group Architects, Inc., and Chris Phillips, PFS Studio, presented the project and answered queries from the Panel on behalf of the applicant.

Panel Discussion

Comments from Panel members were as follows:

- the applicant is commended for the clear presentation of the project; appreciate the highly articulated model which clarifies the design intent of the project;
- like the strong carry over from the basic approach to the sculpting of the buildings; the applicant has responded well to the project's site context;
- investigate opportunities for visual connectivity through the subject site coming from Pearson Way (in particular, the view into the end of Tower G) to get a view of the inner courtyard so it will not feel like the pedestrian/motorist is approaching a wall at ground level;

Architect Response: We have added windows at the street end view as pedestrians walk north on the sidewalk along Pearson Way. The windows will be clear glazing to allow for views into the developments amenity area.

- consider raising the heights of the guardrails on the wide portion of the boardwalk to address visibility, screening, weather and safety concerns;

Architect Response: We have considered this comment and find the guardrail heights to be sufficient and in line with railing height requirements by code.

Advisory Design Panel
Tuesday, January 8, 2019

- consider design development of the inner courtyard to contain the site services and make them less visible;

Landscape Architect Response: The mechanical pop-up is only 1.17' higher than the finished grade. Planting and shrubs can be designed to cover the structure. Benches are integrated for seating opportunity.

- appreciate the focused presentation by the applicant; the proposed scheme is well thought out;
- appreciate the well thought out design of most of the public areas and open spaces; however, the space between Tower F and the proposed child care centre is tight, i.e., there is only a thin line of trees separating the driveway and the proposed child care centre; review the design and landscaping of the space between Tower F and the child care centre to enhance the safety of children;

Architect Response: The childcare facility design falls under a separate development permit process. Review of the edge condition will be considered when the design process begins with input from the City and operator.

- appreciate the privacy and CPTED considerations in the design of the public boardwalk; however, also consider wayfinding for residents and visitors considering the proximity of the private patios and the heritage woodlot to the boardwalk; the boardwalk should read like a public space to encourage the public to use it;

Landscape Architect Response: Refer to the concept wayfinding package which has been prepared and reviewed with City staff. Signage will be provided at each entry to the boardwalk, i.e. the southeast corner entry, south secondary entry, mid-block R.O.W entry and the north entry. The design of the signs will match the City's new Park & Trails signs.

- understand the different nature/function of the publicly accessible open space west of Tower G and the on-site common outdoor amenity area; however, it is not apparent in the model; consider installing appropriate signage to enhance wayfinding in the publicly accessible open space to inform the public of its uses;

Landscape Architect Response: Refer to the concept wayfinding package which has been prepared and reviewed with City staff. Signage will be provided at each entry to the boardwalk, i.e. the southeast corner entry, south secondary entry, mid-block R.O.W entry and the north entry. The design of the signs will match the City's new Park & Trails signs.

Advisory Design Panel **Tuesday, January 8, 2019**

- consider installing a public art feature at the south end of the publicly accessible open space considering its public nature and scale; will help announce the civic use and significance of the open space;

Landscape Architect Response: The public art is located in the Northwest Corner of the site within the children's play area and adjacent to the new dike path. The proposed location was brought forward and approved by the Richmond Public Art Committee on October 16, 2018.

- agree with the positive comments regarding the presentation of the project;
- understand that the public boardwalk is unique and has a special role to play in the proposed development; also appreciate the environmental aspect of the boardwalk; reconsider the use of steel grate walkway on the raised portion of the boardwalk and replace it with an appropriate material to make the boardwalk surface more accessible to people with disabilities and to dogs;

Landscape Architect Response: After further discussions with Parks and Planning the steel grate surface is still preferred. This surface will be designed as per the City's standard and conform to Americans Disabilities Acts (ADA) requirements.

- consider providing a variety of play experiences on different levels and surfaces in the children's play area; the applicant is encouraged to introduce multi-sensory play experiences;

Landscape Architect Response: The current play structure provides different levels and surfaces for different age groups and provides wheelchair access. We have provided additional play equipment like a music panel and talking tubes that allows for more sensory play experiences.

- appreciate the applicant for putting a lot of thought and work into the project;
- important that the applicant do project detailing; ensure that the size of planters is appropriate to support the trees especially during adverse weather conditions;

Landscape Architect Response: The rooftop individual planter is 4'x4'x30"ht, the planter weight is approx. 1250lb and should withstand adverse weather conditions.

- ensure the long-term maintenance and monitoring of the ecological enhancements to the Environmentally Sensitive Area (ESA);

Environmental Consultant Response: The ecological enhancements in the ESA, including invasive plant management and revegetation, will be subject to a five-year success monitoring and maintenance program. Upon completion of this, the monitoring and maintenance responsibilities will be transferred to the City's Park Department in perpetuity.

Advisory Design Panel Tuesday, January 8, 2019

- appreciate that the project is designed to connect to the City's District Energy Utility (DEU) System using hybrid heat pumps; also appreciate the 50 percent glass-to-wall ratio; the project is on the right track in terms of sustainability;
- consider improving wayfinding around the perimeter of the subject site;
Landscape Architect Response: Refer to the concept wayfinding package which has been prepared and reviewed with City staff. Signage will be provided at each entry to the boardwalk, i.e. the southeast corner entry, south secondary entry, mid-block R.O.W entry and the north entry. The design of the signs will match the City's new Park & Trails signs.
- appreciate the provision of a drive court between the towers which connects the residents to the three towers;
- appreciate the landscaping at the north end of the public open space; however, consider enhancing the landscaping on the south end to provide animation in view of the size of the open space and to identify the area as public space;
Landscape Architect Response: The south end has been adjusted to provide a consistent pathway leading to the central open lawn. Formal plantings were added to frame and identify this public space entry.
- consider enhancing the safety features in the boardwalk and installing appropriate signage to delineate public and private areas;
Landscape Architect Response: Refer to the concept wayfinding package which has been prepared and reviewed with City staff. Signage will be provided at each entry to the boardwalk, i.e. the southeast corner entry, south secondary entry, mid-block R.O.W entry and the north entry. The design of the signs will match the City's new Park & Trails signs.
- appreciate the architecture of the three towers; the proposed colour palette for the towers are similar but each has a unique form and expression;
- common areas are well programmed;
- the heritage interpretation and integration of information panels in various locations will draw the attention of the public to the public spaces; the public boardwalk has a successful precedent in Waterfront Residences at Imperial Landing in Steveston;
- appreciate the restoration of and ecological enhancements in the ESA;
- the site is walkable; appreciate the proposed on-site pedestrian circulation scheme;
- appreciate the provision of aging-in-place and Basic Universal Housing (BUH) features for the residential units;
- appreciate the provision for car-sharing and bicycle parking in the project;

Advisory Design Panel Tuesday, January 8, 2019

- appreciate the clear presentation of the project; like the intricate model;
- window-to-wall ratio could exceed 50 percent as it appears in the model;

Architect Response: We have completed a whole building energy model and our analysis indicates that there is 48% of glazing on this project. Please refer to memo prepared by our sustainability engineer.

- appreciate the new glide slope incorporated into the building forms in response to YVR's flight path restrictions;
- consider incorporating weather protection in the public areas, e.g. along the river front and on the park space; need to balance CPTED concerns versus weather protection;

Landscape Architect Response: We have explored and considered this comment. We feel the space does not warrant weather protection and prefer to keep the environment open and unobstructed to encourage airflow and pedestrian traffic and maintain the open view from Pearson Way to the river and mountains.

- the shadow study shows good sunlight penetration into the public open space in the afternoon; however, the inner courtyard (between Towers G and H) may not get a lot of sun exposure; concerned on the usability of the courtyard space by residents;

Architect Response: The east tower will receive direct sunlight from 11:45am – 2:00pm on the equinox. While the west building receives morning light from 9:00am – 10:30am. The middle courtyard receives plenty of solar exposure midday from 10:00am – 1:30pm. Solar exposure improves further north where spaces are used for residents to walk and enjoy views.

- on-site street parking may not be adequate to serve the needs of the public wanting to access the river front;

Architect Response: There is street parking available on Pearson Way and the development (Lot 12) south of Lot 17 will have ample commercial parking available for the public.

Advisory Design Panel Tuesday, January 8, 2019

- would appreciate if the river front walkway could be flexed into the private courtyard space;

Landscape Architect Response: The pedestrian dike trail is adjacent to the riverside, while the bikeway is against the landside. If the riverfront walkway is flexed into the landside planting area, this might be a safety concern as pedestrian crossing over the bikeway at this narrow planting area. In addition to that, the planting buffer between the bikeway and private property provide the eco planting and habitat corridor connecting to the ESA area. Based on River Green Phase 1 experience, the public walkway flexed into private courtyard can cause trespassing and security issues.

- appreciate the applicant incorporating public art into the project; public art benefits the project and improves the quality of public spaces around it; the applicant is encouraged to continue consulting the City on public art;
- portions of walls on the west face (ground level) of Building F along Pearson Way appear high in the rendering; consider reducing to pedestrian scale, e.g. through adding strips, breaking down the patterning, or adding vertical panels to break down the mass; will help achieve a more human scale for the public spaces on Pearson Way;

Landscape Architect Response: The Vista box has been removed based on BC Hydro's confirmation and replaced by plantings and trees. The walls on the west face will be clad in stone. There will also be architectural gates to hide the gas meter equipment. Planting is also located on Level 1 which will drape over the wall.

- proposed surface treatment of the loading area south of Building F is monolithic (i.e., use of just a single paving material and colour); consider increasing the pedestrian comfort in this space by breaking down the space or adding lighter tones of colour; and

Landscape Architect Response: Paving patterns have been added to the lane to break down the space. An architectural fence will also be included to around the perimeter of the lane to ensure the space is secure and to keep pedestrians out of the ESA areas.

Architectural Response: White vertical stone with down lighting has been added to break up the façade, provide a more human scale and to ensure the area is secure and safe at night.

Advisory Design Panel
Tuesday, January 8, 2019

- appreciate the provision of a public boardwalk along the east side looking down on the green landscape below; however, consider introducing different landscaping treatment on some portions of the boardwalk, e.g. the north portion of the boardwalk could be landscaped to read as a gateway and publicly accessible.

Landscape Architect Response: Formal planting and signage has been added to the widened north entry to emphasize the entrance to the public walkway that leads to the boardwalk.

Panel Decision

It was moved and seconded

That DP 816029 be supported to move forward to the Development Permit Panel subject to the applicant giving consideration to the comments of the Advisory Design Panel.

CARRIED



City of Richmond

Minutes

RICHMOND HERITAGE COMMISSION

Held Thursday, January 24, 2019
Room M 2.002
Richmond City Hall

...

5. New Business

Heritage Alteration Permit (HA-840992) 6900 River Road

The applicant's heritage consultant/landscape architect provided an overview of the heritage value of the subject property and the larger development site with the aid of a PowerPoint presentation. Details of the proposed heritage interpretation throughout the development site, proposed walkway design and interpretive panels were provided.

Commission asked if the text on the panels might change in the future. Staff clarified that the overall design, themes, content and locations will not change but there may be some minor changes to the text. In response to Commission's question regarding the use of QR codes, the applicant noted that currently QR codes are not proposed in the panels.

In response to the Commission's questions, the following information was provided:

- With regard to the maintenance plan, the applicant noted that the site will be maintained by the applicant for five years and will be handed over to City.
- With regard to the proposed tree removal for the walkway construction, staff noted that two trees were in conflict with the walkway construction. One tree is in poor condition and the other is a small-sized tree.
- The applicant confirmed that the temporary plaque had been removed from the site.
- The applicant indicated that the anticipated completion date was 2023.

Commission noted that the proposed interpretive panels adequately captured the overall history of the site and the area and did not have concerns regarding the proposed tree removal.

It was moved and seconded:

That the Heritage Alteration Permit application for 6900 River Road to construct a walkway be supported as presented.

CARRIED

After putting forward the resolution, Commission further discussed the project.

- Discussion ensued regarding the usefulness of QR codes. One member noted that users typically like to read while they are on the site rather than taking the information away.
- Commission felt the text on the proposed panels was quite lengthy.
- Concerns were raised that users might think the pathway is a private pathway which belongs to the residential development. Way-finding and visual cues need to be strengthened to ensure that users are aware that the walkway connects River Road to the waterfront.

Staff noted that the additional comments would be communicated to the applicant for consideration.

...

Proposed Wayfinding Signage Strategy



Site Plan - Signage Locations

Legend

- S1 Boardwalk entry at Gilbert Rd
- S2 Boardwalk entry at River Rd
- S3 Intersection of building F and Lot 14
- S4 Intersection of Lot 17 and Pearson Way
- S5 Intersection of dike and boardwalk



14 January 2019

Ms. Diana Nikolic
Senior Planner (Urban Design)
Policy Planning Department
CITY OF RICHMOND
6911 No. 3 Road
Richmond, BC V6Y 2C1

Via email: DNikolic@richmond.ca

Dear Ms. Nikolic:

RE: Development Application at 6811 Pearson Way (DP 18-816029)

This letter is in response to your request for comment on the proposed development application by Oval 8 Holdings (ASPAC) to develop three residential towers at 6811 Pearson Way.

As the City of Richmond is aware, the Vancouver Airport Authority has applied to Transport Canada to create new Airport Zoning Regulations ("AZRs"), which will include protection for the two future runway options identified in our long-term airport master plan. The AZR's are federal regulations that govern the heights of buildings and structures near the airport to ensure safe aircraft operations. The current AZR restricts height at 6811 Pearson Way to 47m above sea level, and this height restriction will be lowered over portions of the site with the enactment of the new AZR.

We have reviewed the plans delivered by ASPAC staff to us on September 4, 2018. As depicted in the plans, the buildings will not meet the height restrictions imposed by the new AZR. To work proactively with stakeholders, we have agreed to propose special provisions in the new AZR that would allow the development at 6811 Pearson Way to exceed the new AZR on the condition that the developer keep the buildings at heights that will not impact the safe operation of our existing and potential future runways. Our review of the plans confirms that the heights proposed meets these requirements.

P.O. BOX 44638
YVR DOMESTIC TERMINAL RPO
RICHMOND BC CANADA V7B 1W2
WWW.YVR.CA

TELEPHONE 604.276.6500
FACSIMILE 604.276.6505

Page 1 of 2



We caution the City that the special provisions we are proposing for the new AZR are subject to review and final approval by Transport Canada. While we commit to use commercially reasonable efforts to cause Transport Canada to adopt the special provisions, the ultimate decision rests with the Federal Government, who may not approve, resulting in the heights associated with the new AZR applying to this site. We have been in conversations with ASPAC and they are aware of our efforts to assist in this matter.

We also note that the area is in very close proximity to the airport and is exposed to noise from aircraft and airport operations and to low level overflights of aircraft. Transport Canada land use planning guidelines recommends against residential land uses at this location due to the level of noise exposure. Should this development proceed, adequate noise insulation and appropriate disclosure for new and future purchasers should be the required.

Feel free to contact me at (604) 276-6366 should you have any questions.

Sincerely yours,

A handwritten signature in black ink that reads 'Mark C. Cheng'.

Mark Christopher Cheng, M.Eng. (mech)
Supervisor, Noise & Air Quality

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Crime Prevention Through Environmental Design (provided by the applicant)

Natural Surveillance

1. Blind Corners

- a. All pathways avoid sudden grade changes that would reduce sightlines.
- b. In parking areas with blind corners, mirrors will be installed to allow users to see around the corner.

2. Siting and Building Layout

- a. Strategic building configuration, which enhances site permeability (e.g. wider urban plaza in between Tower F,G and H to gain natural surveillance from the pedestrian traffic and reasonable tower spacing to allow for natural surveillance from the neighboring buildings.
- b. Residential entrances are located on prominent locations and have clear sight to multiple adjacent roadways/pathways.
- c. Outdoor seating will be strategically positioned to allow for more 'eyes on the street.
- d. Balconies are situated in the centre of the residential units to protect privacy. They are either separated by a vertical building element or a privacy screen.
- e. The indoor amenities are located on multiple levels and open to the outdoor amenity spaces.
- f. Visitor bicycle storage facilities are located around the building and close to lobbies for ease of access.
- g. Multiple exits are visible from all parking areas, as well as clear Long clear sightlines across the parkades.
- h. All parking Levels will provide adequate and uniform Levels of Lighting.
- i. Parking walls will be painted white or bright colours to reflect light
- j. A signage program has been developed for the project, clearly identifying and colour-coding access to elevator cores, stairs as well as residential lobbies
- k. Vestibules will have clear glazing.
- l. Access to the parkade is Limited to two designated monitored entrances.
- m. Residential parking will be accessed through with access control.
- n. Vehicular access points will be clearly demarcated for both drivers as well as pedestrians to limit any points of conflict between the two.
- o. The public plaza, and courtyard amenity spaces are easily observed by people from a multitude number of windows and locations.

3. Entrances

- a. Main entrances will have clear glazing to allow the viewer to see into them before entering.
- b. Main entrances can be seen from the street and neighbours.
- c. All entrances will provide adequate levels of Lighting.

4. Landscaping

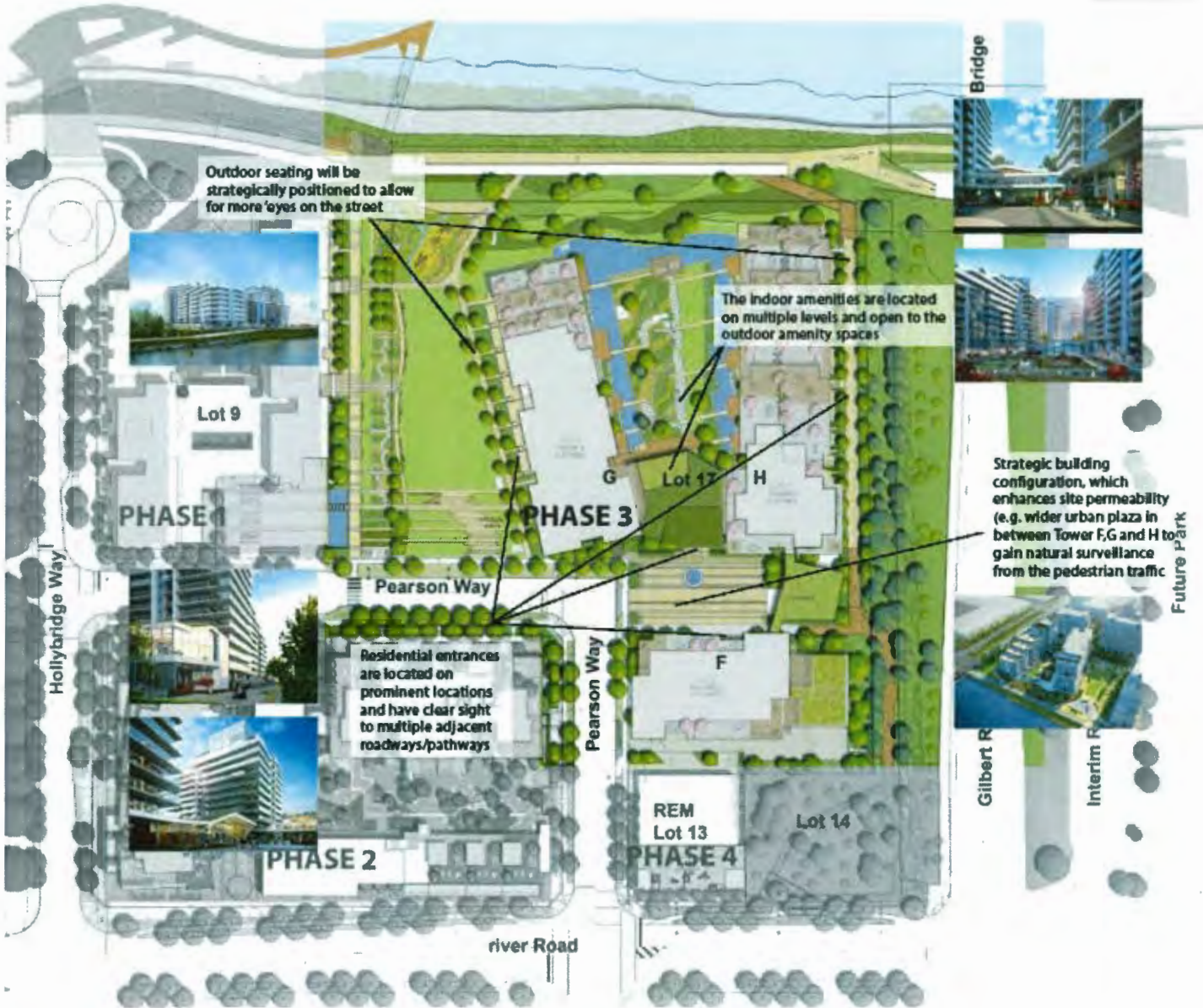
- a. Trees Located on Level 1 will have raise crowns to avoid a continuous barrier.
- b. Low groundcover will be used along pedestrian pathways.
- c. No Landscaping will impede or conceal the building entrance from the street.

5. Lighting

- a. Inset and modulated spaces on the building facades, along access/egress routes, will be well lit.
- b. All pedestrian pathways will include pedestrian scale lighting and direct light.
- c. Areas not intended to be used at night will avoid Lighting.
- d. All Lighting will be located away from walls to avoid climbing opportunities.

Territoriality

1. Public spaces at the amenity Levels are separated through the use of Landscaping and pavement treatments.
2. Ground-level townhouse-style units will be elevated and gated.



Lot 14 Statement of Significance

**2.4.2 Brighthouse Homestead Site,
6900 River Road****Description**

The Brighthouse Homestead site consists of the narrow, L-shaped property parallel to Gilbert Road and extending from River Road south to the Railway tracks. The site is heavily treed and is the location of a drainage ditch that runs along its length. This property is a designated heritage site and is on the National Register of Historic Places.

Values

The Brighthouse Homestead site is valued for its historical, aesthetic, social and ecological importance, particularly for the ornamental tree planting that dates in part to the late 1880s.

The Brighthouse Homestead site is historically significant as the home of Samuel Brighthouse in the late 1800s and early 1900s until his return to England in 1913. Brighthouse was one of the largest landowners on Richmond's Lulu Island, who farmed and raised livestock and horses. The Brighthouse Homestead was part of the pattern of large farms that were located near water access on the Middle Arm of the Fraser River at the turn of the century. While the river offered the only access to the early settlements, its presence and the low-lying wet land required the construction of protective dikes and the digging of drainage ditches to create viable farmland.

A significant aspect of the site is that the Brighthouse property remained in the family until it was purchased by the Township of Richmond in 1965. As expressed in Samuel Brighthouse's will, subsequent owners included Brighthouse's nephews Michael Brighthouse Wilkinson and Alfred Pearson, and their children ensuring ongoing care and improvement of the lands.



Historic tree resources of the site in 2011

The site is important as a representative of the large estates and farms acquired by individuals in Richmond's early history and of the agricultural roots of the community. The present site was part of Brighthouse's 600-acre estate on Lulu Island, and its remaining form shows in part the original layout of the Brighthouse Homestead and Estate reminiscent of the English tradition of rows of trees lining roads and driveways leading to a manor house and garden, set within the larger agricultural context of orchard, fields and woodlots. The present ditch along Gilbert Road was originally located as a division between two fields, typical in Richmond, with a naturally formed hedgerow along it.

The composition of the trees as documented in several tree surveys reflects the original planting and the evolution of the site over time. The remaining trees convey the original pattern of willow, elm, oak, cedar, Scotch pine, and ash surrounding the homestead. The continuing presence of the trees indicates the ongoing presence of the original grade or ground plane in this area of the site. In an era of pioneering in North America, the tree seedlings brought over from England symbolize a connection to the familiar landscapes of that country. Apple trees in a grid identified in 1981 were the remains of orchards once extant on the site.

As a result of damage to the River Road dike in 1916, the original oak trees planted by Brighthouse were by necessity removed when the dike was repaired and widened. Wilkinson and Pearson replaced them with the same variety found elsewhere on the estate. These oaks were treasured by the community as well; at least until the 1940s Brighthouse acorns or seedlings were distributed among the community for planting on other properties.

The site also reflects the history of more recent developments on the Brighthouse lands. The construction of the Dinsmore Bridge in 1969 as part of Richmond's ongoing post-war growth effectively bisected the original homestead and changed the relationship between the site, the adjacent lands and the waterfront, while the railway was relocated along a route describing original field patterns.

Social and community values are found in the importance of the Brighthouse Homestead to the City of Richmond as a reflection of a significant part of its history. Recognized by the citizens of Richmond through a heritage designation, the site was placed on the Canadian Register of Historic Places in 2002.

The riparian area is important for the ecological values found in the regeneration of an original drainage ditch, as well as representing a landscape feature of both cultural and natural value.

Character-Defining Elements

- The location of the Homestead close to river access on the Middle Arm and the relationship of the site to the River Road dike, the road and the river
- Views from the site over the river, to Sea Island and the North Shore mountains
- The present, original ground level that remains in the areas of tree planting
- Traces of agricultural field patterns which reflect the original land use and layout of the Brighthouse Estate
- The remains of the distinct tree planting begun by Samuel Brighthouse and continued by his descendants in and around his homestead, such as the trees in the designated parcel, the River Road trees and the trees lining the driveway
- The unique collection of tree species
- The railway right-of-way that creates the southern boundary of the site
- The ditch and regenerating riparian planting along the eastern edge of the site.

Remnant Heritage Trees Summary

Species	Samuel Brighthouse Trees		Brighthouse Descendant Trees		Subtotals
	Retain	Remove	Retain	Remove/ Convert to wildlife stem	
American elm	1	0	6	2	9
English oak	4	0	1	0	5
Green ash	0	0	9	4	13
Horse chestnut	0	0	2	0	2
Little-leaved Linden	0	0	3	3	6
Lombardy poplar	0	0	3	0	3
Scots pine	0	0	0	7	7
	5	0	24	16*	45

Heritage trees to be retained:

- Tag# 353 - American Elm, 35 cm
- Tag# 376 - American Elm, 35 cm
- Tag# 378 - American Elm, 22 cm
- Tag# 380 - American Elm, 90 cm
- Tag# 381 - American Elm, 51 cm
- Tag# 383 - American Elm, 45 cm
- Tag# 385 - American Elm, 48 cm
- Tag# 315- Linden, 65 cm
- Tag# 318- Linden, 58 cm
- Tag# 884- Linden, 36 cm
- Tag# 310- Poplar, 90 cm
- Tag# 320- Poplar, 80 cm
- Tag# 321- Poplar, 100 cm

- Tag# 338- English Oak, 90 cm
- Tag# 352- English Oak, 110 cm
- Tag# 382- English Oak, 95 cm
- Tag# 384- English Oak, 45 cm
- Tag# 401- English Oak, 51 cm

LEGEND:

- ASH 13
- ENGLISH OAK 5
- AMERICAN ELM 9
- HORSECHESTNUT 2
- LITTLELEAF LINDEN 6
- LOMBARDY POPLAR 3
- SCOTS PINE 7
- SUBTOTALS: 45

- Tag# 304- Ash, 44 cm
- Tag# 306- Ash, 46 cm
- Tag# 311- Ash, 43 cm
- Tag# 312- Ash, 47 cm
- Tag# 314- Ash, 45 cm
- Tag# 322- Ash, 38 cm
- Tag# 324- Ash, 35 cm
- Tag# 325- Ash, 31 cm
- Tag# 326- Ash, 50 cm

- Tag# 323- Horse Chesnut, 65 cm
- Tag# 391- Horse Chesnut, 38 cm

Heritage trees to be removed or converted to wildlife:

- Tag# 375 - American Elm, 35 cm, to be converted to wildlife
- Tag# 386 - American Elm, 55 cm, converted to wildlife

- Tag# 313- Ash, 40 cm, to be converted to wildlife
- Tag# 328- Ash, 40 cm, to be converted to wildlife
- Tag# 329- Ash, 28 cm, to be converted to wildlife
- Tag# 334- Ash, 25cm, to be converted to wildlife

- Tag# 316- Linden, 67 cm, to be converted to wildlife
- Tag# 319- Linden, 35 cm, to be converted to wildlife
- Tag# 327- Linden, 42 cm, to be removed

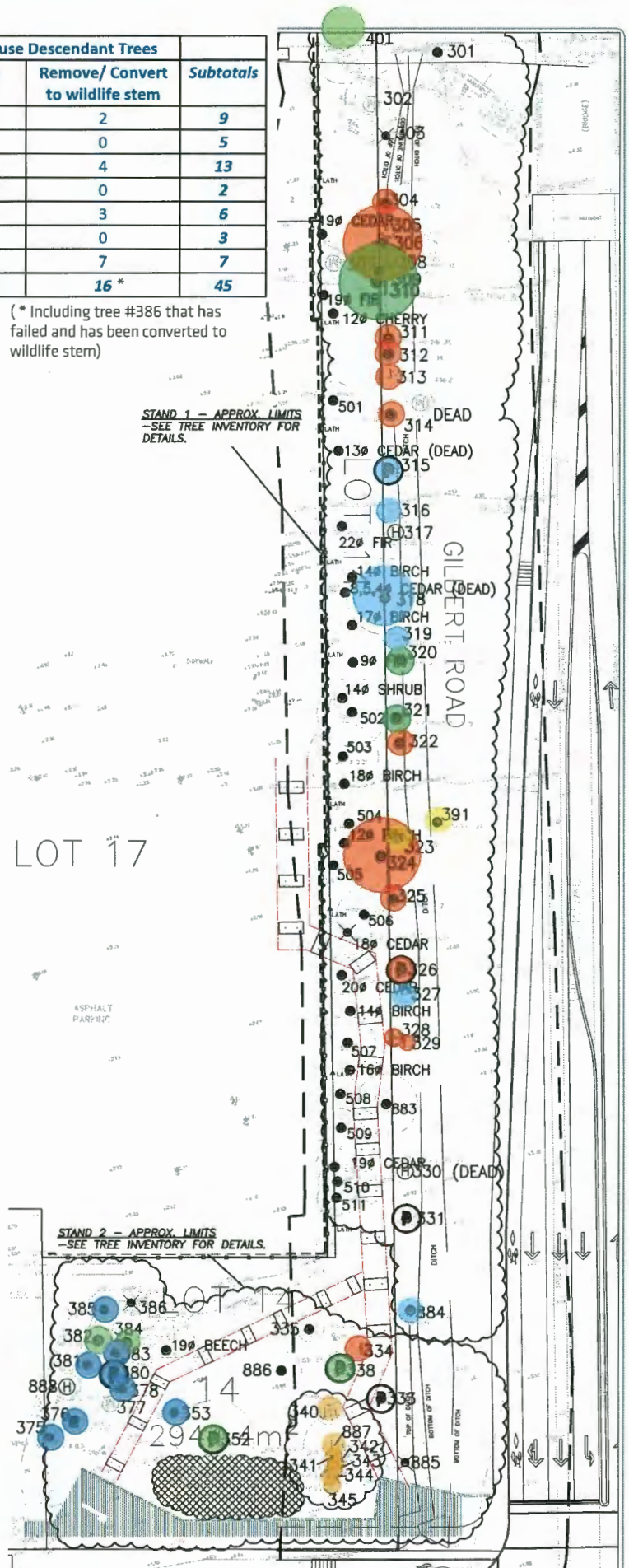
- Tag# 340- Scots Pine, 45cm, to be converted to wildlife
- Tag# 341- Scots Pine, 21cm, to be converted to wildlife
- Tag# 342- Scots Pine, 28cm, to be converted to wildlife
- Tag# 343- Scots Pine, 30cm, to be converted to wildlife
- Tag# 344- Scots Pine, 32cm, to be converted to wildlife
- Tag# 345- Scots Pine, 34cm, to be converted to wildlife
- Tag# 887- Scots Pine, 23cm, to be converted to wildlife

(* Including tree #386 that has failed and has been converted to wildlife stem)

STAND 1 - APPROX. LIMITS
-SEE TREE INVENTORY FOR DETAILS.








STAND 2 - APPROX. LIMITS
-SEE TREE INVENTORY FOR DETAILS.

LOT 17



RETAINED HERITAGE WOODLOT AND WIND-ROW TREE SPECIES

LEGEND:

	ASH	9
	ENGLISH OAK	5
	AMERICAN ELM	7
	HORSECHESTNUT	2
	LITTLELEAF LINDEN	3
	LOMBARDY POPLAR	3
	SCOTS PINE	0
SUBTOTALS:		29






 Retained deciduous tree

 Retained conifer tree

 15m RMA

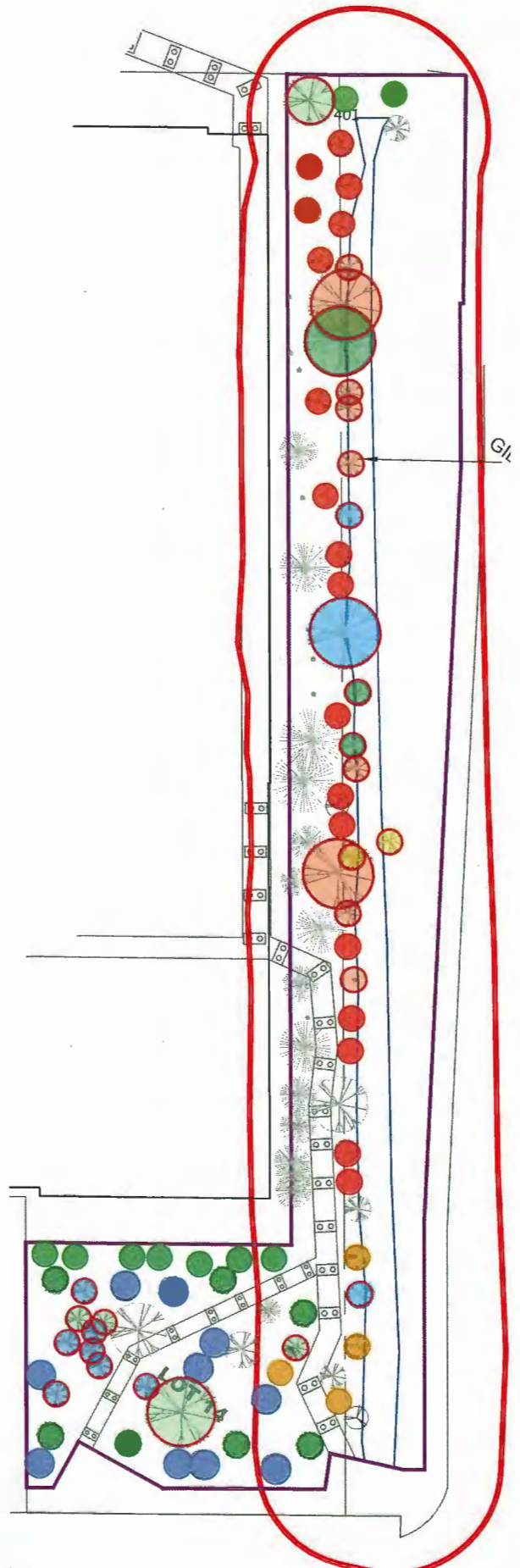
 Proposed ESA-3

REPLACEMENT TREES IN LOT 14

	Scots pine	4
	Green ash	18
	Red oak	2
	London planetree or american elm	10
	White swamp oak	14
Subtotal		48

Note: Replacement trees should be 5cm-7cm caliper.
Tree species subject to availability - possible substitutions to be confirmed by the City.

REFER TO ENVIRONMENTAL REPORT FOR THE LOT 14 PROPOSED PLANTING DESIGN



ESA Tree Summary Table

	Lot 14			Gilbert Road SRW		
	Retain	Wildlife	Remove	Retain	Wildlife	Remove
Bylaw Trees (> 20 cm)*	30 Trees, #: <ul style="list-style-type: none"> • 310, • 318, • 324, • 333, • 335, • 338, • 352, • 353, • 376, • 378, • 380, • 381, • 382, • 383, • 384, • 385, • 401, • 501, • 502, • 503, • 504, • 505, • 506, • 507, • 508, • 509, • 510, • 511, • 883, • 886. 	13 trees, #: <ul style="list-style-type: none"> • 302, • 307, • 334, • 340, • 341, • 342, • 343, • 344, • 345, • 375, • 377 (already modified), • 887, • 888. 	1 tree, #: <ul style="list-style-type: none"> • 386. 	17 trees, #: <ul style="list-style-type: none"> • 301, • 304, • 306, • 309, • 311, • 312, • 314, • 315, • 320, • 321, • 322, • 323, • 325, • 326, • 331, • 391, • 884. 	10 trees, #: <ul style="list-style-type: none"> • 303, • 305, • 308, • 313, • 316, • 317, • 319 • 328, • 329, • 330. 	1 tree, #: <ul style="list-style-type: none"> • 327.
Undersized Trees (<20 cm)*	66 trees, #: <ul style="list-style-type: none"> • ST1AP, • ST1APS (2 trees), • ST1BPAP (8 trees), • ST1JR, • ST1PM (3 trees), • ST1POPL, • ST1PSER, • ST1PXT 		11 trees, #: <ul style="list-style-type: none"> • ST1APR, • ST1IA, • ST1TPD (3 trees), • ST2RP (6 trees). 			1 trees: <ul style="list-style-type: none"> • #885.

	<ul style="list-style-type: none"> • ST1TBR (10 trees), • ST1TBR • ST1TC, • ST1TP (8 trees), • ST1UA, • ST2BPAP (2 trees), • ST2CRL (3 trees), • ST2FS, • ST2IA, • ST2PC, • ST2PS, • ST2QR, • ST2UA (17 trees). 					
Totals	96	13	14	16	9	2

*Heritage trees are shown in **bold**



City of
Richmond

Development Permit & HA Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 6811 Pearson Way (Lot 17)

File No.: DP18-816029

Prior to issuance DP18-816029, the developer is required to complete the following:

1. Statutory Right of Way*: Granting of an approximately 649m² statutory right of way (SRW), generally as shown in the Sketch Plan A and subject to final dimensions established by the surveyor to the satisfaction of the City for the purpose of securing public access and use. The SRW area will provide for:
 - Public right of passage for pedestrian, bicycles, vehicles, emergency services, City services and third party utility services and vehicles;
 - A designated loading/collection area including a loading parking space for the future child care facility at 6899 Pearson Way;
 - Design and construction at the owner's cost, including but not limited to universal accessibility, decorative finishing, landscaping, lighting, as well as safety measures related to vehicular and/or pedestrian use and/or crossing of the SRW;
 - Maintenance and repair at the owner's cost.
2. No Development Covenant: Modify CA5349574 "No Development" covenant (Schedule E, F, J, L) to require the owner of Lot 17 to submit detailed designs and enter into Servicing Agreements (SA) as a condition of Building Permit issuance rather than as a condition of Development Permit (DP) issuance.
3. Public Open Space Covenant: Modify CA5349577 "Public Open Space – Lot 17" covenant (Section 3.2 (a)) to include a new subsection to permit limited building and balcony encroachments into the Public Open Space Area in accordance with the DP.
4. No Development Covenant: Satisfy the terms of the restrictive covenant (CA5349574). The registered agreement secures that "no development" will be permitted and that the City is not obligated to issue any of a Development Permit (DP), Building Permit (BP), or final building inspection until the conditions as outlined in the restrictive covenant have been satisfied to the satisfaction of the City. The terms include requirements for:
 - 4.1. Schedule A: An Environmentally Sensitive Area Development Permit, which requires that the owner of Lot 17 applies for an ESA DP for the affected properties and requires the owner to secure an ESA DP, which is subject to City approval.
 - 4.2. Schedule B: An Heritage Alteration Permit, which requires that the owner of Lot 17 makes an application for an Heritage Alteration Permit (HAP) and requires the owner to secure an HAP, which is subject to City approval.

* Any works essential for public access within the required statutory right-of-way (SRW) are to be included in the Servicing Agreement (SA) and the maintenance & liability responsibility is to be clearly noted. The design must be prepared in accordance with good engineering practice with the objective to optimize public safety and after completion of the works, the Owner is required to provide a certificate of inspection for the works, prepared and sealed by the Owner's Engineer in a form and content acceptable to the City, certifying that the works have been constructed and completed in accordance with the accepted design. Works to be secured as a condition of Building Permit issuance.

- 4.3. Schedule C: Phasing, which requires that DPs for Lot 9 and Lot 12, and that the ESA DP and the HAP permit precede issuance of a DP for Lot 17.
- 4.4. Schedule D: District Energy Utility (DEU), which requires the owner of Lot 17 to undertake the following to the satisfaction of the City:
- Design and provide plans and specifications demonstrating capability to connect to and be serviced by the DEU that will be constructed by or on behalf of the City;
 - Provide an energy modelling report;
 - Enter into the Service Provider Agreement or alternative agreement;
 - Enter into a Section 219 Covenant for the installation, operation and maintenance of all necessary facilities.
 - The required restrictive covenant, SRW, and/or alternative legal agreement(s), which are to be to the satisfaction of the City, are to secure the owner's commitment to connect to District Energy Utility (DEU), which covenant and/or legal agreement(s) will include, at minimum, the following terms and conditions:
 - No building permit will be issued for a building on the subject site unless the building is designed with the capability to connect to and be serviced by a DEU and the owner has provided an energy modelling report satisfactory to the Director of Engineering;
 - If a DEU is available for connection, no final building inspection permitting occupancy of a building will be granted until the building is connected to the DEU and the owner enters into a Service Provider Agreement on terms and conditions satisfactory to the City and grants or acquires the Statutory Right of way(s) and/or easements necessary for supplying the DEU service to the building;
 - If a DEU is not available for connection, no final building inspection permitting occupancy of a building will be granted until:
 - The City receives a professional engineer's certificate stating that the building has the capability to connect to and be serviced by a DEU;
 - The owner enters into a covenant and/or other legal agreement to require that the building connect to a DEU when a DEU is in operation;
 - The owner grants or acquires the Statutory Right of Way(s) and/or easements necessary for supplying DEU services to the building; and
 - The owner provides to the City a letter of credit, in an amount satisfactory to the city, for costs associated with acquiring any further Statutory Right of Way(s) and/or easement(s) and preparing and registering legal agreements and other documents required to facilitate the building connecting to a DEU when it is in operation.
- 4.5. Schedule G: Public Art, which requires the owner of Lot 17 to submit a design, implementation and management plan that is consistent with the Public Art Plan, to enter into a Public Art Agreement, and to provide a public art voluntary contribution of \$211,000.00 (\$200,450.00 to the Public Art Reserve 7600-80-000-90173-0000 and \$10,550.00 to the Public Art Program administration 7500-10-000-90337-0000) and in lieu of providing public art as part of the subject development.
- 4.6. Schedule H: Child Care, which requires the owner of Lot 17 to deliver a child care facility at Lot 13 as a condition of occupancy of the proposed residential units at Lot 17.
- 4.7. Schedule N: Community Planning, which requires the owner of Lot 17 to voluntarily contribute \$100,000.00 to future City community planning studies, as set out in the City Centre Area Plan and as required by the Rezoning Considerations for the subject property (City Centre Community Planning and engineering Account #3132-10-520-00000-0000).
5. Tandem Parking: Registration of a legal agreement on Title, subject to final approval of the Director of Transportation:

- Ensuring that where two parking spaces are provided in a tandem arrangement both parking spaces must be assigned to the same dwelling unit; and
 - Prohibiting conversion of the any of the tandem car parking areas into general storage space or other non-care parking uses.
6. Visitor Parking: Registration of a legal agreement on Title, subject to final approval of the Director of Transportation, to:
- Maintain the number of visitor parking stalls as required by the Zoning Bylaw requirements in perpetuity;
 - Prohibit the selling, leasing, assigning, or designating any of the visitor parking spaces to individual unit owners/renters/occupants or any other persons; and
 - Ensure that the required visitor parking stalls are available for use by visitors to this development at all times.
7. Non-Conversion of Bicycle Parking and Repair/Maintenance Areas: Registration of a legal agreement on Title, subject to final approval of the Director of Transportation, to:
- Prohibit the conversion of bicycle parking and/or bicycle repair/maintenance areas into habitable space, general storage space or other uses that are not related to bicycle parking and/or repair/maintenance; and
 - Secure all bicycle parking and repair/maintenance areas for shared common use by all residents of the development.
8. View and Other Development Impacts: Registration of a legal agreement on Title stipulating that the development is subject to potential impacts due to other development that may be approved within the City Centre including without limitation, loss of views in any direction, increased shading, increased overlook and reduced privacy, increased ambient noise and increased levels of night-time ambient light, and requiring that the owner provide written notification of this through the disclosure statement to all initial purchasers, and erect signage in the initial sales centre advising purchasers of the potential for these impacts.
9. Discharge DV 89-367: Discharge Development Variance Permit 89-367, which was issued in 1990 to permit a three storey office building that has since been demolished.
10. Discharge CA5349576: Discharge Temporary Works – SRW Public Open Space from Lot 17, which is no longer required as the temporary public open space at Lot 9 was approved to be removed and will be replaced by a permanent Public Open Space Area, which is to be design and constructed to the satisfaction of staff as a consideration of Building Permit issuance.
11. Letter of Credit: Receipt of a Letter of Credit for landscaping on the portion of Lot 17 that is not included in the Public Open Space Area in the amount of \$2,403,302.00 based on the cost estimate provided by PFS Studio.

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. No Development: Satisfy the terms of the restrictive covenant (CA5349574) to the satisfaction of the City. The terms include requirements to enter into a Servicing Agreement (SA)[†]:
- 1.1. Schedule E: Park, which requires the owner of Lot 17 to develop a concept for the Public Open Space Area, to undertake detailed design and to enter into SA[†]s for the Public Open Space Area, the Waterfront Park, Lot 14 and any works associated with the HAP and/or ESA DP. As part of the SA process, the applicant is required to provide associated Letter of Credits (LOCs) for the design and construction of the Public Open Space Area, Waterfront Park, Lot 14 and HAP and/or ESA DP. The Public Open Space Area is to include a minimum of 46 specimen trees (≥ 8

[†] This requires a separate application.

cm caliper), including at least one native tree species. The applicant may replace the existing Public Open Space Area right of way with a survey plan that secures a minimum of 4,325 m² of Public open Space Area at Lot 17.

- 1.2. Schedule F: Road and Related Improvements, which requires the owner of Lot 17 to submit detailed designs for the remaining required road works and related improvements. The applicant is required to enter into a SA[†] and to provide an associated LOC.

The Developer is required to complete frontage improvements, including road works and behind-the-curb frontage treatments, for: (i) Lot 17; (ii) Lot 14; and (iii) works that were left unfinished from SA 13-632452 for Lot 9 and Lot 12. The required works include: removal of temporary asphalt sidewalk and other temporary frontage treatments; construction of new sidewalk and landscaped boulevard; and pavement widening to the ultimate width. The Lot 17 boulevard along Pearson Way is to include a minimum of 13 trees, including a minimum of 10 specimen tree species, which may be non-native trees, in accordance the Heritage/Environmental Conservation Plan (December 2011). The comments on the frontage works required for Lot 13 are for information only as the development of Lot 13 is under a separate application. The required frontage improvements are to be carried out for the following roadway sections:

Pearson Way (West-East) - Lot 9 and Lot 12 Frontages

Some of the behind-the curb frontage improvements are noted as “future works” in the SA design drawings for Lot 9 and Lot 12. As Lot 17 is the last phase of the River Green development, the frontage improvements required for the two earlier phases must be completed in conjunction with the current phase. The following road cross-section describes the required frontage improvements across the Lot 9 and Lot 12 road frontages. (Measurements are from south to north).

South property line:

- 2.0 m wide concrete sidewalk (the back of the sidewalk is on a 0.5 m wide SRW)
- 1.85 m wide grass boulevard with street trees
- 0.15 m wide south curb
- 12.0 m wide pavement
- 0.15 m wide north curb
- 1.85 m wide grass boulevard with street trees
- 2.0 m wide concrete sidewalk (the back of the sidewalk is on a 0.5 m wide SRW)
- North property line

Pearson Way (West-East) Lot 17 and Lot 12 Frontages

The following road cross-section describes the required frontage improvements for the section of Pearson Way (W-E) across the Lot 17 and Lot 12 road frontages. (Measurements are from south to north).

South property line:

- 2.0 m wide concrete sidewalk (the back of the sidewalk is on a 0.5 m wide SRW)
- 1.85 m wide grass boulevard with street trees
- 0.15 m wide south curb
- 10.0 m wide pavement
- 0.15 m wide north curb
- 1.85 m wide grass boulevard with street trees
- 2.0 m wide concrete sidewalk (the back of the sidewalk is on a 0.5 m wide SRW)
- North property line

Pearson Way (West-East) Curb Extensions

At approximately mid-block Pearson Way (W-E), curb extensions are required for traffic calming purposes. The curb extensions are to have a 2.0 m off-set from the adjacent curb line. The road cross-sections noted under Items 1 and 2 above refer to the sections of Pearson Way to the west and east of the curb extensions respectively.

Pearson Way (North-South) Lot 12 and Lot 17 Frontages

The following road cross-section describes the required frontage improvements for the section of Pearson Way (N-S) between Pearson Way W-E and River Road. (Measurements are from west to east).

West property line:

- 2.0 m wide concrete sidewalk (the back of the sidewalk is on a 0.5 m wide SRW)
- 1.85 m wide grass boulevard with street trees
- 0.15 m wide west curb
- 12.0 m wide pavement
- 0.15 m wide east curb
- 1.85 m wide grass boulevard with street trees
- 2.0 m wide concrete sidewalk (the back of the sidewalk is on a 0.5 m wide SRW)
- East property line

Pearson Way (North-South) Lot 12 and Lot 13 Frontages

The following road cross-section describes the required frontage improvements for the section of Pearson Way N-S between Pearson Way W-E and River Road. (Measurements are from west to east).

West property line:

- 2.0 m wide concrete sidewalk (the back of the sidewalk is on a 0.5 m wide SRW)
- 1.85 m wide grass boulevard with street trees
- 0.15 m wide west curb
- 12.0 m wide pavement
- 0.15 m wide east curb
- 0.9 m wide grass boulevard
- 2.0 m wide temporary asphalt sidewalk
- 0.45 m wide grass strip
- East property line

River Road Lot 12 and Lot 13 Frontages

The following road cross-section describes the required frontage improvements for the section of River Road between Pearson Way N-S and Gilbert Road. (Measurements are from north to south).

North property line:

- 2.0 m wide concrete sidewalk with a 0.5 m wide stone paving band along the north edge of the sidewalk (the sidewalk is to be located on a 2.0 m wide SRW)
- 1.55 m wide buffer strip
- 1.8 m wide bike lane
- 1.56 m wide grass boulevard with streets
- 0.15 m wide north curb
- 16.1 m pavement
- 0.15 m wide south curb

River Road Lot 14 Frontage

The road cross-section for Lot 14 River Road frontage is the same as that noted under Item 6 above with the exception that a 2.0 m wide SRW would not be required as Lot 14 is owned by the City.

River Road/Gilbert Road Intersection

As part of the road works required under SA 13-632452, the Developer is to construct the final curb/gutter at the River Road/Gilbert Road intersection to align with existing curb lines. The final curb/gutter works are to be carried out upon completion of the full curb-to-curb construction of River Road between Hollybridge Way and Gilbert Road.

Traffic Signals

The following traffic signal works are required.

- River Road/Pearson Way intersection - The construction of a new traffic signal at the River Road/Pearson Way intersection is part of the off-site works under SA13-632452. These signal works are mostly complete. The remaining works will be completed by the City and paid for by the Developer. Work Order #9534547 will remain open until the full traffic signal is complete and operational.
- River Road/Gilbert Road intersection - At the River Road/Gilbert Road intersection, some of the existing traffic signal infrastructure may be affected by the Lot 14 frontage works and may need to be modified and/or replaced. The Developer is responsible for all such related costs. Transportation staff will determine the requirements for and the costs of the traffic signal infrastructure modifications and/or replacements.

Statutory Right-of-Way Requirements

The following SRWs are required.

- Pearson Way (W-E) – 0.5 m wide SRW behind property line, both sides of the road.
- Pearson Way (N-S) – 0.5 m wide SRW behind property line, both sides of the road.
- River Road – 2.0 m wide SRW behind property line for Lot 12 and Lot 13, north side of the road

1.3. Schedule J: Dike, which requires the owner of Lot 17 to undertake the following to the satisfaction of the City:

- Submit a Conceptual Dike Plan;
- Provide a detailed design that includes any related works;
- At its sole cost, obtain all necessary governmental and related approvals pertaining to the dike and related works;
- Enter into a Dike SA[†] that includes the following provisions and to provide an associated LOC:
 - The owner of Lot 17 is responsible for raising the height of the crest of the dike to a minimum elevation of 4.7 m geodetic;
 - The owner of Lot 17 is responsible for the costs associated with raising the crest of the dike to 4.0 m geodetic.
 - The City will be responsible for the cost of raising the crest of the dike above 4.0 m geodetic.

1.4. Schedule L: Water, Sanitary Sewer, Storm Sewer and Related Improvements, which requires the owner of Lot 17 to enter into a SA[†] and associated LOC for the design, construction and installation of servicing works.

2. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
3. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Development Permit processes.
4. The applicant is required to obtain a Building Permit for any construction hoarding associated with the proposed development. If construction hoarding is required to temporarily occupy a street, or any part thereof, or occupy the air space above a street or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. *For further information on the Building Permit, please contact Building Approvals Department at 604-276-4285.*
5. Confirmation that the recommendations identified in the acoustic evaluation report by Brown Strachan Associates, dated February 26, 2019 and in the mechanical thermal report by Yoneda and Associates, dated January 22, 2019, or equivalent measures, have been incorporated into the construction plans.
6. Confirmation that the commitments regarding EV charging provisions, which are identified in the letter, dated April 17, 2019, from Nemetz and Associates Ltd., or equivalent measures, have been incorporated into the construction plans to the satisfaction of Sustainability staff.

Address: 6900 River Road
File No.: ESA DP18-840993

Prior to issuance of ESA DP 18-840993, the developer is required to complete the following:

1. Receipt of a Letter of Credit for landscape restoration in the amount of \$175,002.58 based on the cost estimate provided by PGL Environmental Consultants Ltd, April 2019. The landscape LOC may be reduced to reflect the costs of landscape works secured through the SA.
2. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
3. Submission of a Contract entered into between the applicant and a Qualified Environmental Professional to monitor and provide annual reporting to the City on the ESA for five years following City approval of substantial completion.
4. Submission of a Tree Survival Security to the City in the amount of \$480,000 for the 113 trees to be retained.
5. Installation of appropriate tree protection fencing around all trees to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site
6. Installation of appropriate Environmentally Sensitive Area (ESA) protection fencing and silt control fencing in accordance with the Construction Environmental Management Plan (PGL Environmental Consultants, March 2019) prior to any construction activities occurring on-site.
7. Registration of a legal agreement on title to identify the modified ESA on Lot 17 and to ensure that vegetation is retained and planted as identified within the Environmental Impact Assessment (PGL Environmental Consultants Ltd, March 2019), and will not be abandoned or removed.

8. Registration of a legal agreement on title to allow City access to the property in case the works identified within the Environmental Impact Assessment (PGL Environmental Consultants Ltd, March 2019) are not completed, maintained or monitored as proposed.

Address: 6900 River Road

File No.: Heritage Alteration Permit 18-840992

Prior to issuance of HA 18-840992, the developer is required to complete the following:

1. Enter into a legal agreement with the City regarding the following:
 - 1.1 Submission of a tree replacement security in the amount of \$93,600.00 (\$1,950/ tree) for the required 48 heritage replacement trees prior to the issuance of the HAP. The landscape LOC may be reduced to reflect the costs of landscape works secured through the SA. The release of the security will be released in stages as described below.
 - 50% of the security can be released upon receipt of a completion report prepared by a certified arborist confirming that the trees have been planted in accordance with the approved plans including the locations, sizes and species of the replacement trees, to the satisfaction of the Director of Development and/or the Director, Parks Services, Community Services, Parks Services.
 - The other 50% will be held to ensure that the trees survive for the maintenance period of five years. The 50% of the security can be further reduced to 25% after three years from the date of completion upon receipt of a monitoring report prepared by a certified arborist, to the satisfaction of the Director of Development and/or the Director, Parks Services, Community Services, Parks Services. The report must summarize the maintenance activities performed and confirm that the trees are still in compliance with the approved plans and in good condition.
 - The final 25% can be released in its entirety after five years from the date of completion upon receipt of a second monitoring report prepared by a certified arborist report confirming the tree are still in compliance with the approved plans and in good condition, to the satisfaction of the Director of Development and/or the Director, Parks Services, Community Services, Parks Services.
 - 1.2 Submission of a Letter of Credit in the amount of \$42,500.00 prior to the issuance of the HAP. The landscape LOC may be reduced to reflect the costs of landscape works secured through the SA. 90% of the security can be released upon receipt of a letter from the landscape architect confirming that the work has been completed in accordance with the approved HAP. The final 10% can be released after the required five year maintenance period.
2. Submission of a public art voluntary contribution in the total amount of \$83,000 (\$41,000 with additional \$42,000.00 for enhanced heritage interpretation) to the Public Art Program administration 7500-10-000-90337-0000 for a heritage-themed public art project near the south entrance to Gilbert Greenway.

Notes:

- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.
All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the

Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

Signed (on file)

Date

Sketch Plan A

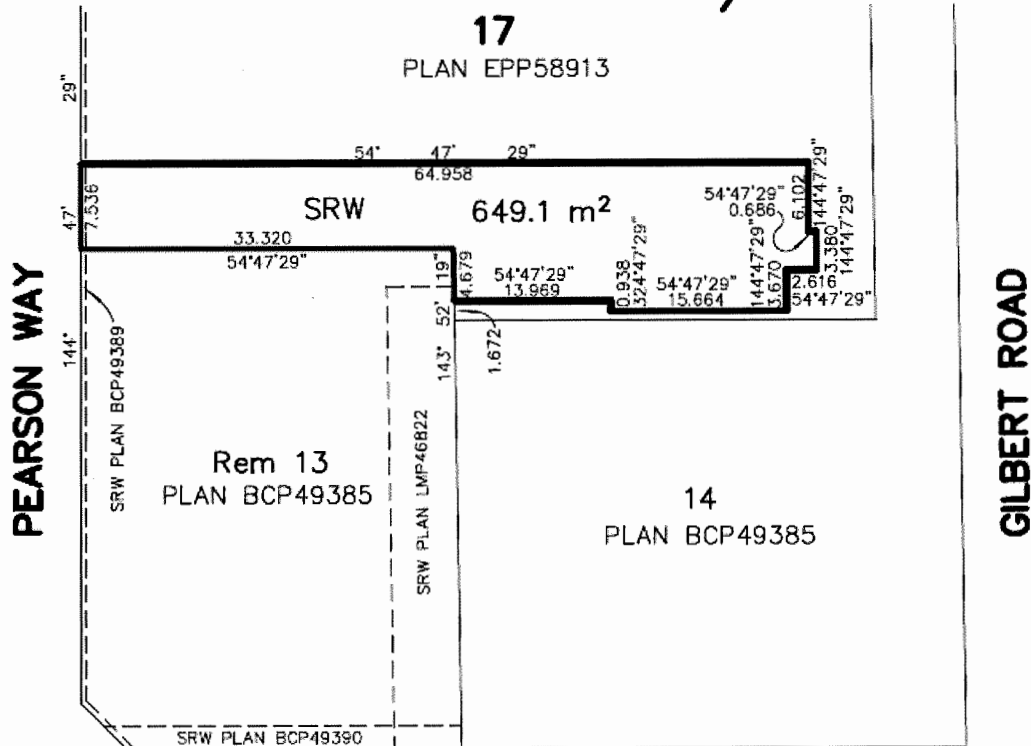
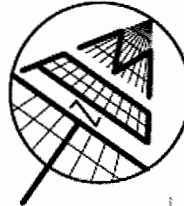
**SKETCH PLAN OF PROPOSED STATUTORY RIGHT OF WAY
OVER PART OF LOT 17 SECTIONS 5 AND 6 BLOCK 4 NORTH
RANGE 6 WEST AND SECTION 31 BLOCK 5 NORTH
RANGE 6 WEST NWD PLAN EPP58913**

LEGEND

SCALE 1:500



ALL DISTANCES ARE IN METRES



© COPYRIGHT

MATSON PECK & TOPLISS

SURVEYORS & ENGINEERS

#320 - 11120 HORSESHOE WAY

RICHMOND, B.C., V7A 5H7

PH: 604-270-9331

FAX: 604-270-4137

CADFILE: 17941-SKETCH-SRW.DWG

R-19-17941-SKETCH-SRW

MARCH 27, 2019



No. DP 18-816029

To the Holder: Oval 8 Holdings Ltd. Inc. No. 0805724
Property Address: 6811 Pearson Way
Address: Suite 1830 - 1055 West Hastings
 Vancouver BC V6E 2E9

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. The "Richmond Zoning Bylaw 8500" is hereby varied to:
 - a) Waive the requirement for on-site large size loading spaces.
 - b) Increase the maximum permitted building projection into the Pearson Way public road setback from 1 m up to 2.5 m for proposed Tower F and G balconies.
4. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #9.01 attached hereto.
5. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
6. As a condition of the issuance of this Permit, the City is holding the security in the amount of \$2,403,302.00 to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
7. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit
No. DP 18-816029

To the Holder: Oval 8 Holdings Ltd. Inc. No. 0805724
Property Address: 6811, 6899 Pearson Way, 6900 River Road
Address: Suite 1830 - 1055 West Hastings
Vancouver BC V6E 2E9

8. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

This Permit is not a Building Permit.

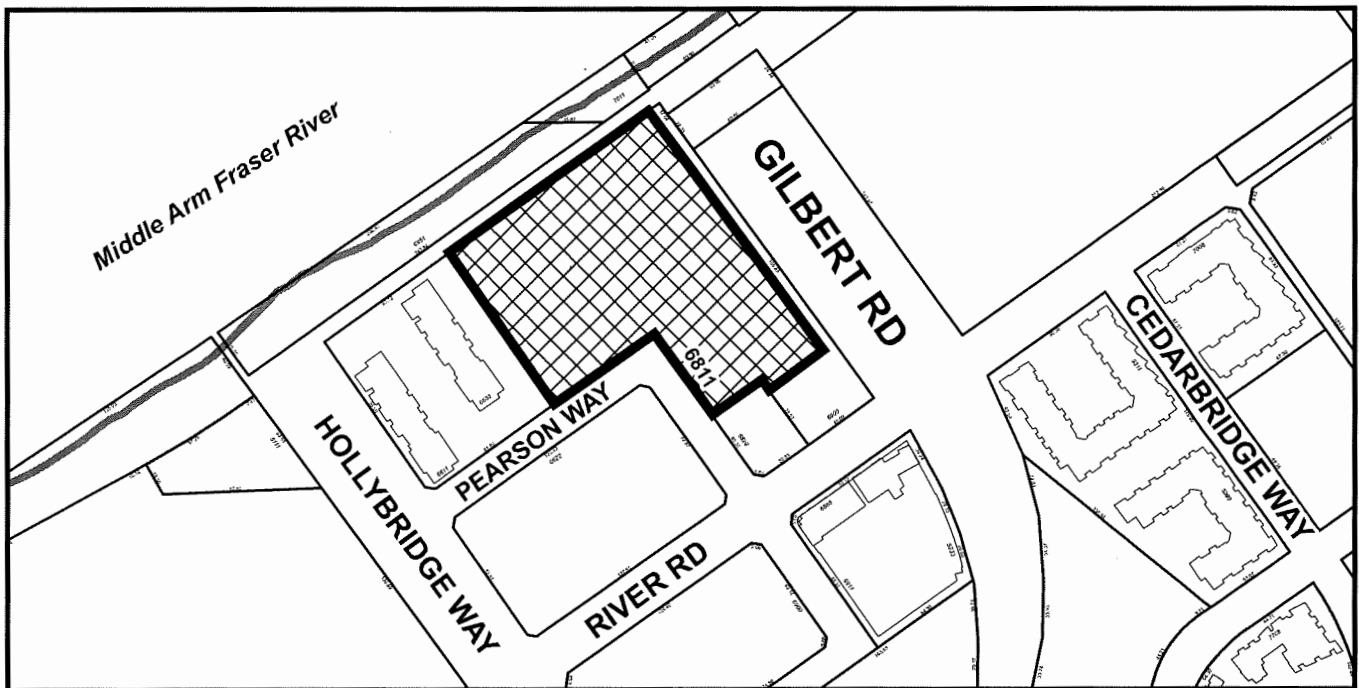
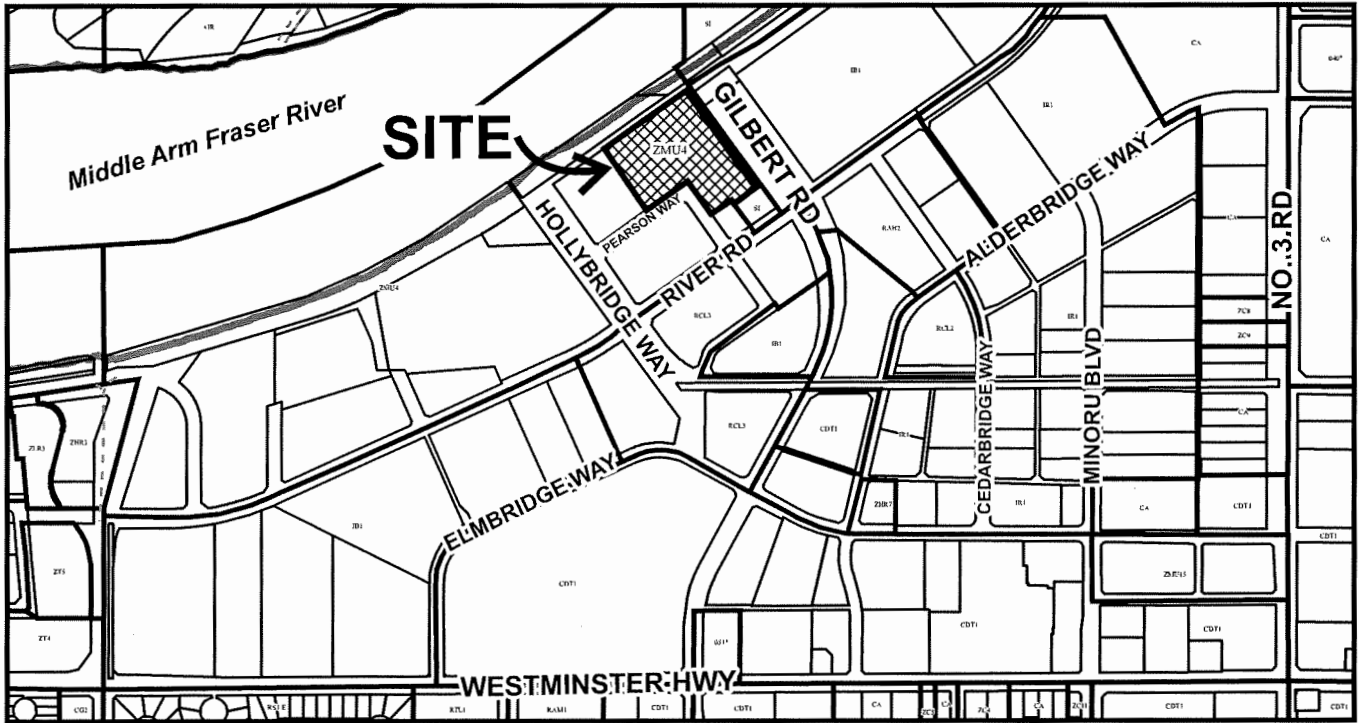
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE
DAY OF , .

DELIVERED THIS DAY OF , .

MAYOR



City of Richmond



DP 18-816029
SCHEDULE "A"

Original Date: 04/12/18

Revision Date:

Note: Dimensions are in METRES



APR 23 2019

CIVIC ADDRESS:
TOWER G - 6811 PEARSON WAY, RICHMOND
TOWER H - 6833 PEARSON WAY, RICHMOND
TOWER F - 6855 PEARSON WAY, RICHMOND

LEGAL DESCRIPTION:
LOT 17 SECTION 586 BLOCK 4 NORTH RANGE 6 WEST NEW WESTMINSTER DISTRICT PLAN BCP 48385 EXCEPT PART ON PLAN EPP58913

ZONING / GUIDELINES:
RICHMOND ZONING BYLAW 8500, 20.4 HIGH RISE APARTMENT AND OLYMPIC OVAL (ZMU4) - OVAL AREA "J"

SITE AREA:
195,990 SF (18,208 SQM)

SITE DIMENSIONS:
SEE SURVEY

RIGHT OF WAYS (SEE SURVEY)
PEARSON WAY (E-W): 0.5m (1.64') SRW PLAN BCP48389
PEARSON WAY (N-S): 0.5m (1.64') SRW PLAN BCP48389
SRW: PUBLIC OPEN SPACE EQUAL TO 4325.1 SQM CAS49583

ROAD SETBACKS
PEARSON WAY (E-W): 3.0M (9.84')
PEARSON WAY (N-S): 3.0M (9.84')

MAX. BUILDING HEIGHT:
47.00 m (154.20')

LEED:
THE PROJECT WILL BE BUILT TO SILVER LEED OR EQUIVALENT.

UNITS PROPOSED, FAR, AMENITY, UNIT MIX

Gross Area	Exclusions				BUH / HP Exclusions			FAR			
	Metric	Private Stairs	Private Elevators	O.T.B. / Mech	BUH Exclusions	BUH Exemption	Heat Pump	Heat Pump Exemption	Imperial	Metric	
584,118	54,286.4	11,082	0	4,511	13,104	2,541	19,468	50,707	6,069	527,343 SF	46,952 m ²

Bldg Location	UNIT MIX							Total	BUH Units
	1BR	2BR	3BR	4BR	4BR + Den	PH	TH		
TOWER F	10	45	38	18	0	0	6	0	118
TOWER G	16	18	78	19	0	21	5	10	177
TOWER H	27	10	54	17	5	34	6	0	164
Grand total	53	71	170	36	23	56	16	22	469

FAR	PERMITTED	ACHIEVED	SOM	PERMITTED	ACHIEVED	SOM
PERMITTED	527,348	48,992	48,992	PERMITTED	1,820.81	1,820.81
ACHIEVED	(2,89)	527,343	48,992	ACHIEVED	1,808.65	1,808.65

LOADING BAYS

TYPE	LOADING RULE	REQUIRED		PROVIDED	
		RESIDENTIAL MEDIUM DWELLING UNITS	81-240	RESIDENTIAL MEDIUM DWELLING UNITS	81-240
TOTAL		3	3	3	3

Notes: 7.13.6.1 Residential Use On-Site Loading Spaces Requirement for developments fronting a public road where on-street parking is typically allowed
81-240 Units Medium Size: 1 space per each additional 1,660 sq. ft. over 1,860 sq. ft. (20,20.9 sq. ft.)
241 or more Units Medium Size: 1 space per each additional 1,660 sq. ft. over 1,860 sq. ft. (20,20.9 sq. ft.)
Large Size: for buildings that are 5 storeys or higher, 1 space for every building.

7.13.6.2 General On-Site Loading Spaces Requirements for developments fronting a public road where on-street parking is typically allowed 1,861 sq. m (53,819.6 sq. ft.)
Medium size: 1 space plus 1 space per each additional 5,000 sq. m (53,819.6 sq. ft.) over 1,860 sq. m (20,20.9 sq. ft.)
Large size: 1 space for each 5,000 sq. m (53,819.6 sq. ft.) over 1,860 sq. m (20,20.9 sq. ft.)

River Green - Lot 9, 12, 17 Overall Density Summary

Lot Reference	Site Area (sq.m)	Maximum Permitted Density FAR		Actual/Proposed Density FAR	
		Maximum Residential (ef)	Maximum Commercial (ef)	Residential (ef)	Commercial (ef)
Lot 9*	8,764	94,334	297,622	297,622	3.15
Lot 17	18,208	185,989	895,853	527,343	2.89
Lot 12*	10,903	117,358	35,111	365,464	3.28
Lot 13 (Childcare)	1,486	15,995	-	-	-
Sub-Total	39,361	423,676	1,193,475	1,193,421	1.210,087
Total FAR			2.82	2.82	2.86

* FAR based on Lot 9's approved Development Permit # 13-632454
* FAR based on Lot 12's approved Development Permit # 16-743848

DP 18-816029

APR 23 2019

Parking Required

Residential
 Visitors
 Handicap

Note: 7.9.3.1 Residential Use City Center parking Requirements for apartment housing in Zone 2
 1.2 Residential spaces per dwelling unit + 0.2 Visitor spaces per dwelling unit
 7.5.14 HC Min. 2% of the required parking spaces
 7.5.13 For on-site parking areas which contain 31 or more spaces, a minimum of 50% of the spaces provided shall be standard spaces.

7.5.6 Where residents of a **single dwelling unit**: [Bylaw 8582, Apr. 19/10]
 a) **reside** in a building used for: [Bylaw 8582, Apr. 19/10]
 i) housing, apartment; [Bylaw 8582, Apr. 19/10]
 ii) mixed residential/commercial purposes; or [Bylaw 8582, Apr. 19/10]
 iii) housing, town in site specific zones ZT45, ZT48 to ZT53, ZT55 to ZT65, and ZT67; and [Bylaw 8582, Apr. 19/10]
 b) intend to use **two parking spaces**. [Bylaw 8582, Apr. 19/10]

the spaces may be provided in a **tandem arrangement**, with one standard parking space located behind the other, and both standard parking spaces may be set perpendicular to the adjacent manoeuvring aisle. [Bylaw 8582, Apr. 19/10]

Minimum Required Parking	Res. Access.	Vis. Access.
Residential	12	
Visitors		2
Total		

Total Parking Required per Tower	Tower H	Tower G	Tower F	Total
# of Units	164	177	118	459
Residents	197	212	142	551
Visitors	33	35	24	92
Total	230	248	165	643

ACCESSIBLE
 14 stalls

Electric Vehicle Requirements

- Every Residential Stall will have an energized 208 Volt Level 2 receptacle.
- There will be EV Management System on open protocol system to control the electrical demand for the EV charging.
- The EV Management System will be capable of supplying a minimum performance level of 12KWH per parking space over an eight (8) hour overnight period.

Total Parking (Provided)

LEVEL	RESIDENTIAL			VISITOR			TOTAL
	Regular	Tandem	Handicap	Regular	Small	Handicap	
P1	144	-	14	53	37	2	252
P2	337	11	56	-	-	-	414
TOTAL	481	11	70	53	37	2	666

River Green Lot 9, 12 & 17 Total Parking Summary

Lot Reference	Lot 9	Lot 12	Lot 17 Proposed	Total
Units	171	287	459	917
Residential	284	423	574	1,281
Commercial Shared Visitor	-	123	-	123
Visitor	35	-	92	127
Total	319	546	666	1,531

* Based on Lot 9's approved Development Permit # 13-632454
 * Based on Lot 12's approved Development Permit # 16-743848

Ratio of Standard to small Car parking spaces for Lot 17 (Min 50% required)

Residential 87% Visitors 59%

Parking Space Schedule P1	
RES. STALL - ACC. - VAN	2
RES. STALL - ACC. - VAN	40
RES. STALL - PVT. GARAGE (REG)	104
RES. STALL - REGULAR	325
RES. STALL - SMALL 1	9
RES. STALL - SMALL 2	23
RES. STALL - TANDEM	11
RES. STALL - ACC. - VAN	53
RES. STALL - REGULAR	37
Grand total: 252	

Parking Space Schedule P2	
RES. STALL - ACC. - VAN	4
RES. STALL - ACC. - VAN	6
RES. STALL - PVT. GARAGE (REG)	12
RES. STALL - REGULAR	325
RES. STALL - SMALL 1	9
RES. STALL - SMALL 2	23
RES. STALL - TANDEM	11
RES. STALL - ACC. - VAN	53
RES. STALL - REGULAR	37
Grand total: 414	

Bike Locker Schedule	
Locker Type / Size	Bike Count
4'0" X 6' - 1 Bike	129
4'4" X 7' - 1 Bike	10
5'0" X 6' - 1 Bike	197
5'0" X 6' - 2 Bikes	64
6'0" X 4' - 1 Bike	18
6'0" X 5' - 1 Bike	18
6'0" X 6' - 1 Bike	2
6'0" X 6' - 1 Bike	2
CUSTOM 1 - 30sqf - 1 Bike	1
PVT. GRG - 2 Bikes	1
Grand total	467

Bike Locker Schedule Level P1	
Locker Type / Size	Bike Count
4'0" X 6' - 1 Bike	45
4'4" X 7' - 1 Bike	5
5'0" X 6' - 1 Bike	93
5'0" X 6' - 2 Bikes	39
6'0" X 4' - 1 Bike	9
6'0" X 5' - 1 Bike	1
CUSTOM 1 - 30sqf - 1 Bike	1
PVT. GRG - 2 Bikes	19
Grand total	212

Bike Locker Schedule Level P2	
Locker Type / Size	Bike Count
4'0" X 6' - 1 Bike	64
4'4" X 7' - 1 Bike	5
5'0" X 6' - 1 Bike	104
5'0" X 6' - 2 Bikes	43
6'0" X 4' - 1 Bike	1
6'0" X 5' - 1 Bike	9
6'0" X 6' - 1 Bike	2
PVT. GRG - 2 Bikes	7
Grand total	255

Bike Parking Tabulation

Class 1
 Class 2

Total Bike Parking Required per Tower

Bikes (Class 1)	Tower H	Tower G	Tower F	Total
Bikes (Class 2)	205	222	148	575
	33	36	24	93
TOTAL	575	575	575	575

Min. EV Bike Parking 58
 Provided EV Bikes Parking 69 Note: Where more than 10 bikes in room but less than 20: 2 EV shared points provided

BIKES PROVIDED		
Level	Bikes (Class 1)	Bikes (Class 2)
L1	-	94
P1	270	-
P2	305	-
TOTAL	575	94

3 bicycle repair station will be provided and located on P2

Loading Required

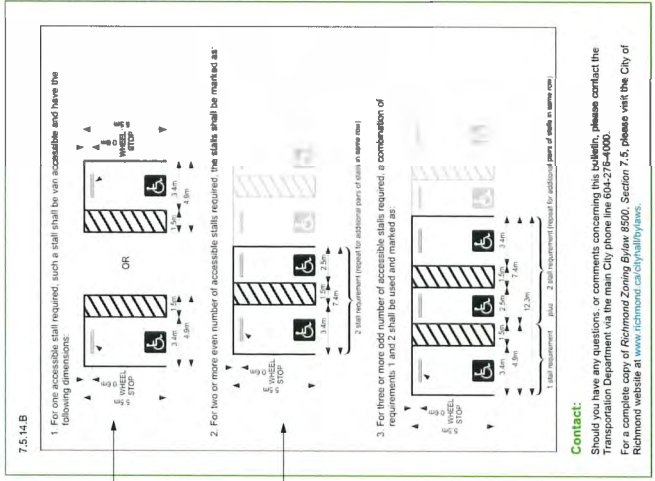
Notes: 7.13.6.1 Residential Use On-Site Loading Spaces Requirement for developments fronting a public road where on-street parking is typically allowed

81-240 Units Medium Size: 1 space
 241 or more Units Medium Size: 1 space+ 1 space per each additional 160 dwellings units over 240 dwellings units.
 Large Size: for buildings that are 5 storeys or higher, 1 space for every buildings.

7.13.6.2 General On-Site Loading Spaces Requirements for developments fronting a public road where on-street parking is typically allowed 1,861 sm (20,20.9 sq.ft)

Medium size: 1 space plus 1 space per each additional 5,000 sm (53,819.6 sq.ft.) over 1,860 sm (20,20.9 sq.ft.)
 Large Size: 1 space for each 5,000 sm (53,819.6 sq.ft.) over 1,860 sm (20,20.9 sq.ft)

TYPE	LOADING		
	RULE	REQUIRED	PROVIDED
RESIDENTIAL MEDIUM	1 PER EACH TOWER FOR DWELLING UNITS 81-240	3	3
TOTAL		3	3



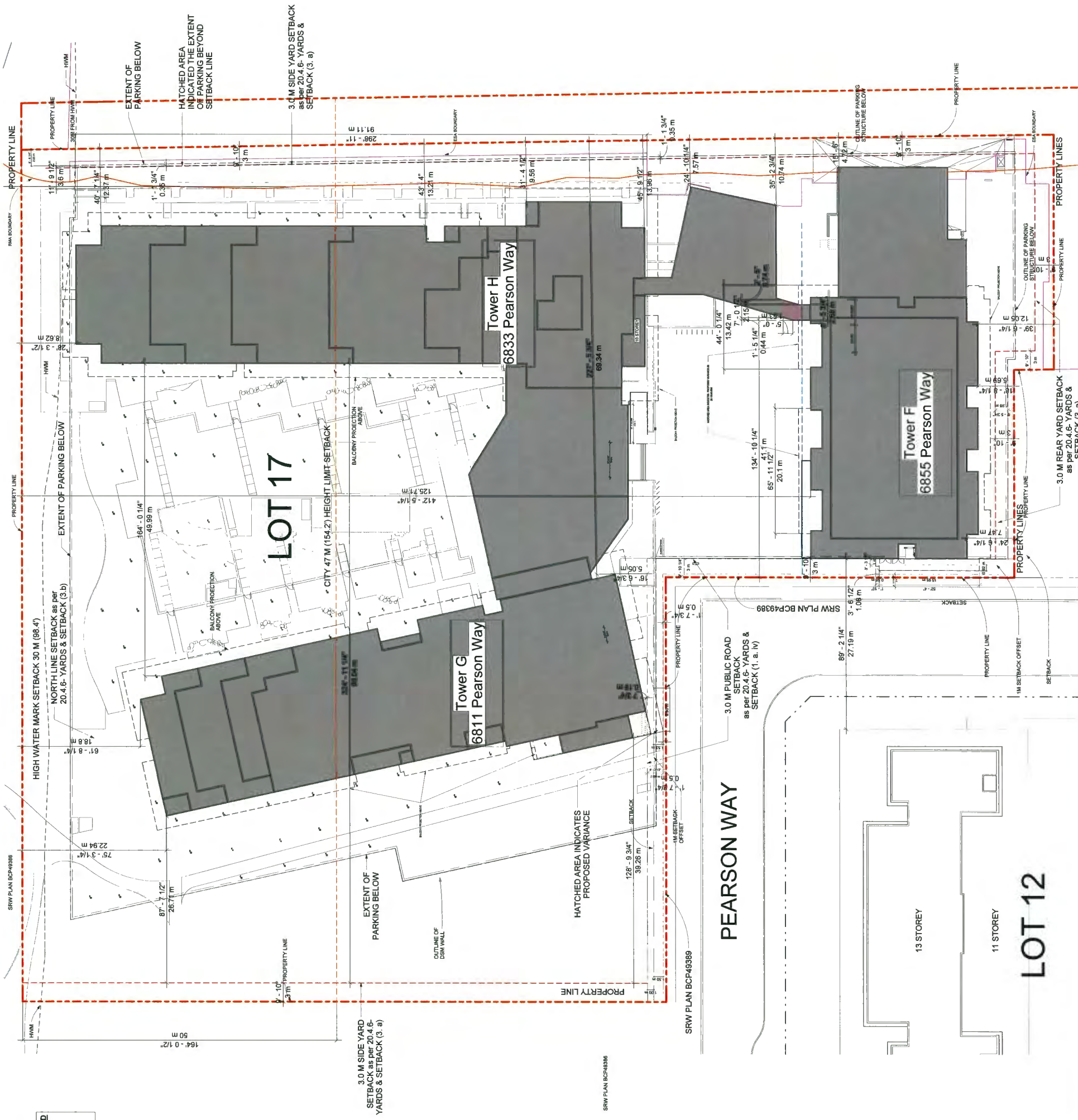
ALL SINGLE LOCATED ACCESSIBLE STALLS ARE PROVIDED TO MATCH AS PER FIGURE 1.

ALL DOUBLE LOCATED ACCESSIBLE STALLS ARE PROVIDED TO MATCH WITH THE SHARED ABLE PER FIGURE 2.

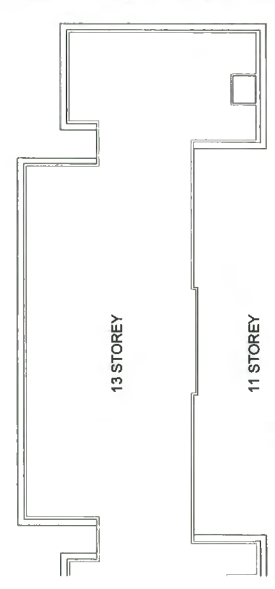
Contact: Should you have any questions, or comments concerning this bulletin, please contact the Transportation Department via the main City phone line 604-275-4000. For a complete copy of Richmond Zoning Bylaw 8500, Section 7.6, please visit the City of Richmond website at www.richmond.ca/cityhall/bylaws.

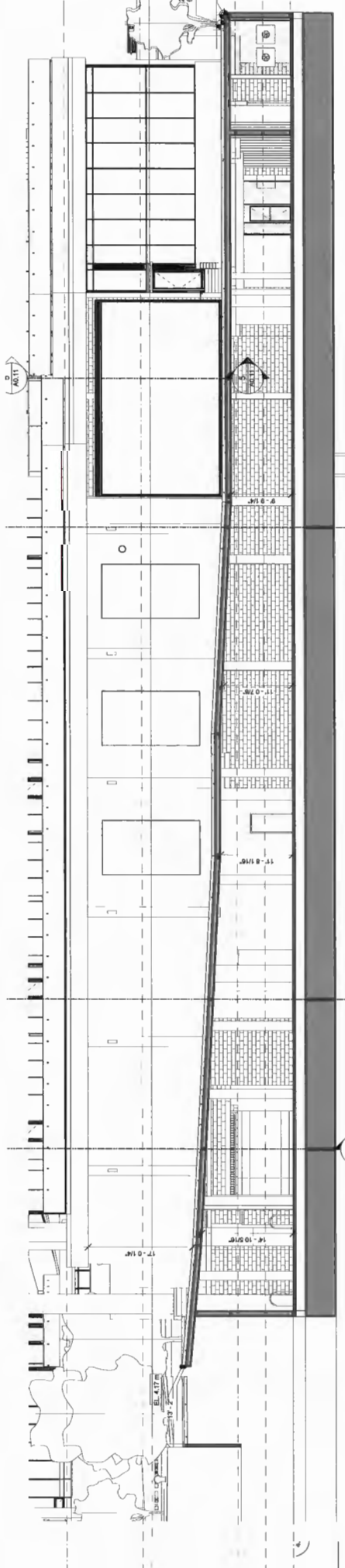
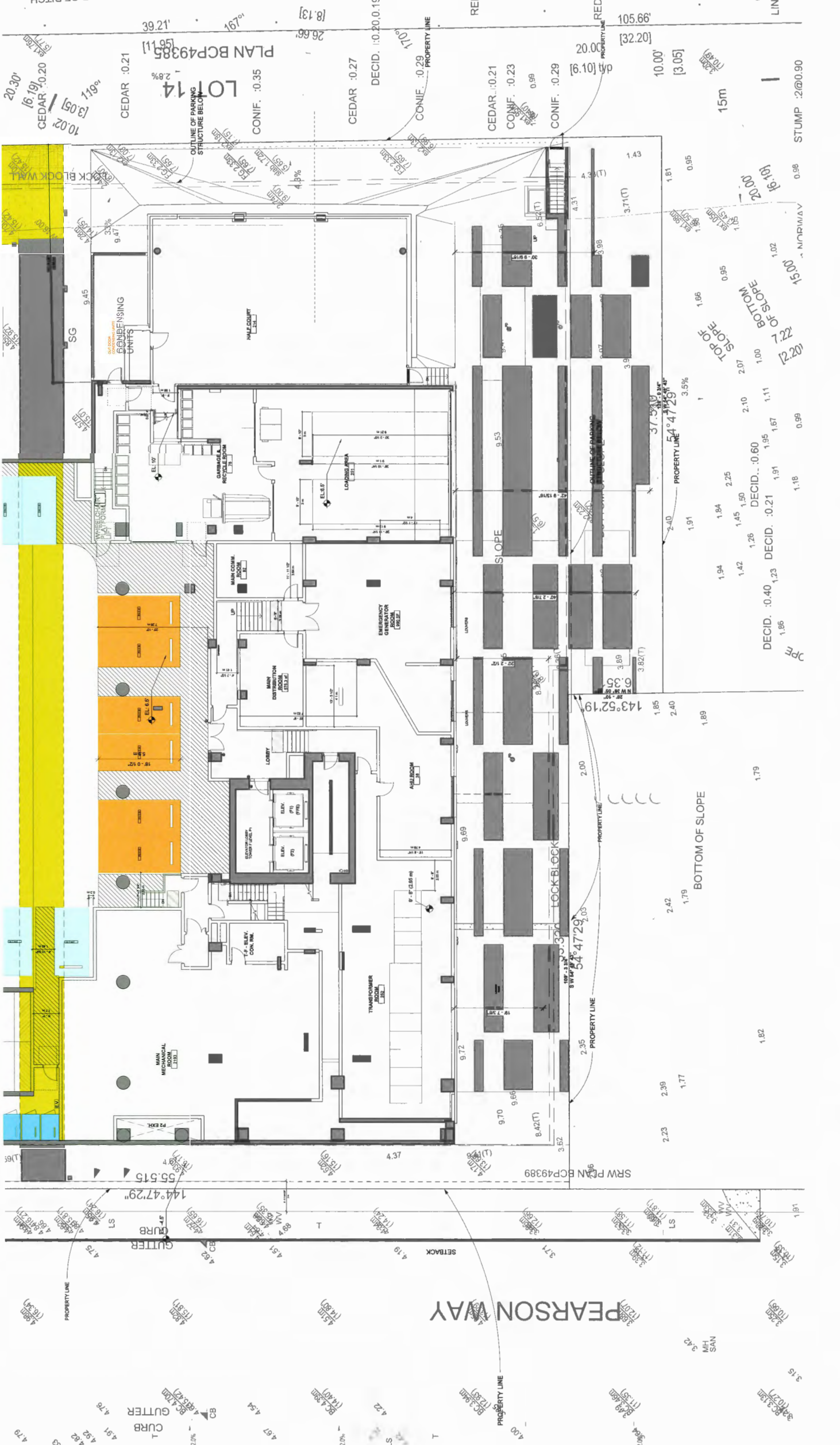
APR 23 2019

ELEVATION ABBREVIATION LEGEND
 T.O.D: TOP OF DECK
 T.O.C: TOP OF CANOPY
 T.O.GR: TOP OF GUARD-RAIL
 T.O.RF: TOP OF ROOF



LOT 12





DP 18-816029

APR 23 2019



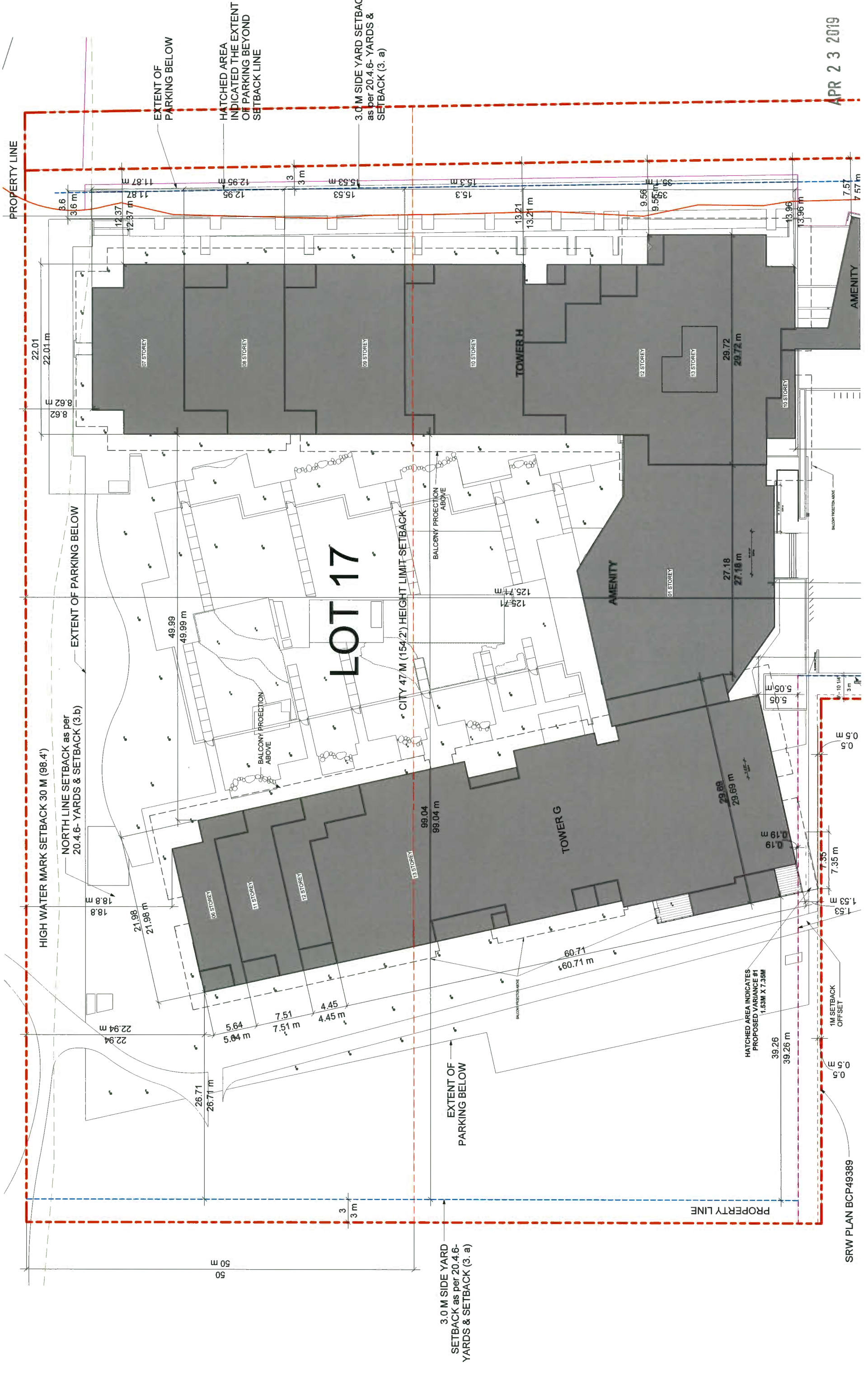
LOT 12

13 STOREY

11 STOREY

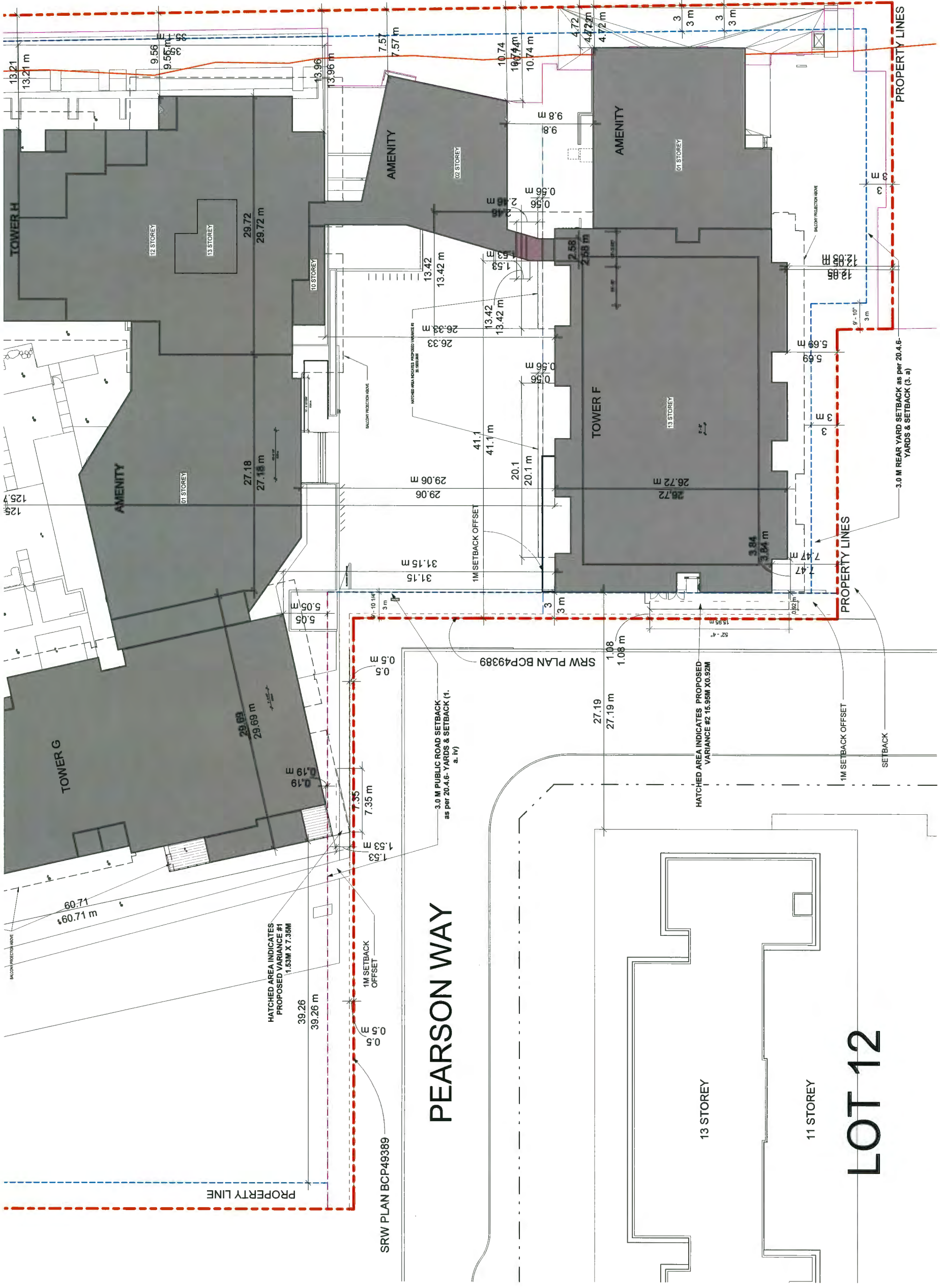
PEARSON WAY

APR 23 2019



APR 23 2019

SRW PLAN BCP49389

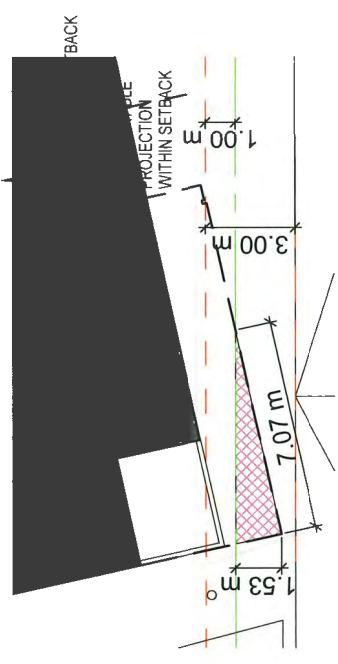
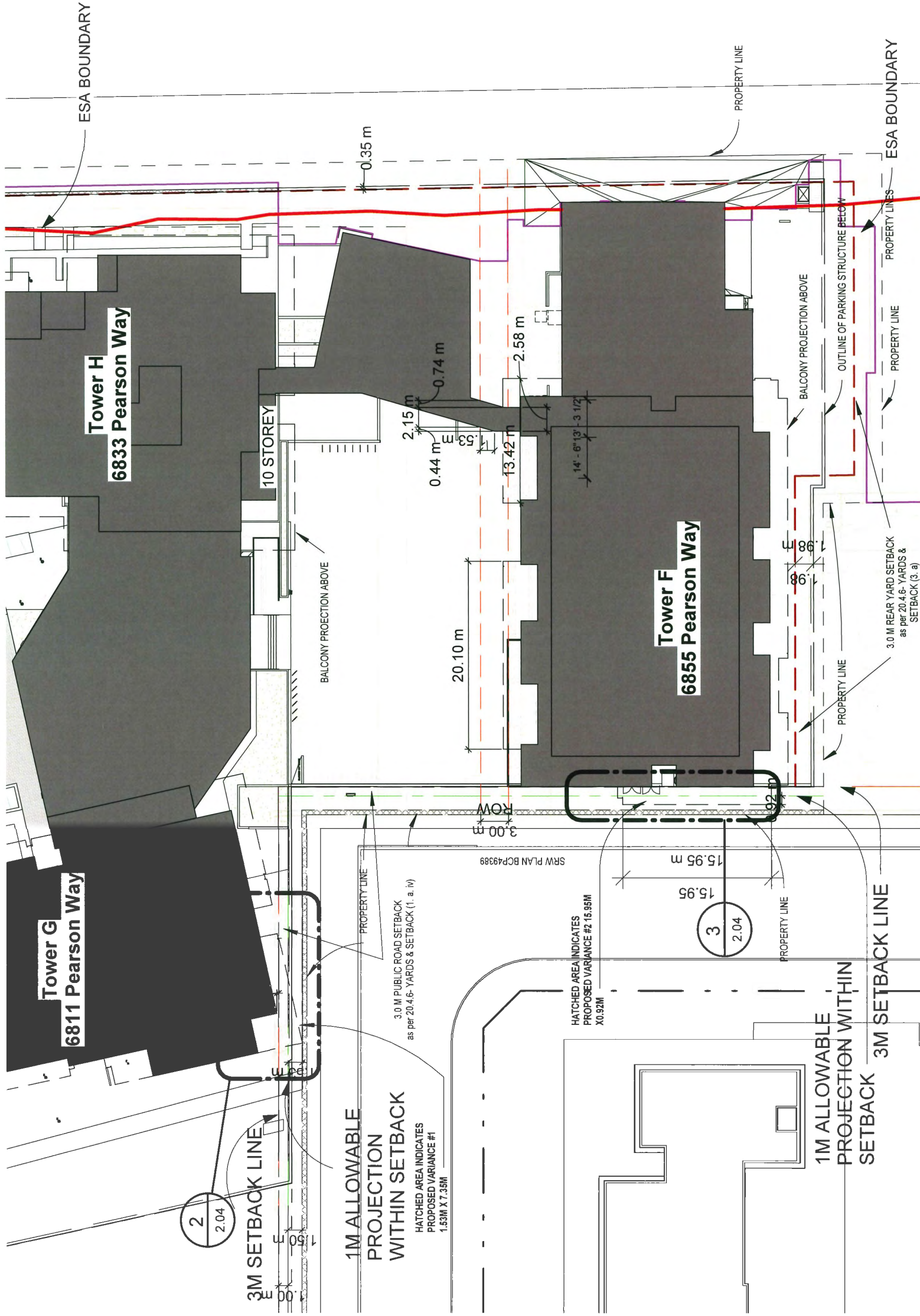


PEARSON WAY

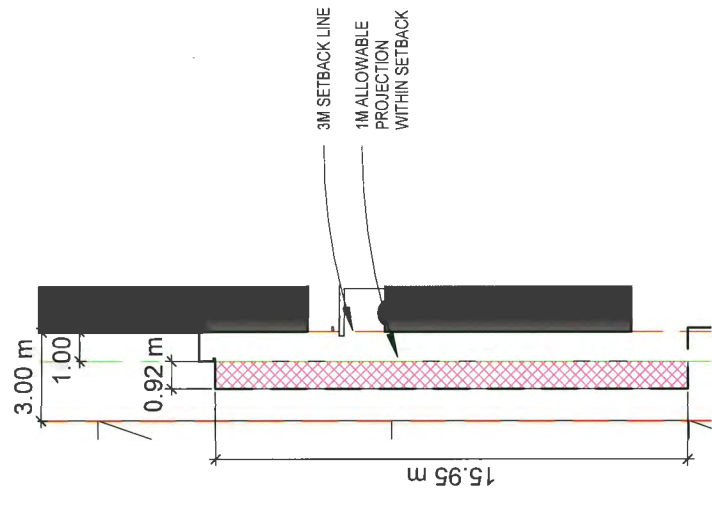
LOT 12

DP 18-816029

APR 23 2019



7.19M ABOVE GRADE LEVEL 3-12
 ② VARIANCE #1 TOWER G
 3/64" = 1'-0"



7.19M ABOVE GRADE LEVEL 3-12
 ③ VARIANCE #2 TOWER F
 3/64" = 1'-0"

① ENCROACHMENT PLAN
 1" = 40'-0"

APR 24 2019

SURVEY PLAN OF LOT 17 SECTIONS 5 AND 6 BLOCK 4 NORTH RANGE 6 WEST AND SECTION 31 BLOCK 5 NORTH RANGE 6 WEST NEW WESTMINSTER DISTRICT PLAN EPP58913

PARCEL IDENTIFIER (PID): 029-895-791

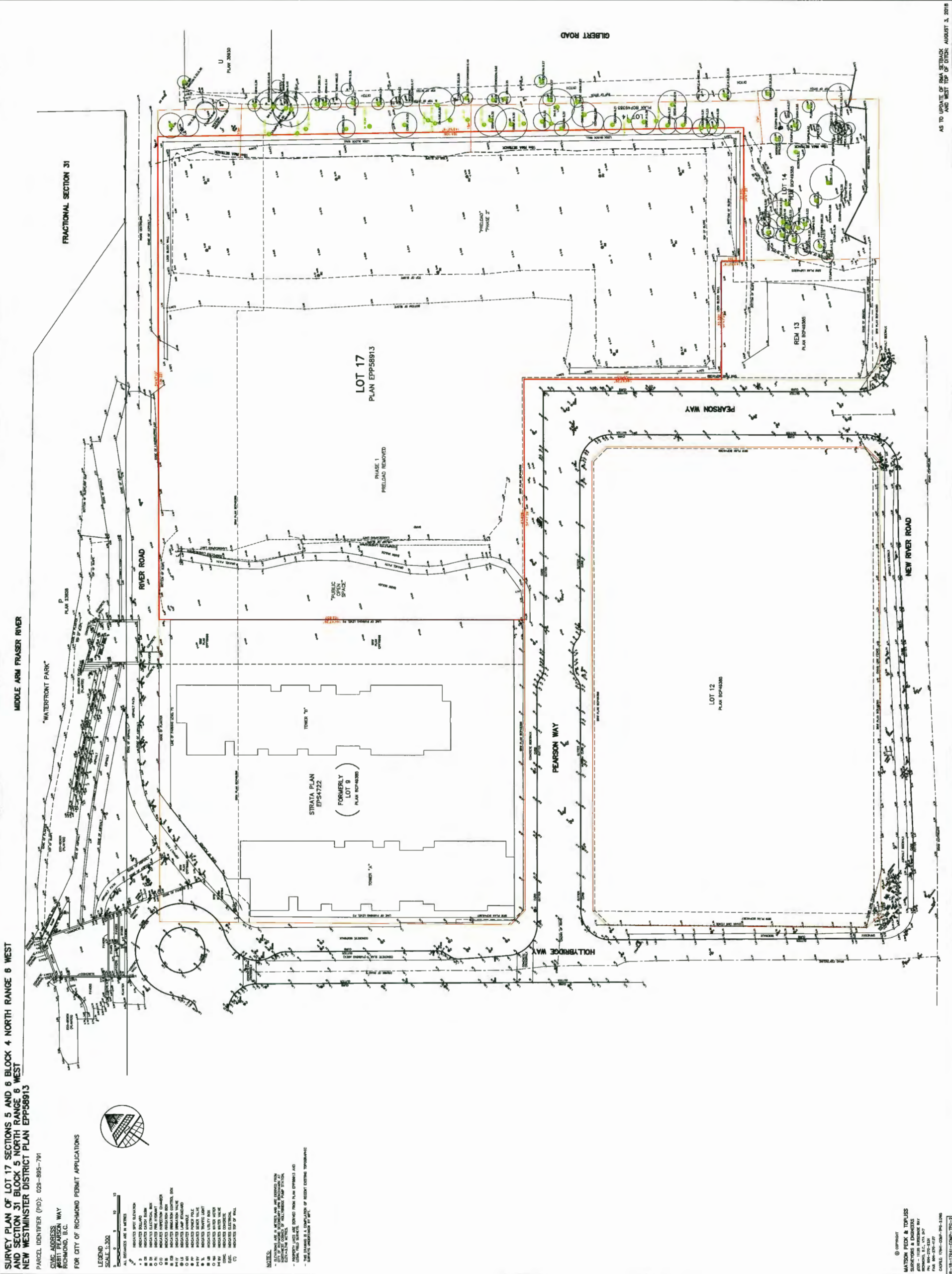
CITY ADDRESS: 1000 PEARSON WAY RICHMOND, B.C.

FOR CITY OF RICHMOND PERMIT APPLICATIONS

LEGEND
SCALE 1:200

- 1. UNDEVELOPED LAND
- 2. EXISTING LOT BOUNDARIES
- 3. EXISTING LOT 17
- 4. EXISTING LOT 12
- 5. EXISTING LOT 13
- 6. EXISTING LOT 14
- 7. EXISTING LOT 15
- 8. EXISTING LOT 16
- 9. EXISTING LOT 18
- 10. EXISTING LOT 19
- 11. EXISTING LOT 20
- 12. EXISTING LOT 21
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- 87. EXISTING LOT 96
- 88. EXISTING LOT 97
- 89. EXISTING LOT 98
- 90. EXISTING LOT 99
- 91. EXISTING LOT 100

NOTES:
- THE SURVEY PLAN IS A SERVICE AND NOT A WARRANTY.
- THE CITY OF RICHMOND IS NOT RESPONSIBLE FOR THE ACCURACY OF THE SURVEY PLAN.
- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S ZONING BY-LAW AND OTHER REGULATIONS.
- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S DEVELOPMENT PERMIT PROCESS.
- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S ENVIRONMENTAL REVIEW PROCESS.
- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S PUBLIC CONSULTATION PROCESS.
- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S DEVELOPMENT PERMIT REVIEW PROCESS.
- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S DEVELOPMENT PERMIT APPROVAL PROCESS.
- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S DEVELOPMENT PERMIT CANCELLATION PROCESS.
- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S DEVELOPMENT PERMIT REVOCATION PROCESS.
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- THE SURVEY PLAN IS SUBJECT TO THE CITY OF RICHMOND'S DEVELOPMENT PERMIT RESCINDMENT PROCESS.



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MATSON PECK & TOPLESS
SURVEYORS & DESIGNERS
RICHMOND, B.C. V6X 1A7
P: 604-276-1331
F: 604-276-1332
CIBEL: 1941-204-194-1206
P: 19-1741-204-194-1206

Submitted to City of Richmond
By IBI Group (Canada) Inc. on behalf of Oval 8 Holdings Ltd.
April 22, 2019

River Green Lot 17
Development Permit

PRJ. N N

SURVEY PLAN

Sheet No. 2.05

APR 23 2019

AS TO UPDATE OF BMA STRACK AND WEST TOP OF DITCH: AUGUST 3, 2018

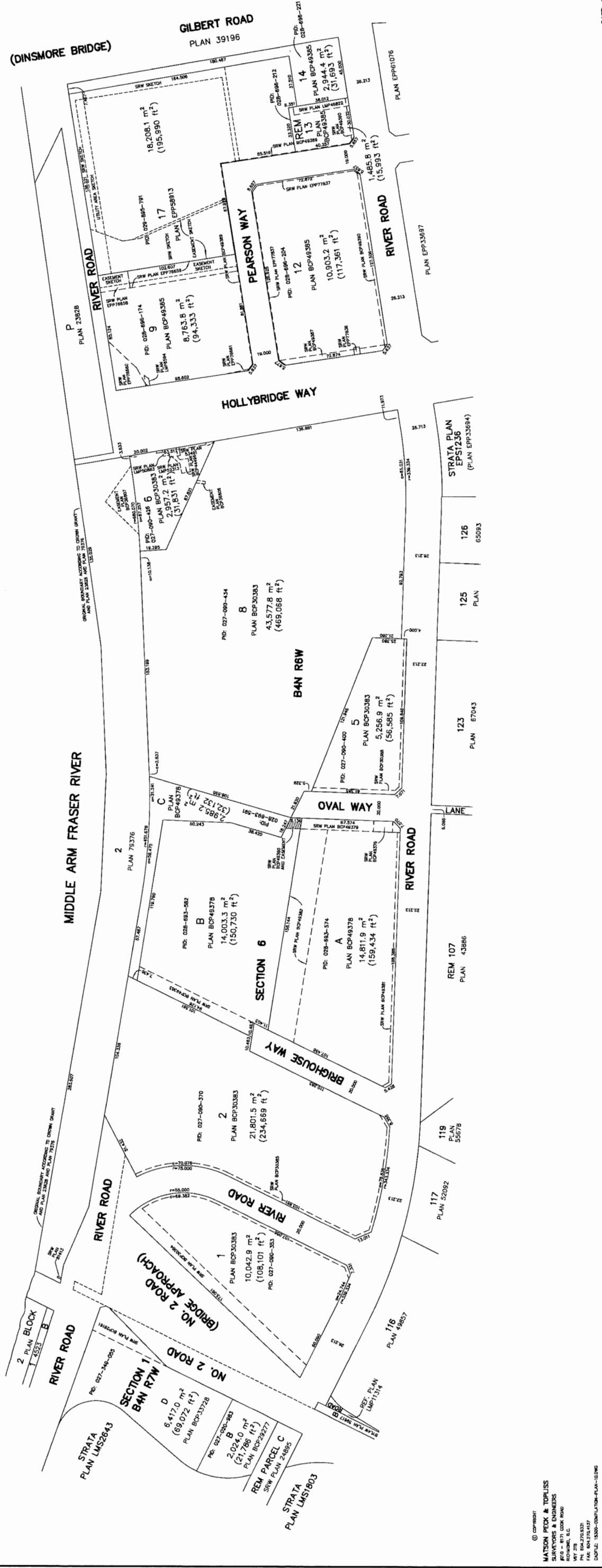
DP 18-816029

RIVER GREEN COMPILATION PLAN



LEGEND
SCALE 1:1,000
0 20 40 60
ALL DISTANCES ARE IN METRES

NOTE:
PROPOSED BOUNDARIES WILL BE REPLACED WITH A FINAL
SURVEY AND STRUCTURE IS BUILT.



DATE: MARCH 26, 2019

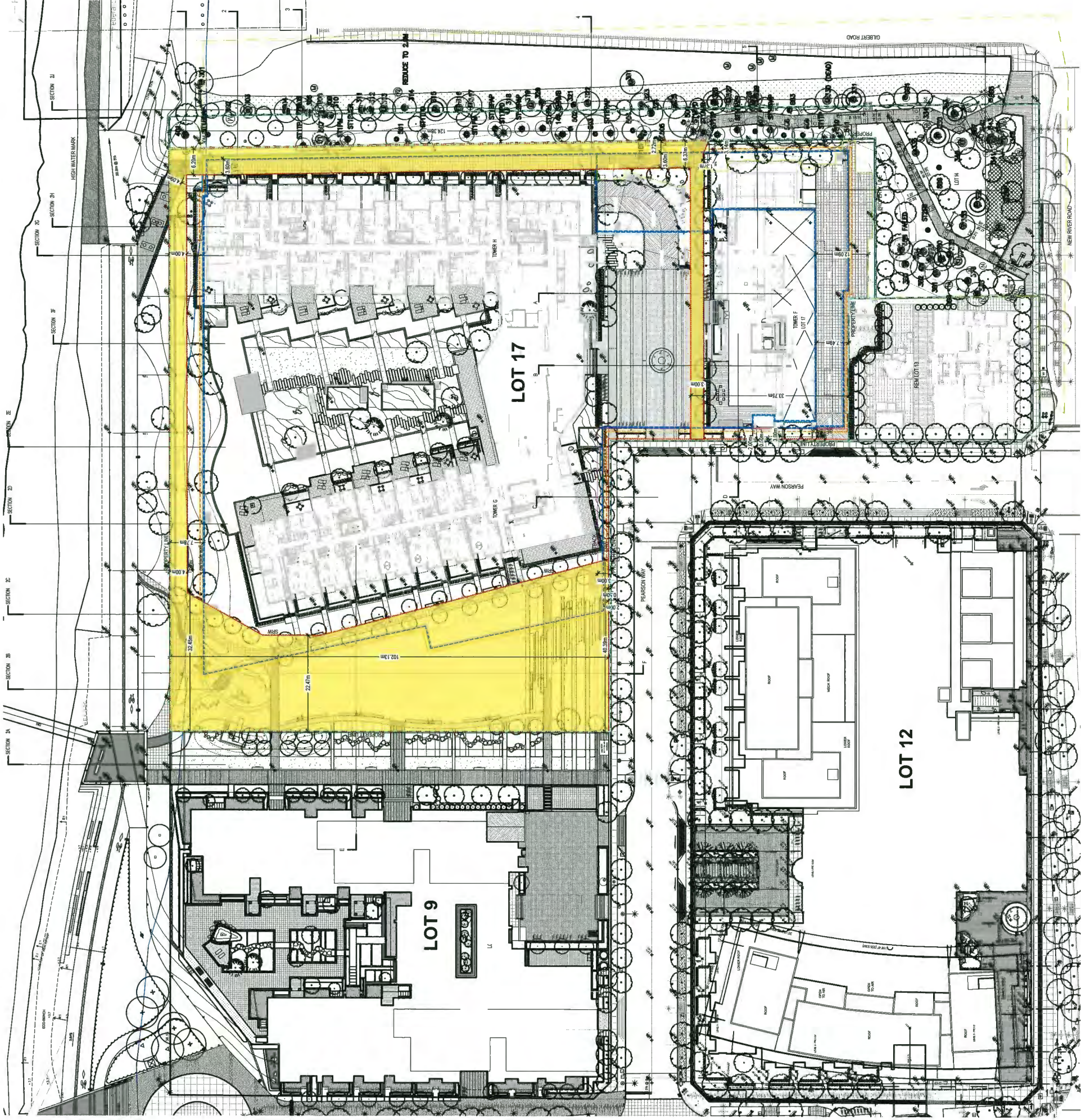
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MATSON PECK & TOPLISS
SURVEYORS & ENGINEERS
1000 EASTMAN ROAD
ROCKFORD, ILL.
60089
TEL: 815/398-2333
FAX: 815/398-2334
DUPLICATE: 1000-DUPLICATION-PLAN-10.096
R-19-13300-COMP

APR 23 2019

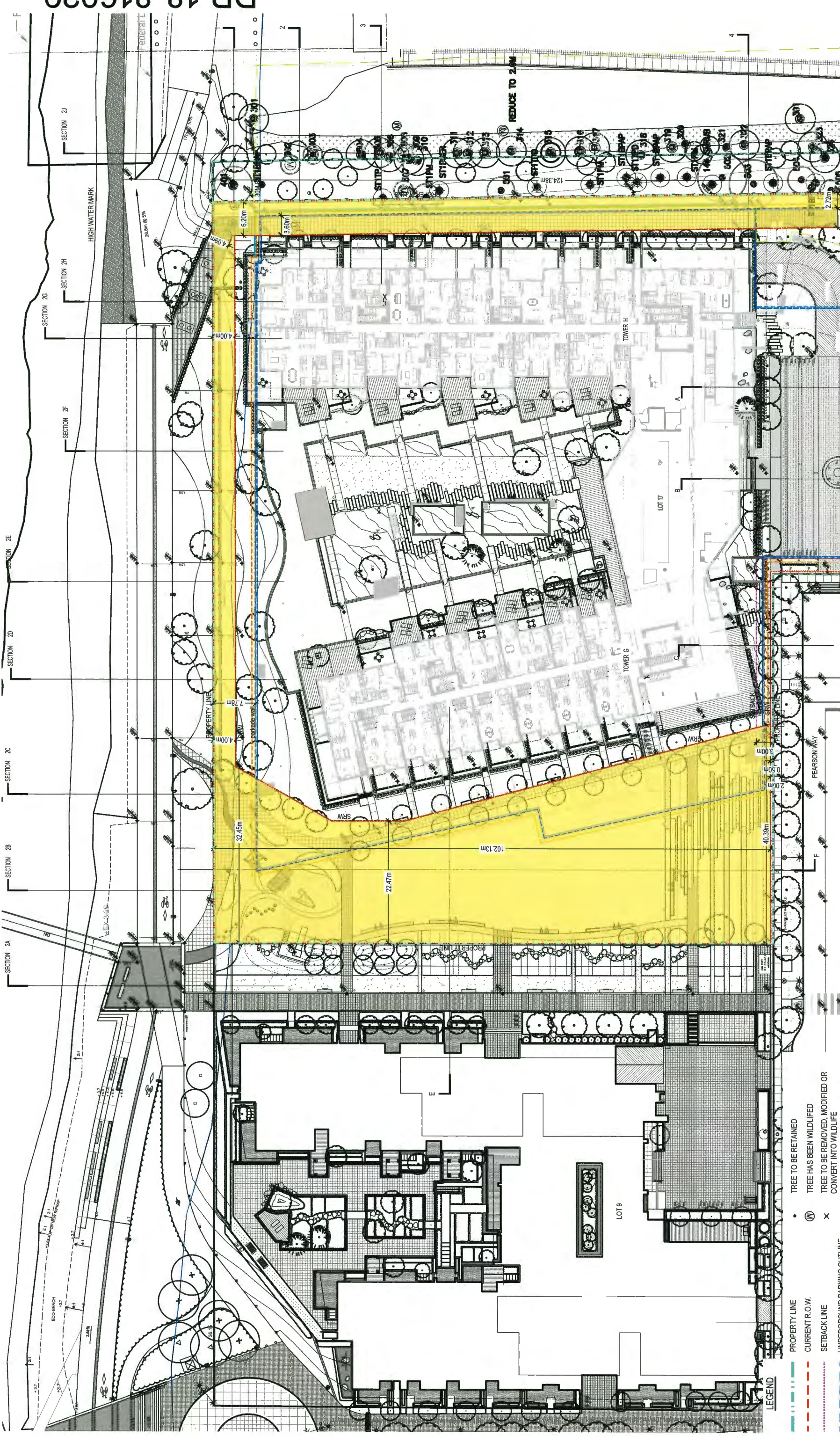
LEGEND

- PROPERTY LINE
- CURRENT R.O.W.
- SETBACK LINE
- UNDERGROUND PARKING OUTLINE
- PROPOSED ROW AREA
- 30M FROM HIGH WATER MARK
- ESA BOUNDARY
- TREE TO BE RETAINED
- TREE HAS BEEN WILDLIFED
- TREE TO BE REMOVED, MODIFIED OR CONVERT INTO WILDLIFE
- TREE TO BE REMOVED FOR HAZARD MITIGATION, TO BE DECIDED BY THE CITY
- TREE TO BE PRUNED
- NOTE: REFER TO ARBORIST REPORT FOR TREE MANAGEMENT PLAN

NOTE: OFF-SITE STREETScape, WATERFRONT PARK & DIKE, AND LOT 14 ESA LANDSCAPE DESIGN ARE INCLUDED IN SA (SERVICING AGREEMENT).



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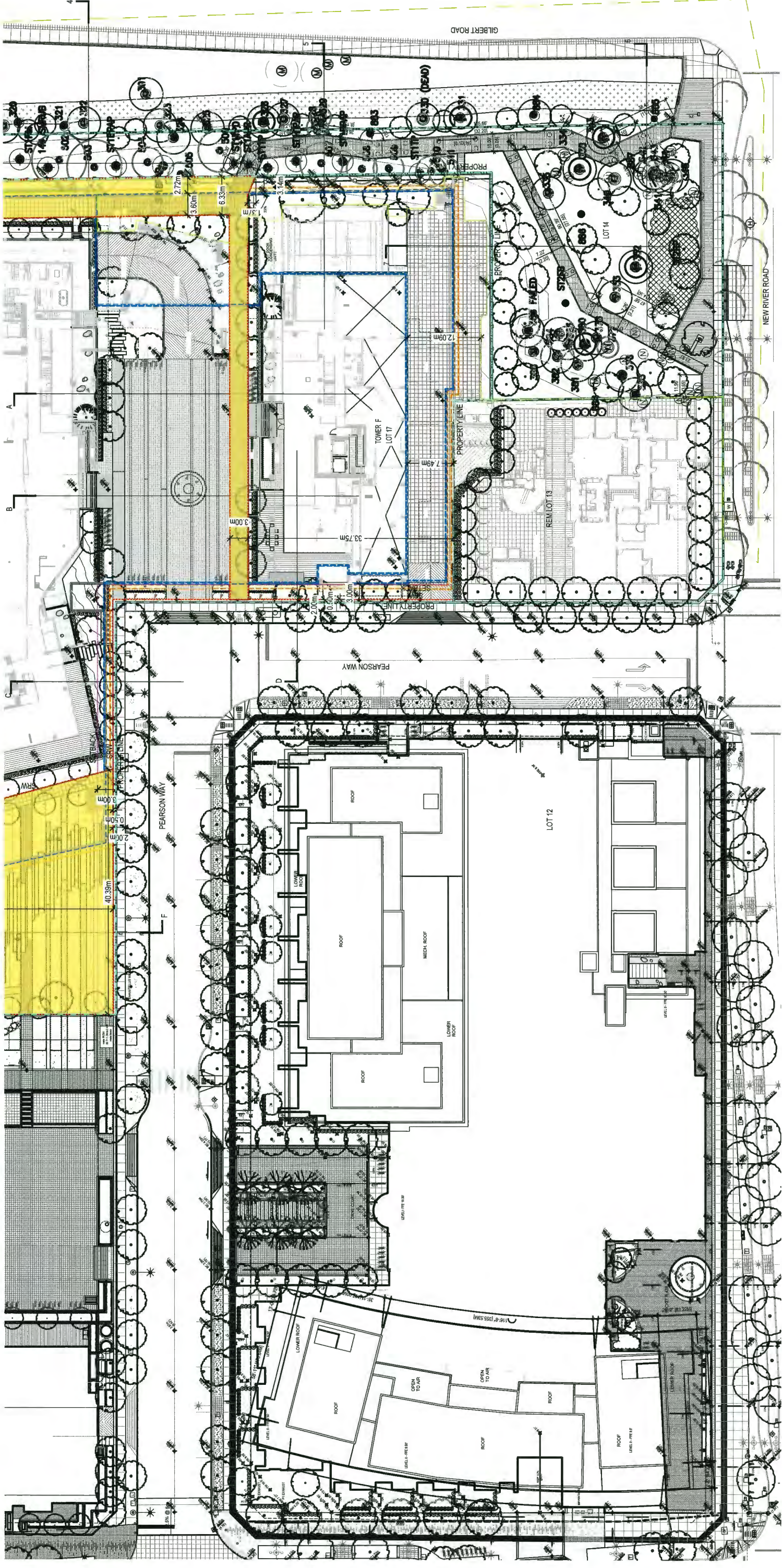


DP 18-816029

- LEGEND**
- PROPERTY LINE
 - CURRENT R.O.W.
 - SETBACK LINE
 - UNDERGROUND PARKING OUTLINE
 - PROPOSED ROW AREA
 - 30M FROM HIGH WATER MARK
 - ESA BOUNDARY
 - TREE TO BE RETAINED
 - ⊗ TREE HAS BEEN WILDLIFIED
 - × TREE TO BE REMOVED, MODIFIED OR CONVERT INTO WILDLIFE
 - ⊕ TREE TO BE REMOVED FOR HAZARD
 - Ⓟ MITIGATION, TO BE DECIDED BY THE CITY
 - Ⓠ TREE TO BE PRUNED
 - Ⓡ NOTE: REFER TO ARBORIST REPORT FOR TREE MANAGEMENT PLAN

NOTE: OFF-SITE STREETScape, WATERFRONT PARK & DIKE, AND LOT 14 ESA LANDSCAPE DESIGN ARE INCLUDED IN SA (SERVICING AGREEMENT).

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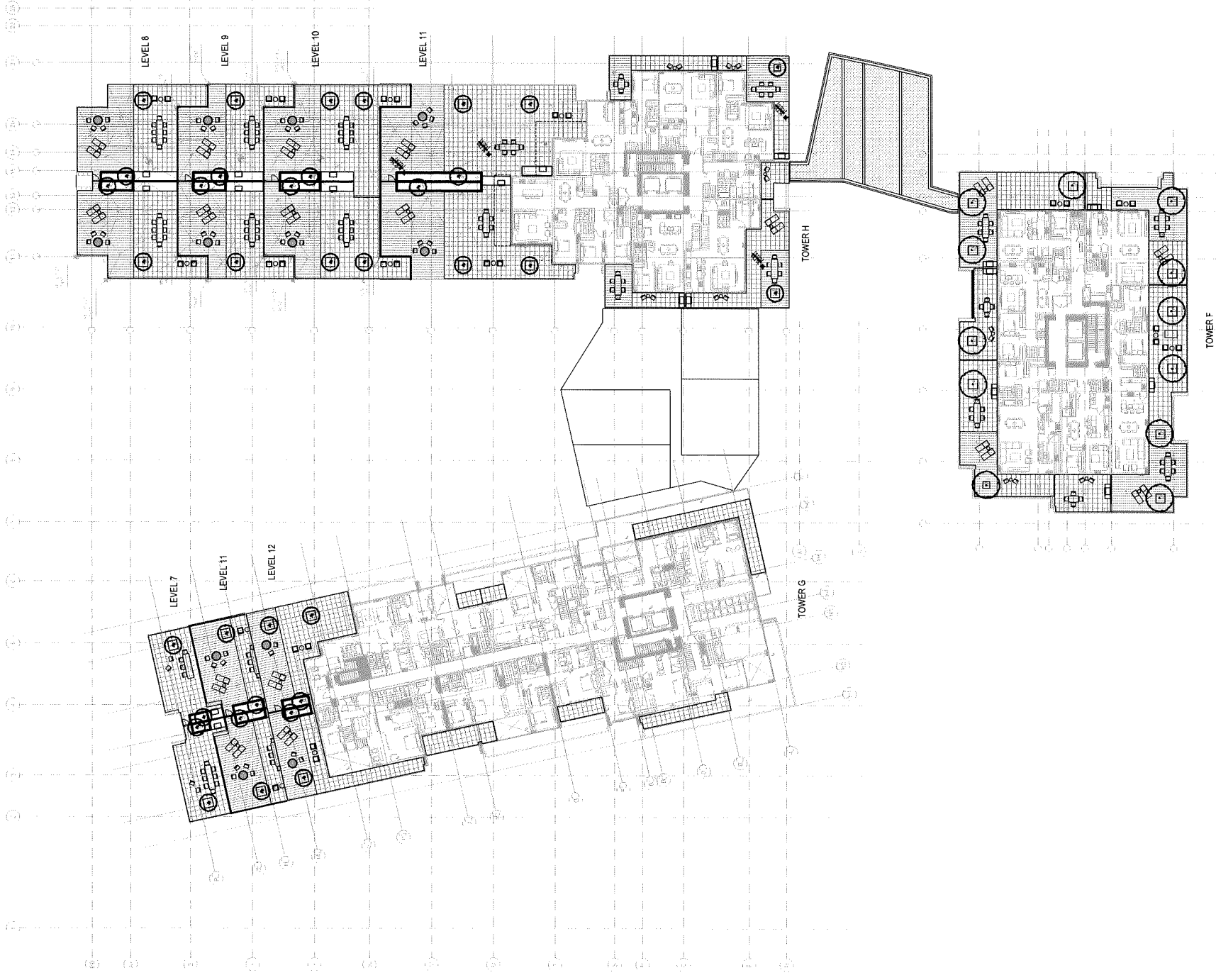


LEGEND

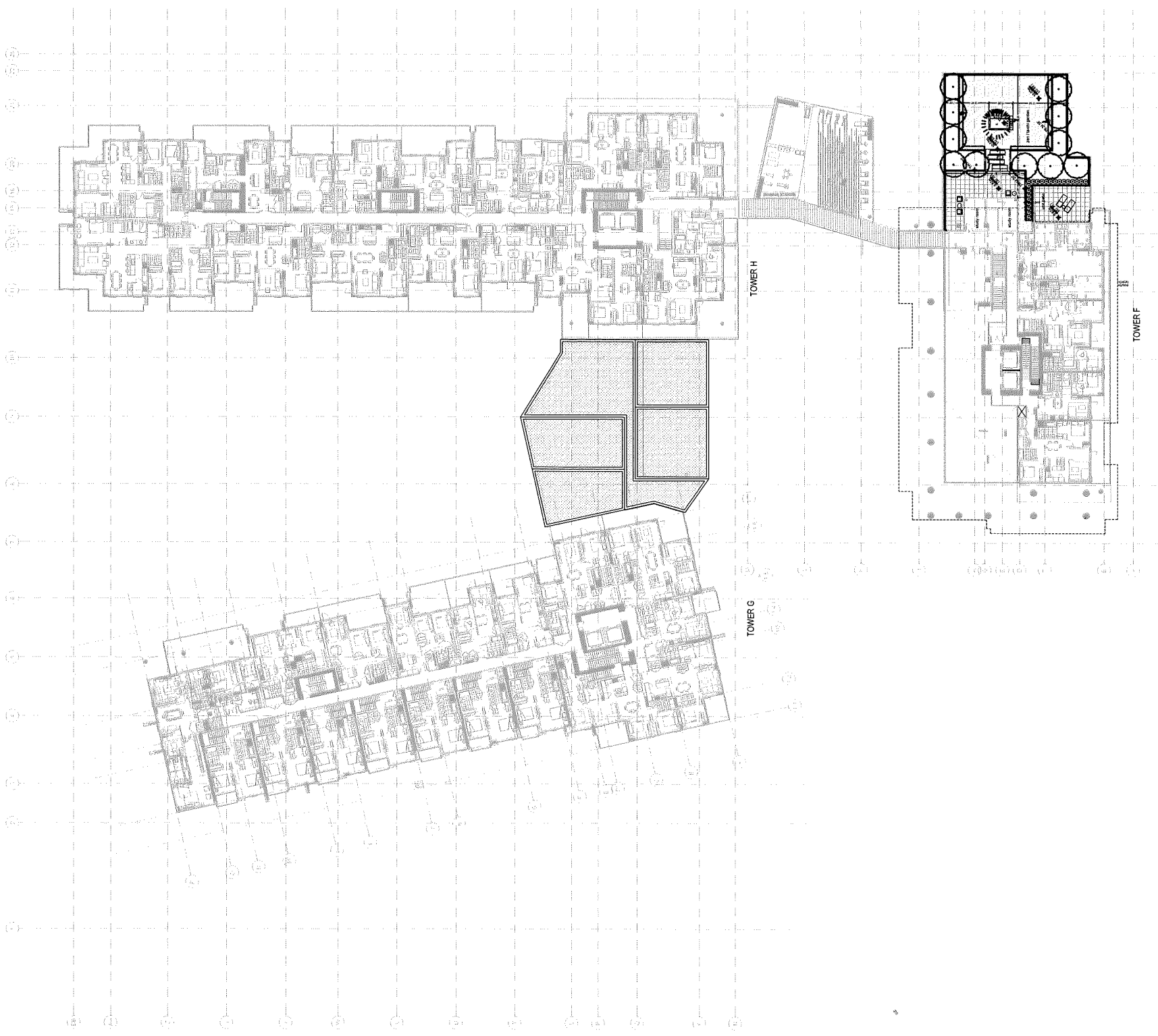
- PROPERTY LINE
 - - - CURRENT R.O.W.
 - - - SETBACK LINE
 - - - UNDERGROUND PARKING OUTLINE
 - - - PROPOSED ROW AREA
 - - - 30M FROM HIGH WATER MARK
 - - - ESA BOUNDARY
 - TREE TO BE RETAINED
 - ⊗ TREE HAS BEEN WILDIFIED
 - × TREE TO BE REMOVED, MODIFIED OR CONVERT INTO WILDLIFE
 - ⊕ TREE TO BE REMOVED FOR HAZARD MITIGATION, TO BE DECIDED BY THE CITY
 - Ⓟ TREE TO BE PRUNED
 - NOTE: REFER TO ARBORIST REPORT FOR TREE MANAGEMENT PLAN
- NOTE: OFF-SITE STREETSCAPE, WATERFRONT PARK & DIKE AND LOT 14 ESA LANDSCAPE DESIGN ARE INCLUDED IN SA (SERVICING AGREEMENT).**

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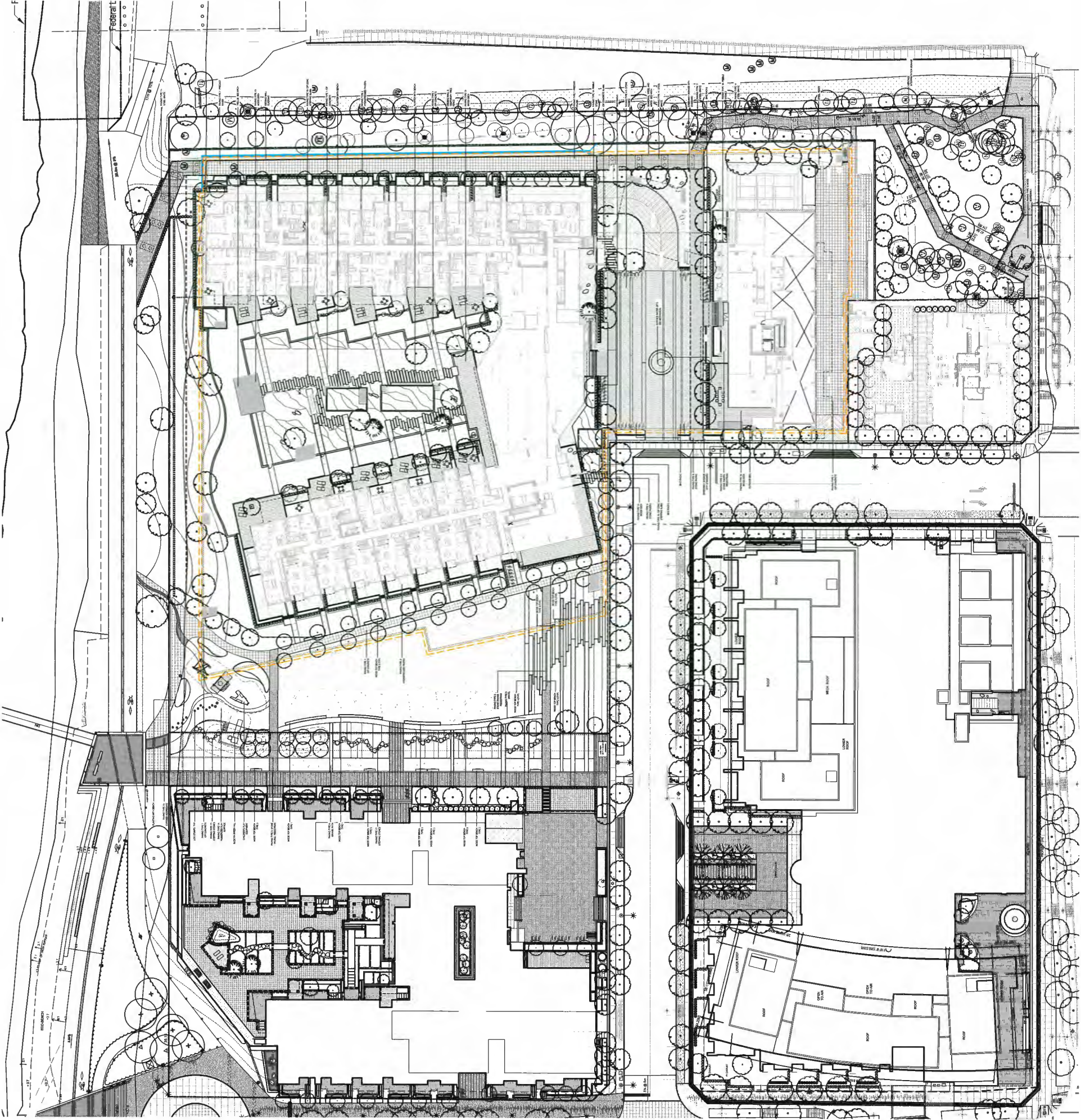


2 OVERALL - ROOF DECK LEVELS
SCALE: 1/8" = 1'-0"



1 OVERALL - LEVEL 2
SCALE: 1/8" = 1'-0"

APR 23 2019



MATERIALS LEGEND

REFER TO LOT 17 SERVICING AGREEMENT FOR OFFSITE STREETScape, WATERFRONT PARK & DIKE, AND LOT 14 ESA LANDSCAPE DESIGN.

- PAVING TYPE 1 - CIP CONCRETE
GROUND LEVEL - PATIO ENTRANCES, COURTYARD PATHS AND PUBLIC WALKWAY AND LOADING AREA
SANDBLAST FINISH, SAWCUT LINES, NATURAL AND CHARCOAL COIL
- PAVING TYPE 2 - HYDRAPRESSED PAVER
GROUND LEVEL - PRIVATE PATIOS
TEQUILA, NATURAL COLOR, 12x30x2"
- PAVING TYPE 3 - HYDRAPRESSED PAVER
GROUND LEVEL, ROOF LEVEL - PRIVATE PATIOS
TEQUILA, NATURAL COLOR, 24x24x2"
- PAVING TYPE 4 - STONE PAVING
GROUND LEVEL - PARK & DRIVE COURT
BLACK GRANITE, 11.5x11.5x1.5"
- PAVING TYPE 5 - STONE PAVING
GROUND LEVEL - PARK & DRIVE COURT
SALT AND PEPPER GRANITE, LIGHT GREY, 11.5x11.5x1.5"
- PAVING TYPE 6 - STONE PAVING, VEHICULAR
GROUND LEVEL - SE DRIVE COURT
BLACK GRANITE, 11.5x11.5x1.5"
- PAVING TYPE 7 - PRECAST PAVER
GROUND LEVEL - EAST PATHWAY
PAVER, LIGHT GREY, 24x24x2"
- PAVING TYPE 8 - WOOD DECK
ROOF LEVEL - PATIOS
- PAVING TYPE 9 - GRAVEL
GROUND LEVEL PATHS AT PARK
GRAY COLOR GRAVEL
- PAVING TYPE 10 - PEBBLE STONE
GROUND AND ROOF LEVEL - BUILDING EDGE
BLACK PEBBLE, 2.5" DIAMETER
- PAVING TYPE 11 - STEEL GRATE
GROUND LEVEL - EAST GREENWAY, RAISED WALKWAY
- PAVING TYPE 12 - WOOD BOARDWALK
GROUND LEVEL - RIVER ROAD BOARDWALK
- PAVING TYPE 13 - WOOD DECK
GROUND LEVEL - COURTYARD
- PAVING TYPE 14 - RUBBERIZED PLAY SURFACE
GROUND LEVEL - KIDS PLAY
MIXED BLACK AND GREEN COLOR, MIXED BLACK AND BLUE COLOR
- PAVING TYPE 15 - EXPOSED AGGREGATE
GROUND LEVEL CHILDREN'S PLAY AREA
- PAVING TYPE 16 - CIP CONG. STEPPING SLAB
GROUND LEVEL - COURTYARD
CIP CONCRETE, SANDBLAST, 1.5' X 7' X 6"
- PAVING TYPE 17 - STEPPING STONE
GROUND LEVEL
PLUS STONE, BLACK BASALT, 12.5" DIA

- CIP CONCRETE PLANTER WALL
SANDBLAST FINISH
- TRELLIS
GROUND LEVEL - COURTYARD
SEE ARCH
- BOULDERS
PODIUM LEVEL - POOLS, ISLANDS AND PLANTED AREAS
PENTHOUSE LEVEL
- PLAY FEATURE TYPE A - LOG STUMPS
PODIUM LEVEL - 1605 PLAY
- TEMPORARY EXISTING TREE FENCE
AT EAST PROPERTY

LAYOUT AND MATERIALS GENERAL NOTES

1. DO NOT SCALE DRAWINGS. LAYOUT AS PER DIMENSIONS NOTED ON LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR REVIEW AND RESPONSE.
2. LAYOUT AND MATERIALS DRAWINGS ARE TO BE READ IN CONJUNCTION WITH LANDSCAPE SPECIFICATIONS FOR COMPLIANCE.
3. LANDSCAPE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND ENGINEERING DRAWINGS. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR REVIEW AND RESPONSE.
4. UTILITY AND LIGHTING ARE INDICATED FOR REFERENCE ONLY. REFER TO ENG. DRAWINGS FOR LOCATIONS, DETAILS, AND SPECIFICATIONS.
5. REFER TO CIVIL ENGINEERS DRAWINGS FOR LAYOUT OF ROAD CURBS AND GUTTERS AND PEDESTRIAN LET-DOWNS.
6. REFER TO ENGINEERING DRAWINGS FOR DETAILS, SUBGRADE, AND REINFORCING OF ALL PAVED SURFACES IN ROADWAYS.
7. ALL STREETScape DESIGN IS TO BE COORDINATED WITH CITY OF RICHMOND STREET ENGINEERING DEPARTMENT AND PLANTED UNDER SUPERVISION OF THE CITY OF RICHMOND PARK BOARD.
8. REFER TO DETAILS AND SECTIONS FOR ALL LANDSCAPE IMPROVEMENTS.
9. ALL DIMENSIONS ARE NOMINAL.
10. VERIFY ALL DIMENSIONS WITH FIELD CONDITIONS. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR REVIEW AND RESPONSE.
11. ALL MOVABLE FURNITURE WILL BE PROVIDED BY OWNERS.

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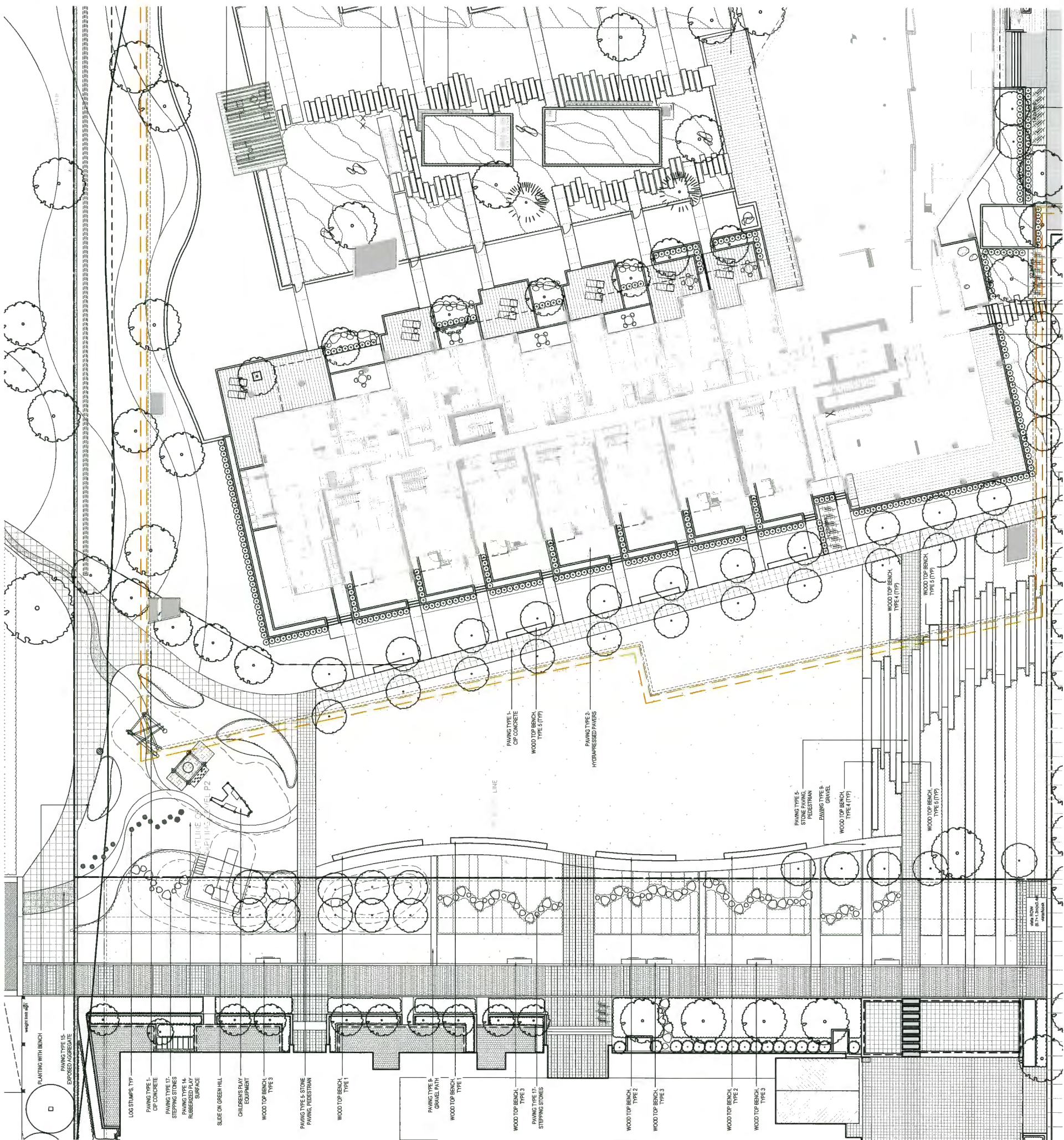
MATERIALS LEGEND

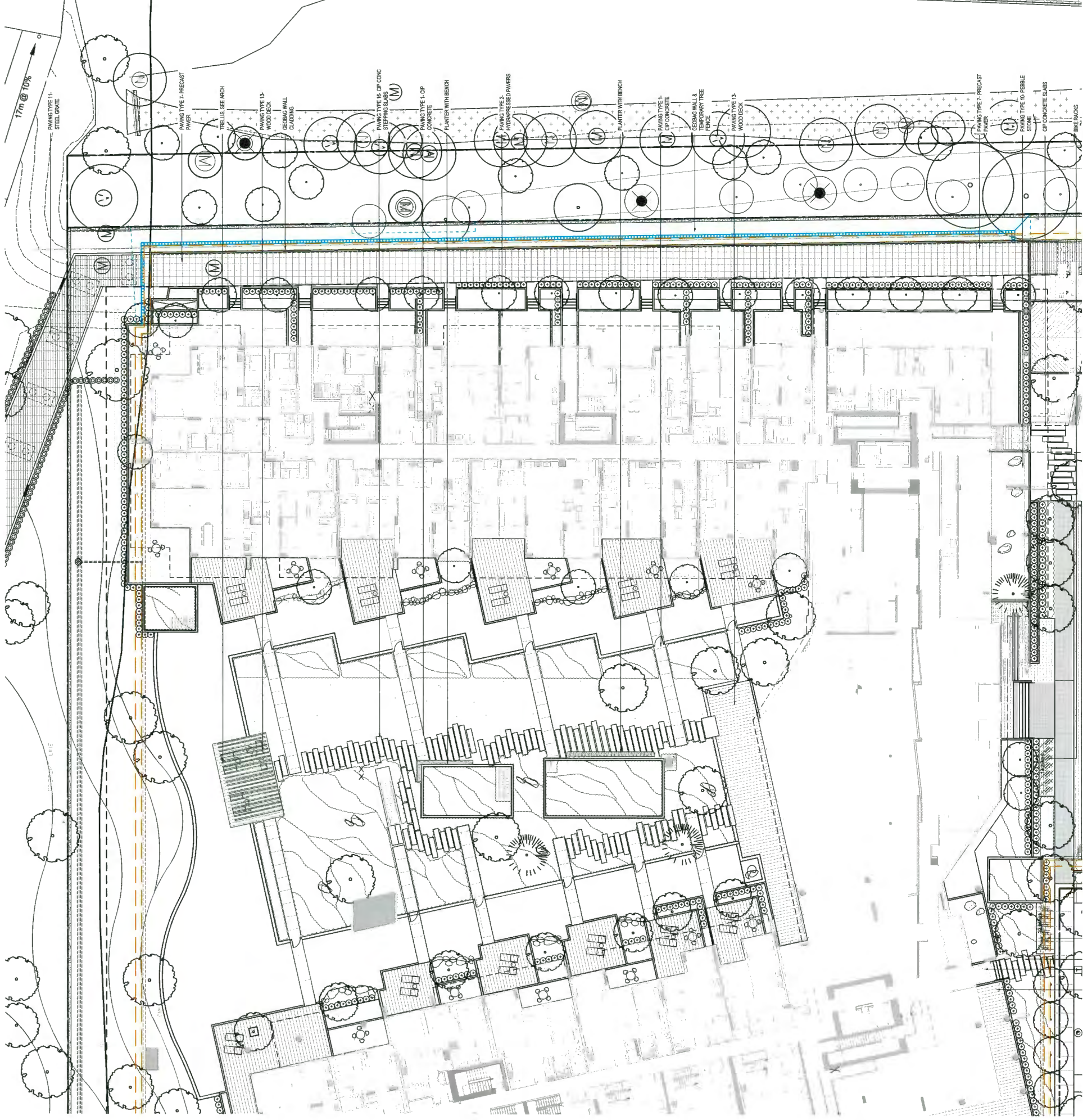
REFER TO LOT 17 SERVICING AGREEMENT FOR OFFSITE STREETScape, WATERFRONT PARK & DIKE, AND LOT 14 ESA LANDSCAPE DESIGN.

	PAVING TYPE 1 - CIP CONCRETE GROUND LEVEL - PATIO ENTRANCES, COURTYARD PATHS AND PUBLIC WALKWAY AND LOADING AREA SANDCAST FINISH, SANDCAST LINES, NATURAL AND CHARCOAL COIL
	PAVING TYPE 2 - HYDRAPRESSED PAVER GROUND LEVEL - PRIVATE PATIOS TEXADA, NATURAL COLOR, 120x24x2"
	PAVING TYPE 3 - HYDRAPRESSED PAVER GROUND LEVEL - PRIVATE PATIOS TEXADA, NATURAL COLOR, 24x24x2"
	PAVING TYPE 4 - STONE PAVING GROUND LEVEL - PARK & DRIVE COURT BLACK GRANITE, 11-3/4x11-3/4x2"
	PAVING TYPE 5 - STONE PAVING GROUND LEVEL - PARK & DRIVE COURT SALT AND PEPPER GRANITE, LIGHT GREY, 11-3/4x11-3/4x2"
	PAVING TYPE 6 - STONE PAVING, VEHICULAR GROUND LEVEL - DRIVE COURT BLACK GRANITE, 11-3/4x11-3/4x2"
	PAVING TYPE 7 - PRECAST PAVER GROUND LEVEL - EAST PATHWAY PAVER, LIGHT GREY, 24x24x2"
	PAVING TYPE 8 - WOOD DECK ROOF LEVEL - PATIOS
	PAVING TYPE 9 - GRAVEL GROUND LEVEL PATHS AT PARK GRAY COLOR GRAVEL
	PAVING TYPE 10 - PEBBLE STONE PAVING AND WALKWAY LEVEL, BOLDING EDGE BLACK PEBBLE, 3" DIAMETER
	PAVING TYPE 11 - STEEL GRATE GROUND LEVEL - EAST GREENWAY, RAISED WALKWAY
	PAVING TYPE 12 - WOOD BOARDWALK GROUND LEVEL - RIVER ROAD BOARDWALK
	PAVING TYPE 13 - WOOD DECK GROUND LEVEL - COURTYARD
	PAVING TYPE 14 - RUBBERIZED PLAY SURFACE MIXED BLACK AND GREEN COLOR, MIXED BLACK AND BLUE COLOR
	PAVING TYPE 15 - EXPOSED AGGREGATE GROUND LEVEL CHILDREN'S PLAY AREA
	PAVING TYPE 16 - CIP CONC STEPPING SLAB GROUND LEVEL - COURTYARD CIP CONCRETE, SANDCAST, 1'9" X 7' 6"
	PAVING TYPE 17 - STEPPING STONE GROUND LEVEL FLAG STONE, BLACK BASALT, 12x24" DIA
	CIP CONCRETE PLANTER WALL SANDCAST FINISH
	TRELLIS GROUND LEVEL - COURTYARD SEE ARCH
	BOULDERS FOOTING LEVEL - POOLS, ISLANDS AND PLANTED AREAS PENTHOUSE LEVEL
	PLAY FEATURE TYPE A - LOG STUMPS FOOTING LEVEL - KIDS PLAY
	TEMPORARY EXISTING TREE FENCE AT EAST PROPERTY

LAYOUT AND MATERIALS GENERAL NOTES

- DO NOT SCALE DRAWINGS. LAYOUT AS PER DIMENSIONS NOTED ON LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR REVIEW AND RESPONSE.
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- UTILITY AND LIGHTING ARE INDICATED FOR REFERENCE ONLY. REFER TO ENG. DRAWINGS FOR LOCATIONS, DETAILS, AND SPECIFICATIONS.
- REFER TO CIVIL ENGINEERS DRAWINGS FOR LAYOUT OF ROAD CURBS AND GUTTERS AND PEDESTRIAN LET-DOWNS.
- REFER TO ENGINEERING DRAWINGS FOR DETAILS, SUBGRADE, AND REINFORCING OF ALL PAVED SURFACES IN ROADWAYS.
- ALL STREETScape DESIGN IS TO BE COORDINATED WITH CITY OF RICHMOND STREET ENGINEERING DEPARTMENT AND PLANTED UNDER SUPERVISION OF THE CITY OF RICHMOND PARK BOARD.
- REFER TO DETAILS AND SECTIONS FOR ALL LANDSCAPE IMPROVEMENTS. ALL DIMENSIONS ARE NOMINAL.
- VERIFY ALL DIMENSIONS WITH FIELD CONDITIONS. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR REVIEW AND RESPONSE.
- ALL MOVABLE FURNITURE WILL BE PROVIDED BY OWNERS.





MATERIALS LEGEND

REFER TO LOT 17 SERVICING AGREEMENT FOR OFFSITE STREETSCAPE, WATERFRONT PARK & DIKE, AND LOT 14 ESA LANDSCAPE DESIGN.

- PAVING TYPE 1 - CIP CONCRETE
GROUND LEVEL - PATIO ENTRANCES, COURTYARD PATHS AND PUB SANDBLAST FINISH, SAWCUT LINES, NATURAL AND CHARCOAL COU
- PAVING TYPE 2 - HYDRAPRESSED PAVER
GROUND LEVEL - PRIVATE PATIOS
TEJADA, NATURAL COLOR, 120x82xZ
- PAVING TYPE 3 - HYDRAPRESSED PAVER
GROUND LEVEL - ROOF LEVEL - PRIVATE PATIOS
TEJADA, NATURAL COLOR, 240x82xZ
- PAVING TYPE 4 - STONE PAVING
GROUND LEVEL - PARK & DRIVE COURT
BLACK GRANITE, 11.5x11.5x4xZ
- PAVING TYPE 5 - STONE PAVING
GROUND LEVEL - PARK & DRIVE COURT
SALT AND PEPPER GRANITE, LIGHT GREY, 11.5x11.5x4xZ
- PAVING TYPE 6 - STONE PAVING, VEHICULAR
GROUND LEVEL - SE BRIDE COURT
BLACK GRANITE, 11.5x11.5x4xZ
- PAVING TYPE 7 - PRECAST PAVER
GROUND LEVEL - EAST PATHWAY
PAVER, LIGHT GREY, 24x24x4xZ
- PAVING TYPE 8 - WOOD DECK
ROOF LEVEL - PATIOS
- PAVING TYPE 9 - GRAVEL
GROUND LEVEL PATHS AT PARK
GRAY COLOR GRAVEL
- PAVING TYPE 10 - PEBBLE STONE
GROUND AND ROOF LEVEL - BUILDING EDGE
BLACK PEBBLE, 2.5" DIAMETER
- PAVING TYPE 11 - STEEL GRATE
GROUND LEVEL - EAST GREENWAY, RAISED WALKWAY
- PAVING TYPE 12 - WOOD BOARDWALK
GROUND LEVEL - RIVER ROAD BOARDWALK
- PAVING TYPE 13 - WOOD DECK
GROUND LEVEL - COURTYARD
- PAVING TYPE 14 - RUBBERIZED PLAY SURFACE
GROUND LEVEL - KIDS PLAY
MIXED BLACK AND GREEN COLOR, MIXED BLACK AND BLUE COLOR
- PAVING TYPE 15 - EXPOSED AGGREGATE
GROUND LEVEL CHILDREN'S PLAY AREA
- PAVING TYPE 16 - CIP CONC STEPPING SLAB
GROUND LEVEL - COURTYARD
CIP CONCRETE, SANDBLAST, 19" X 7" X 4"
- PAVING TYPE 17 - STEPPING STONE
GROUND LEVEL
FLAG STONE, BLACK/SALT, 12.5" DIA
- CIP CONCRETE PLANTER WALL
SANDBLAST FINISH
- TRELLIS
GROUND LEVEL - COURTYARD
SEE ARCH
- BOULDERS
PODIUM LEVEL - POOLS, ISLANDS AND PLANTED AREAS
PENTHOUSE LEVEL
- PLAY FEATURE TYPE A - LOG STUMPS
PODIUM LEVEL - KIDS PLAY
- TEMPORARY EXISTING TREE FENCE
AT EAST PROPERTY

LAYOUT AND MATERIALS GENERAL NOTES

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7. ALL STREETSCAPE DESIGN IS TO BE COORDINATED WITH CITY OF RICHMOND STREET ENGINEERING DEPARTMENT AND PLANTED UNDER SUPERVISION OF THE CITY OF RICHMOND PARK BOARD.
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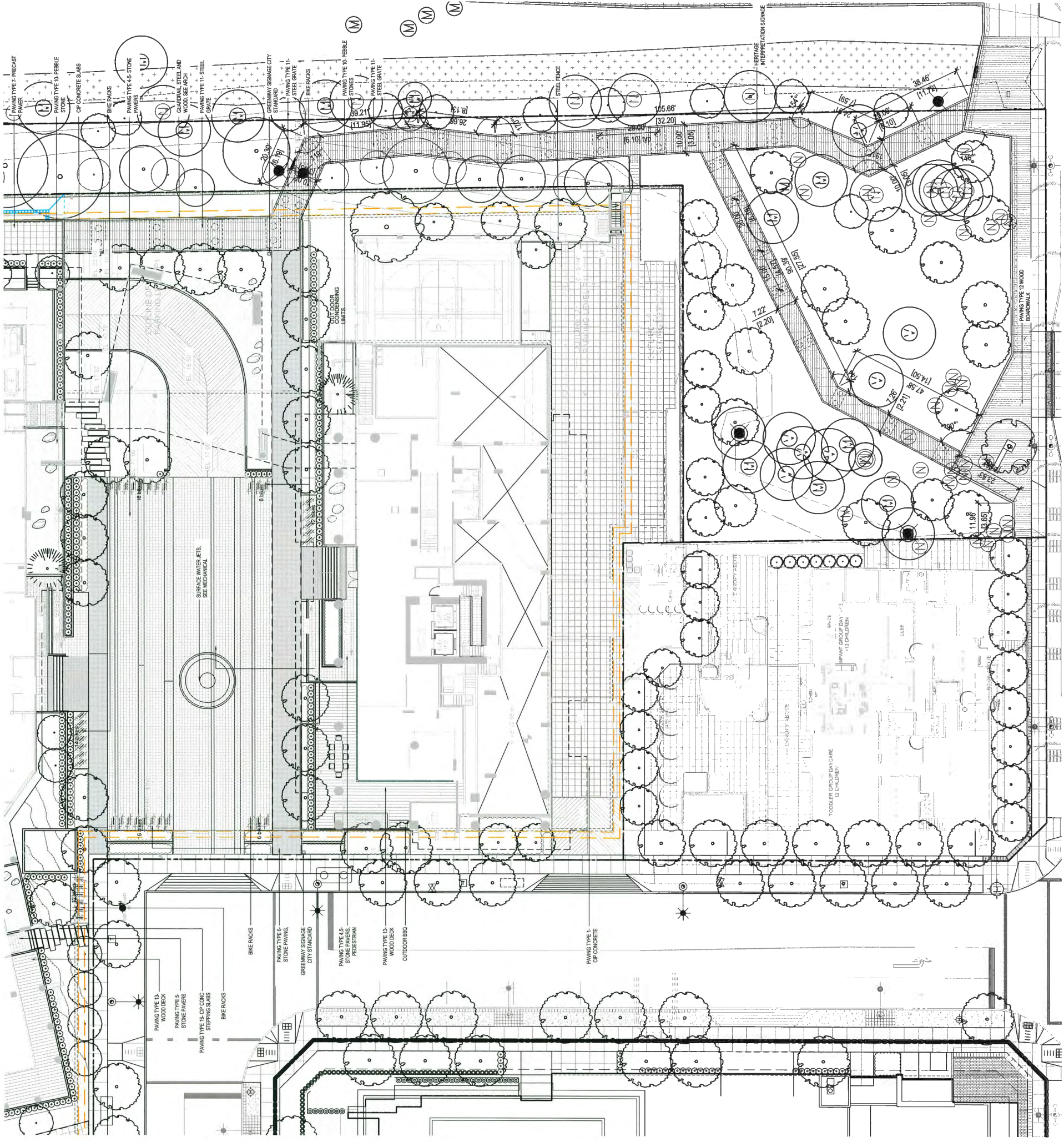
MATERIALS LEGEND

REFER TO LOT 17 SERVICING AGREEMENT FOR OFFSITE STREETScape, WATERFRONT PARK & DIKE, AND LOT 14 ESA LANDSCAPE DESIGN.

	PAVING TYPE 1 - CIP CONCRETE GROUND LEVEL - PATIO TERRACES, COURTYARD PATIOS AND PUBLIC PLAZAS SANDBLAST FINISH, SANDLOT LINES, NATURAL AND CHARCOAL COIL
	PAVING TYPE 2 - HYDRAPRESSED PAVER GROUND LEVEL - PRIVATE PATIOS TEXADA, NATURAL COLOR, 12X24X2"
	PAVING TYPE 3 - HYDRAPRESSED PAVER GROUND LEVEL, ROOF LEVEL - PRIVATE PATIOS TEXADA, NATURAL COLOR, 24X24X2"
	PAVING TYPE 4 - STONE PAVING GROUND LEVEL - PARK & DRIVE COURT BLACK GRANITE, 11-3/4X11-3/4X2"
	PAVING TYPE 5 - STONE PAVING GROUND LEVEL - PARK & DRIVE COURT SALT AND PEPPER GRANITE, LIGHT GREY, 11-3/4X11-3/4X2"
	PAVING TYPE 6 - STONE PAVING, VEHICULAR GROUND LEVEL - SERVICE COURT BLACK GRANITE, 14-1/2X14-1/2X2"
	PAVING TYPE 7 - PRECAST PAVER GROUND LEVEL - EAST PATHWAY PAVER, LIGHT GREY, 24X24X2"
	PAVING TYPE 8 - WOOD DECK ROOF LEVEL - PATIOS
	PAVING TYPE 9 - GRAVEL GROUND LEVEL PATHS AT PARK GRAY COLOR GRAVEL
	PAVING TYPE 10 - PEBBLE STONE GROUND AND ROCK LEVEL BUILDING EDGE BLACK PEBBLE, 2-3" DIAMETER
	PAVING TYPE 11 - STEEL GRATE GROUND LEVEL - EAST GREENWAY, RAISED WALKWAY
	PAVING TYPE 12 - WOOD BOARDWALK GROUND LEVEL - RIVER ROAD BOARDWALK
	PAVING TYPE 13 - WOOD DECK GROUND LEVEL - COURTYARD
	PAVING TYPE 14 - RUBBERIZED PLAY SURFACE GROUND LEVEL - KIDS PLAY MIXED BLACK AND GREEN COLOR, MIXED BLACK AND BLUE COLOR
	PAVING TYPE 15 - EXPOSED AGGREGATE GROUND LEVEL CHILDREN'S PLAY AREA
	PAVING TYPE 16 - CIP CONC STEPPING SLAB GROUND LEVEL - COURTYARD CIP CONCRETE, SANDBLAST, 1" @ 3" X 1" @
	PAVING TYPE 17 - STEPPING STONE GROUND LEVEL FLAG STONE, BLACK BASALT, 12-3/4" DIA
	CIP CONCRETE PLANTER WALL SANDBLAST FINISH
	TRELLIS GROUND LEVEL - COURTYARD SEE ARCH
	BOULDERS PODIUM LEVEL - POOLS, ISLANDS AND PLANTED AREAS PENTHOUSE LEVEL
	PLAY FEATURE TYPE A - LOG STUMPS PODIUM LEVEL - KIDS PLAY
	TEMPORARY EXISTING TREE FENCE AT EAST PROPERTY

LAYOUT AND MATERIALS GENERAL NOTES

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- REFER TO CIVIL ENGINEERS DRAWINGS FOR LAYOUT OF ROAD CURBS AND GUTTERS AND PEDESTRIAN LET-DOWNS.
- REFER TO ENGINEERING DRAWINGS FOR DETAILS, SUBGRADE, AND REINFORCING OF ALL PAVED SURFACES IN ROADWAYS.
- ALL STREETScape DESIGN IS TO BE COORDINATED WITH CITY OF RICHMOND STREET ENGINEERING DEPARTMENT AND PLANTED UNDER SUPERVISION OF THE CITY OF RICHMOND PARK BOARD.
- REFER TO DETAILS AND SECTIONS FOR ALL LANDSCAPE IMPROVEMENTS. ALL DIMENSIONS ARE NOMINAL.
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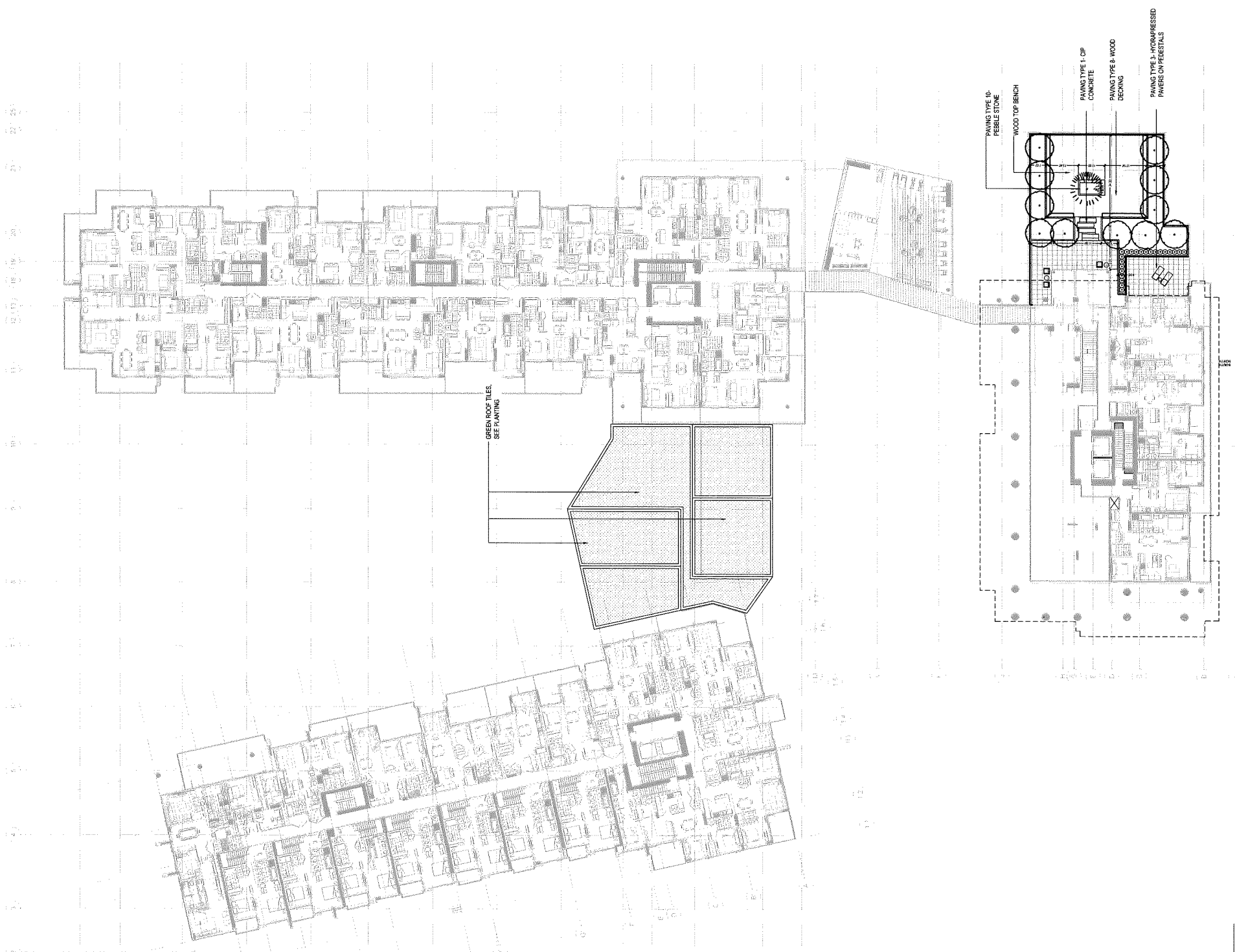
MATERIALS LEGEND

REFER TO LOT 17 SERVICING AGREEMENT FOR OFFSITE STREETScape, WATERFRONT PARK & DIKE, AND LOT 14 ESA LANDSCAPE DESIGN.

	PAVING TYPE 1 - CIP CONCRETE
	GROUND LEVEL - PATIO DECKS, COURTYARD PATHS AND PUB PATIO DECKS SANDBLAST FINISH, SAND/TIMES, NATURAL AND CHARCOAL COU
	PAVING TYPE 2 - HYDRAPRESSED PAVER
	GROUND LEVEL - PRIVATE PATIOS TEXACO, NATURAL COLOR, 12X24X2"
	PAVING TYPE 3 - HYDRAPRESSED PAVER
	GROUND LEVEL - PRIVATE PATIOS TEXACO, NATURAL COLOR, 24X24X2"
	PAVING TYPE 4 - STONE PAVING
	GROUND LEVEL - PARK & DRIVE COURT BLACK GRANITE, 11.5X11.5X4X2"
	PAVING TYPE 5 - STONE PAVING
	GROUND LEVEL - PARK & DRIVE COURT SALT AND PEPPER GRANITE, LIGHT GREY, 11.5X11.5X4X2"
	PAVING TYPE 6 - STONE PAVING, VEHICULAR
	GROUND LEVEL - SE DRIVE COURT BLACK GRANITE, 11.5X11.5X4X2"
	PAVING TYPE 7 - PRECAST PAVER
	GROUND LEVEL - EAST PATHWAY PAVER, LIGHT GREY, 24"X24"X2"
	PAVING TYPE 8 - WOOD DECK
	ROOF LEVEL - PATIOS
	PAVING TYPE 9 - GRAVEL
	GROUND LEVEL, PATHS AT PARK GRAY COLOR GRAVEL
	PAVING TYPE 10 - PEBBLE STONE
	GROUND AND ROOF LEVEL - BUILDING EDGE BLACK PEBBLE, 2.5" DIAMETER
	PAVING TYPE 11 - STEEL GRATE
	GROUND LEVEL - EAST GREENWAY, RAISED WALKWAY
	PAVING TYPE 12 - WOOD BOARDWALK
	GROUND LEVEL - RIVER ROAD BOARDWALK
	PAVING TYPE 13 - WOOD DECK
	GROUND LEVEL - COURTYARD
	PAVING TYPE 14 - RUBBERIZED PLAY SURFACE
	GROUND LEVEL - KIDS PLAY MIXED BLACK AND GREEN COLOR, MIXED BLACK AND BLUE COLOR
	PAVING TYPE 15 - EXPOSED AGGREGATE
	GROUND LEVEL CHILDRENS PLAY AREA
	PAVING TYPE 16 - CIP CONC STEPPING SLAB
	GROUND LEVEL - COURTYARD CIP CONCRETE, SANDBLAST, 1'-9" X 1' X 4"
	PAVING TYPE 17 - STEPPING STONE
	GROUND LEVEL FLAG STONE, BLACK BASALT, 12.25" DIA
	CIP CONCRETE PLANTER WALL SANDBLAST FINISH
	TRELLIS GROUND LEVEL - COURTYARD SEE ARCH
	BOULDERS PODIUM LEVEL - POOLS, ISLANDS AND PLANTED AREAS PENTHOUSE LEVEL
	PLAY FEATURE TYPE A - LOG STUMPS PODIUM LEVEL - KIDS PLAY
	TEMPORARY EXISTING TREE FENCE AT EAST PROPERTY

LAYOUT AND MATERIALS GENERAL NOTES

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LEVEL 2 MATERIAL PLAN

Submitted to City of Richmond
By IBI Group (Canada) Inc. on behalf of Oval 8 Holdings Ltd.
April 22, 2019

River Green Lot 17
Development Permit

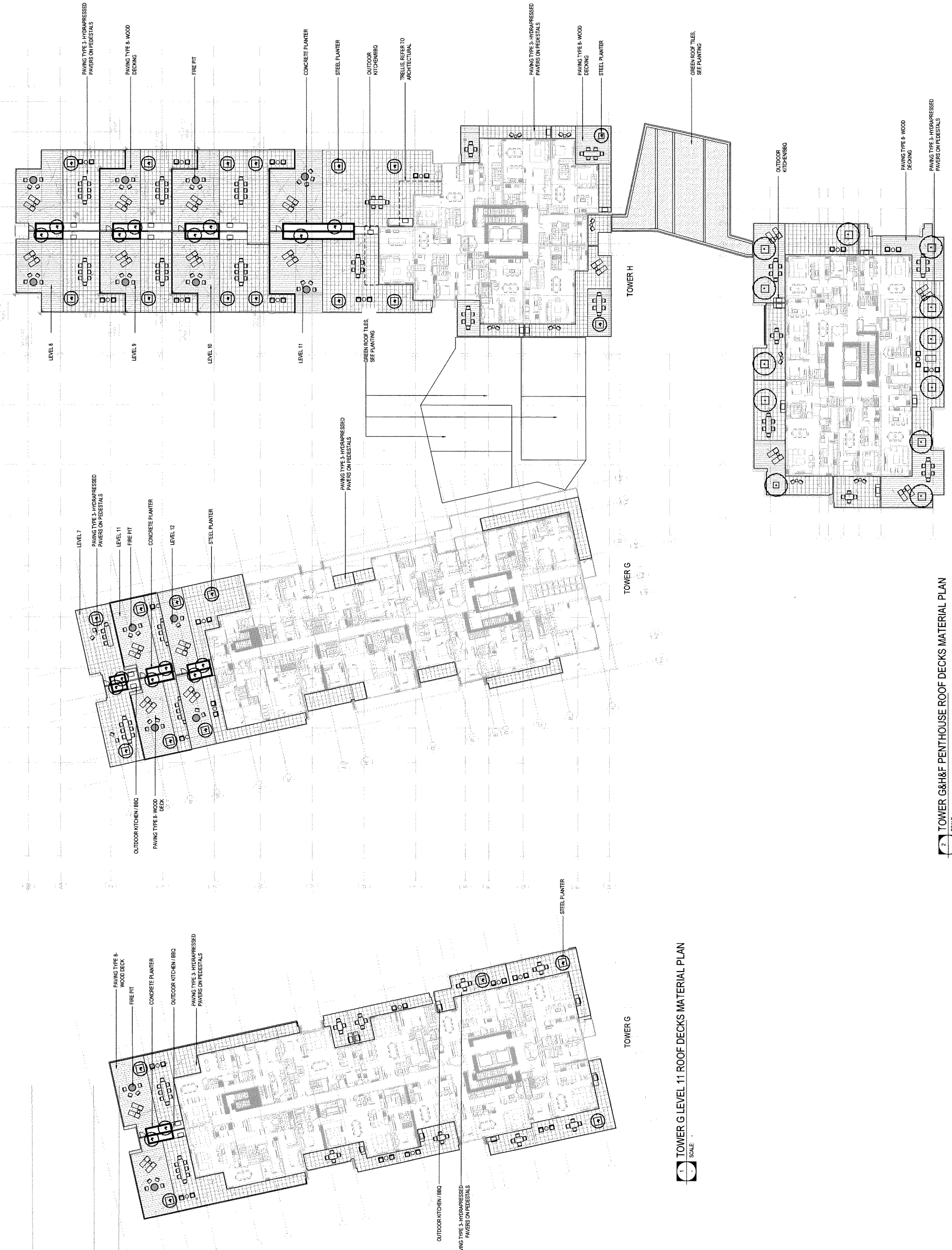


APR 23 2019

MATERIALS LEGEND

REFER TO LOT 17 SERVICING AGREEMENT FOR OFFSITE STREETScape, WATERFRONT PARK & DIKE, AND LOT 14 ESA LANDSCAPE DESIGN.

- PAVING TYPE 1 - CIP CONCRETE
GROUND LEVEL - PATIO ENTRANCES, COURTYARD PATHS AND PUBLIC WALKWAY AND LOADING AREA
SANDBLAST FINISH, SAWCUT LINES, NATURAL AND CHARCOAL COU.
- PAVING TYPE 2 - HYDRAPRESSED PAVER
GROUND LEVEL - PRIVATE PATIOS
TEXASA, NATURAL COLOR, 12X24X2"
- PAVING TYPE 3 - HYDRAPRESSED PAVER
GROUND LEVEL - PRIVATE PATIOS
TEXASA, NATURAL COLOR, 24X24X2"
- PAVING TYPE 4 - STONE PAVING
GROUND LEVEL - PARK & DRIVE COURT
BLACK GRANITE, 11.5X11.5X40Z"
- PAVING TYPE 5 - STONE PAVING
GROUND LEVEL - PARK & DRIVE COURT
SALT AND PEPPER GRANITE, LIGHT GREY, 11.5X11.5X40Z"
- PAVING TYPE 6 - STONE PAVING, VEHICULAR
GROUND LEVEL - SE DRIVE COURT
BLACK GRANITE, 17.5X17.5X40Z"
- PAVING TYPE 7 - PRECAST PAVER
GROUND LEVEL - EAST PATHWAY
PAVER, LIGHT GREY, 24X24X2"
- PAVING TYPE 8 - WOOD DECK
ROOF LEVEL - PATIOS
- PAVING TYPE 9 - GRAVEL
GROUND LEVEL PATHS AT PARK
GRAY COLOR GRAVEL
- PAVING TYPE 10 - PEBBLE STONE
GROUND AND ROOF LEVEL - BUILDING EDGE
BLACK PEBBLE, 2.5" DIAMETER
- PAVING TYPE 11 - STEEL GRATE
GROUND LEVEL - EAST GREENWAY, RAISED WALKWAY
- PAVING TYPE 12 - WOOD BOARDWALK
GROUND LEVEL - RIVER ROAD BOARDWALK
- PAVING TYPE 13 - WOOD DECK
GROUND LEVEL - COURTYARD
- PAVING TYPE 14 - RUBBERIZED PLAY SURFACE
GROUND LEVEL - KIDS PLAY
MIXED BLACK AND GREEN COLOR, MIXED BLACK AND BLUE COLOR
- PAVING TYPE 15 - EXPOSED AGGREGATE
GROUND LEVEL CHILDRENS PLAY AREA
- PAVING TYPE 16 - CIP CONC. STEPPING SLAB
GROUND LEVEL - COURTYARD
CIP CONCRETE, SANDBLAST, 1.5" X 7' X 7'
- PAVING TYPE 17 - STEPPING STONE
GROUND LEVEL
FLAG STONE, BLACK BASALT, 12.2" DIA
- CIP CONCRETE PLANTER WALL
SANDBLAST FINISH
- TRELLIS
GROUND LEVEL - COURTYARD
SEE ARCH
- BOULDERS
PODIUM LEVEL - POOLS, ISLANDS AND PLANTED AREAS
PENTHOUSE LEVEL
- PLAY FEATURE TYPE A - LOG STUMPS
PODIUM LEVEL - KIDS PLAY
- TEMPORARY EXISTING TREE FENCE
AT EAST PROPERTY

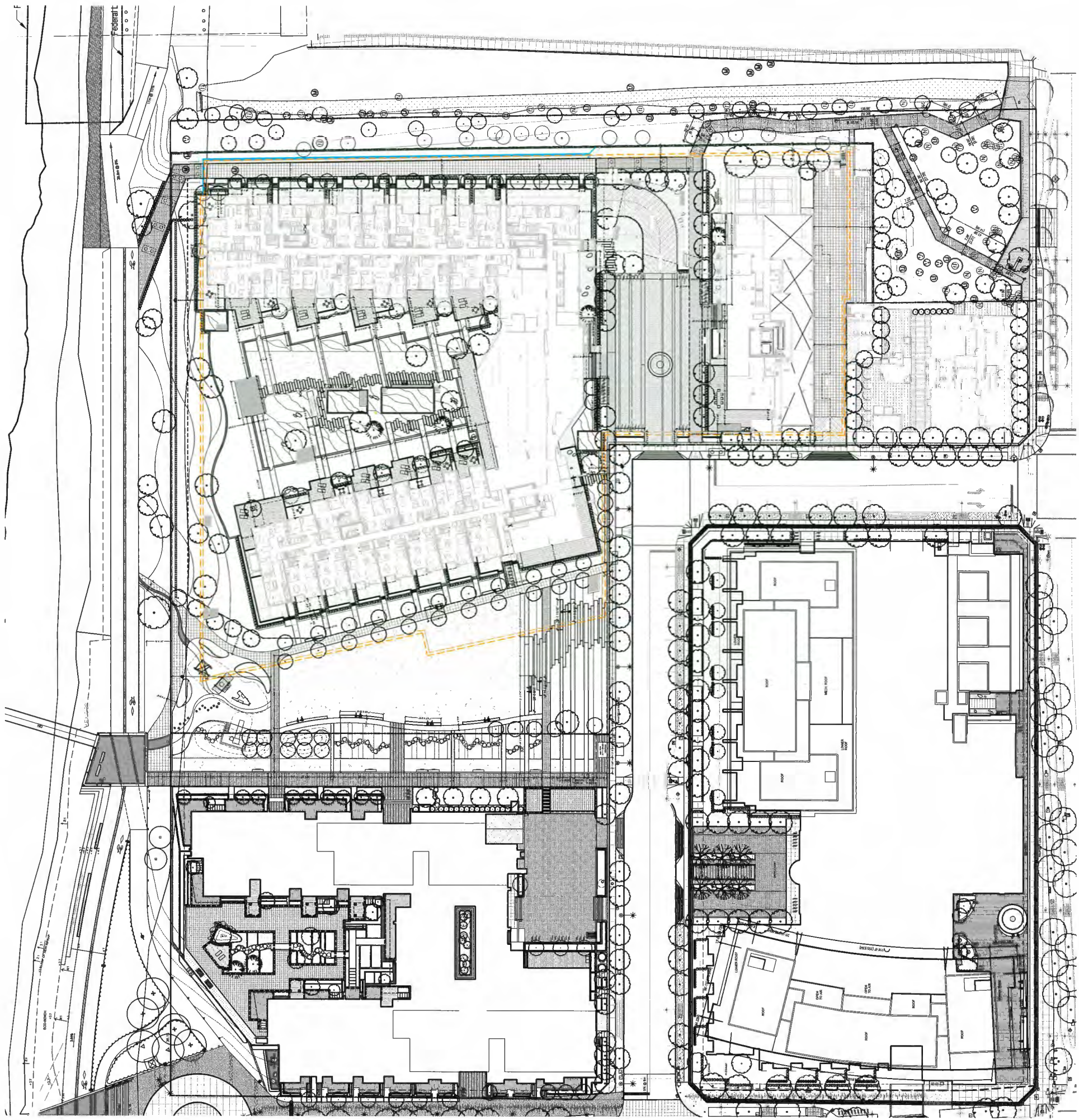


LAYOUT AND MATERIALS GENERAL NOTES

1. DO NOT SCALE DRAWINGS. LAYOUT AS PER DIMENSIONS NOTED ON LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR REVIEW AND RESPONSE.
2. LAYOUT AND MATERIALS DRAWINGS ARE TO BE READ IN CONJUNCTION WITH LANDSCAPE SPECIFICATIONS FOR COMPLIANCE.
3. LANDSCAPE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND ENGINEERING DRAWINGS. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR REVIEW AND RESPONSE.
4. UTILITY AND LIGHTING ARE INDICATED FOR REFERENCE ONLY. REFER TO ENG. DRAWINGS FOR LOCATIONS, DETAILS, AND SPECIFICATIONS.
5. REFER TO CIVIL ENGINEERS DRAWINGS FOR LAYOUT OF ROAD CURBS AND GUTTERS AND PEDESTRIAN LET-DOWNS.
6. REFER TO ENGINEERING DRAWINGS FOR DETAILS, SUBGRADE, AND REINFORCING OF ALL PAVED SURFACES IN ROADWAYS.
7. ALL STREETScape DESIGN IS TO BE COORDINATED WITH CITY OF RICHMOND STREET ENGINEERING DEPARTMENT AND PLANTED UNDER SUPERVISION OF THE CITY OF RICHMOND PARK BOARD.
8. REFER TO DETAILS AND SECTIONS FOR ALL LANDSCAPE IMPROVEMENTS. ALL DIMENSIONS ARE NOMINAL.
9. VERIFY ALL DIMENSIONS WITH FIELD CONDITIONS. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR REVIEW AND RESPONSE.
10. ALL MOVABLE FURNITURE WILL BE PROVIDED BY OWNERS.
- 11.

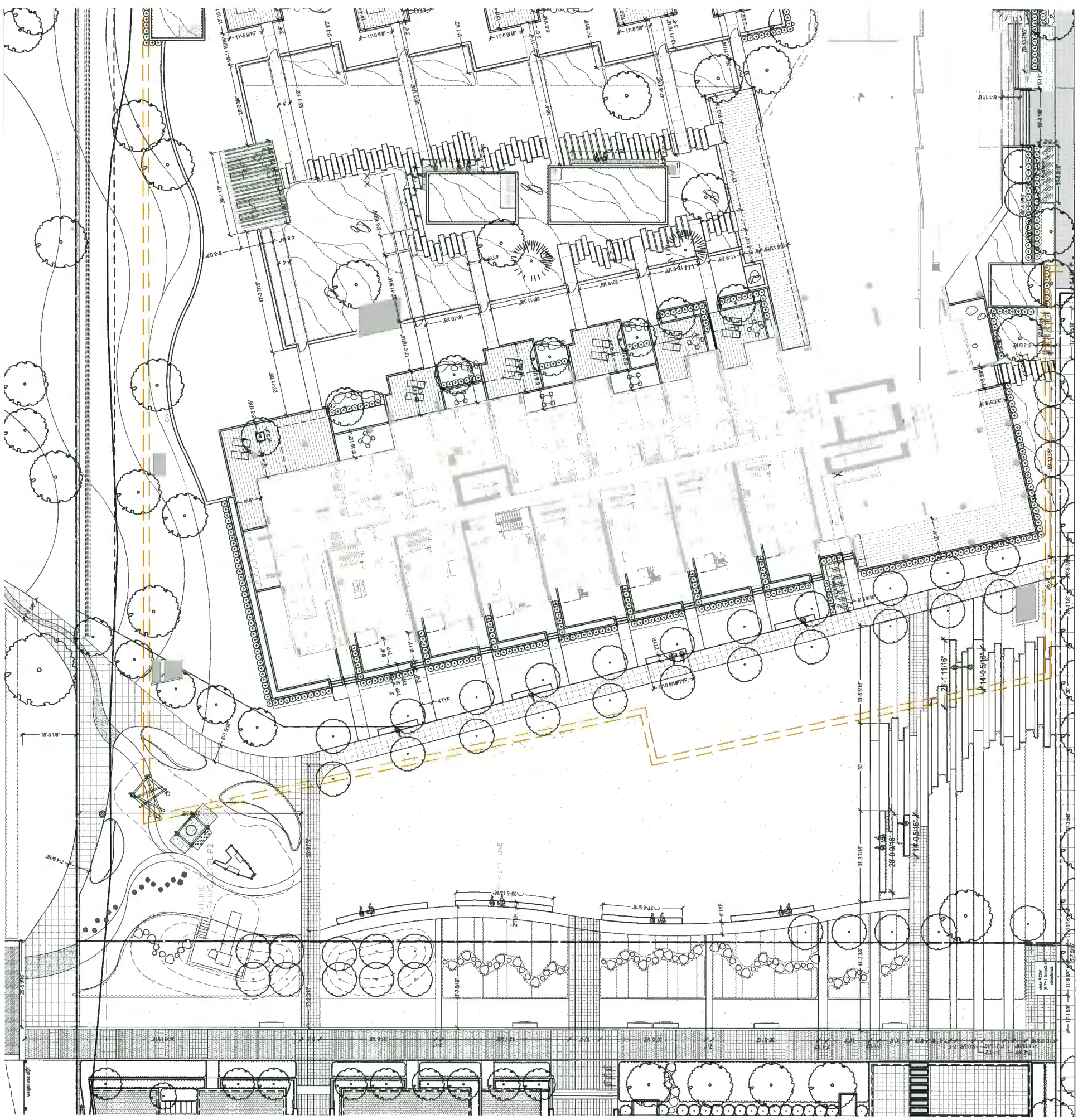
TOWER G LEVEL 11 ROOF DECKS MATERIAL PLAN
SCALE

TOWER G&H F PENTHOUSE ROOF DECKS MATERIAL PLAN
SCALE



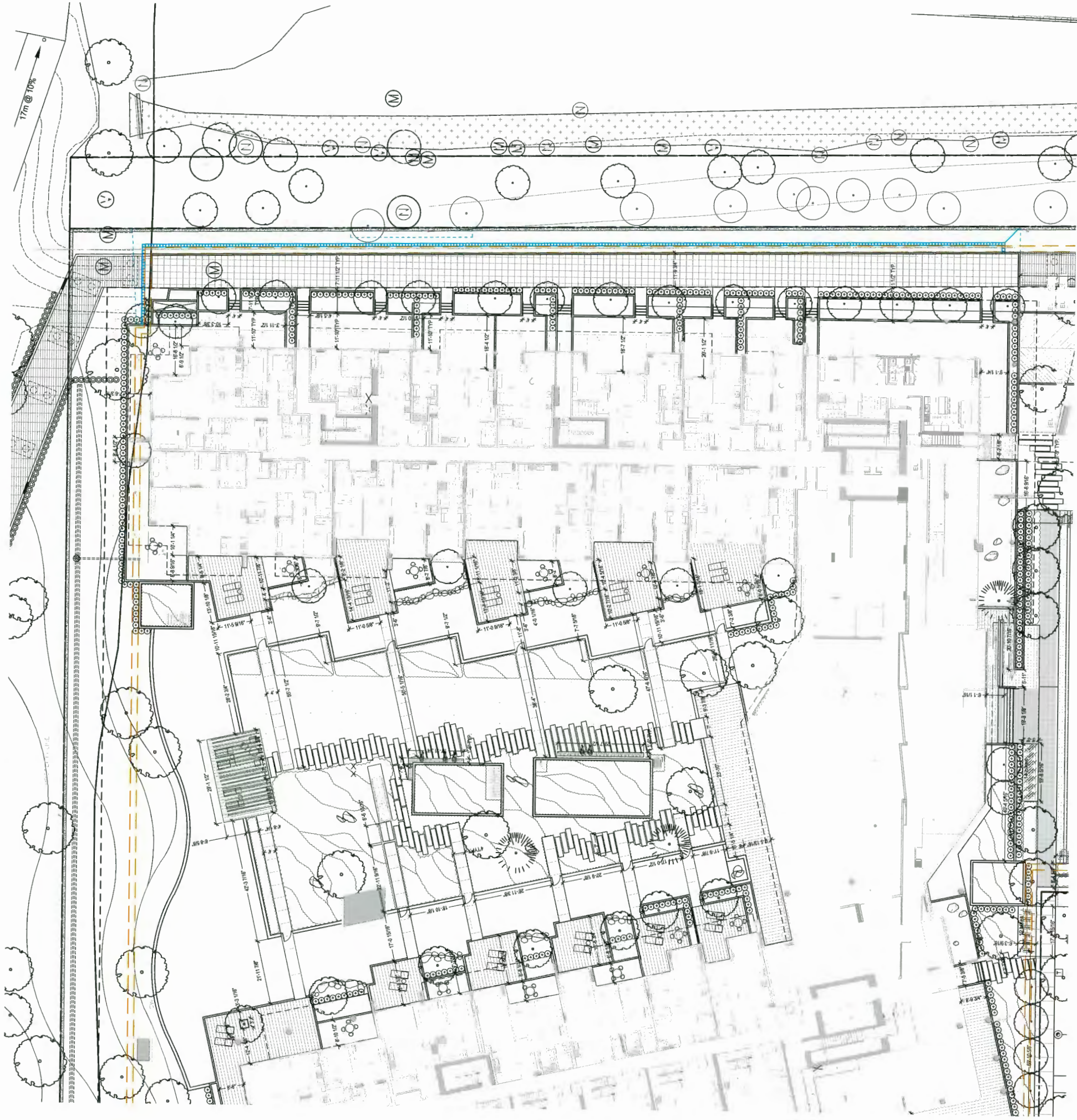
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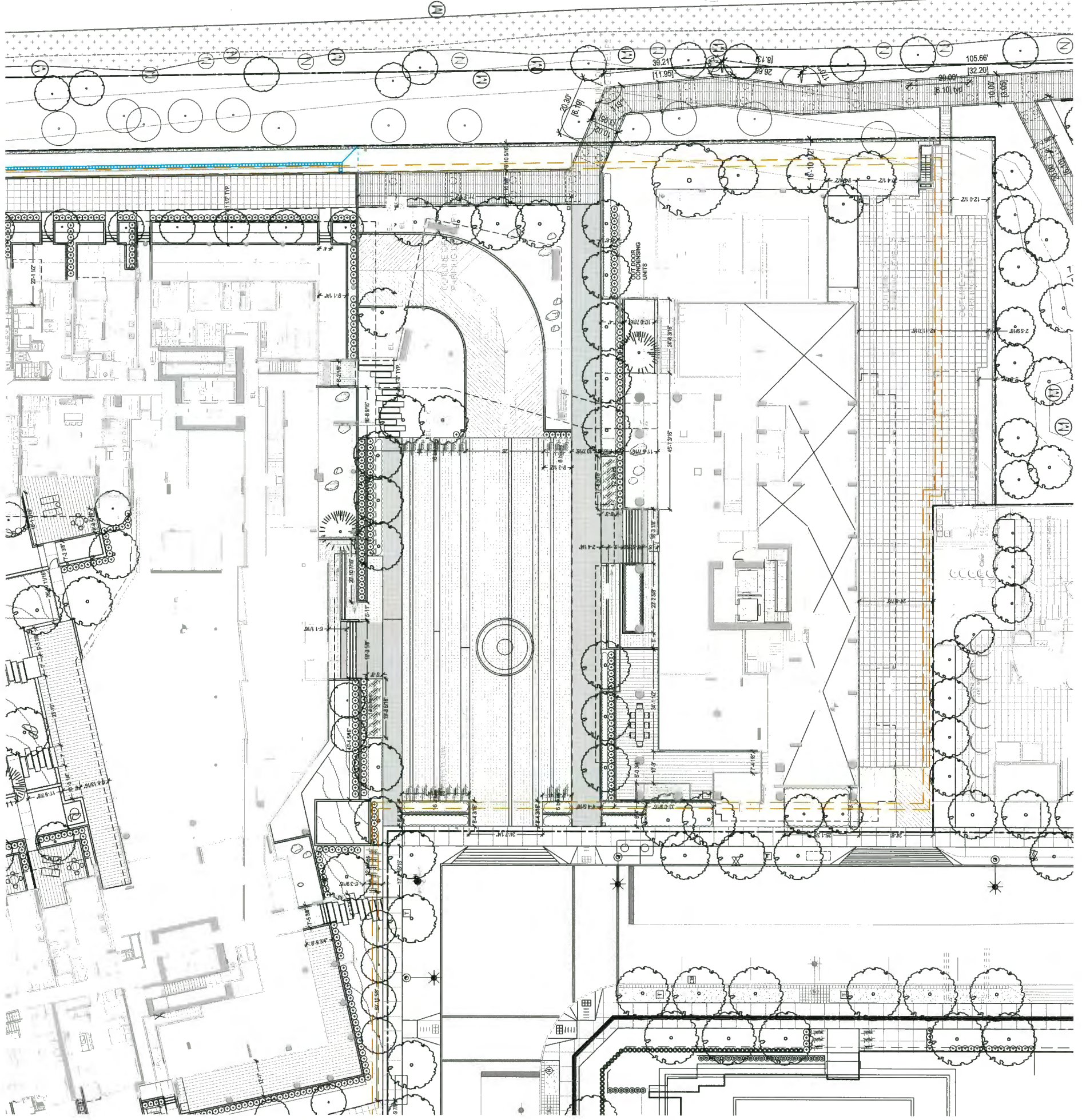


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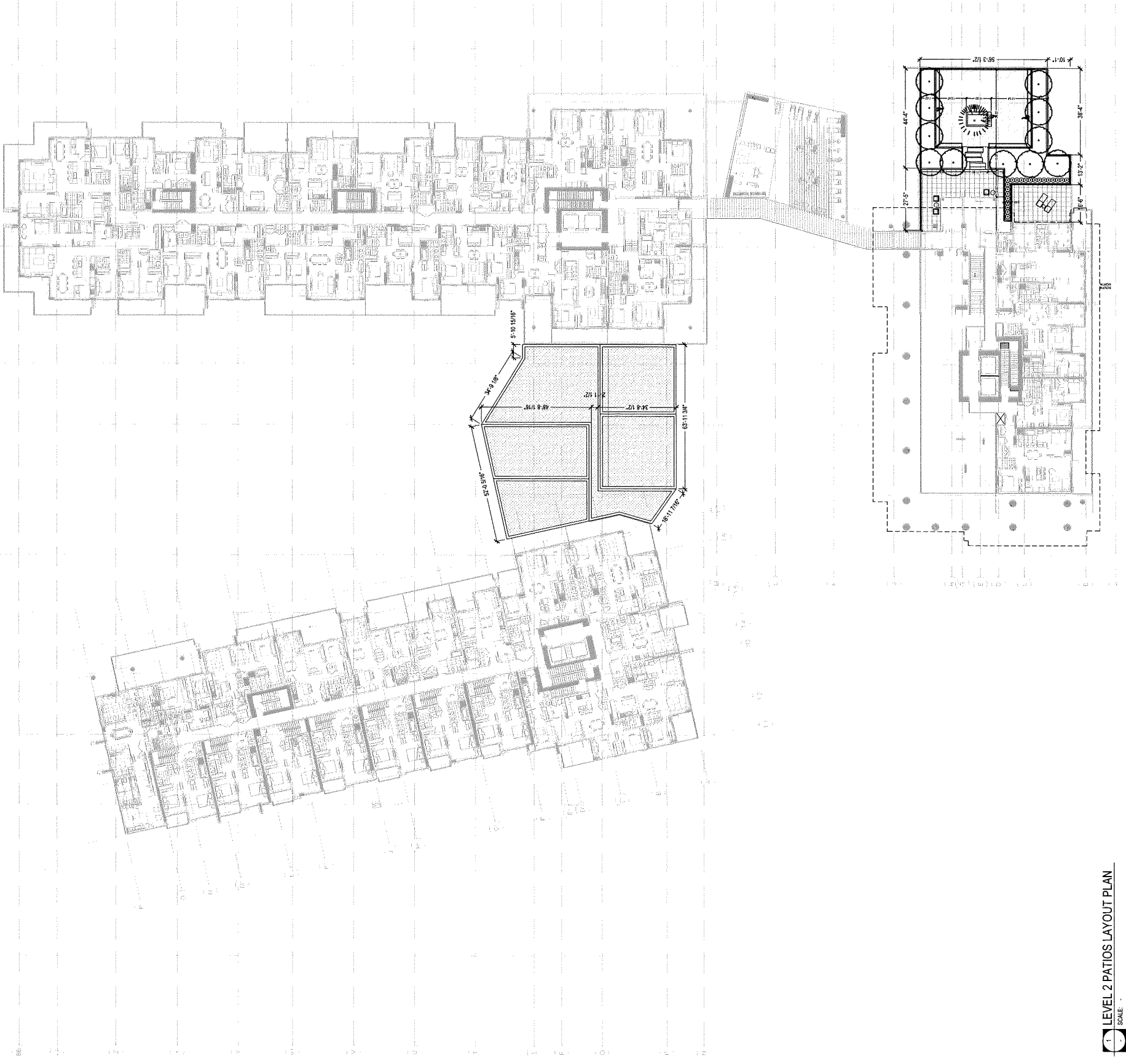
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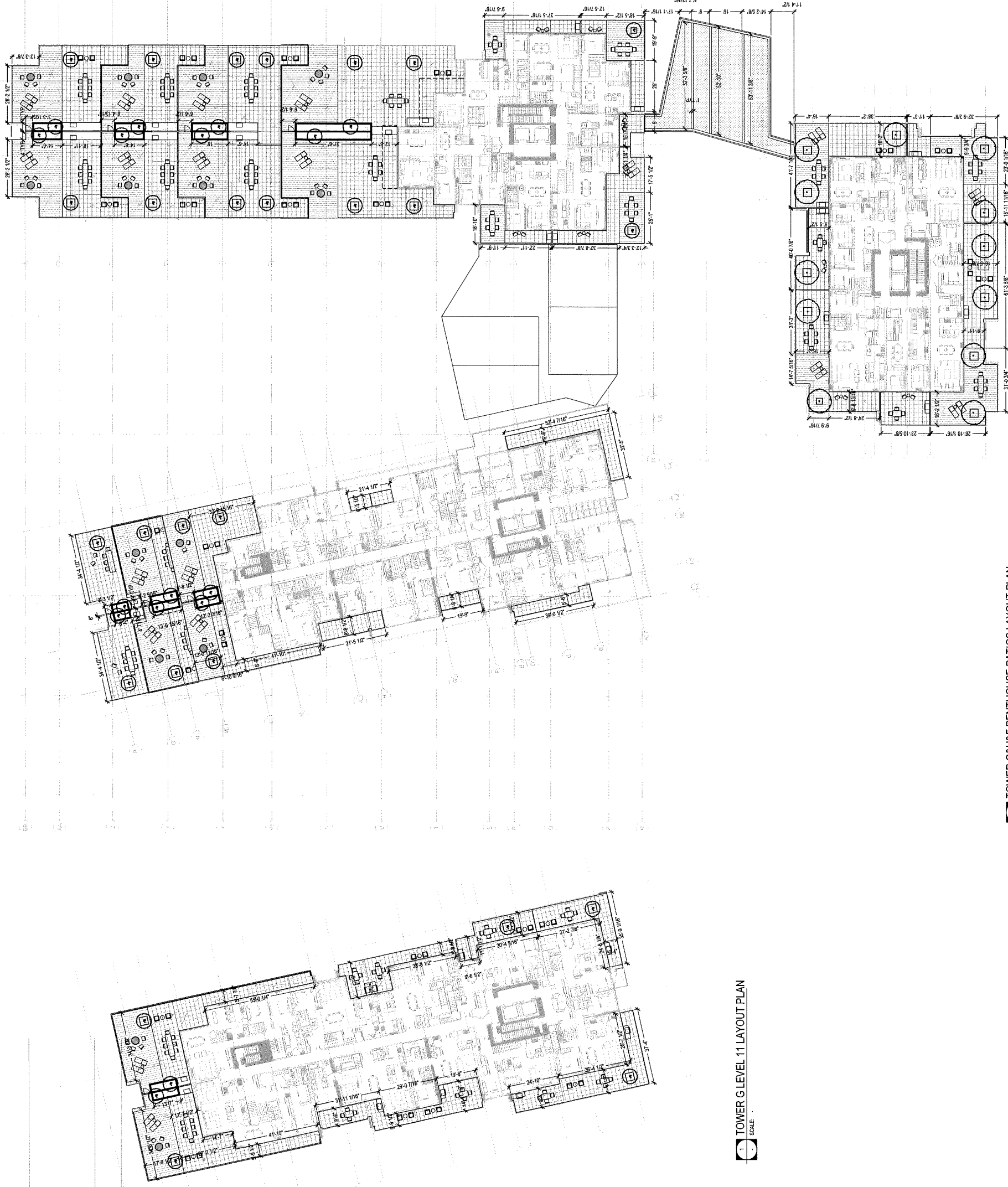


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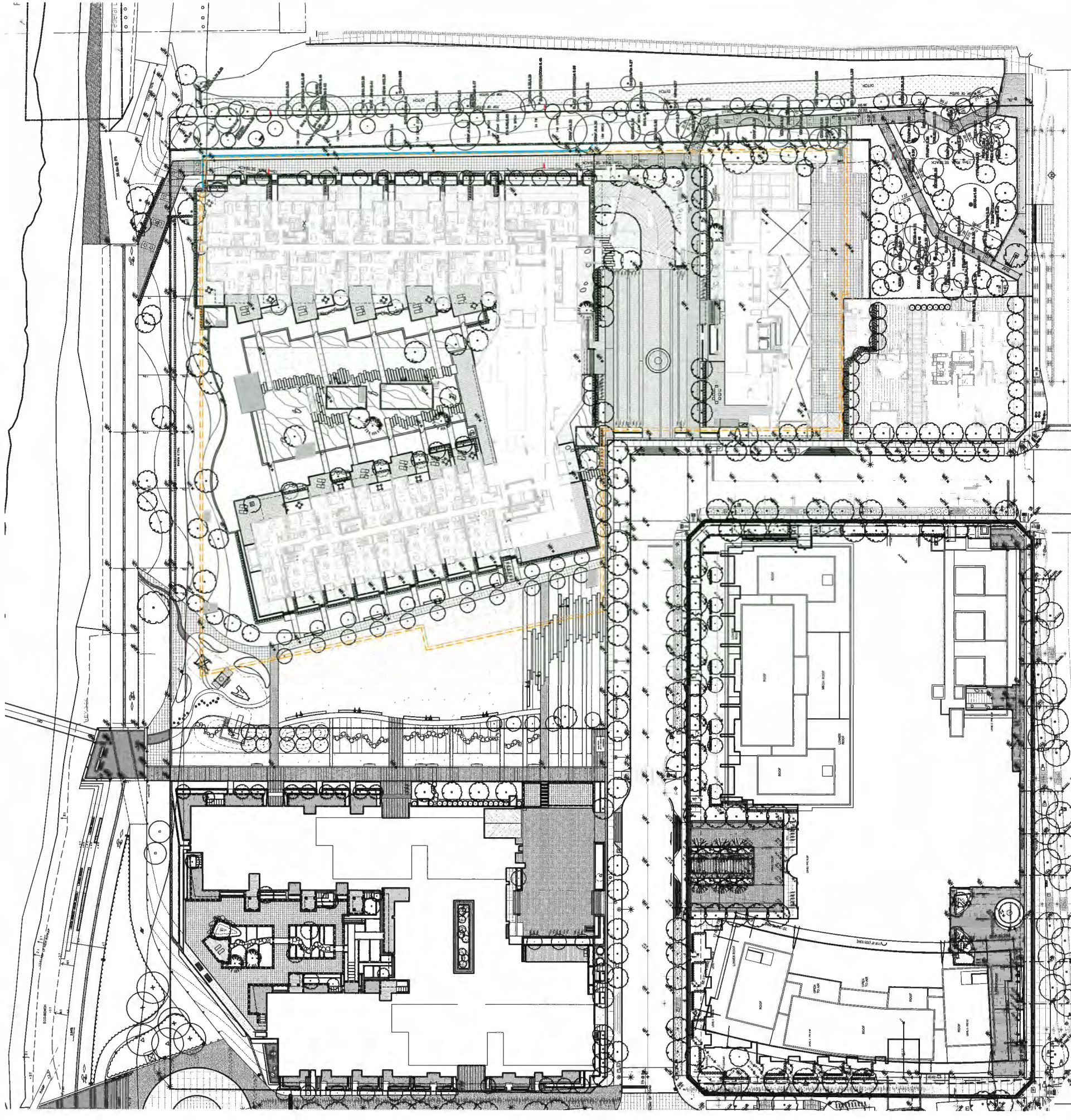
LEVEL 2 PATIOS LAYOUT PLAN
SCALE



1 TOWER G LEVEL 11 LAYOUT PLAN
SCALE

2 TOWER G&H&F PENTHOUSE PATIOS LAYOUT PLAN
SCALE

APR 23 2019



GRADING LEGEND

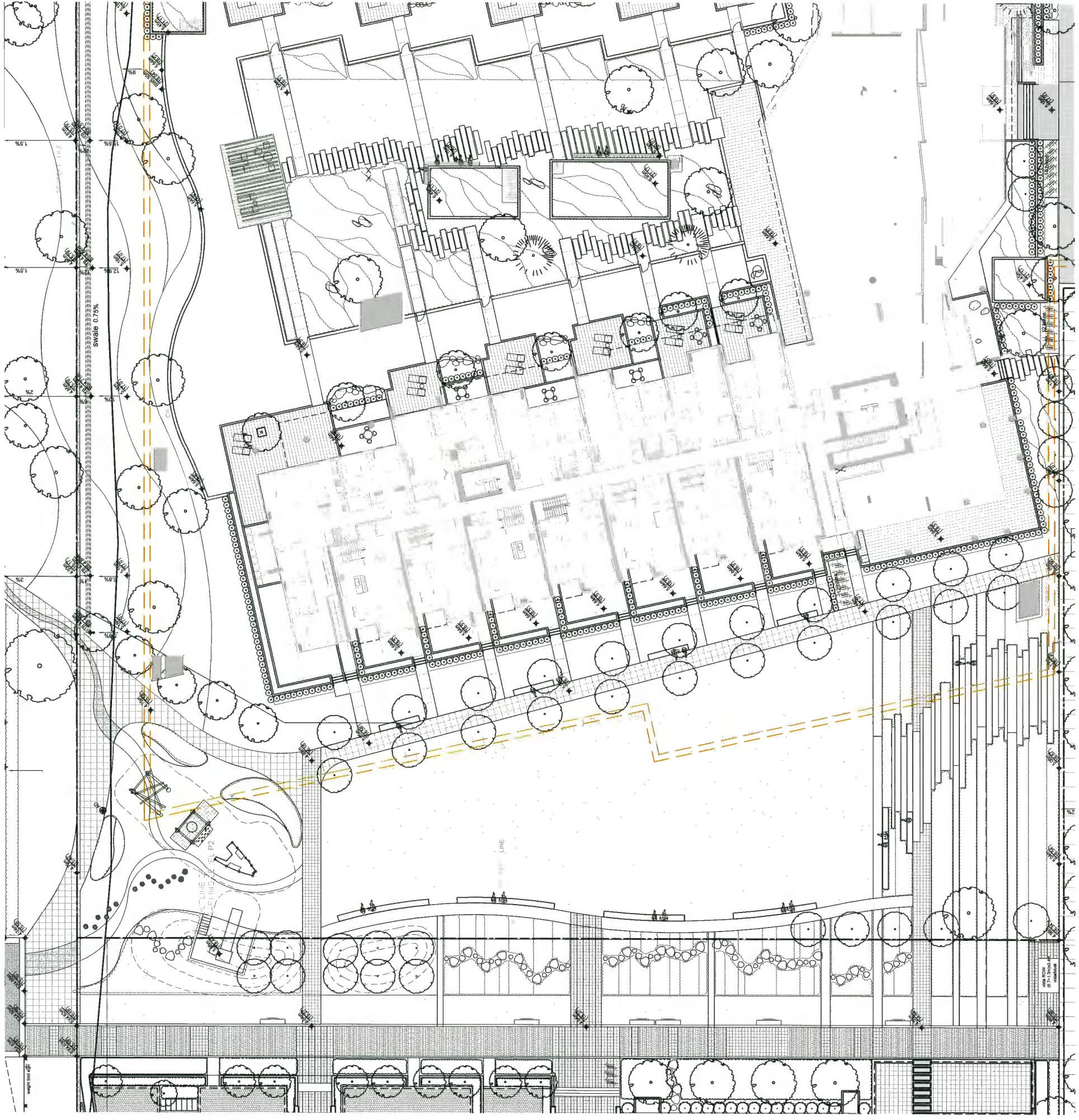
- IP CAST-IN-PLACE
- B POOL BOTTOM
- VL WATER LEVEL
- S TOP OF STAIR
- S BOTTOM OF STAIR
- W TOP OF WALL
- W BOTTOM OF WALL
- C TOP OF CURB
- IC BOTTOM OF CURB
- R TOP OF RAMP
- IR BOTTOM OF RAMP
- IM DRAIN - RIM ELEVATION
- D PLANTER DRAIN
- VD AREA DRAIN
- G FINISH GRADE
- S STRUCTURE SLAB ELEVATION
- IP HIGH POINT
- IC ROAD CROWN
- PROPOSED BUILDING / ROAD ELEVATION
- PROPOSED SPOT ELEVATION
- SLOPE

GRADING GENERAL NOTES

CONFIRM ALL EXISTING GRADES PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE CONSULTANT TEAM FOR REVIEW AND RESPONSE. UNLESS OTHERWISE NOTED, ALL DRAINS LOCATED IN LAWN OR PLANTED AREA ARE TO BE COMPLETE WITH INSPECTION CHAMBER AND CLEANOUT. PROVIDE POSITIVE DRAINAGE THROUGHOUT - AWAY FROM BUILDINGS, AND TO DRAINAGE STRUCTURES. UNLESS OTHERWISE NOTED, PROVIDE A MINIMUM SLOPE OF 2% ON ALL HARD AND SOFT LANDSCAPE SURFACES. UNLESS OTHERWISE NOTED, PROVIDE A MAXIMUM SLOPE OF 4:1 (25%) AT ALL SOFT LANDSCAPE AREAS. REPORT ANY DISCREPANCIES TO THE CONSULTANT TEAM FOR REVIEW AND RESPONSE. ALL GRADING INFORMATION TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS TO ENSURE ADEQUATE SOIL DEPTHS AND POSITIVE DRAINAGE.

DP 18-816029

APR 23 2019



GRADING LEGEND

CIP	CAST-IN-PLACE
PB	POOL BOTTOM
WL	WATER LEVEL
TS	TOP OF STAIR
BS	BOTTOM OF STAIR
TW	TOP OF WALL
BW	BOTTOM OF WALL
TC	TOP OF CURB
BC	BOTTOM OF CURB
TR	TOP OF RAMP
BR	BOTTOM OF RAMP
RIM	DRAIN - RIM ELEVATION
PD	PLANTER DRAIN
AD	AREA DRAIN
FG	FINISH GRADE
SS	STRUCTURE SLAB ELEVATION
HP	HIGH POINT
RC	ROAD CROWN
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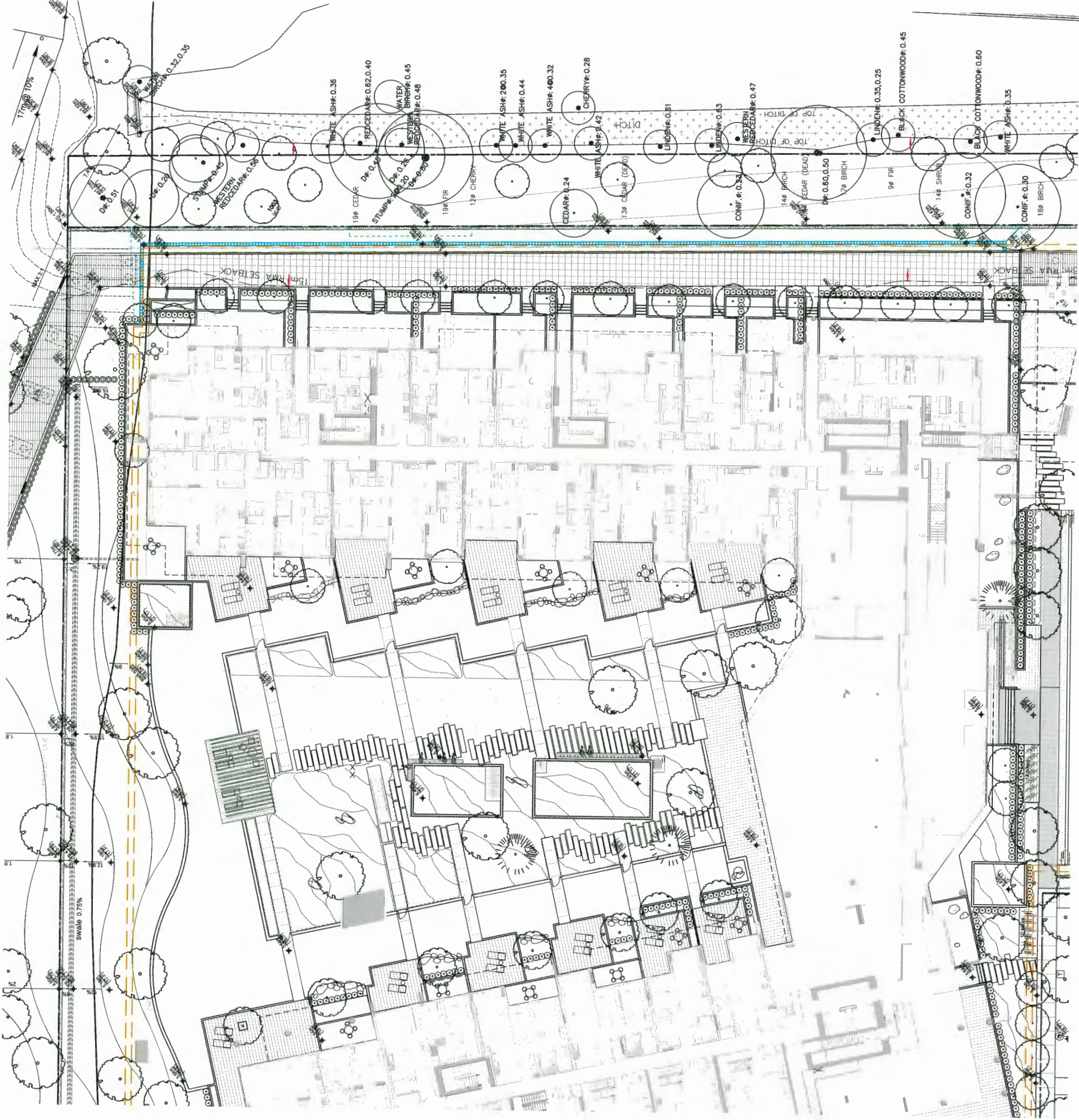
APR 23 2019

GRADING LEGEND

CIP	CAST-IN-PLACE
PB	POOL BOTTOM
WL	WATER LEVEL
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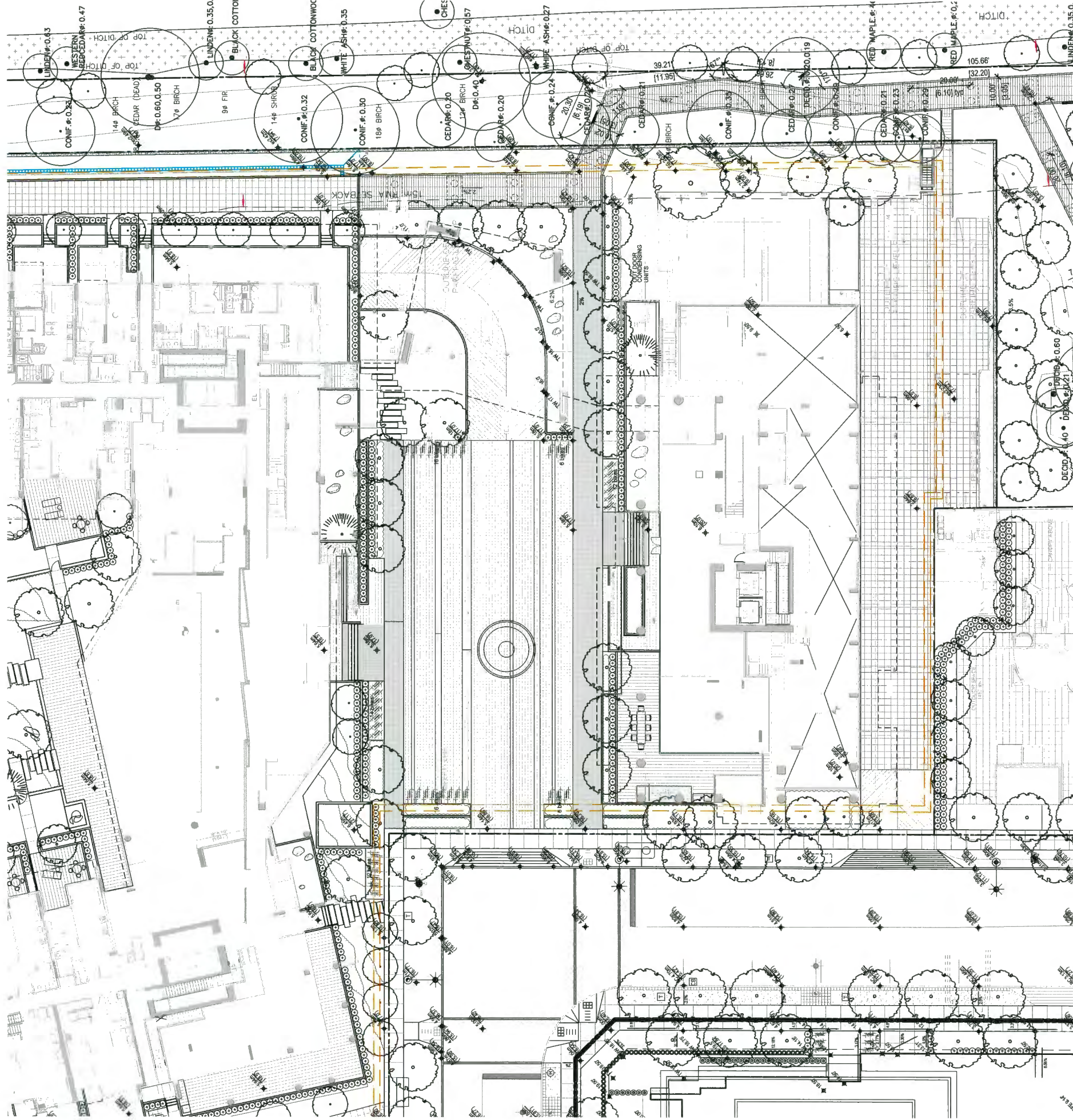
APR 23 2019

GRADING LEGEND

C/P	CAST-IN-PLACE
PB	POOL BOTTOM
WL	WATER LEVEL
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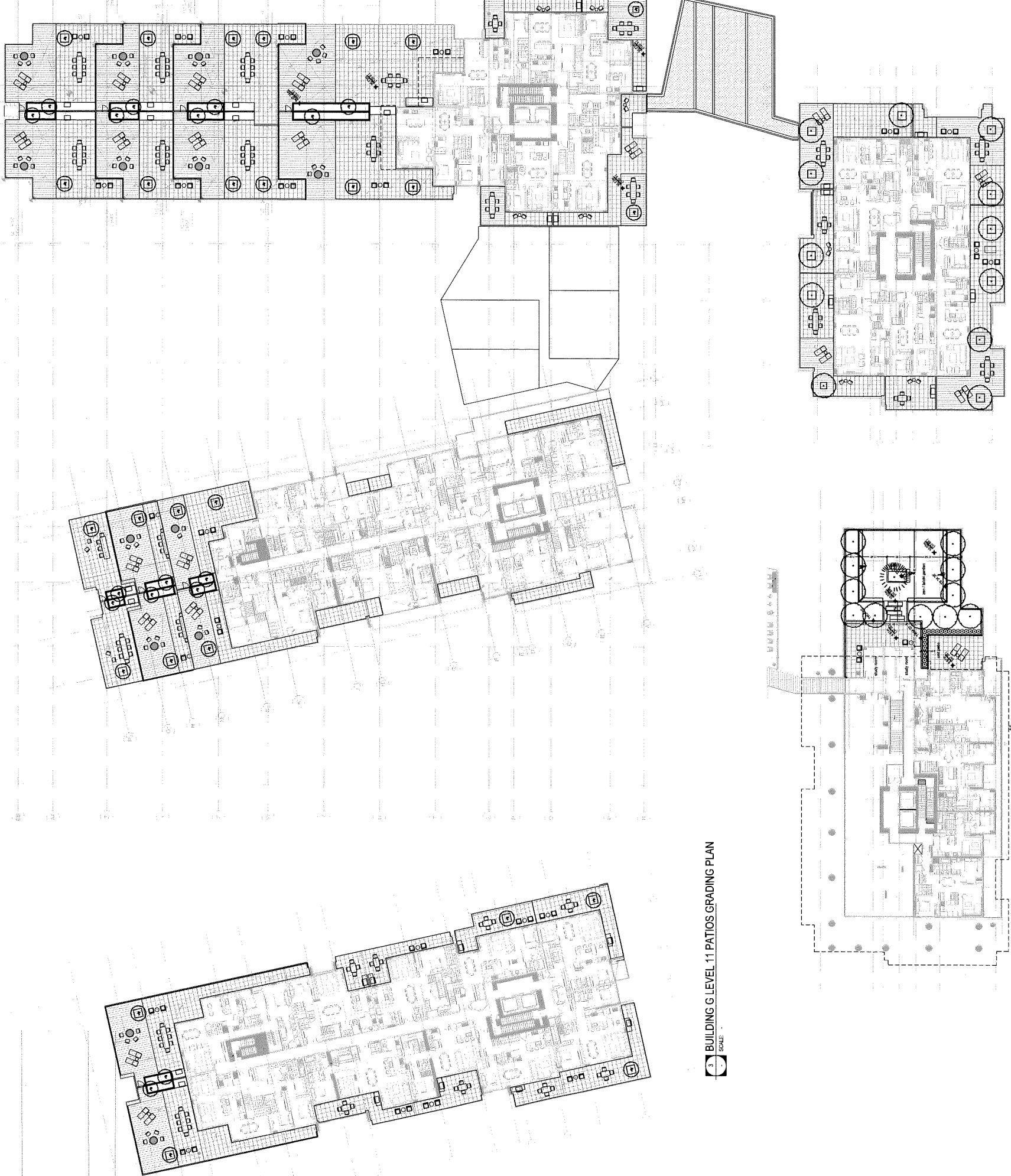
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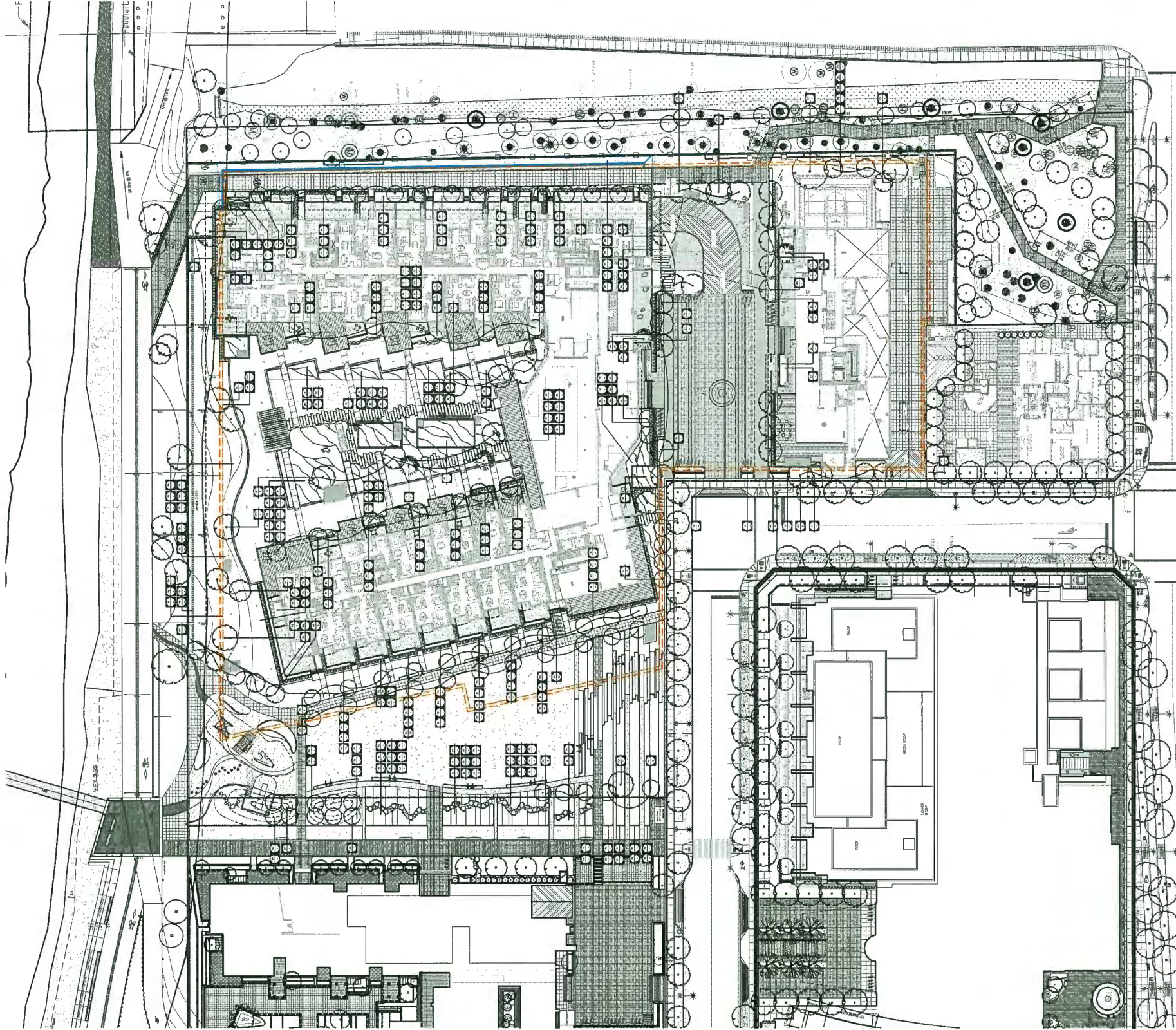
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3 BUILDING G LEVEL 11 PATIOS GRADING PLAN

1 TOWER G&H PENTHOUSE PATIOS GRADING PLAN

2 BUILDING F LEVEL 2 PATIOS GRADING PLAN



PLANTS SCHEDULE

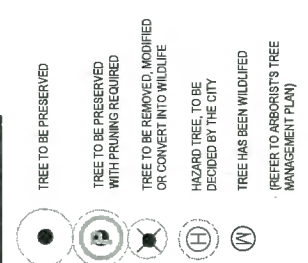
KEY QTY	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
AO 24	ACER PALMATUM OSAKAZUKI	OSAKAZUKI JAPANESE MAPLE	3.5M HT. WB	MULTI-STEMMED (3 MIN.) FULL
AC 5	ACER CIRCINATUM	VINE MAPLE	80M CAL. WB	MULTI-STEMMED (3 MIN.) FULL
AK 8	ACER RUBRUM RED SUNSET	RED SUNSET MAPLE	80M CAL. WB	MULTI-STEMMED (3 MIN.) FULL
AL 10	ACER GLABRUM	SMOOTH LEAF MAPLE	70M CAL. WB	FULL, UNIFORM SIZE & QUALITY
AN 15	CORNUS NUTTALLII	WESTERN FLOWERING DOGWOOD	70M CAL. WB	FULL, UNIFORM SIZE & QUALITY
BN 1	FRAXINUS PENNSYLVANICA LEPRECHAUIN	LEPRECHAUN ASH	80M CAL. WB	6 STANDARD, UNIFORM SIZE & QUALITY
MS 22	MAGNOLIA GRANDIFLORA LITTLE GEM	ROYAL CROWN MAGNOLIA	80M CAL. WB	MULTI-STEMMED (3 MIN.) FULL
MG 9	MAGNOLIA X ROYAL CROWN	ROYAL CROWN MAGNOLIA	70M CAL. WB	FULL, UNIFORM SIZE & QUALITY
MR 4	PNUS RED SENTINEL	RED SENTINEL CRABAPPLE	70M CAL. WB	SPECIMEN & PICTURE-SOME QUALITY
PC 3	PNUS CONTORTA	SHORE PINE	3.5M HT. WB	FULL, UNIFORM SIZE & QUALITY
SJ 28	STRYAX JAPONICUS OBASSIA	JAPANESE SNOWBELL TREE	70M CAL. WB	SPECIMEN QUALITY, 6 STD. FULL
AS 23	ACER PALMATUM SHINDESHODO	SHINDESHODO JAPANESE MAPLE	70M CAL. WB	MULTI-STEMMED (3 MIN.) FULL

KEY QTY	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
Bn	BERGENIA EROICA	ELEPHANT EARS	42 POT	24" O.C.
Cv	CALLUNA VULGARIS ZOE	ZOE HEATHER	42 POT	24" O.C.
Co	CORNUS STOLONIFERA	RED OSIER DOGWOOD	42 POT	24" O.C.
Es	ERICA SUBALPENSIS X MEDITERRANEAN WHITE	RED HEATH	42 POT	12" O.C.
Gj	GAULTHERIA SHALON	MEDITERRANEAN HEATHER	42 POT	12" O.C.
Gf	JASMINUM FLORIDUM	SALAL	42 POT	12" O.C.
Lz	LAVANDULA ANGUSTIFOLIA	SHOWY JASMINE	42 POT	24" O.C.
Ln	LEUCOTHOE ZEBLID	ENGLISH LAVENDER	42 POT	24" O.C.
Lm	LONKERA MITIDA	DROOPING LAUREL	42 POT	24" O.C.
Mn	MAHONIA NERVOSA	BOXLEAF HONEYSUCKLE	42 POT	18" O.C.
Mr	MAHONIA REPENS	DULL OREGON GRAPE	42 POT	18" O.C.
Oc	OSLERIA CERASIFORMIS	CREEPING MAHONIA	42 POT	24" O.C.
Os	OSLERIA ALBIFLORA	INDIAN PLUM	42 POT	24" O.C.
Pf	PAULOWNIA 'SILVER KING'	HYDRANGEA	42 POT	24" O.C.
Pt	PACHYSAUBRA TERMINALIS	DUKE OF MONTBATEL PINE	42 POT	24" O.C.
Rg	ROSA GYMNOCARPA	JAPANESE SPURGE	42 POT	18" O.C.
Rc	ROSA X CAMPFIRE	BALDHIP ROSE	42 POT	18" O.C.
Rh	RHOODENDRON YAKU PRINCESS	CAMPFIRE ROSE	42 POT	24" O.C.
Rb	RUBUS SPECTABILIS	WHITE DWARF RHOODENDRON	42 POT	24" O.C.
Rd	RUBUS SPECIOSUS	SALMONBERRY	42 POT	12" O.C.
Sc	SPIRAEA DOUGLASSII	CAURICAULA STONECROP	42 POT	12" O.C.
Sd	SAMBUCUS FACONDISA	HARDHACK	42 POT	12" O.C.
Sr	SIBYRICA PRINCESS	RED ELDERBERRY	42 POT	24" O.C.
Ss	SUMMITA RETESNAUFEMALE 80%MALE 10%	RED ELDERBERRY	42 POT	18" O.C.
Sx	SUMMITA RETESNAUFEMALE 80%MALE 10%	REYES SUMMITA	42 POT	18" O.C.

KEY QTY	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
Bm	BUXUS MICROPHYLLA WINTER GEM	LITTLE LEAF BOXWOOD	42 POT	18" O.C.
Tm	TAXUS MEDIA H.M. EDDIE MALE	H.M. EDDIE YEW	40" HIGH, FIELD GROWN 24" O.C.	
Fs	FAGUS SYLVATICA DAMYCKII	COLUMNAR EUROPEAN BIRCH	19-20" DIA ROOTBALL, 8-8'	FULLY BRANCHED TO BASE

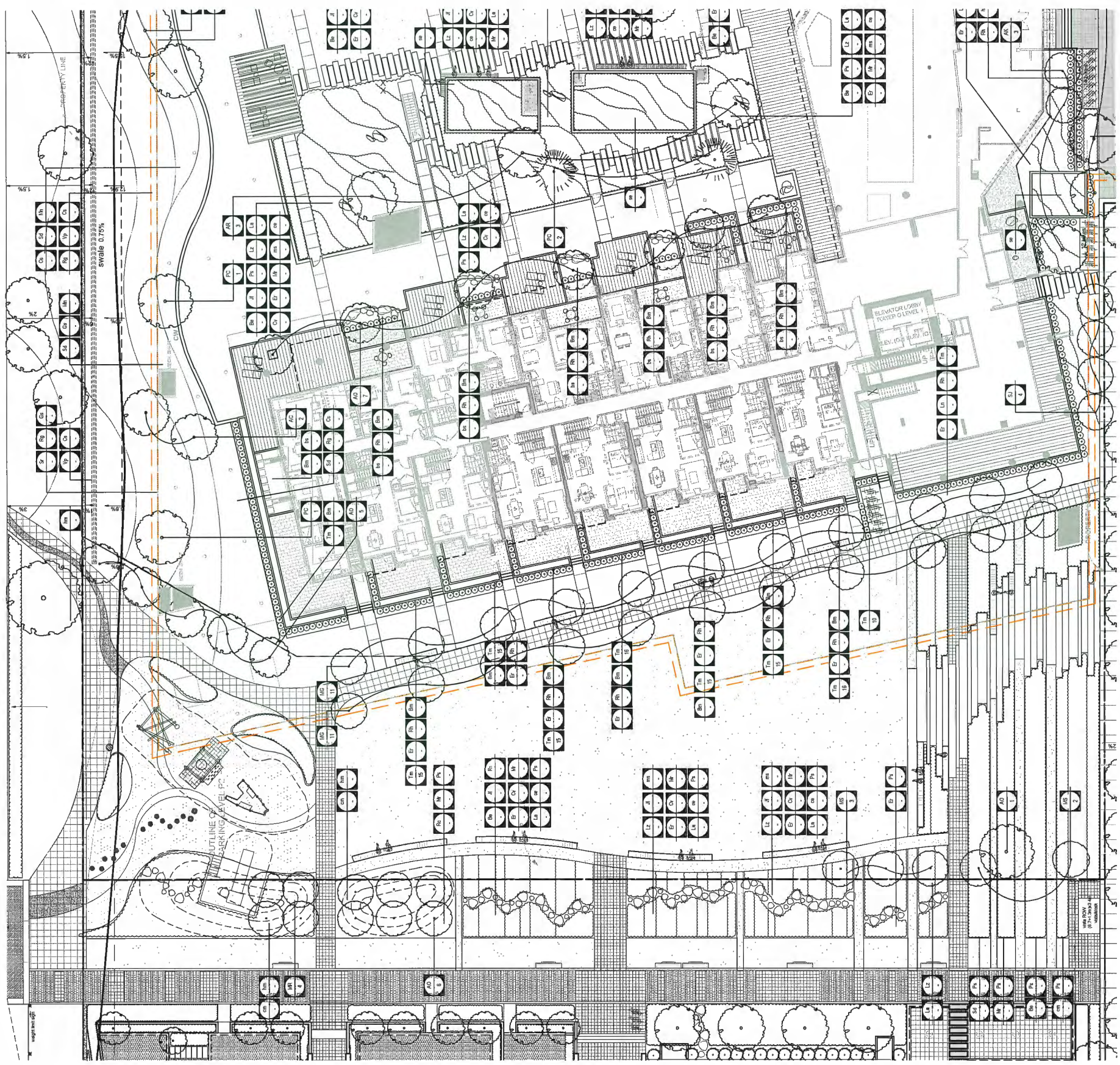
KEY QTY	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
As	AGrostis spicata	DEER FERN	42 POT	12" O.C.
As	CAREX EVERETTII	EVERETT SEDGE	42 POT	12" O.C.
As	CAREX MCDONNELLII	MCDONNELL'S SEDGE	42 POT	12" O.C.
As	CAREX GRUPTA	SLOUGH SEDGE	42 POT	12" O.C.
As	CAREX STICHENSIS	SITKA SEDGE	42 POT	12" O.C.
As	DESCHAMPSIA CESPITOSA 'GOLDTAP'	GOLD DEW TUFTED HAIR GRASS	42 POT	18" O.C.
As	ECHINACEA PALLIDA	PALE PURPLE CONE FLOWER	42 POT	12" O.C.
As	ECHINACEA PARADOXA	YELLOW CONEFLOWER	42 POT	12" O.C.
As	FESTUCA OVINA VAR. GLAUCA	BLUE FESCUE	42 POT	18" O.C.
As	FESTUCA MAREI	ATLAS FESCUE	42 POT	18" O.C.
As	FESTUCA TENAX	WINTER FESCUE	42 POT	12" O.C.
As	HACHICHAUS MAREI	JAPANESE FOREST GRASS	42 POT	12" O.C.
As	PTERIDIUM AQUILINUM	MAIDEN HAIR	42 POT	18" O.C.
As	PTERIDIUM MITTEN	BRACKEN FERN	42 POT	18" O.C.
As	PEROVSKIA ATRIPLICIFOLIA LITTLE SPIRE	LITTLE SPIRE RUSSIAN SAGE	42 POT	12" O.C.
As	SALVA NEROROSA 'AMETHYST'	AMETHYST SAGE	42 POT	12" O.C.
As	RUBRICHIA MAXIMA	GREAT CONEFLOWER	42 POT	12" O.C.
As	SEDUM TILE, FOUR SEASONS	SEDUM TILE, FOUR SEASONS	42 POT	12" O.C.

EXISTING TREE LEGEND



PLANTING GENERAL NOTES

- GREEN ROOF TILES SPECIES REFER TO SUPPLIER'S DESIGN.
- ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARD SPECIFIED IN THE CURRENT EDITION OF THE BC LANDSCAPE STANDARD. THIS STANDARD IS PUBLISHED JOINTLY BY THE BC SOCIETY OF LANDSCAPE ARCHITECTS (BCSLA) AND THE BC LANDSCAPE AND NURSERY ASSOCIATION (BCLANA).
- SEARCH AREA FOR ALL PLANT MATERIAL SHALL INCLUDE ALL OF WESTERN NORTH AMERICA OR AS SPECIFIED.
- PLANT MATERIAL SIZES SPECIFIED ARE THE MINIMUM ACCEPTABLE SIZES TO BE SUPPLIED TO THIS PROJECT.
- ALL PLANT MATERIAL SHALL BE WELL-ESTABLISHED AND UNIFORM IN SHAPE AND SIZE.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED. ONLY CERTIFIED S.O.D. NURSERY STOCK WILL BE USED.
- THE CONTRACTOR SHALL PROVIDE A GROWING MEDIUM ANALYSIS FOR REVIEW BY THE CONSULTANT, AS PER SPECIFICATIONS, PRIOR TO THE START OF CONSTRUCTION. GROWING MEDIUM SUPPLIED TO THE SITE OR INSTALLED ON SITE PRIOR TO CONSULTANT APPROVAL SHALL BE REJECTED AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL CONFIRM PLANT QUANTITIES ON THE DRAWINGS CORRESPOND TO THOSE INDICATED ON THE PLANT LIST. ANY DISCREPANCIES ARE TO BE VERIFIED BY THE CONSULTANT FOR REVIEW AND RESPONSE.
- PLANT LIST TO BE READ IN CONJUNCTION WITH SPECIFICATIONS FOR CONSTRUCTION.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF THE PLANT MATERIAL SPECIFIED AS PER SPECIFICATIONS, ALLOWING FOR ANY AND ALL REQUIRED APPROVALS. PLANT SUBSTITUTIONS NOT CONFIRMED AND APPROVED BY THE CONSULTANT WILL BE REJECTED.
- AUTOMATIC IRRIGATION WILL BE PROVIDED FOR ALL PUBLIC OPEN SPACE, GREEN ROOF, COURTYARD AND LARGER PRIVATE PATIOS. AUTOMATICALLY IRRIGATION SYSTEM WITH WEATHER SENSOR CONTROLLER WILL BE PROVIDED FOR WATER EFFICIENT PLANTING PATIOS. REFER TO ARCHITECTURAL DRAWINGS FOR HOSE BIB LOCATIONS.
- OFF SITE PLANTING DESIGN ARE INCLUDED IN SA. REFER TO THE PROJECT ARBORIST'S DRAWINGS FOR EXISTING TREE MANAGEMENT. REFER TO THE ENVIRONMENTAL CONSULTANT'S DRAWINGS FOR THE LOT 14 PLANTING DESIGN.

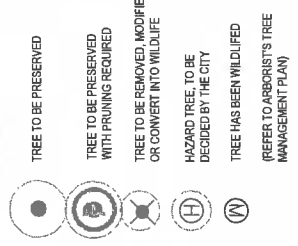


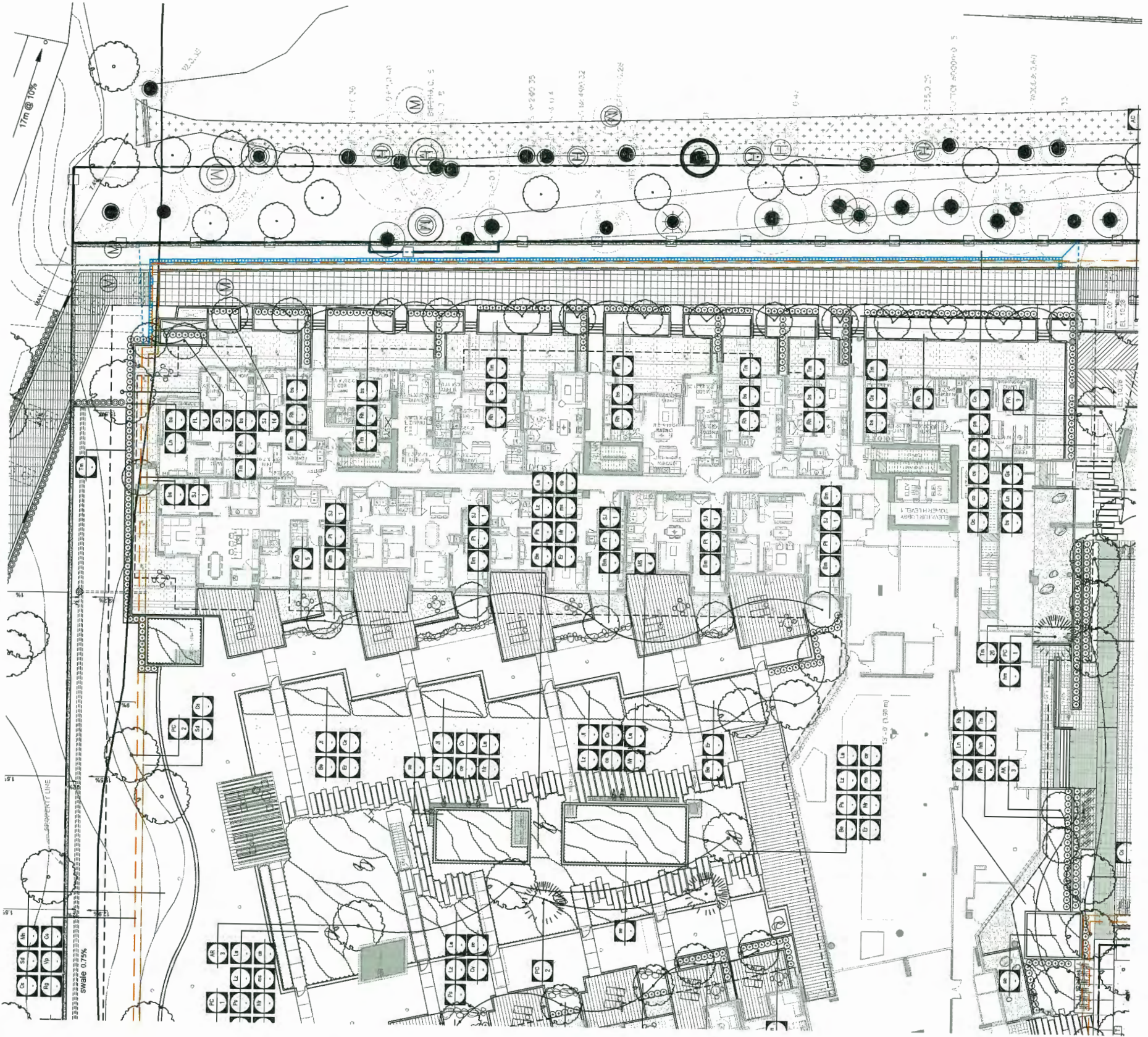
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
TREES					
AD 24		ACER PALMATUM 'OSAKAZUKI'	OSAKAZUKI JAPANESE MAPLE	3.5M HT, WB	MULTI-STEMMED (3 MIN.) FULL
AC 5		ACER GRCINATUM	VINE MAPLE	8CM CAL, WB	MULTI-STEMMED (3 MIN.) FULL
AR 15		ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	8CM CAL, WB	MULTI-STEMMED (3 MIN.) FULL
BR 15		CORNUS STOLONIFERA	COLUMBARIAN RED MAPLE	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
CA 8		ACER RUBRUM 'APPOLLO'	WESTERN FLOWERING DOGWOOD	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
CB 6		CORNUS NUTTALLII	WINTERGREEN	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
CC 15		WAXY DOGWOOD	WESTERN FLOWERING DOGWOOD	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
CD 22		MAGNOLIA GRANDIFLORA 'LITTLE GEM'	EVERGREEN SOUTHERN MAGNOLIA	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
CE 15		MAGNOLIA 'ROYAL CROWN'	ROYAL CROWN MAGNOLIA	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
CF 9		MALUS RED SENTINEL	RED SENTINEL CRABAPPLE	7CM CAL, WB	MULTI-STEMMED (3 MIN.) FULL
CG 3		PRUNUS SERRULATA 'KAWAZU'	SHORE PINE	3.5M HT, WB	FULL, UNIFORM SIZE & QUALITY
CH 26		SYTRAJA JAPONICUS 'OBASIA'	JAPANESE FLOWERING CHERRY	7CM CAL, WB	SPECIMEN & PICTURE-SQUE QUALITY
CI 23		ACER PALMATUM 'SHINDSHOJO'	JAPANESE SNOWBELL TREE	7CM CAL, WB	SPECIMEN QUALITY, 6" STD. FULL
SHRUBS / GROUNDCOVERS					
BE 1		BERGENIA 'ERIOKA'	ELEPHANT EARS	#2 POT	24" O.C.
BF 1		CALLUNA VULGARIS 'ZOE'	ZOE HEATHER	#2 POT	24" O.C.
CG 1		CORNUS STOLONIFERA	RED OSIER DOGWOOD	#2 POT	24" O.C.
CH 1		ERICA DARLENSIS 'X MEDITERRANEAN WHITE'	RED STEM DOGWOOD	#2 POT	24" O.C.
CI 1		ASIMILIFLORUM	MEDITERRANEAN HEATHER	#2 POT	12" O.C.
CJ 1		JASMINE 'FLORUM'	SNOWY JASMINE	#2 POT	24" O.C.
CK 1		LEUCODIODE 'ZEALD'	ENGLISH LAVENDER	#2 POT	24" O.C.
CL 1		LAVANDULA ANGUSTIFOLIA	DROOPING LAUREL	#2 POT	24" O.C.
CM 1		LONICERA NITIDA	BOXLEAF HONEYSUCKLE	#2 POT	18" O.C.
CN 1		MAHONIA NERVOSA	DULL OREGON GRAPE	#2 POT	18" O.C.
CO 1		MAHONIA REPENS	CREeping MAHONIA	#2 POT	24" O.C.
CP 1		CELANIA CERASIFORMIS	INDIAN PLUM	#2 POT	24" O.C.
CQ 1		POLYSTICHUM MONTANUM	WESTERN SWORDFERN	#2 POT	24" O.C.
CR 1		PINUS MUGO 'SLOWGROWING'	DWARF MOUNTAIN PINE	#2 POT	18" O.C.
CS 1		ROSA 'SANDWICH ISLANDS'	ROSA	#2 POT	18" O.C.
CT 1		ROSA 'SANDWICH ISLANDS'	BALDWIN ROSE	#2 POT	18" O.C.
CU 1		ROSA 'SANDWICH ISLANDS'	CAMPFIRE ROSE	#2 POT	18" O.C.
CV 1		RHODODENDRON 'YAKU PRINCESS'	WHITE DWARF RHODODENDRON	#3 POT	24" O.C.
CW 1		RUBUS SPECTABILIS	SALMONBERRY	#1 POT	12" O.C.
CX 1		SEDUM CAUTICOLA	CAURICAILA STONECROP	#1 POT	12" O.C.
CY 1		SPHRAEA DOUGLASSII	HARDHACK	#1 POT	12" O.C.
CZ 1		SAMBUCUS RACEMOSA	RED ELDERBERRY	#2 POT	24" O.C.
DA 1		VACCINIUM PARVIFOLIUM	RED HUCKLEBERRY	#2 POT	24" O.C.
DB 1		SHIMMIA REYESIANA (FEMALE 90% MALE 10%)	REEVES SUMMIA	#3 POT	18" O.C.
HERBES					
DE 1		RIBULUS MICROPHYLLA 'WINTER GEM'	LITTLE LEAF BOXWOOD	#3 POT	18" O.C.
DF 1		TAXUS MEDIA 'H.M. EDDIE' MALE	H.M. EDDIE YEW	40" HIGH, FIELD GROWN 24" O.C.	
DG 1		FAGUS SYLVATICA 'DANWYCKIT'	COLUMNAR EUROPEAN BIRCH	19-20" DIA ROOTBALL, B+B, FULLY BRANCHED TO BASE	
GRASSES / PERENNIALS					
EH 1		BELICHRUM SPICANT	DEER FERN	#1 POT	12" O.C.
EI 1		CAREX EVERLIME	HARRIS'S SEDGE	#1 POT	12" O.C.
EJ 1		CAREX 'WITTE DANCE'	WITTE DANCE	#1 POT	12" O.C.
EK 1		CAREX ORNUPHYS	SLOUGH SEDGE	#1 POT	12" O.C.
EL 1		CAREX STITCHENSIS	SITKA SEDGE	#1 POT	12" O.C.
EM 1		DESCHAMPSIA CESITOSA 'GOLDAU'	GOLD DEW TUFTED HAIR GRASS	#2 POT	18" O.C.
EN 1		ECHINACEA PALLIDA	PALE PURPLE CONE FLOWER	#1 POT	12" O.C.
EO 1		ECHINACEA PARADOXA	YELLOW CONEFLOWER	#1 POT	12" O.C.
EP 1		FESTUCA OVINA VAR. GLAUCA 'ELIJAH'S BLUE'	BLUE FESCUE	#1 POT	12" O.C.
EQ 1		FESTUCA WAHREI	ATLAS FESCUE	#2 POT	18" O.C.
ER 1		FOENICULUM VULGARE 'GIANT BRONZE'	BRONZE FENNEL	#2 POT	18" O.C.
ES 1		HAKONECHLOA MAKRA	JAPANESE FOREST GRASS	#1 POT	18" O.C.
ET 1		PTERIDIUM AQUILINUM	MACROSPORA	#2 POT	18" O.C.
EU 1		PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'	BRACKEN FERN	#2 POT	18" O.C.
EV 1		SALVIA NEMOROSA 'AMETHYST'	LITTLE SPIRE RUSSIAN SAGE	#1 POT	12" O.C.
EW 1		RUBEBCKIA MAXIMA	AMETHYST SAGE	#1 POT	12" O.C.
EX 1		SEDUM TILE, FOUR-SEASONS	GREAT CONEFLOWER	#1 POT	12" O.C.

PLANTING GENERAL NOTES

- GREEN ROOF TILES PLANT SPECIES REFER TO SUPPLIER'S DESIGN.
- ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARD SPECIFIED IN THE CURRENT EDITION OF THE BC LANDSCAPE STANDARD. THIS STANDARD IS PUBLISHED JOINTLY BY THE BC SOCIETY OF LANDSCAPE ARCHITECTS (BCSLA) AND THE BC SOCIETY OF LANDSCAPE ARCHITECTS (BSLA) AND THE BC SOCIETY OF LANDSCAPE ARCHITECTS (BSLA) AND THE BC SOCIETY OF LANDSCAPE ARCHITECTS (BSLA).
- SEARCH AREA FOR PLANT MATERIAL SHALL INCLUDE ALL OF THE SEARCH AREA FOR PLANT MATERIAL AS SPECIFIED.
- PLANT MATERIAL SIZES SPECIFIED ARE THE MINIMUM ACCEPTABLE SIZES TO BE SUPPLIED TO THIS PROJECT.
- ALL PLANT MATERIAL SHALL BE WELL-ESTABLISHED AND UNIFORM IN SHAPE AND SIZE.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED. ONLY CERTIFIED S.O.D. NURSERY STOCK WILL BE ACCEPTED.
- THE CONTRACTOR SHALL PROVIDE A GROWING MEDIUM ANALYSIS FOR REVIEW BY THE CONSULTANT. THE ANALYSIS SHALL BE PROVIDED TO THE SITE OR INSTALLED ON SITE PRIOR TO CONSULTANT APPROVAL. THE ANALYSIS SHALL BE REJECTED AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL CONFIRM PLANT QUANTITIES ON THE DRAWINGS CORRESPOND TO THOSE INDICATED ON THE PLANT LIST. ANY DISCREPANCIES ARE TO BE VERIFIED BY THE CONSULTANT FOR REVIEW AND RESPONSE.
- PLANT LIST TO BE READ IN CONJUNCTION WITH SPECIFICATIONS FOR COMPLIANCE.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL PERFORM A TREE SURVEY OF THE PLANT MATERIAL SPECIFIED AS PER SPECIFICATIONS, ALLOWING FOR ANY AND ALL REQUIRED APPROVALS. PLANT SUBSTITUTIONS NOT CONFIRMED AND APPROVED BY THE CONSULTANT WILL BE REJECTED.
- AUTOMATIC IRRIGATION WILL BE PROVIDED FOR ALL PUBLIC OPEN SPACE, GREEN ROOF, COURTYARD AND LARGER PRIVATE PATIOS. AUTOMATICALLY IRRIGATION SYSTEM WITH WEATHER SENSOR CONTROLLER WILL BE PROVIDED FOR WATER EFFICIENCY.
- HOSE BIBS WILL BE PROVIDED FOR COMMON AREAS AND SOME PRIVATE PATIOS. REFER TO ARCHITECTURAL DRAWINGS FOR HOSE LOCATIONS.
- OFF SITE PLANTING DESIGN ARE INCLUDED IN SA. REFER TO THE PROJECT ARCHITECT'S DRAWINGS FOR EXISTING TREE MANAGEMENT. REFER TO THE ENVIRONMENTAL CONSULTANT'S DRAWINGS FOR THE LOT 14 PLANTING DESIGN.

EXISTING TREE LEGEND





PLANTS SCHEDULE

KEY QTY BOTANICAL NAME COMMON NAME SIZE DESCRIPTION

AD 24	ACER PALMUTUM 'OSAKAZUKI'	OSAKAZUKI JAPANESE MAPLE	3.5M HT, WB	MULTI-STEMMED (Ø MIN) FULL
AC 8	ACER RUBRUM 'RED SUNSET'	VINE MAPLE	8CM CAL, WB	MULTI-STEMMED (Ø MIN) FULL
AR 15	ACER RUBRUM 'APPOLLO'	RED MAPLE	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
CN 6	CORNUS NUTTALLII	WESTERN FLOWERING DOGWOOD	7CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
FL 1	FRAXINUS PENNSYLVANICA 'LEPRECHAUN'	AMERICAN BEECH	7CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
MG 22	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	EVERGREEN SOUTHERN MAGNOLIA	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
MS 9	MUSCULA X ROYAL CROWN	ROYAL CROWN MAGNOLIA	8CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
MR 4	MALUS RED SENTINEL	RED SENTINEL CRABAPPLE	7CM CAL, WB	SPECIMEN & PICTURE-SQUE QUALITY
PC 9	PRUNUS SEROTINATA	SHORE PINE	7CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
PI 3	PRUNUS SEROTINATA 'KAWAZAKI'	JAPANESE FLOWERING CHERRY	7CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
PL 23	PRUNUS SEROTINATA 'OSAKAZUKI'	JAPANESE SNOWBALL TREE	7CM CAL, WB	FULL, UNIFORM SIZE & QUALITY
AS 23	ACER PALMUTUM 'SPINDESCHLO'	SHINDESHUO JAPANESE MAPLE	7 CM CAL, WB	MULTI-STEMMED (Ø MIN) FULL
SHRUBS / GROUNDCOVERS				
BE 1	BEGONIA 'VERIDICA'	ELPHANT EARS	Ø 2 POT	
BE 2	BEGONIA 'ZOE'	ZOE HEATHER	Ø 2 POT	
CO 1	CORNUS STOLONIFERA	RED STOLONIFERA	Ø 2 POT	
CO 2	CORNUS SERICEA	RED STOLONIFERA	Ø 2 POT	
ER 1	ERICA DARLEYDENSI 'X MEDITERRANEAN WHITE'	MEDITERRANEAN HEATHER	Ø 2 POT	
ER 2	ERICA DARLEYDENSI 'SALAL'	SALAL	Ø 2 POT	
JA 1	JASMINUM FLORIDUM	SHOWY JASMINE	Ø 2 POT	
LA 1	LAURUS LAVANDER	ENGLISH LAVENDER	Ø 2 POT	
LZ 1	LEUCOHOE ZEHLID	DROOPING LAUREL	Ø 2 POT	
LI 1	LINDERA NITIDA	BOXLEAF HONEYSUCKLE	Ø 2 POT	
MA 1	MAKERA NERVOZA	DULL OREGON GRAPE	Ø 2 POT	
CE 1	CERBERA PERUVIANA	CREeping MAHONIA	Ø 2 POT	
OC 1	OLEA STYACIA 'MINUTUM'	OLIVE	Ø 2 POT	
PI 1	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 2	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 3	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 4	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 5	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 6	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 7	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 8	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 9	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 10	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 11	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 12	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 13	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 14	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 15	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 16	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 17	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 18	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 19	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 20	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 21	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 22	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 23	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 24	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 25	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 26	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 27	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 28	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 29	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 30	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 31	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 32	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 33	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 34	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
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PI 40	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 41	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 42	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 43	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 44	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 45	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 46	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 47	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 48	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 49	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 50	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 51	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 52	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 53	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 54	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 55	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 56	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 57	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 58	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 59	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 60	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 61	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 62	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 63	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 64	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 65	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 66	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 67	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 68	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 69	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 70	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 71	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 72	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 73	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 74	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 75	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 76	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 77	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 78	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 79	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 80	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 81	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 82	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 83	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 84	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 85	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 86	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 87	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 88	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 89	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 90	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 91	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 92	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 93	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 94	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 95	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 96	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 97	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 98	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 99	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	
PI 100	PRUNUS SPINOSA 'MORROWSON'	PRUNELLA	Ø 2 POT	

Bm	BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE LEAF BOXWOOD	Ø 3 POT	18" O.C.
Fm	FAXUS MEDIA 'H.M. EDGIE MALE'	H.M. EDGIE YEW	40" HIGH, FIELD GROWN 24" O.C.	
Fm	FAXUS SYLVATICA 'DANYOKI'	COLUMBIAN EUROPEAN BIRCH	15-20" DIA, ROOTBALL B-B	FULLY BRANCHED TO BASE
GRASSES / PERENNIALS				
bt	BLECHNUM SPICANT	DEER FERN	Ø 1 POT	12" O.C.
ov	CAREX EVERLIME	EVERLIME SEDGE	Ø 1 POT	12" O.C.
ov	CAREX MORROWII 'ICE DANCE'	MORROW'S SEDGE	Ø 1 POT	12" O.C.
ov	CAREX OBNUPITA	SLOUGH SEDGE	Ø 1 POT	12" O.C.
ov	CAREX STITCHENSIS	SITKA SEDGE	Ø 1 POT	12" O.C.
og	DESCHAMPSIA CESPITOSA 'GOLDTAN'	GOLD DEN TUFTED HAIR GRASS	Ø 2 POT	18" O.C.
ep	ECHINACEA PALLIDA	PURPLE CONE FLOWER	Ø 1 POT	12" O.C.
ep	ECHINACEA PURPUREA	YELLOW CONEFLOWER	Ø 1 POT	12" O.C.
ep	FEUNTUNIA VILGARE 'ELIJA'S BLUE'	BLUE FESCUE	Ø 1 POT	12" O.C.
ep	FESTUCA VILGARE 'GRANT BRONZE'	GRANT BRONZE FESCUE	Ø 1 POT	12" O.C.
ep	FOENICULUM VULGARE 'GRANT BRONZE'	GRANT BRONZE FENNEL	Ø 1 POT	12" O.C.
hm	HAEMODORUS VULGARIS 'LITTLE MITTEN'	MAIDEN GRASS	Ø 2 POT	18" O.C.
hm	MISCANTHUS SINENSIS 'LITTLE MITTEN'	MAIDEN GRASS	Ø 2 POT	18" O.C.
pa	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPHERE'	BRACKEN FERN	Ø 2 POT	18" O.C.
pa	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPHERE'	BRACKEN FERN	Ø 2 POT	18" O.C.
pa	SALVIA MEMOROSA 'AMETHYST'	LITTLE SPARE RUSSIAN SAGE	Ø 1 POT	12" O.C.
pa	RUBROCRATA MAXIMA	GREAT CONEFLOWER	Ø 1 POT	12" O.C.
pa	SEDUM TITL. FOUR-SEASONS	GREEN ROOF SEDUM	Ø 1 POT	12" O.C.

EXISTING TREE LEGEND

- (Circle with dot) TREE TO BE PRESERVED
- (Circle with cross) TREE TO BE REMOVED WITH PRUNING REQUIRED
- (Circle with X) TREE TO BE REMOVED, MODIFIED OR CONVERT INTO WILDLIFE
- (Circle with H) HAZARD TREE, TO BE DECIDED BY THE CITY
- (Circle with N) TREE HAS BEEN WILDLIFIED

PLANTING GENERAL NOTES

- GREEN ROOF TILES PLANT SPECIES REFER TO SUPPLIER'S DESIGN.
- ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARD SPECIFIED IN THE IBC CODE OF BEST PRACTICES FOR LANDSCAPE ARCHITECTS (BCS), THE BC SOCIETY OF LANDSCAPE ARCHITECTS (BSLA) AND THE BC NURSERY AND PLANT ASSOCIATION (BCNA).
- SEARCH AREA FOR ALL PLANT MATERIAL SHALL INCLUDE ALL OF WESTERN NORTH AMERICA OR AS SPECIFIED.
- PLANT MATERIAL SIZES SPECIFIED ARE THE MINIMUM ACCEPTABLE SIZES TO BE SUPPLIED TO THIS PROJECT.
- ALL PLANT MATERIAL SHALL BE WELL-ESTABLISHED AND UNIFORM IN SHAPE AND SIZE.
- OTHERWISE NOTED, ONLY CERTIFIED S.O.D. NURSERY STOCK WILL BE ACCEPTED.
- THE CONTRACTOR SHALL PROVIDE A GROWING MEDIUM ANALYSIS FOR REVIEW BY THE CONSULTANT - AS PER SPECIFICATIONS - PRIOR TO THE START OF CONSTRUCTION. GROWING MEDIUM SUPPLIED TO THE SITE OR INSTALLED ON SITE PRIOR TO CONSULTANT APPROVAL SHALL BE REJECTED AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL CONFIRM PLANT QUANTITIES ON THE DRAWINGS CORRESPOND TO THOSE INDICATED ON THE PLANT LIST. PLANTING RESOURCES ARE TO BE VERIFIED BY THE CONSULTANT FOR COMPLIANCE.
- PLANT LIST TO BE READ IN CONJUNCTION WITH SPECIFICATIONS FOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF THE PLANT MATERIAL SPECIFIED AS PER SPECIFICATIONS, ALLOWING FOR ANY AND ALL REQUIRED APPROVALS. PLANT SUBSTITUTIONS NOT CONFIRMED AND APPROVED BY THE CONSULTANT WILL BE REJECTED.
- AUTOMATIC IRRIGATION WILL BE PROVIDED FOR ALL PUBLIC OPEN SPACE, GREEN ROOF, COURTYARD AND LARGER PRIVATE PATIOS. AN IRRIGATION SYSTEM WITH WEATHER SENSOR CONTROLLER WILL BE PROVIDED FOR COMMON AREAS AND SOME PRIVATE PATIOS. REFER TO ARCHITECTURAL DRAWINGS FOR HOSE BIB LOCATIONS.
- OFF SITE PLANTING DESIGN ARE INCLUDED IN ISA. REFER TO THE PROJECT ARCHITECT'S DRAWINGS FOR EXISTING TREE MANAGEMENT. REFER TO THE ENVIRONMENTAL CONSULTANT'S DRAWINGS FOR THE LOT 14 PLANTING DESIGN.

APR 24 2019

PLANTS SCHEDULE

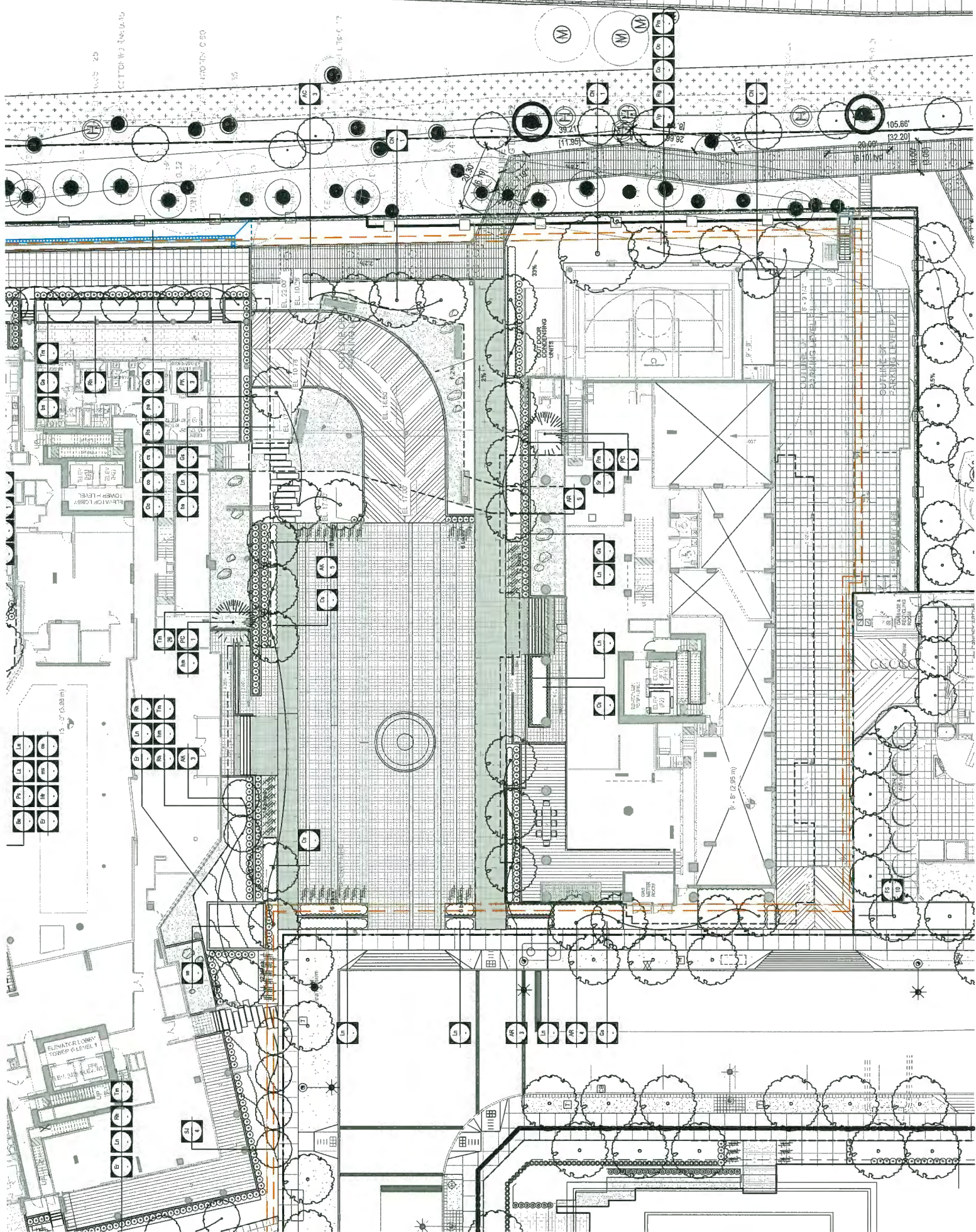
KEY QTY	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
AD 24	ACER PALMATUM 'OSAKAZUKI'	OSAKAZUKI JAPANESE MAPLE	3.5M HT. WB	MULTISTEMMED (6 MIN) FULL
AC 5	ACER CIRCINATUM	VINE MAPLE	80M CAL. WB	MULTISTEMMED (6 MIN) FULL
AC 6	ACER RUBRUM 'RED SUNSET'	RED MAPLE	80M CAL. WB	MULTISTEMMED (6 MIN) FULL
AK 8	ACER VITIFOLIUM	SMOOTH LEAFED MAPLE	80M CAL. WB	FULL UNIFORM SIZE & QUALITY
CA 1	CORNUS NUTTALLII	WESTERN FLOWERING DOGWOOD	70M CAL. WB	FULL UNIFORM SIZE & QUALITY
FL 1	FRAXINUS PENNSYLVANICA 'LEPRECHAUN'	LEPRECHAUN ASH	80M CAL. WB	FULL UNIFORM SIZE & QUALITY
MG 22	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	EVERGREEN SOUTHERN MAGNOLIA	80M CAL. WB	6" STANDARD, UNIFORM SIZE & QUALITY
MG 9	MAGNOLIA 'ROYAL CROWN'	ROYAL CROWN MAGNOLIA	80M CAL. WB	MULTISTEMMED (6 MIN) FULL
MR 4	MALUS RED SENTINEL	SHORE PINE	70M CAL. WB	FULL UNIFORM SIZE & QUALITY
PC 9	PRUNUS CONTORTA	JAPANESE FLOWERING CHERRY	3.5M HT. WB	FULL UNIFORM SIZE & QUALITY
PK 3	STRAX JAPONICUS 'OBASIA'	JAPANESE SNOWBELL TREE	70M CAL. WB	SPECIMEN QUALITY, 8 STD. FULL
SJ 26	ACER PALMATUM 'SHINDERSHOOD'	SHINDERSHOOD JAPANESE MAPLE	70M CAL. WB	MULTISTEMMED (6 MIN) FULL
AS 23	ACER PALMATUM 'SHINDERSHOOD'	SHINDERSHOOD JAPANESE MAPLE	70M CAL. WB	MULTISTEMMED (6 MIN) FULL
SHRUBS (GROUNDCOVERS)				
Be	BERBERIS THORNTONII	THORNTON'S BARBERIS	24" O.C.	
Cv	CALLUNA VULGARIS 'ZOE'	HEATH	24" O.C.	
Co	CORNUS STOLONIFERA	RED STEIN LIGNWOOD	24" O.C.	
Ec	ERICA DAHL EYENSHIS 'X' MEDITERRANEAN HEATHER	MEDITERRANEAN HEATHER	24" O.C.	
Gf	GAILTHERIA FLORIDANA	SAVAL	12" O.C.	
Jf	JASMINE FLORIDANA	SHOWY JASMINE	24" O.C.	
Lz	LAVANDULA ANGUSTRIFOLIA	ENGLISH LAVENDER	24" O.C.	
Ls	LEUCODIODE ZEBLID	DROOPING LAUREL	24" O.C.	
Lh	LONICERA NITIDA	BOXLEAF HONEYBUCKLE	24" O.C.	
Mh	MAHONIA NERVOSA	DULL OREGON GRAPE	18" O.C.	
Mr	MAHONIA REPENS	CREeping MAHONIA	24" O.C.	
Oc	OSYRIS GEMMIPARVA	WESTERN SWAMPBURN	24" O.C.	
Pf	PACHYSAANDRA TERMINALIS	DWARF MOUNTAIN PINE	24" O.C.	
Pt	PACHYSAANDRA TERMINALIS	JAPANESE SPURGE	24" O.C.	
Rg	ROSA 'X' CAMPFIRE	BALDWIN ROSE	18" O.C.	
Rh	RHOODODENDRON 'YAKU PRINCESS'	CAMPFIRE ROSE	18" O.C.	
Rb	RUBUS SPECTABILIS	WHITE DWARF RHODODENDRON	24" O.C.	
Sc	SEDUM CAUTICOLA	SALMONBERRY	12" O.C.	
Sd	SPRAEA DOUGLASSII	CARRICULA STONECROP	12" O.C.	
Sr	SAMBUCUS RACEMOSA	HARDHACK	12" O.C.	
Sp	SAMBUCUS RACEMOSA	SPYRIDER	12" O.C.	
Sq	SAMBUCUS RACEMOSA	RED HULLBERRY	24" O.C.	
Sk	SKIMMIA REEFSANNAE (FEMALE 10%)	REEVES SUMMA	18" O.C.	
HEDGES				
Bm	BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE LEAF BOXWOOD	18" O.C.	
Tm	TAXUS MEDIA 'M. EDIE MALE'	H.M. EDDIE YEW	40" HIGH, FIELD GROWN 24" O.C.	
Fs	FAGUS SYLVATICA 'DANNYCKIT'	COLUMNAR EUROPEAN BIRCH	18-20" DIA ROOTBALL, 8-8, FULLY BRANCHED TO BASE	
GRASSES / PERENNIALS				
As	ANEMONE 'SPICANT'	DEER FERN	12" O.C.	
Ca	CAREX 'ELEGANS'	EVERLIFE SEDGE	12" O.C.	
Ca	CAREX MORROWII 'ICE DANCE'	MORROW'S SEDGE	12" O.C.	
Ca	CAREX OBLIQUA	SLOUGH SEDGE	12" O.C.	
Ca	CAREX SITCHENSIS	SITKA SEDGE	12" O.C.	
Ca	DESCHAMPSIA CESPITOSA 'GOLD TAP'	GOLD DREW TUFTED HAIR GRASS	12" O.C.	
Ca	ESCHINACEA PALLIDA	PALE PURPLE CONE FLOWER	12" O.C.	
Ca	ESCHINACEA PARADOXA	YELLOW CONEFLOWER	12" O.C.	
Ca	FESTUCA OVINA VAR. GLAUCA 'ELIJAH'S BLUE'	BLUE FESCUE	12" O.C.	
Ca	FESTUCA MUREI 'GARE GIGANT BRONZE'	GIANT FESCUE	12" O.C.	
Ca	HAKONECHLOA MACRA	JAPANESE FOREST GRASS	12" O.C.	
Ca	MISCANTHUS SINENSIS 'LITTLE KITTEN'	MAIDEN GRASS	12" O.C.	
Ca	PTERIDIUM AQUILINUM	BRACKEN FERN	12" O.C.	
Ca	PEROVNSKIA ATRIPPLICIFOLIA 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	12" O.C.	
Ca	SALVA NEMOROSA 'AMETHYST'	AMETHYST SAGE	12" O.C.	
Ca	RUBRICOCHLOA MAXIMA	GREAT CONEFLOWER	12" O.C.	
Ca	SEDUM TILE 'FOUR SEASONS'	GREEN ROOF SEDUM	12" O.C.	

EXISTING TREE LEGEND



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- OFF SITE PLANTING DESIGN ARE INCLUDED IN SA. REFER TO THE PROJECT ARCHITECT'S DRAWINGS FOR EXISTING TREE MANAGEMENT. REFER TO THE ENVIRONMENTAL CONSULTANT'S DRAWINGS FOR THE LOT/LAND PLANTING DESIGN.





TREES

AC	ACER PALMATUM 'OSAKAZUKI'	OSAKAZUKI JAPANESE MAPLE	3.5M HT, WB	MULTI-STEMMED (3 MIN.) FULL
AD	ACER GRCINATUM	VINE MAPLE	6CM CAL, WB	MULTI-STEMMED (3 MIN.) FULL
AE	ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	8CM CAL, WB	MULTI-STEMMED (3 MIN.) FULL
AF	ACER RUBRUM 'APOLLO'	COLUMBIAN RED MAPLE	8CM CAL, WB	FULL UNIFORM SIZE & QUALITY
AG	CORNUS NUTTALLII	WESTERN FLOWERING DOGWOOD	7CM CAL, WB	FULL UNIFORM SIZE & QUALITY
AH	FRAXINUS PENNSYLVANICA 'LEPRECHAUN'	LEPRECHAUN ASH	7CM CAL, WB	5 STANDARD, UNIFORM SIZE & QUALITY
AI	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	EVERGREEN SOUTHERN MAGNOLIA	8CM CAL, WB	MULTI-STEMMED (3 MIN.) FULL
AJ	MAGNOLIA X ROYAL CROWN	ROYAL CROWN MAGNOLIA	7CM CAL, WB	FULL UNIFORM SIZE & QUALITY
AK	MALUS RED SENTINEL	RED SENTINEL CRABAPPLE	7CM CAL, WB	FULL UNIFORM SIZE & QUALITY
AL	PNUS CONTORTA	SHORE PINE	3.5M HT, WB	SPECIMEN & PICTUREQUE QUALITY
AM	PNUS SERRULATA 'MANZAN'	JAPANESE FLOWERING CHERRY	7CM CAL, WB	FULL UNIFORM SIZE & QUALITY
AN	PRUNUS SPERDYANOVII	JAPANESE SNOWBELL TREE	7CM CAL, WB	FULL UNIFORM SIZE & QUALITY
AO	STYRAX JAPONICUS 'OBASIA'	SHIMDESHO JAPANESE MAPLE	7CM CAL, WB	MULTI-STEMMED (3 MIN.) FULL
AP	ACER PALMATUM 'SHINDESHO'			

SHRUBS / PERENNIALS

Ba	BERGENIA ETRÓICA'	ELEPHANT EAR	#2 POT	24" O.C.
Bb	CALLUNA VULGARIS 'ZOE'	ZOE HEATHER	#2 POT	24" O.C.
Bc	CORNUS STOLONIFERA	RED OSIER DOGWOOD	#2 POT	24" O.C.
Bd	CORNUS SERICEA	RED STEM DOGWOOD	#2 POT	24" O.C.
Be	ERICA DARLEYENSIS X 'MEDITERRANEAN WHITE'	MEDITERRANEAN HEATHER	#1 POT	12" O.C.
Bf	GAL'THERA SHALLOX	SALAL	#2 POT	24" O.C.
Bg	JASMIMUM FLORIDUM	SHOWY JASMINE	#2 POT	24" O.C.
Bh	LAVANDULA ANGUSTIFOLIA	ENGLISH LAVENDER	#2 POT	24" O.C.
Bi	LEUCODIENE ZEBUD	DOCKING LAUREL	#2 POT	24" O.C.
Bj	LONGERA NITIDA	BOXLEAF FICUS	#2 POT	24" O.C.
Bk	MAHONIA REPENS	CREeping MAHONIA	#2 POT	18" O.C.
Bl	MAHONIA REPENS	CREeping MAHONIA	#2 POT	24" O.C.
Bm	CELANERA CERASIFORMS	INDIAN PLUM	#2 POT	24" O.C.
Bn	PNUS MITIS 'MOUNTAIN'	WESTERN SWOFTERN	#3 POT	24" O.C.
Bo	PNUS MITIS 'SLOW GROWING'	DWARF MOUNTAIN PINE	#3 POT	24" O.C.
Bp	PACHY SANDRA TERMINALIS	JAPANESE SPURGE	#2 POT	18" O.C.
Bq	ROSA GYMNOCARPA	BALDHIP ROSE	#2 POT	18" O.C.
Br	ROSA X 'CAMPTIFIRE'	CAMPFIRE ROSE	#2 POT	24" O.C.
Bs	RHO DODENDRON 'YAKU PRINCESS'	WHITE DWARF RHODODENDRON	#3 POT	24" O.C.
Bt	RIBUS SPECTABILIS	SALMONBERRY	#1 POT	12" O.C.
Bu	SEDUM CAUTICOLA	CAURICAULA STONECROP	#1 POT	12" O.C.
Bv	SPIRAEA DOUGLASSII	HARDHACK	#1 POT	12" O.C.
Bw	SAMBUCUS RACEMOSA	RED ELDERBERRY	#2 POT	24" O.C.
Bx	VACCINIUM PARVIFOLIUM	RED HICXLEBERRY	#2 POT	24" O.C.
By	SHIMMA REEVESII	REEVES SHIMMA	#3 POT	18" O.C.

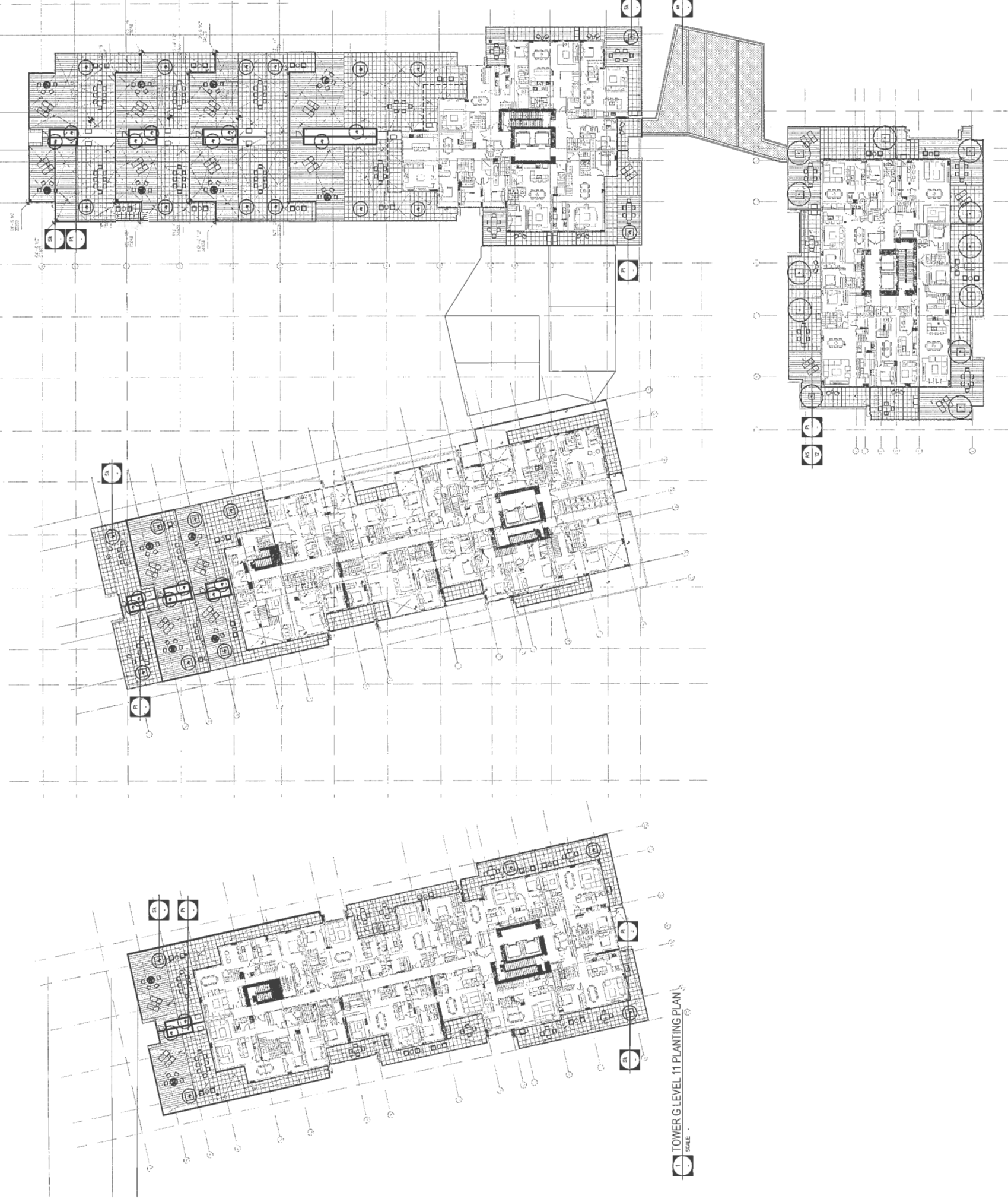
HEDGES

Bm	BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE LEAF BOXWOOD	#3 POT	18" O.C.
Bo	PAXUS MEDIA 'TILIA EDICE MALE'	HUNTER'S GREEN EUROPEAN BIRCH	40" DIA FIELD GROWN 24" O.C.	
Bs	PAXUS SYLVATICA 'DARTMOUTH'	COLUMBIAN EUROPEAN BIRCH	19"30" DIA FIELD GROWN 24" O.C.	
				FULLY BRANCHED TO BASE

GRASSES / PERENNIALS

Ba	BLECHNUM SPICANT	DEER FERN	#1 POT	12" O.C.
Bb	CAREX 'EVERLIME'	EVERLIME SEDGE	#1 POT	12" O.C.
Bc	CAREX MORROWII 'ICE DANCE'	MORROW'S SEDGE	#1 POT	12" O.C.
Bd	CAREX OBNUPTA	SLOUGH SEDGE	#1 POT	12" O.C.
Be	CAREX SITCHENSIS	STYX SEDGE	#1 POT	12" O.C.
Bf	DESCHAMP'SIA CESPITOSA 'SOLD' / AU	GOLD DEW TUFTED HAIR GRASS	#2 POT	18" O.C.
Bg	ECHECACEA PALLIDA	PALE PURPLE CONE FLOWER	#1 POT	12" O.C.
Bh	ECHINACEA PARADOXA	YELLOW CONEFLOWER	#1 POT	12" O.C.
Bi	FESTUCA OVINA VAR. GLAUCA 'ELIAH'S BLUE'	BLUE FESCUE	#1 POT	12" O.C.
Bj	FESTUCA MAUREI	ATLAS FESCUE	#2 POT	18" O.C.
Bk	FLOERODIUM VULGARE 'GIANT BRONZE'	IRISH BLUEBEL	#2 POT	12" O.C.
Bl	MISCANTHUS SINENSIS 'LITTLE MITTEN'	IRISH FOREST GRASS	#2 POT	18" O.C.
Bm	PTERIDIUM AQUILIFORM	BRACKEN FERN	#2 POT	18" O.C.
Bn	PEROVSKIA ATROPURPUREA 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	#1 POT	12" O.C.
Bo	SALVA MEMOROSA 'AMETHYST'	AMETHYST SAGE	#1 POT	12" O.C.
Bl	RUBECOVA MAXIMA	GREAT CONEFLOWER	#1 POT	12" O.C.
Bm	SEDUM TILE, FOUR-SEASONS	GREEN ROOF SEDUM	#1 POT	12" O.C.

- PLANTING GENERAL NOTES**
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 - ALL PLANT WATER SHALL CONFORM TO THE STANDARD SPECIFIED IN THE CURRENT EDITION OF THE BC LANDSCAPE STANDARD. THIS STANDARD IS PUBLISHED JOINTLY BY THE BC SOCIETY OF LANDSCAPE ARCHITECTS (BCSLA) AND THE BC LANDSCAPE AND NURSERY ASSOCIATION (BCLANA).
 - SEARCH AREA FOR ALL PLANT MATERIAL SHALL INCLUDE ALL OF WESTERN NORTH AMERICA OR AS SPECIFIED.
 - ALL PLANT MATERIAL SHALL BE WELL-ESTABLISHED AND UNIFORM IN SIZE, SPECIES, AGE, COLOR, AND CONDITION. THE MINIMUM ACCEPTABLE SIZE TO BE SUPPLIED TO THIS PROJECT SHALL BE AS NOTED ON THE DRAWING.
 - ALL PLANT MATERIAL SHALL BE WELL-ESTABLISHED AND UNIFORM IN SHAPE AND SIZE.
 - ALL PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED. ONLY CERTIFIED S.O.D. NURSERY STOCK WILL BE ACCEPTED.
 - THE CONTRACTOR SHALL PROVIDE A GROWING MEDIUM ANALYSIS FOR REVIEW BY THE CONSULTANT - AS PER SPECIFICATIONS - PRIOR TO THE START OF CONSTRUCTION. GROWING MEDIUM SUPPLIED TO THE SITE OR INSTALLED ON SITE PRIOR TO CONSULTANT APPROVAL SHALL BE REJECTED AT NO COST TO THE OWNER.
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 - AUTOMATIC IRRIGATION WILL BE PROVIDED FOR ALL PUBLIC OPEN SPACE, GREEN ROOF, COURTYARD AND LARGER PRIVATE PATIOS. AUTOMATICALLY IRRIGATION SYSTEM WITH WEATHER SENSOR CONTROLLER WILL BE PROVIDED FOR WATER EFFICIENCY.
 - HOSE BIBS WILL BE PROVIDED FOR COMMON AREAS AND SOME PRIVATE PATIOS. REFER TO ARCHITECTURAL DRAWINGS FOR HOSE BIB LOCATIONS.
 - OFF-SITE PLANTING DESIGN ARE INCLUDED IN SR. REFER TO THE PROJECT ARCHITECT'S DRAWINGS FOR EXISTING TREE MANAGEMENT. REFER TO THE ENVIRONMENTAL CONSULTANT'S DRAWINGS FOR THE LOT-BE PLANTING DESIGN.



TREES

AD	24	ACER PALMATUM 'OSAKAZUMI'
AC	5	ACER CIRCINATUM
AK	8	ACER RUBRUM 'RED SUNSET'
AL	15	ACER RUBRUM 'APPOLLO'
CH	6	WESTERN RED CEDAR
CI	6	FRANCISCANA REDWOOD
CM	22	WESTERN WHITE PINE
MS	9	MAGNOLIA GRANDIFLORA 'LITTLE GEM'
MG	4	MAGNOLIA X ROYAL CROWN
MR	4	MALUS RED SENTINEL
PC	9	PINUS CONTORTA
PK	3	PRUNUS SERRULATA 'KAZAN'
SJ	26	STRAX JAPONICUS 'OBASSA'
AS	23	ACER PALMATUM 'SHINESHO'

SHRUBS / GROUNDCOVERS

SA	1	BERGAMOTTE
CA	1	CALLUNA VILGOSA
CO	1	CORNUS STOLONIFERA
CO	1	CORNUS SERICEA
ER	1	ERICA DARLEYENSIS X MEDITERRANEAN WHITE
GA	1	GAULTHERIA SHALLOU
JA	1	JASMINUM FLORIDUM
LA	1	LAVANDULA ANGSTIFOLIA
LE	1	LEUCODIEN ZEBILD
LI	1	LONICERA MITIDA
MA	1	MAHONIA NERVOZA
MA	1	MAHONIA REPENS
OC	1	OSMUNDIA CERASIFORMIS
PO	1	POLYSTRICHUM MUNITUM
PA	1	PASADENA SAGE
PA	1	PAUSANIAS TERMINALIS
RO	1	ROSA GYMNOCARPA
RO	1	ROSA X CAMPFIRE
RH	1	RHOODODENDRON 'YAKU PRINCESS'
RH	1	RHOODODENDRON #3 POT
SA	1	SEDUM CAUTICOLA
SA	1	SPRAEA DOUGLASSII
SA	1	SAMBUCUS RACEMOSA
VU	1	VACCINIUM PARVIFOLIUM
SK	1	SKIMMIA REEVESIANA (FEMALE 90% MALE 10%)

HERBESSES

BH	1	BUXUS MICROPHYLLA 'WINTER GEM'
TM	1	TAXUS MEDIA 'H.M. EDDIE' MALE
FM	1	FAGUS SYLVATICA 'DAWYCKII'

GRASSES / PERENNIALS

DE	1	DEER FERN
EV	1	EVERLIME SEDGE
MO	1	MORROW'S SEDGE
SL	1	SLOUGH SEDGE
SI	1	SITKA SEDGE
GD	1	GOLD DREW TUFTED HAIR GRASS
CP	1	COLD DREW TUFTED HAIR GRASS
FP	1	FALE PURPLE CONE FLOWER
YF	1	YELLOW COMEFLOWER
BL	1	BLUE FESCUE
AT	1	ATLAS FESCUE
BR	1	BRONZE FENNEL
JP	1	JAPANESE FOREST GRASS
MA	1	MAIDEN GRASS
BF	1	BRACKEN FERN
LS	1	LITTLE SPIRE RUSSIAN SAGE
LS	1	LITTLE SPIRE RUSSIAN SAGE
GC	1	GREAT CRACKLEWORT
GR	1	GREEN ROOF SEDUM

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- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF THE PLANT MATERIAL SPECIFIED AS PER SPECIFICATIONS, ALLOWING FOR ANY AND ALL REQUIRED APPROVALS. PLANT SUBSTITUTIONS NOT CONFIRMED AND APPROVED BY THE CONSULTANT WILL BE REJECTED.
- AUTOMATIC IRRIGATION WILL BE PROVIDED FOR ALL PUBLIC OPEN SPACE, GREEN ROOF, COURTYARD AND LARGER PRIVATE PATIOS. AUTOMATICALLY IRRIGATION SYSTEM WITH WEATHER SENSOR. CONTROLLER WILL BE PROVIDED FOR COMMON AREAS. SOME ROSES WILL BE PROVIDED FOR COMMON AREAS. SOME PLANT LOCATIONS - REFER TO ARCHITECTURAL DRAWINGS FOR ROSE BIBI LOCATIONS.
- OFF-SITE PLANTING DESIGN ARE INCLUDED IN SA. REFER TO THE PROJECT ARCHITECTS DRAWINGS FOR EXISTING TREE MANAGEMENT. REFER TO THE ENVIRONMENTAL CONSULTANT'S DRAWINGS FOR THE LOT 14 PLANTING DESIGN.

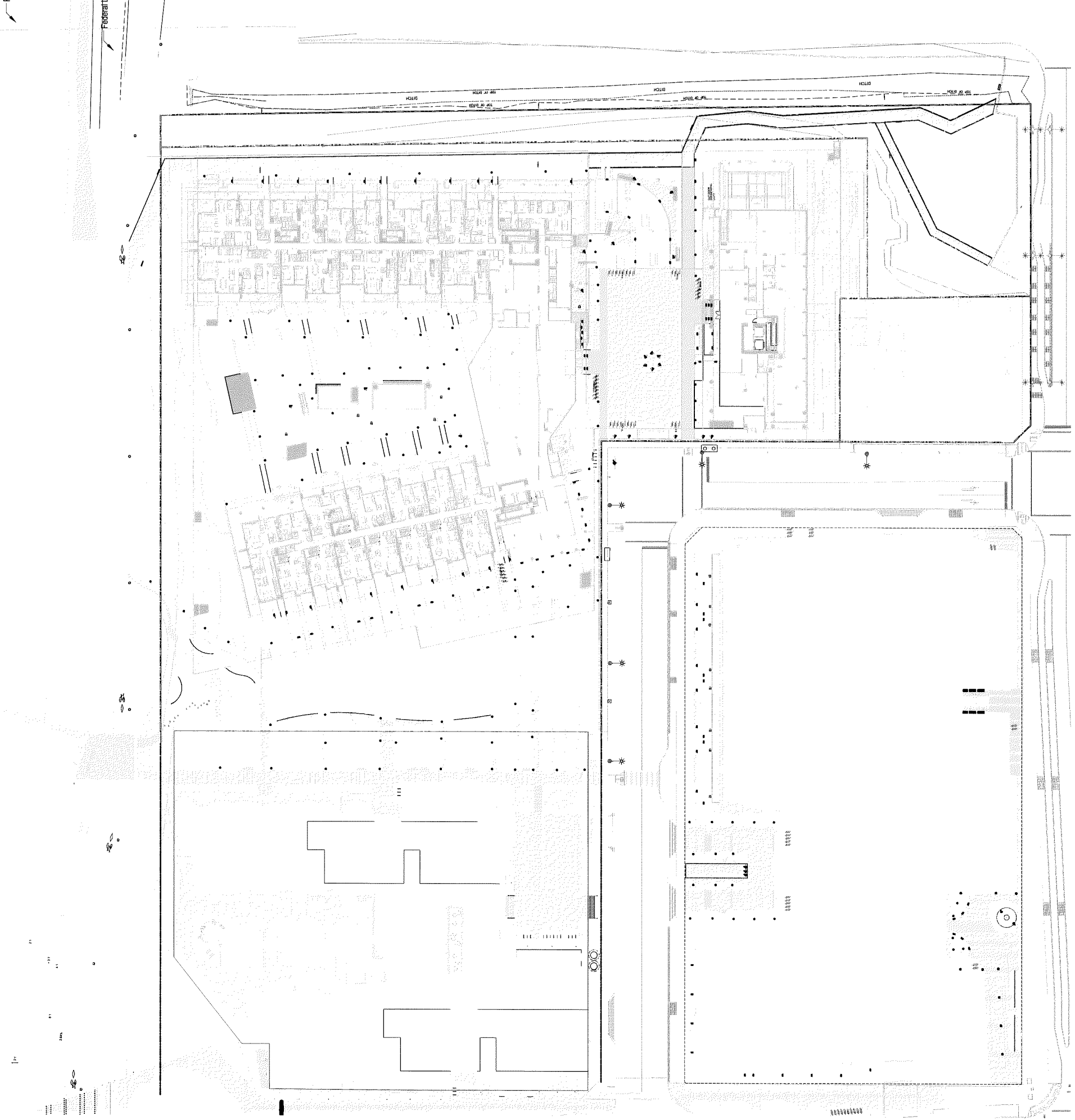
TOWER G&H PENTHOUSE PATIOS PLANTING PLAN
SCALE

LIGHTING LEGEND

- RECESSED WALL LIGHT - Type 'AA';
SISTEMALUX BRIQUE S.4506-XX-120-S.4503A, SEE ELECTRICAL
- TREE MUSHROOM LIGHT - Type 'BB';
IGUZZINI TEE LED, 600mm, SEE ELECTRICAL
- ▼ WATER FEATURE UPLIGHT - UNDER WATER, RECESSED
ON GROUND - Type 'CC'; HADCO UWL2075 CAST BRONZE
UNDERWATER, SEE ELECTRICAL
- BOLLARD LIGHT, LOW-LEVEL PATH - Type 'EE';
TRADDEL ICUBE TEC-53075 BOLLARD, LED, 548mm,
(300mm FOR PRIVATE PATIO) SEE ELECTRICAL
- BENCH STRING LIGHT - Type 'FF';
WAC INVISILED LEDT024-1-WT, W/ LEDT024-CH1 RIGID
CHANNEL, SEE ELECTRICAL
- STRIP LIGHTING @ POOL EDGE - Type 'GG';
SEE ELECTRICAL
- TREE UPLIGHT - Type 'JJ';
SEE ELECTRICAL
- DOWN LIGHT - TRELIS - Type 'KK', SEE ELECTRICAL
- ▲ JUNCTION BOX FOR HOUSING DRIVERS FOR LED STRIP LIGHT
- ⊕ DIKE LIGHT - PEDESTRIAN
SEE WATERFRONT PARK SA DRAWINGS
- ⊕ STREET LIGHT - PEDESTRIAN
SEE CIVIL SA DRAWINGS
- ⊕ STREET LIGHT - ROAD
SEE CIVIL SA DRAWINGS

LIGHTING GENERAL NOTES

THIS DRAWING IS FOR REFERENCE ONLY.
SEE ELECTRICAL DRAWING FOR LIGHTING
DESIGN.



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LIGHTING LEGEND

- RECESSED WALL LIGHT - Type 'AA'; SITEMALUX BRIQUE S.4506-XX-120-S.4503A, SEE ELECTRICAL
- TREE MUSHROOM LIGHT - Type 'BB'; IGUZZINI TEE LED, 600mm, SEE ELECTRICAL
- ▼ WATER FEATURE UPLIGHT - UNDER WATER, RECESSED ON GROUND - Type 'CC'; HADCO UNL2075 CAST BRONZE UNDERWATER, SEE ELECTRICAL
- BOLLARD LIGHT, LOW-LEVEL PATH - Type 'EE'; TRADDEL ICUBE TEC-S3075 BOLLARD, LED, 548mm, (300mm FOR PRIVATE PATIO) SEE ELECTRICAL
- BENCH STRING LIGHT - Type 'FF'; WAC INVISILED LED T024-1-WT, W/ LEDT024-CH1 RIGID CHANNEL, SEE ELECTRICAL
- STRIP LIGHTING @ POOL EDGE - Type 'GG'; SEE ELECTRICAL
- TREE UPLIGHT - Type 'JJ'; SEE ELECTRICAL
- DOWN LIGHT - TRELLIS - Type 'KK'; SEE ELECTRICAL
- ▲ JUNCTION BOX FOR HOUSING DRIVERS FOR LED STRIP LIGHT
- DIKE LIGHT - PEDESTRIAN SEE WATERFRONT PARK SA DRAWINGS
- STREET LIGHT - PEDESTRIAN SEE CIVIL SA DRAWINGS
- STREET LIGHT - ROAD SEE CIVIL SA DRAWINGS

LIGHTING GENERAL NOTES

THIS DRAWING IS FOR REFERENCE ONLY. SEE ELECTRICAL DRAWING FOR LIGHTING DESIGN.

DP 18-816029

APR 23 2019

LIGHTING LEGEND

- RECESSED WALL LIGHT - Type 'AA'; SISTEMALUX BRIQUE S.4506-XX-120-S.4503A, SEE ELECTRICAL
- TREE MUSHROOM LIGHT - Type 'BB'; IGUZZINI TEE LED, 600mm, SEE ELECTRICAL
- ▼ WATER FEATURE UPLIGHT - UNDER WATER, RECESSED ON GROUND - Type 'CC'; HADCO UW12075 CAST BRONZE UNDERWATER, SEE ELECTRICAL
- BOLLARD LIGHT, LOW-LEVEL PATH - Type 'EE'; TRADDEL ICUBE TEC-53075 BOLLARD, LED, 548mm, (300mm FOR PRIVATE PATIO) SEE ELECTRICAL
- BENCH STRING LIGHT - Type 'FF'; WAC INVISILEE LEDT024-1-WT. W/ LEDT024-CH1 RIGID CHANNEL, SEE ELECTRICAL
- STRIP LIGHTING @ POOL EDGE - Type 'GG'; SEE ELECTRICAL
- TREE UPLIGHT - Type 'JJ'; SEE ELECTRICAL
- DOWN LIGHT - 'TRELIS' - Type 'KK', SEE ELECTRICAL
- ▲ JUNCTION BOX FOR HOUSING DRIVERS FOR LED STRIP LIGHT
- ⊕ DIKE LIGHT - PEDESTRIAN SEE WATERFRONT PARK SA DRAWINGS
- ⊕ STREET LIGHT - PEDESTRIAN SEE CIVIL SA DRAWINGS
- ⊕ STREET LIGHT - ROAD SEE CIVIL SA DRAWINGS

LIGHTING GENERAL NOTES

THIS DRAWING IS FOR REFERENCE ONLY. SEE ELECTRICAL DRAWING FOR LIGHTING DESIGN.



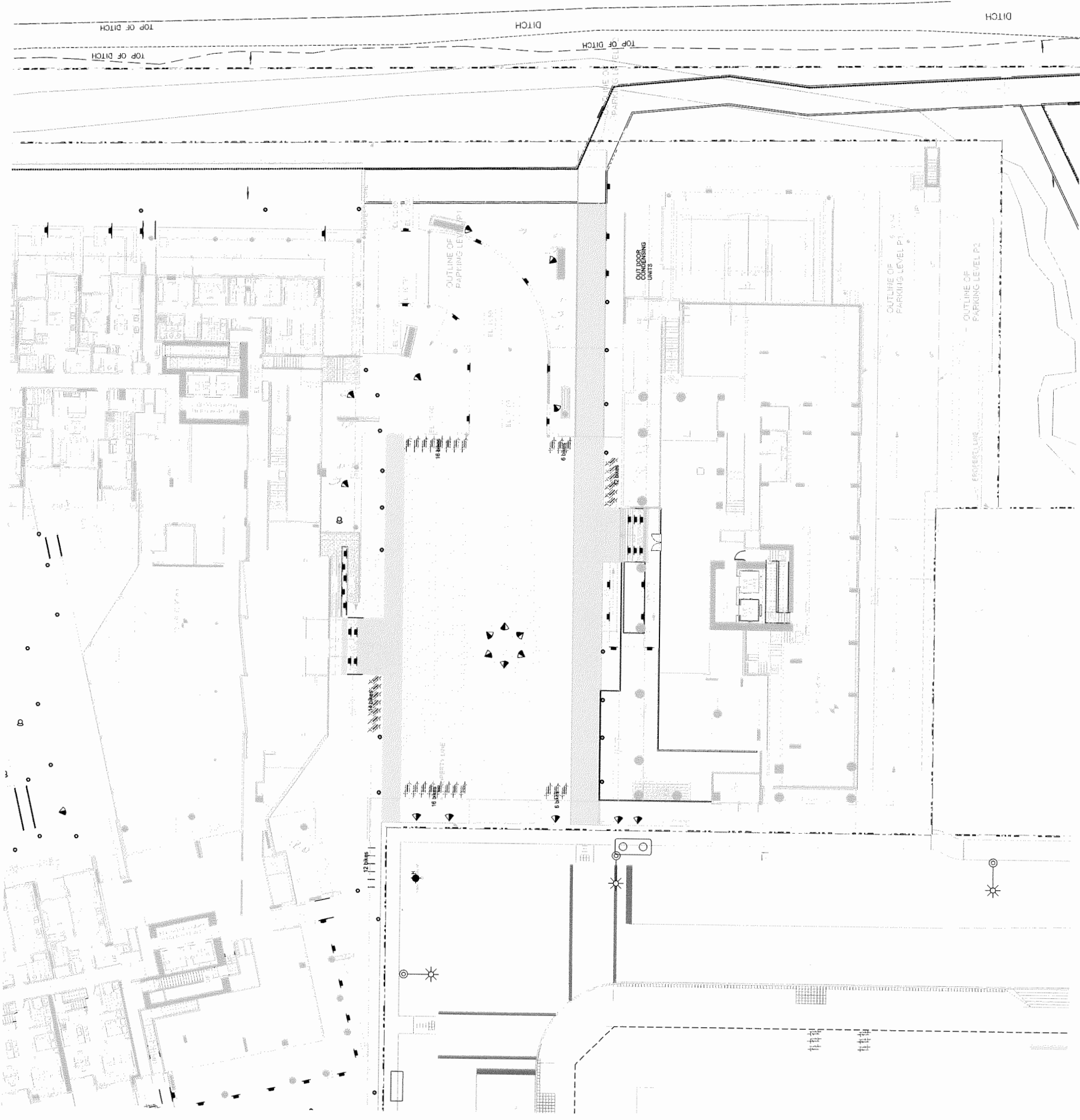
APR 23 2019

LIGHTING LEGEND

- RECESSED WALL LIGHT - Type 'AA'; SISTEMALUX BRIQUE S.4506-XX-120-S.4503A, SEE ELECTRICAL
- TREE MUSHROOM LIGHT - Type 'BB'; IGUZZINI TEE LED, 600mm, SEE ELECTRICAL
- ▼ WATER FEATURE UPLIGHT - UNDER WATER, RECESSED ON GROUND - Type 'CC'; HADCO UWL2075 CAST BRONZE UNDERWATER, SEE ELECTRICAL
- BOLLARD LIGHT, LOW-LEVEL PATH - Type 'EE'; TRADDEL ICUBE TEC-53075 BOLLARD, LED, 548mm, (300mm FOR PRIVATE PATIO) SEE ELECTRICAL
- BENCH STRING LIGHT - Type 'FF'; WAC INVISIBLE LEDT024-1-WT, W/ LEDT024-CH1 RIGID CHANNEL, SEE ELECTRICAL
- STRIP LIGHTING @ POOL EDGE - Type 'GG'; SEE ELECTRICAL
- TREE UPLIGHT - Type 'JJ'; SEE ELECTRICAL
- DOWN LIGHT - TRELIS - Type 'KK'; SEE ELECTRICAL
- ▲ JUNCTION BOX FOR HOUSING DRIVERS FOR LED STRIP LIGHT
- DIKE LIGHT - PEDESTRIAN
SEE WATERFRONT PARK SA DRAWINGS
- STREET LIGHT - PEDESTRIAN
SEE CIVIL SA DRAWINGS
- STREET LIGHT - ROAD
SEE CIVIL SA DRAWINGS

LIGHTING GENERAL NOTES

THIS DRAWING IS FOR REFERENCE ONLY. SEE ELECTRICAL DRAWING FOR LIGHTING DESIGN.



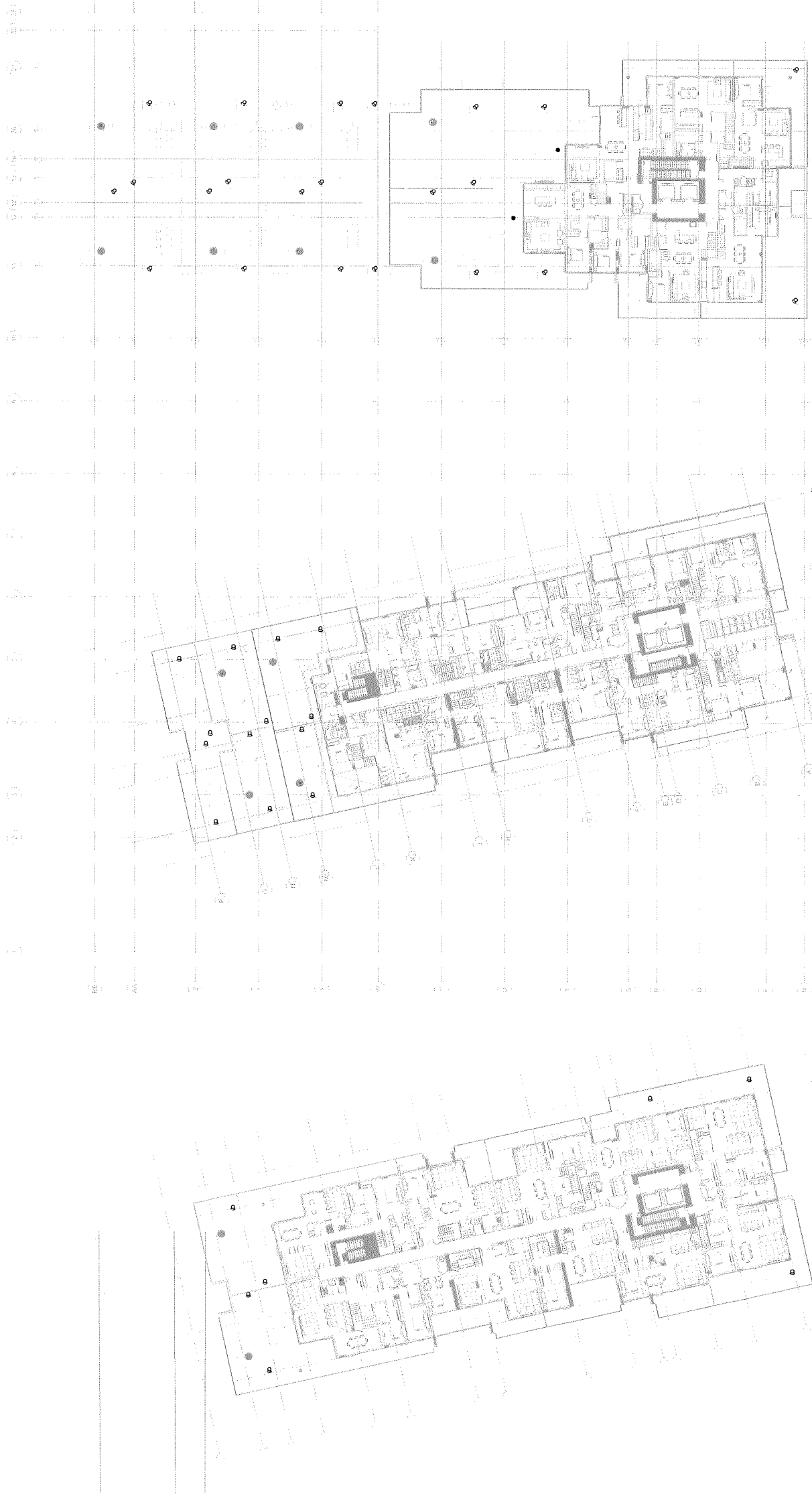
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LIGHTING LEGEND

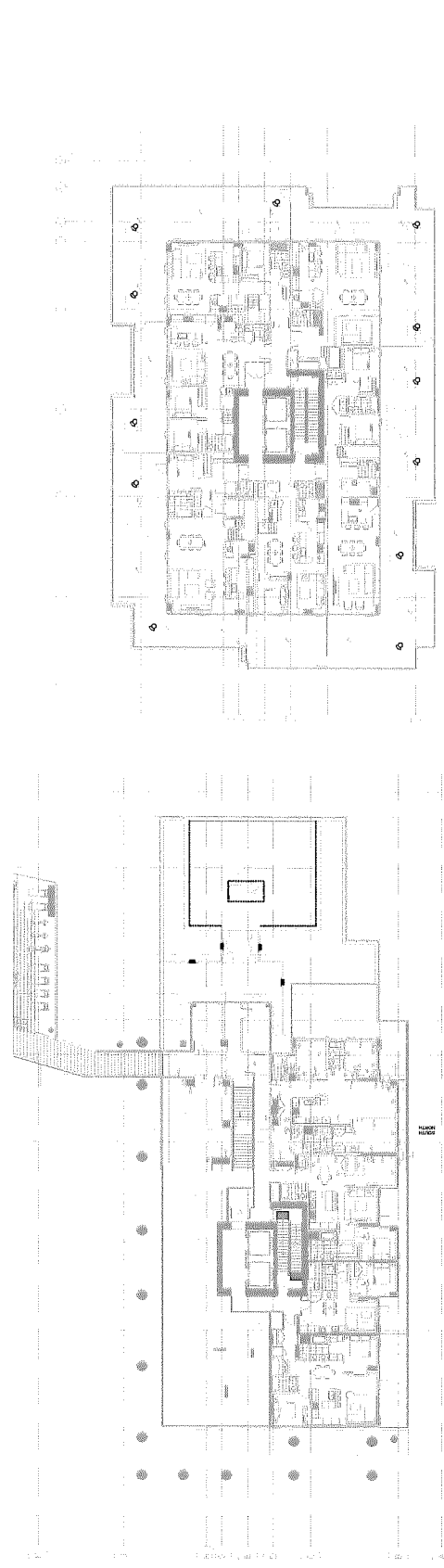
- RECESSED WALL LIGHT - Type 'AA'; SITEMALUX BRIQUE S.4506-XX-120-S.4503A, SEE ELECTRICAL
- TREE MUSHROOM LIGHT - Type 'BB'; IGUZZINI TEE LED, 600mm, SEE ELECTRICAL
- ▶ WATER FEATURE UPLIGHT - UNDER WATER, RECESSED ON GROUND - Type 'CC'; HADCO UWI2075 CAST BRONZE UNDERWATER, SEE ELECTRICAL
- BOLLARD LIGHT, LOW-LEVEL PATH - Type 'EE'; TRADDEL ICUBE TEC-53075 BOLLARD, LED, 548mm, (300mm FOR PRIVATE PATIO) SEE ELECTRICAL
- BENCH STRING LIGHT - Type 'FF'; WAC INVISIBLE LED7024-1-WT, W/ LEDT024-CHI RIGID CHANNEL, SEE ELECTRICAL
- STRIP LIGHTING @ POOL EDGE - Type 'GG'; SEE ELECTRICAL
- TREE UPLIGHT - Type 'JJ'; SEE ELECTRICAL
- DOWN LIGHT - TRELIS - Type 'KK'; SEE ELECTRICAL
- ▲ JUNCTION BOX FOR HOUSING DRIVERS FOR LED STRIP LIGHT
- ⦿ DIKE LIGHT - PEDESTRIAN SEE WATERFRONT PARK SA DRAWINGS
- ⦿ STREET LIGHT - PEDESTRIAN SEE CIVIL SA DRAWINGS
- ⦿ STREET LIGHT - ROAD SEE CIVIL SA DRAWINGS

LIGHTING GENERAL NOTES

THIS DRAWING IS FOR REFERENCE ONLY. SEE ELECTRICAL DRAWING FOR LIGHTING DESIGN.



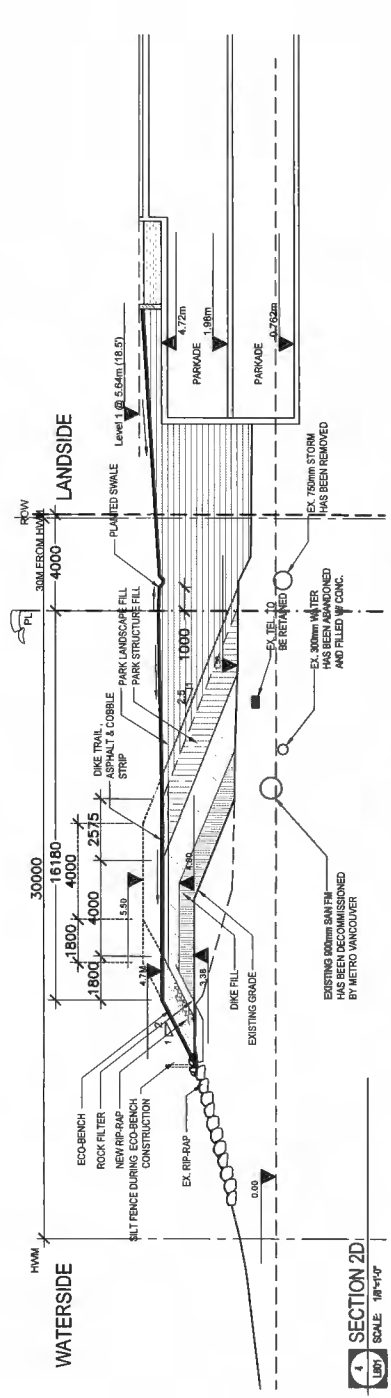
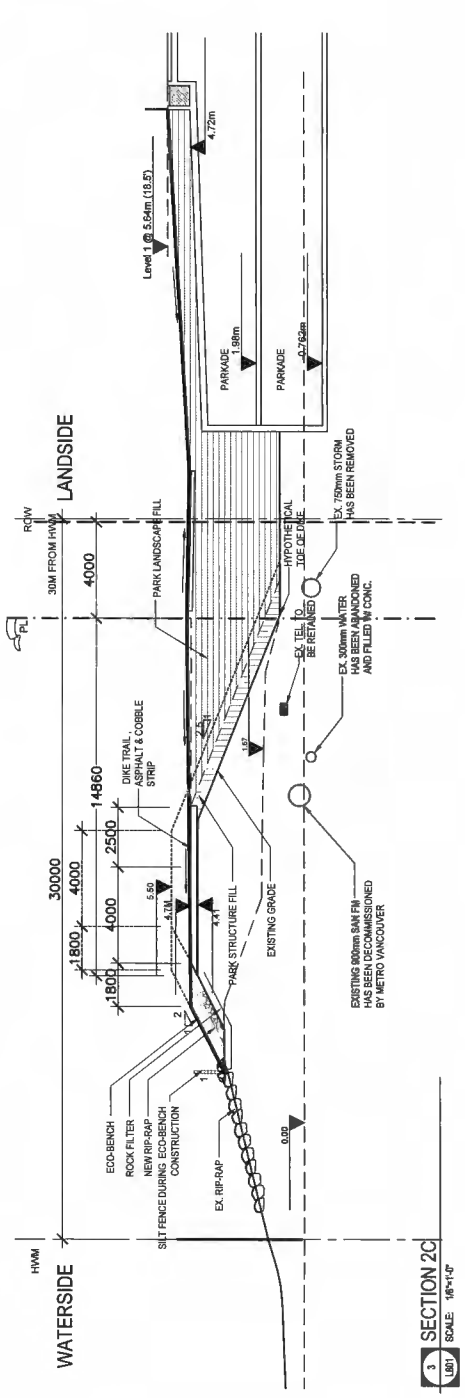
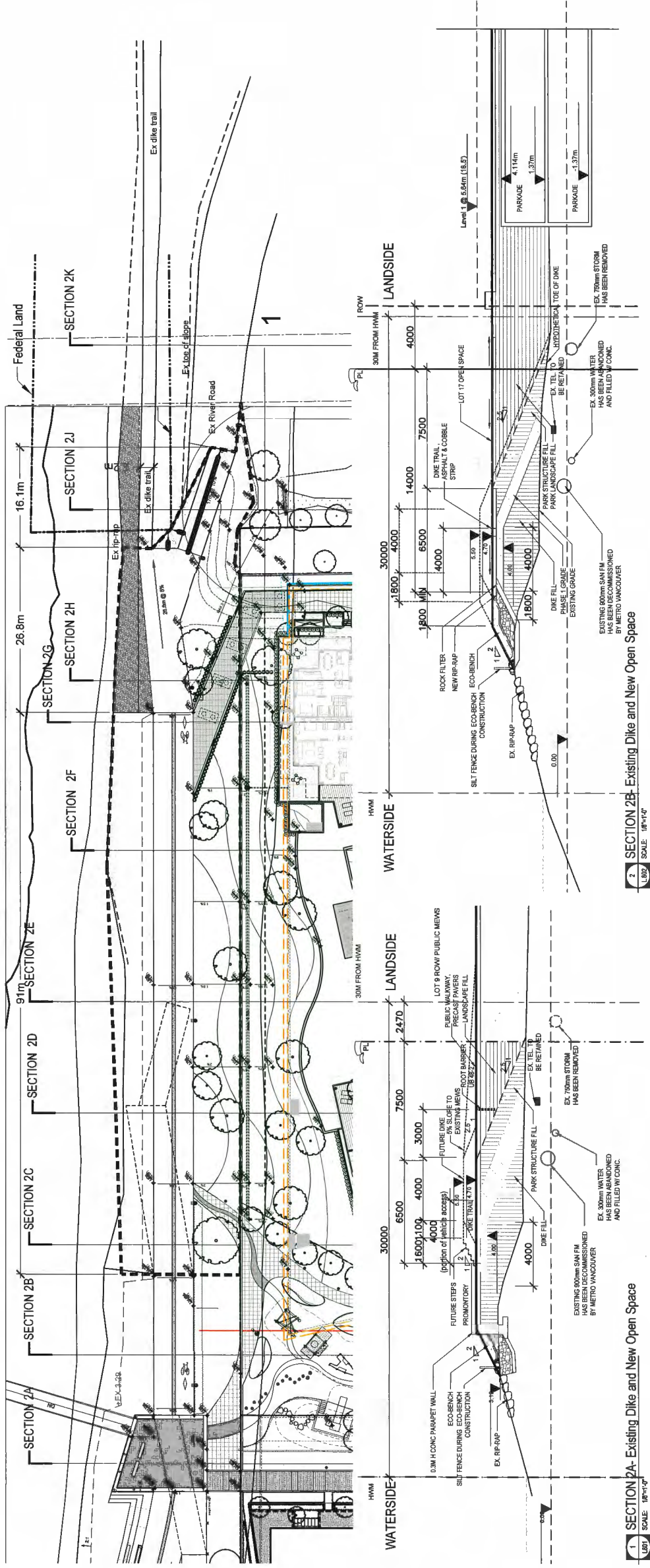
3 TOWER G LEVEL 11 LIGHTING PLAN
SCALE



2 BUILDING F LEVEL 2 PATIOS LIGHTING PLAN
SCALE

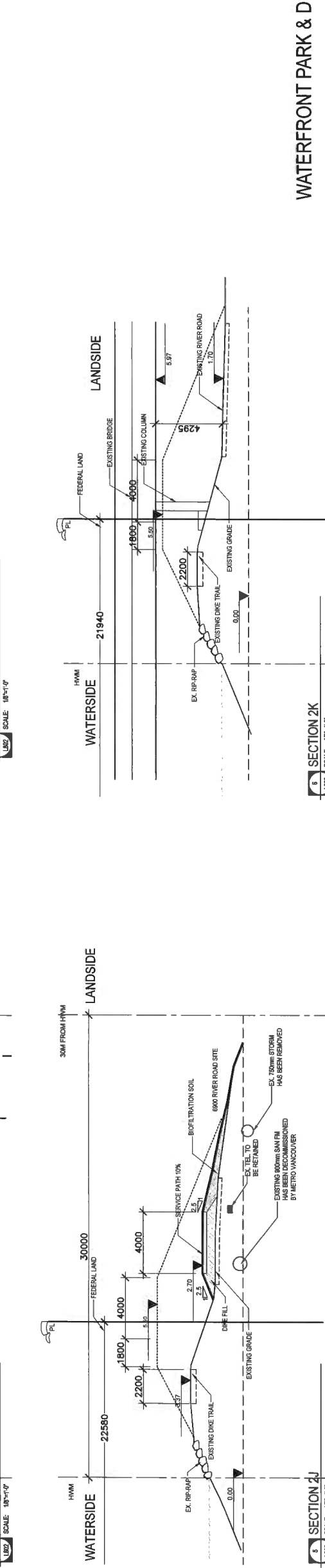
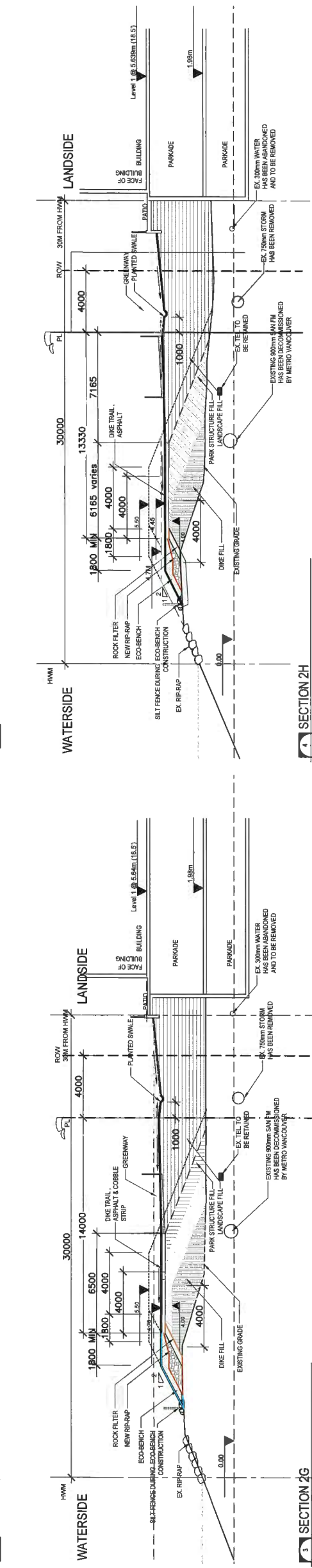
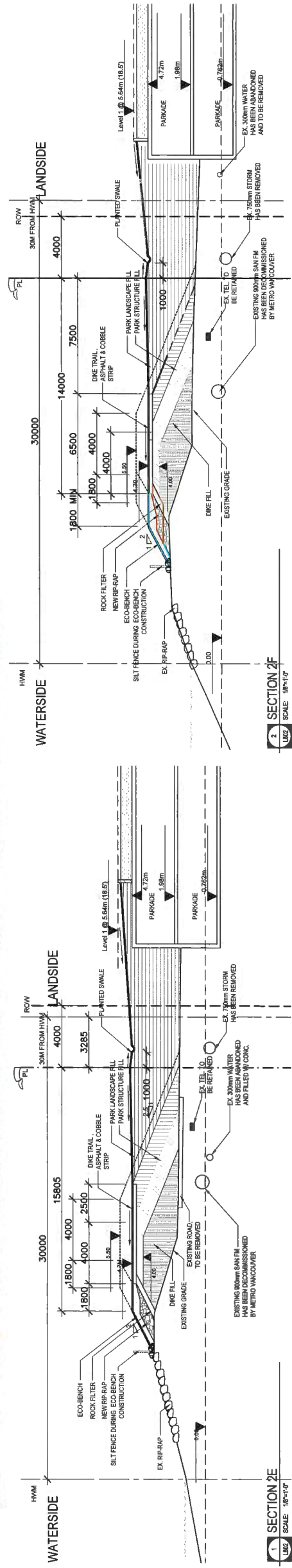
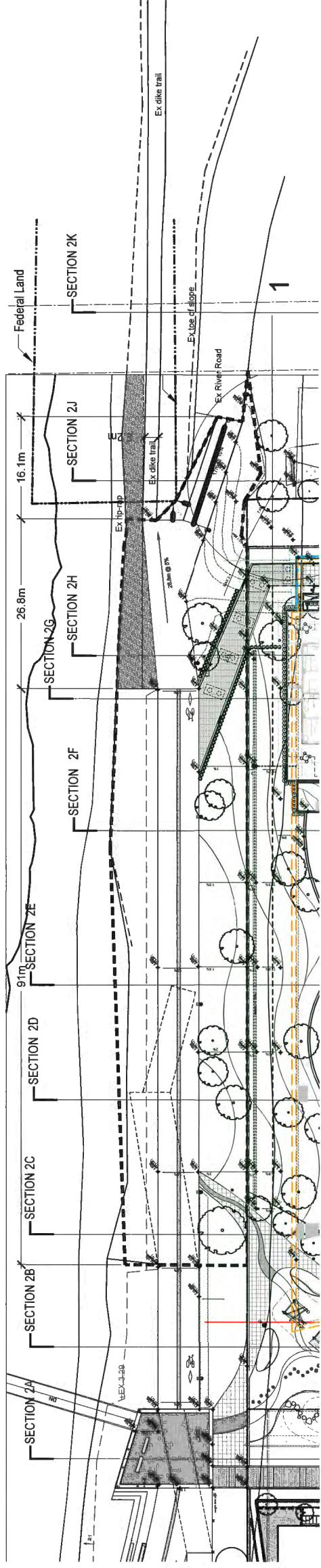
1 TOWER G&H PENTHOUSE PATIOS LIGHTING PLAN
SCALE

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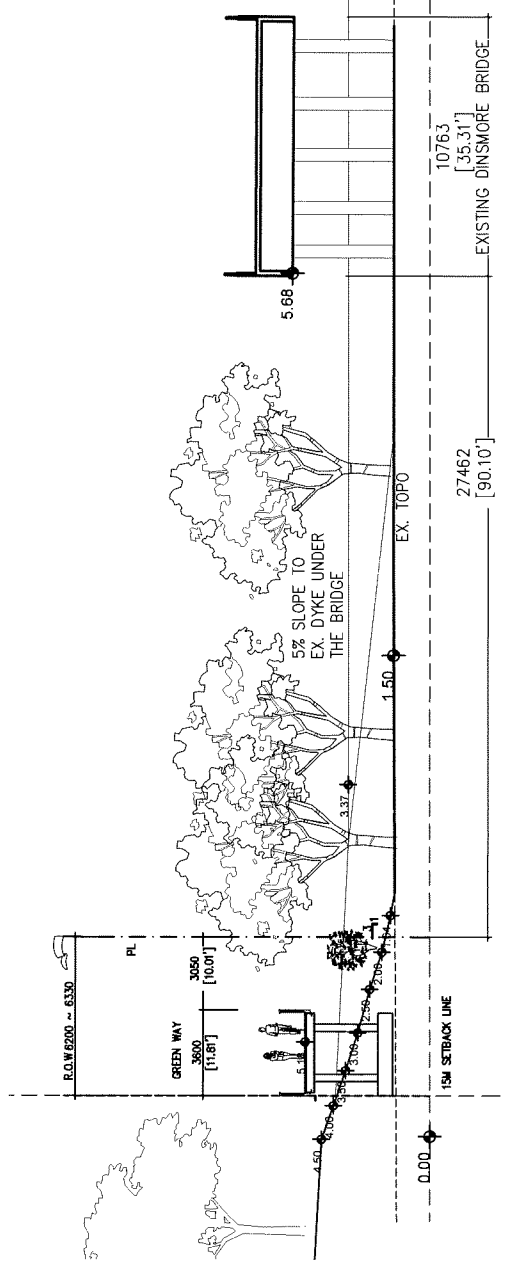
APR 23 2019

WATERFRONT PARK & DIKE PHASE 2 SECTIONS

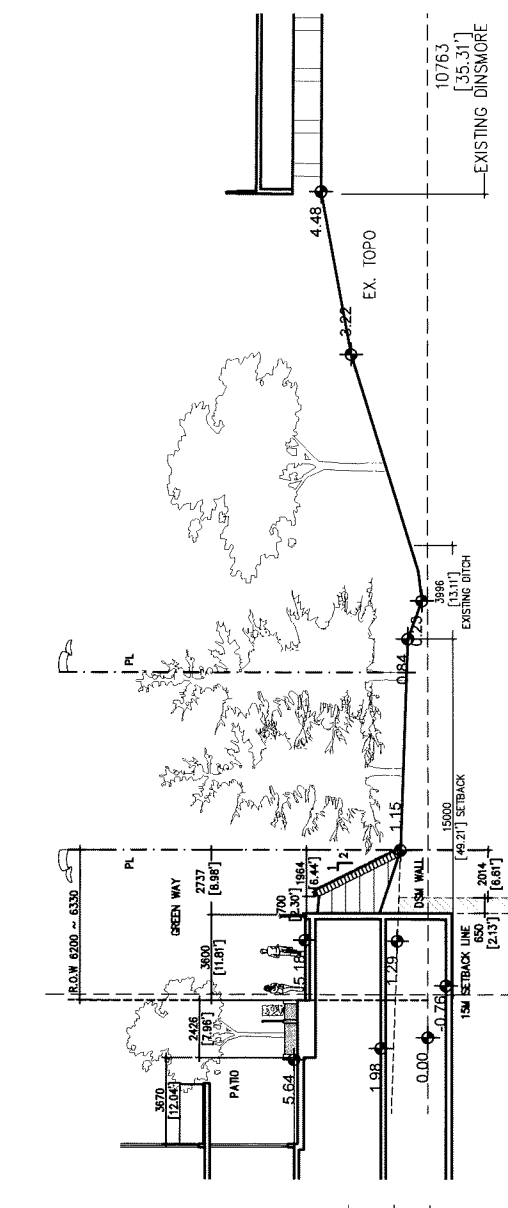


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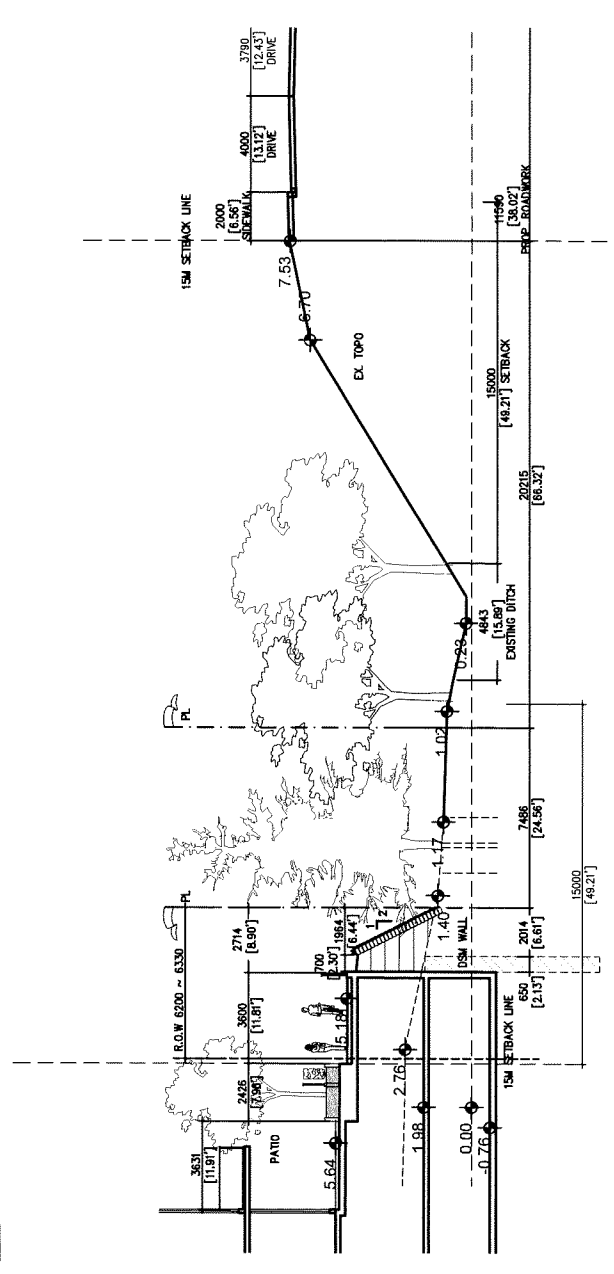
WATERFRONT PARK & DIKE PHASE 2 SECTIONS



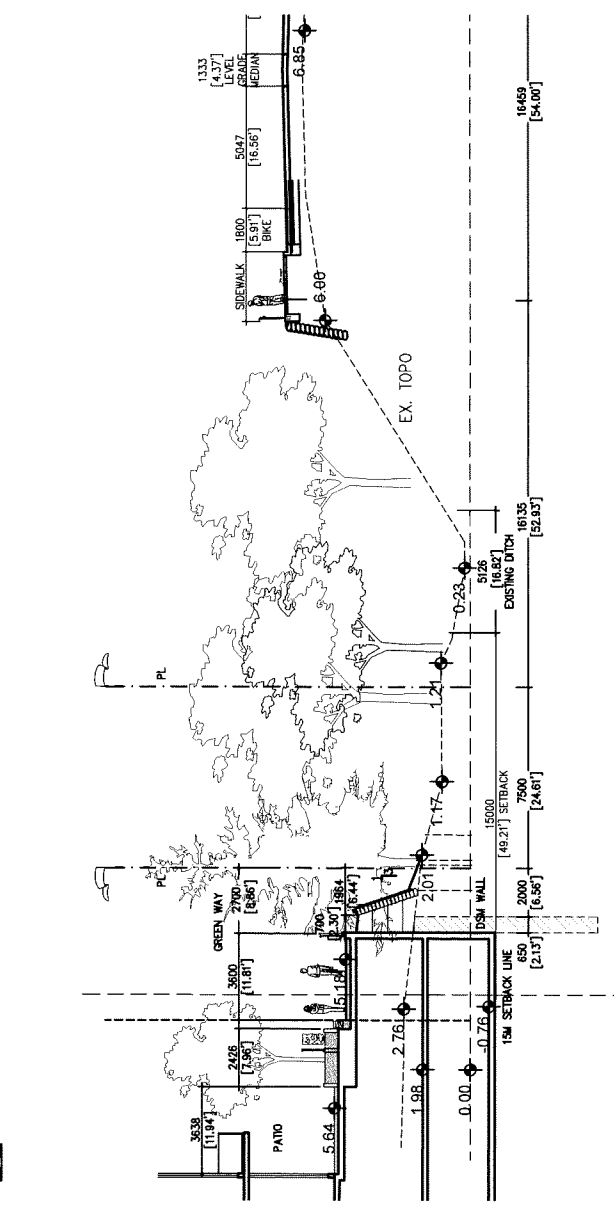
1 EAST EDGE SECTION 1 - NORTH END
SCALE: 1/8"=1'-0"



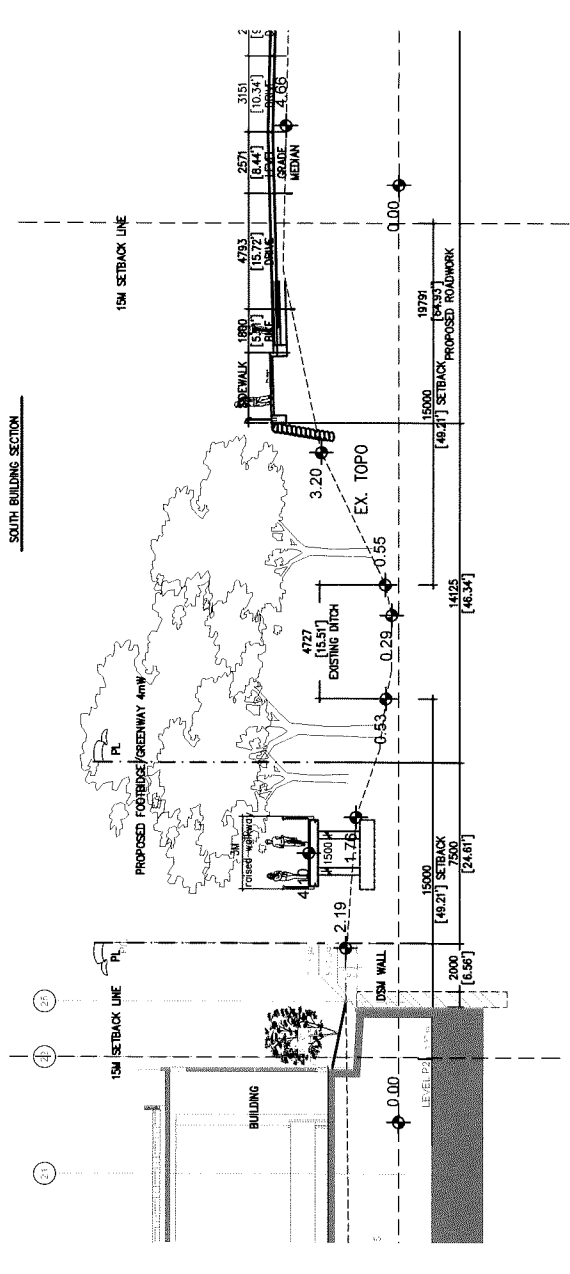
2 EAST EDGE SECTION 2 - NORTH
SCALE: 1/8"=1'-0"



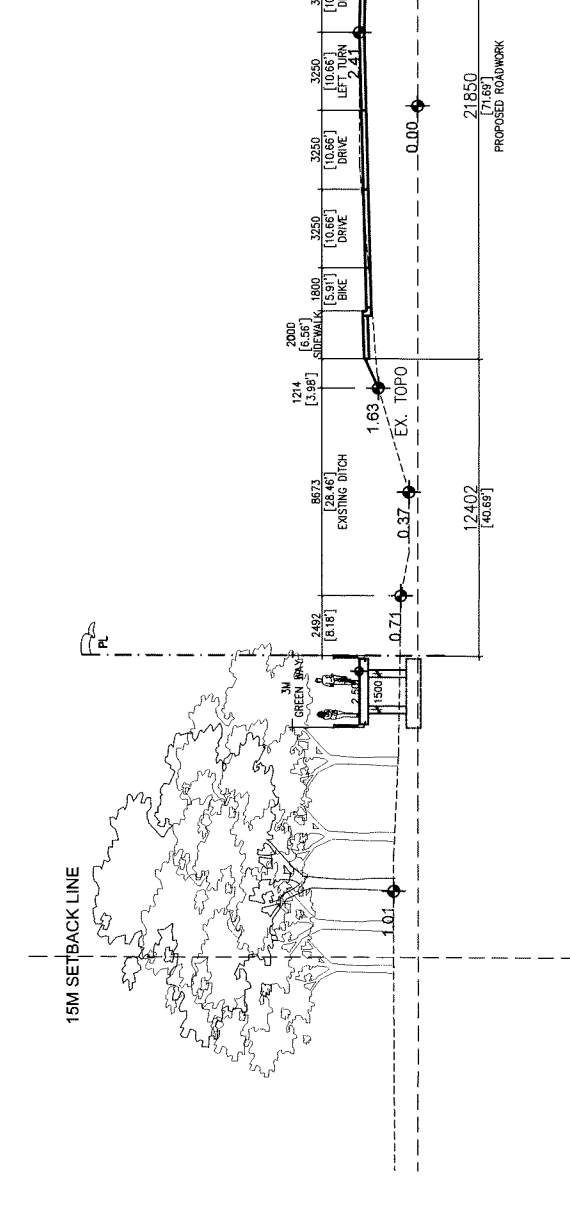
3 EAST EDGE SECTION 3 - NORTH
SCALE: 1/8"=1'-0"



4 EAST EDGE SECTION 4 - MIDDLE
SCALE: 1/8"=1'-0"



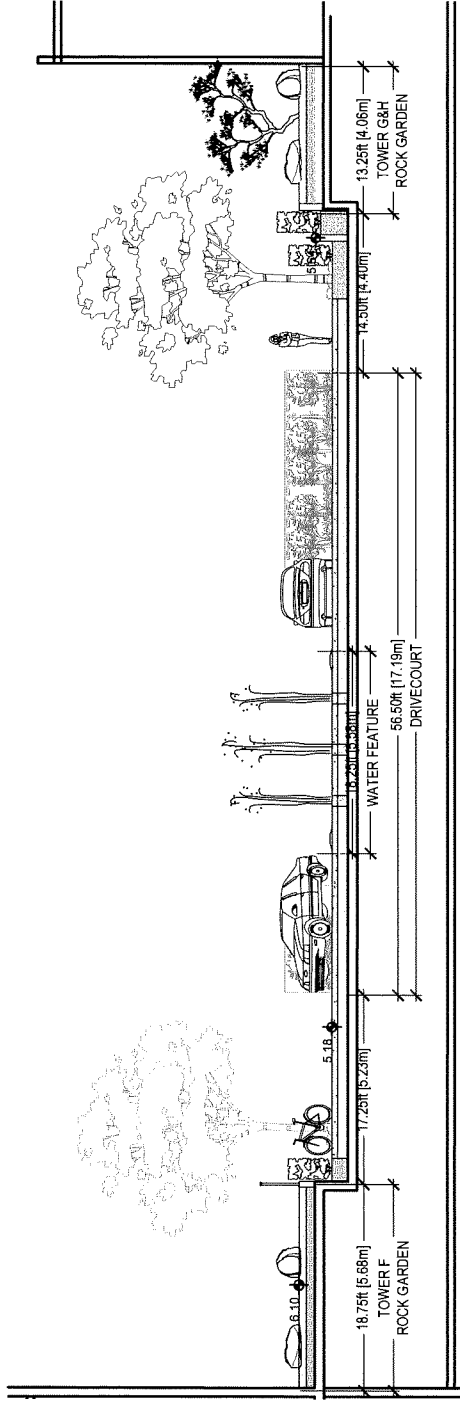
5 EAST EDGE SECTION 5 - SOUTH
SCALE: 1/8"=1'-0"



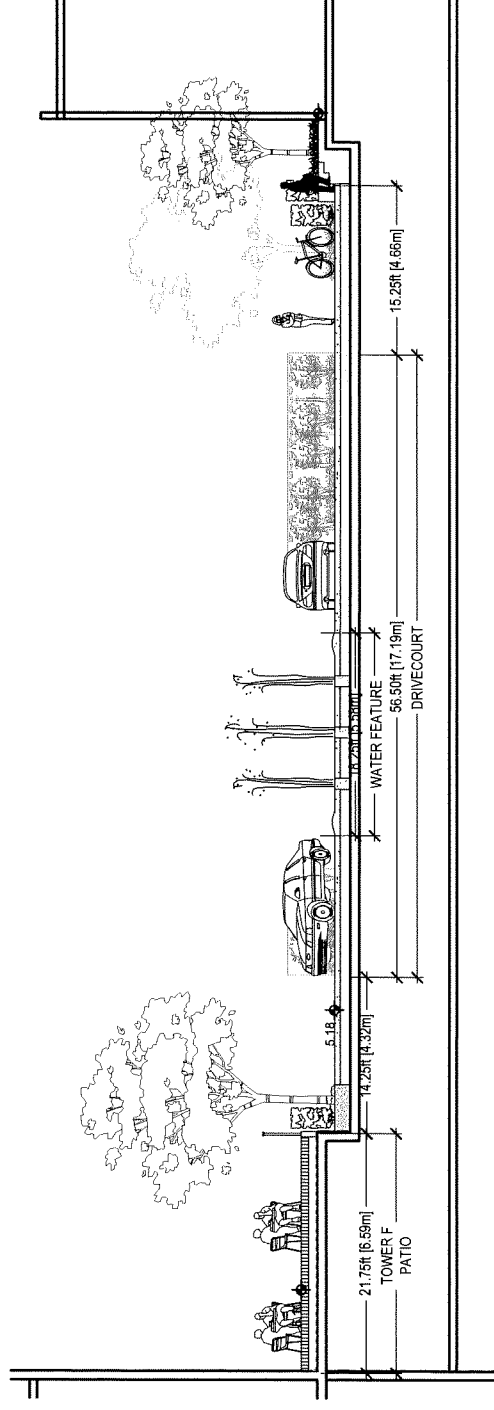
6 EAST EDGE SECTION 6 - LOT 14
SCALE: 1/8"=1'-0"

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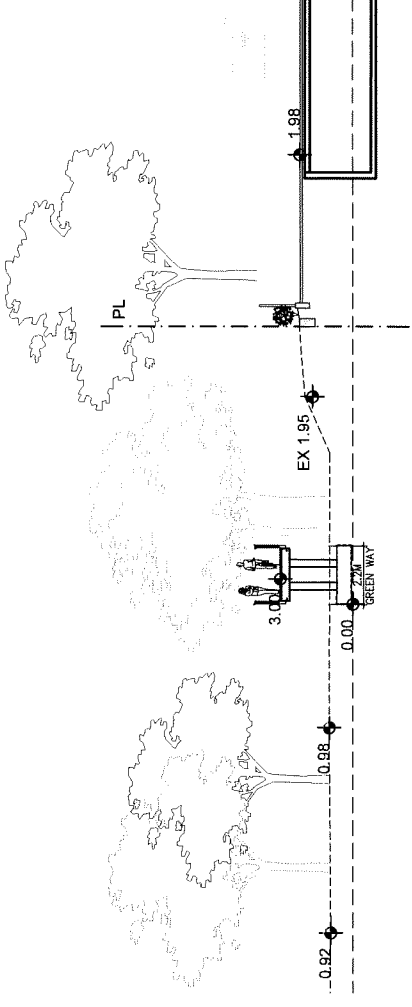
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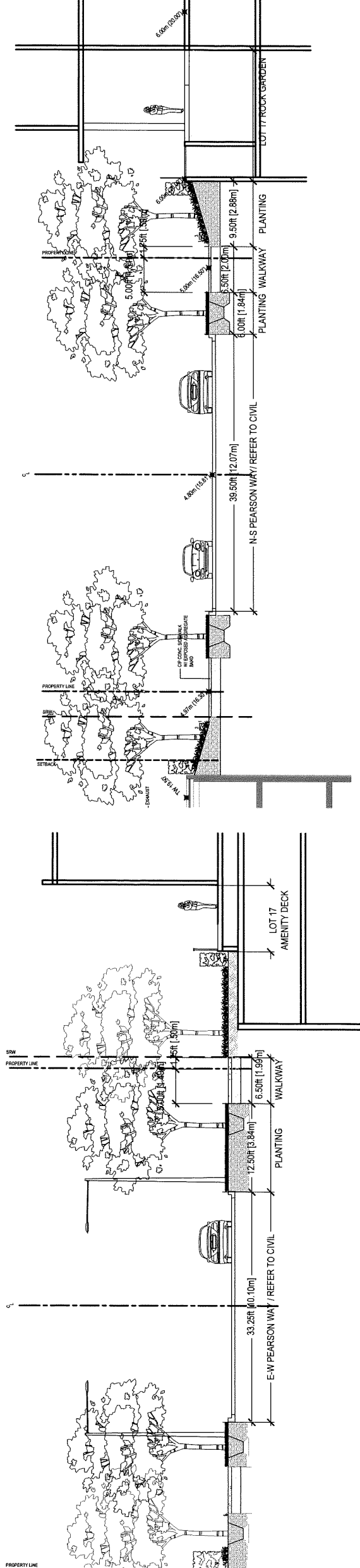
1 SECTION A - DRIVECOURT FOUNTAIN S-N
SCALE: 3/16"=1'-0"



2 SECTION B - DRIVECOURT MAIN ENTRY S-N
SCALE: 3/16"=1'-0"

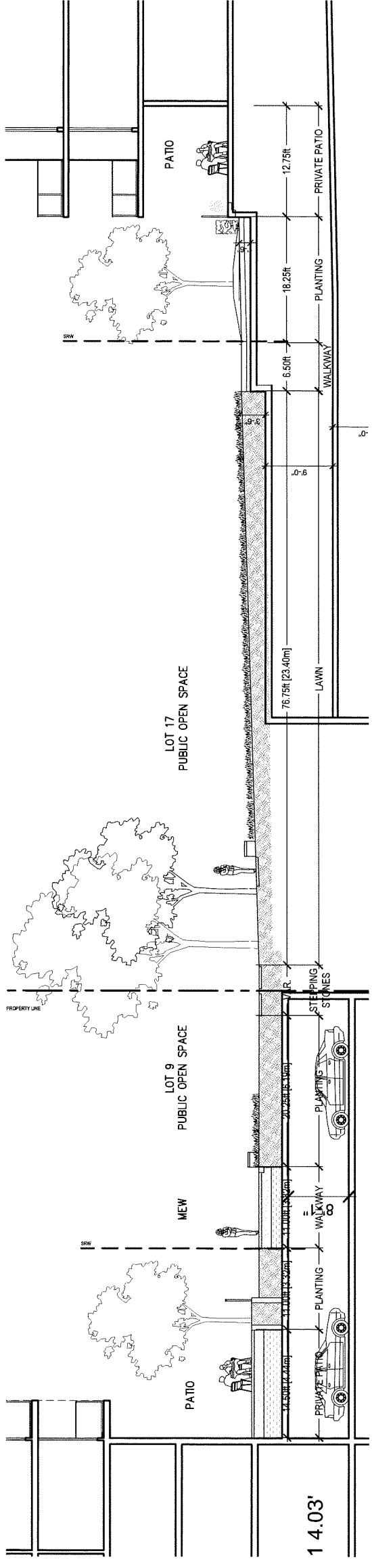


5 SECTION 7 - SOUTH LOADING AREA
SCALE: 1/8"=1'-0"

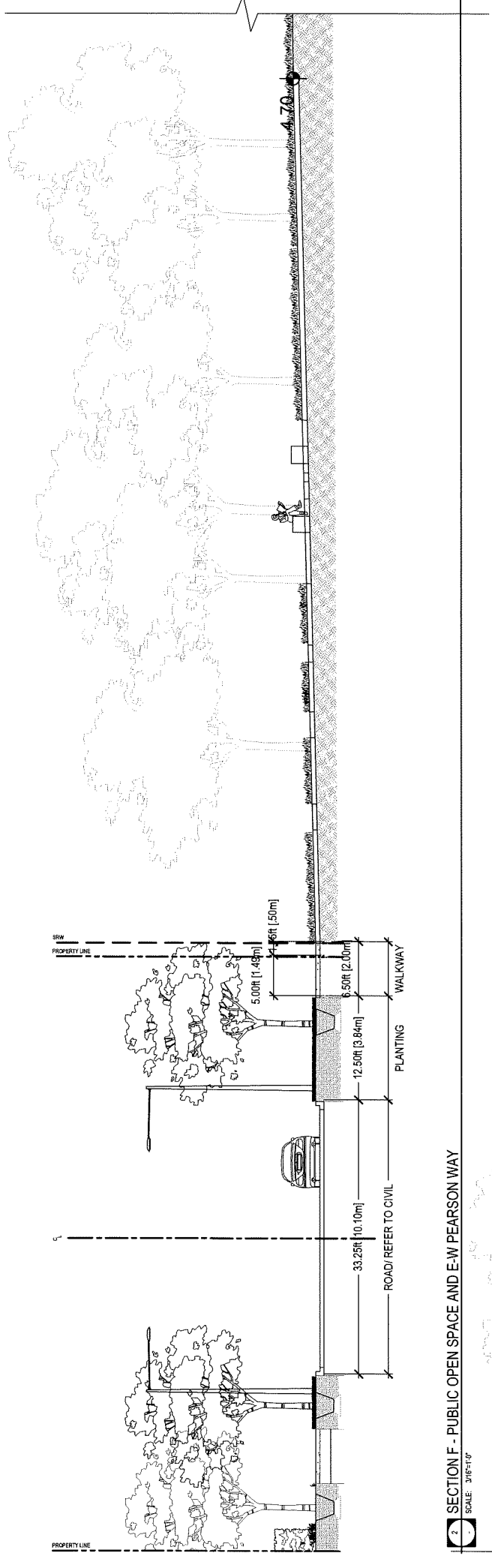


3 SECTION C - PEARSON WAY
SCALE: 3/16"=1'-0"

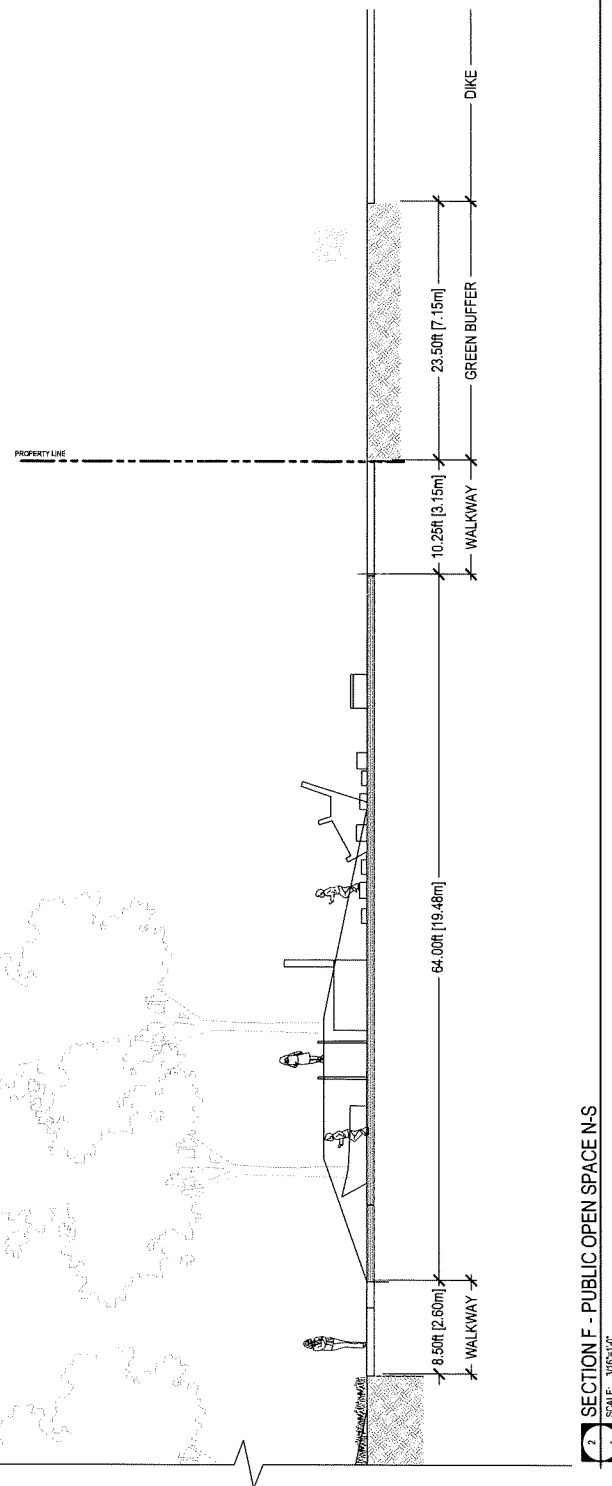
4 SECTION D N-S PEARSON WAY
SCALE: 3/16"=1'-0"



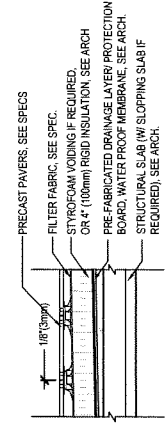
1 SECTION E - PUBLIC OPEN SPACE E-W
SCALE: 3/8"=1'-0"



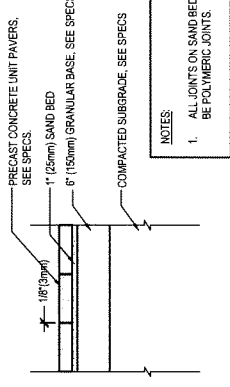
2 SECTION F - PUBLIC OPEN SPACE AND E-W PEARSON WAY
SCALE: 3/8"=1'-0"



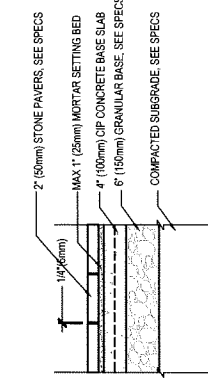
2 SECTION F - PUBLIC OPEN SPACE S
SCALE: 3/8"=1'-0"



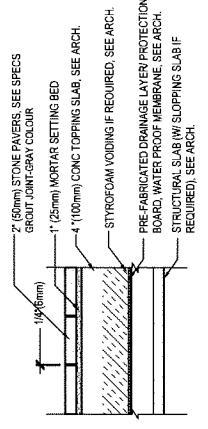
1 PRECAST PAVERS ON PEDESTAL
SCALE: 1"=1'



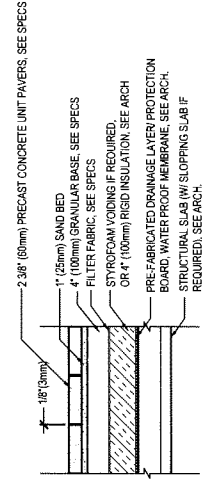
2 CONC. PAVERS ON GRADE
SCALE: 1"=1'



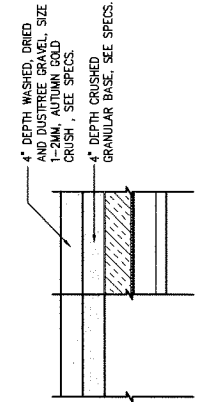
5 STONE PAVERS ON GRADE
SCALE: 1"=1'



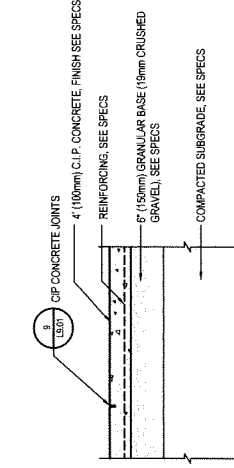
6 STONE PAVERS ON SLAB - GROUND LEVEL
SCALE: 1"=1'



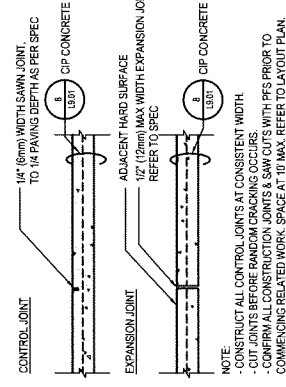
3 CONC. PAVERS ON SLAB
SCALE: 1"=1'



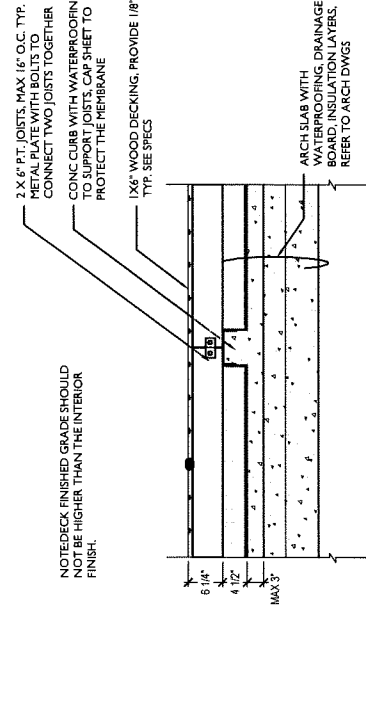
7 GRAVEL SURFACE
SCALE: 1"=1'



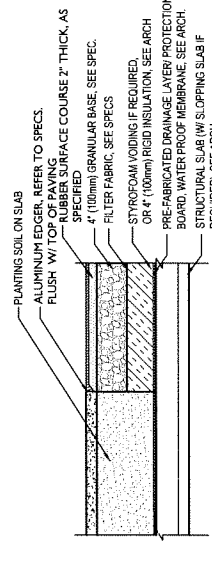
10 CIP CONCRETE ON GRADE
SCALE: 1"=1'



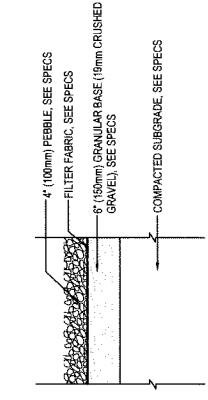
11 CIP CONCRETE JOINTS
SCALE: 1"=1'



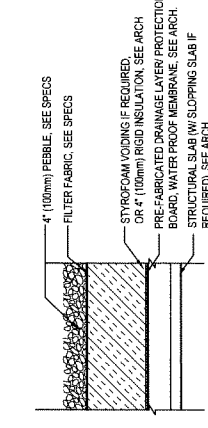
14 WOOD DECK ON SLAB
SCALE: 1"=1'



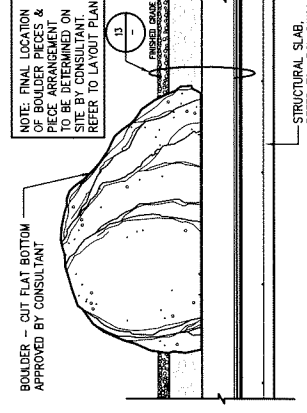
4 RUBBER SURFACE ON SLAB
SCALE: 1"=1'



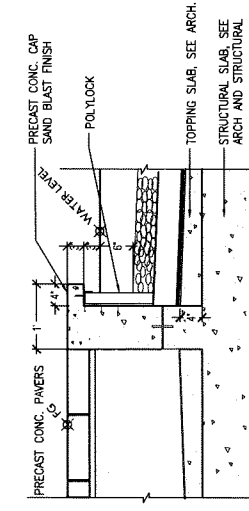
8 PEBBLE STONE ON GRADE
SCALE: 1"=1'



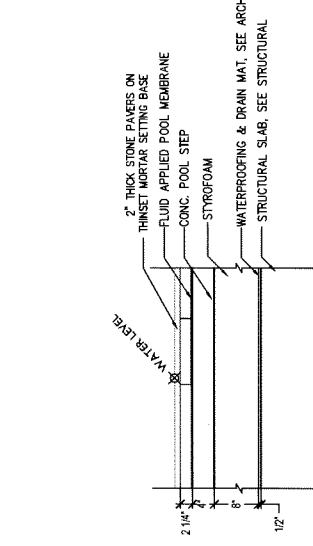
9 PEBBLE STONE ON SLAB
SCALE: 1"=1'



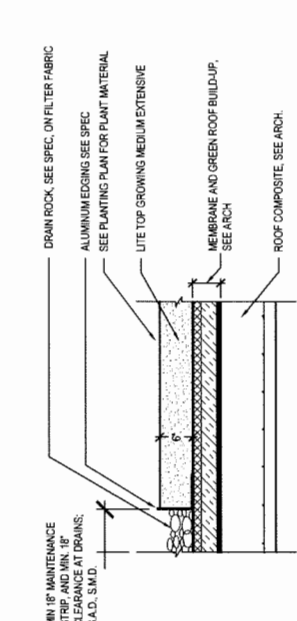
13 BOULDER ON SLAB
SCALE: 1"=1'



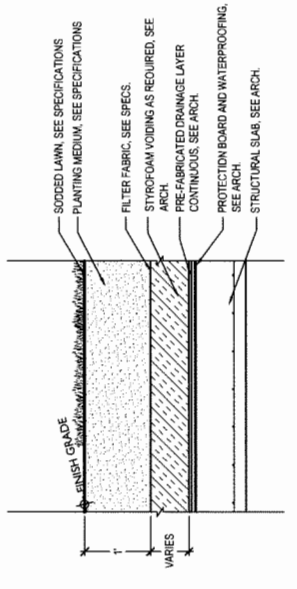
16 CIP CONCRETE WALL, TYP
SCALE: 1"=1'-0"



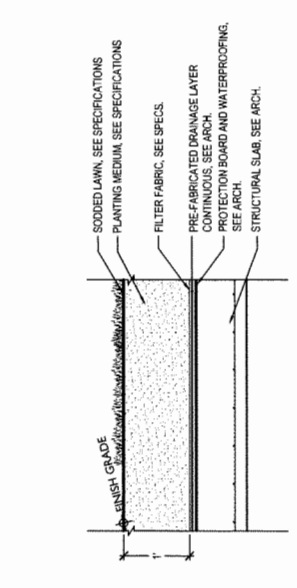
15 WATER FEATURE PROFILE
SCALE: 1"=1'-0"



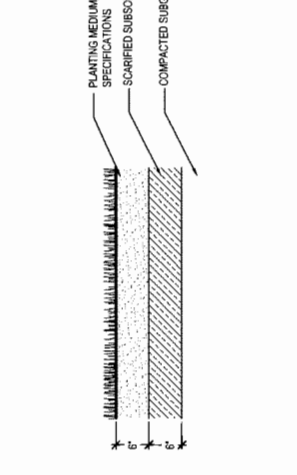
1. LAWN TYP. ON GRADE
SCALE: 1"=1'



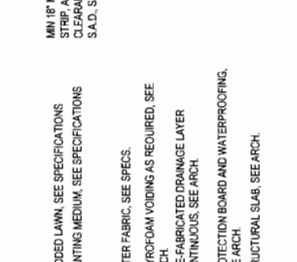
2. LAWN PLANTING ON SLAB, MINIMUM DEPTH



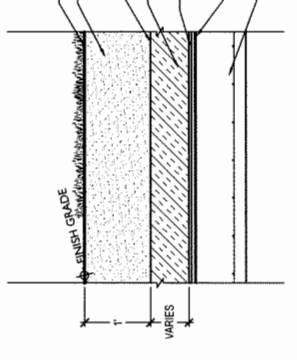
3. LAWN PLANTING ON SLAB, WITH VOIDING



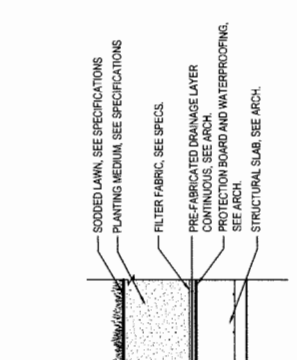
4. EXTENSIVE GREEN ROOF, TYP.
SCALE: 1"=1'



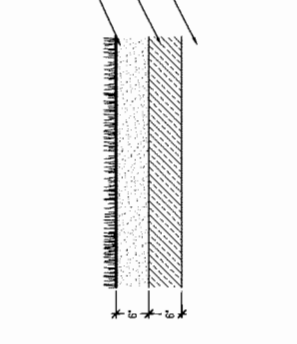
5. SHRUB PLANTING ON INSULATED SLAB



6. TREE PLANTING ON INSULATED SLAB



7. TREE PLANTING ON SLAB, WITH VOIDING



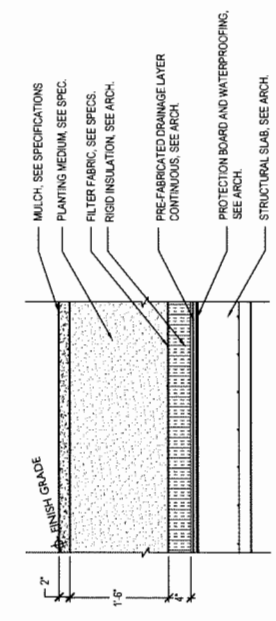
8. TREE PLANTING ON SLOPE



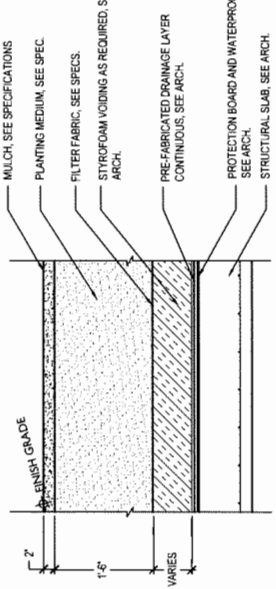
9. GROUND COVER PLANTING
SCALE: 1"=1'



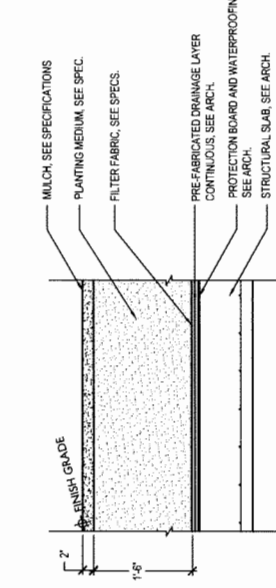
10. SHRUB COVER PLANTING
SCALE: 1"=1'



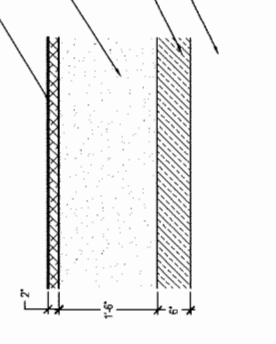
11. TREE PLANTING ON SLAB, MINIMUM DEPTH



12. SHRUB PLANTING ON SLAB, WITH VOIDING



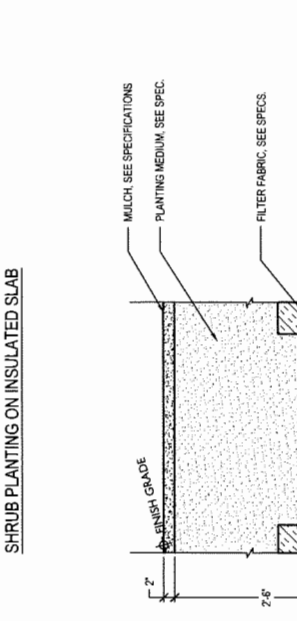
13. TREE PLANTING ON SLAB, WITH VOIDING



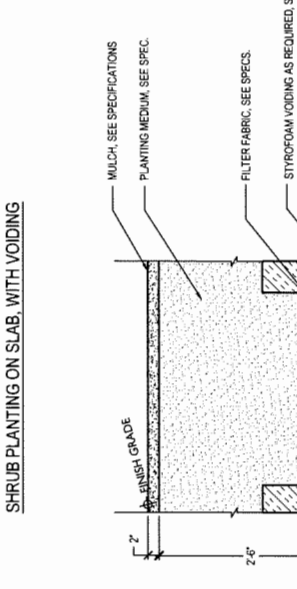
14. TREE PLANTING ON SLOPE



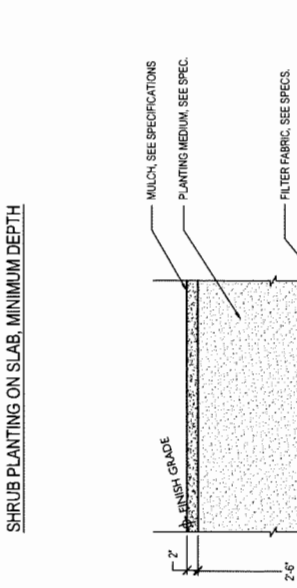
15. SHRUB COVER PLANTING
SCALE: 1"=1'



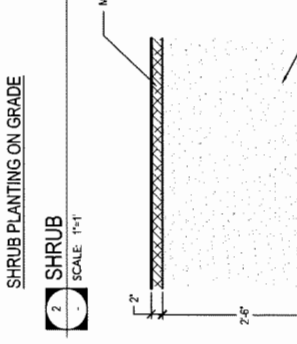
16. TREE PLANTING ON SLOPE



17. SHRUB PLANTING ON SLAB, WITH VOIDING



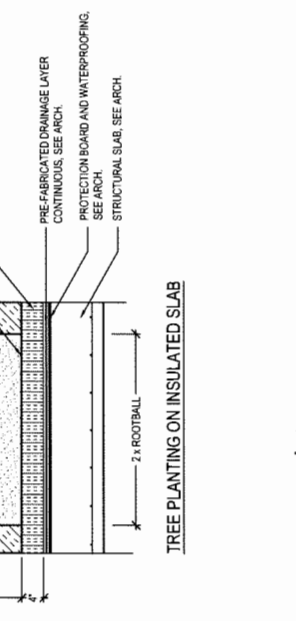
18. TREE PLANTING ON SLAB, WITH VOIDING



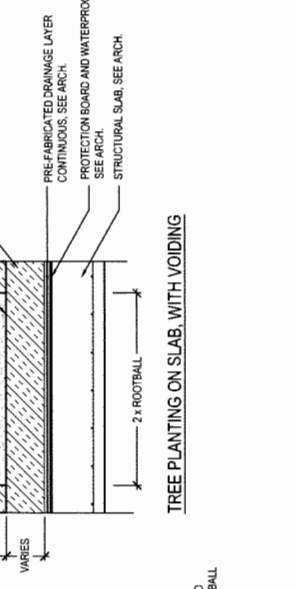
19. TREE PLANTING ON SLOPE



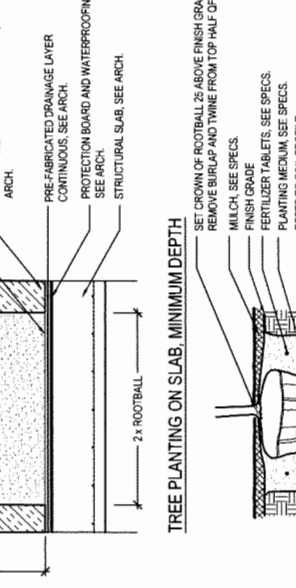
20. SHRUB COVER PLANTING
SCALE: 1"=1'



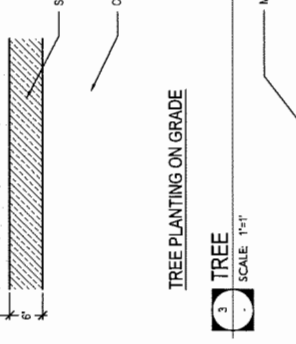
21. TREE PLANTING ON SLOPE



22. SHRUB PLANTING ON SLAB, WITH VOIDING



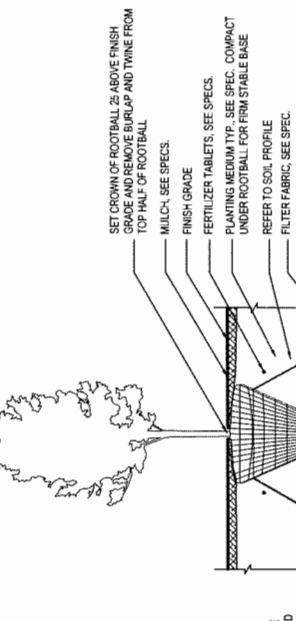
23. TREE PLANTING ON SLAB, WITH VOIDING



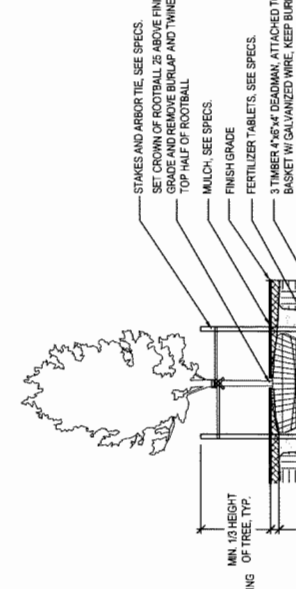
24. TREE PLANTING ON SLOPE



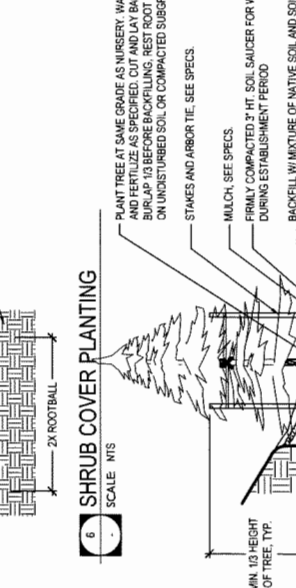
25. SHRUB COVER PLANTING
SCALE: 1"=1'



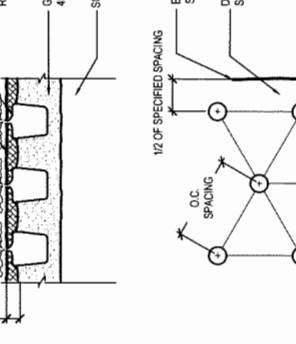
26. TREE PLANTING ON SLOPE



27. SHRUB PLANTING ON SLAB, WITH VOIDING



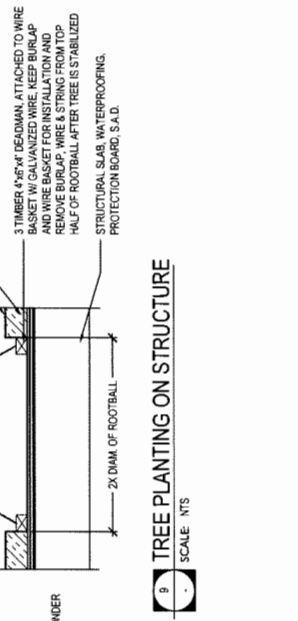
28. TREE PLANTING ON SLAB, WITH VOIDING



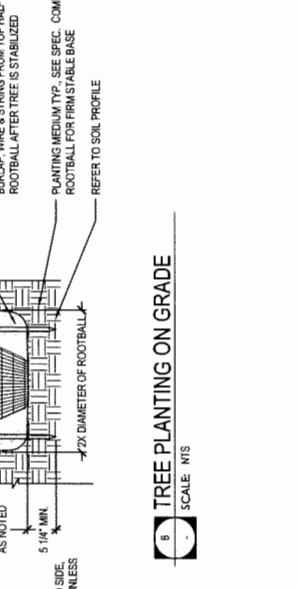
29. TREE PLANTING ON SLOPE



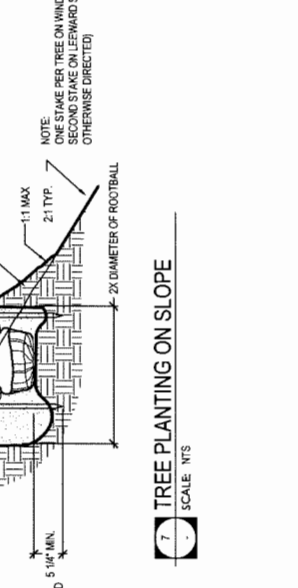
30. SHRUB COVER PLANTING
SCALE: 1"=1'



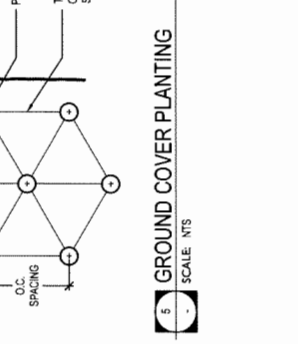
31. TREE PLANTING ON SLOPE



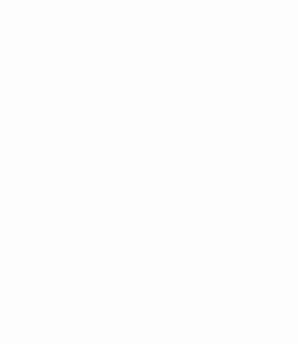
32. SHRUB PLANTING ON SLAB, WITH VOIDING



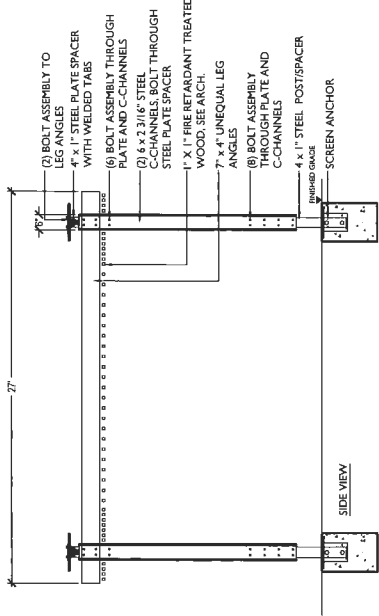
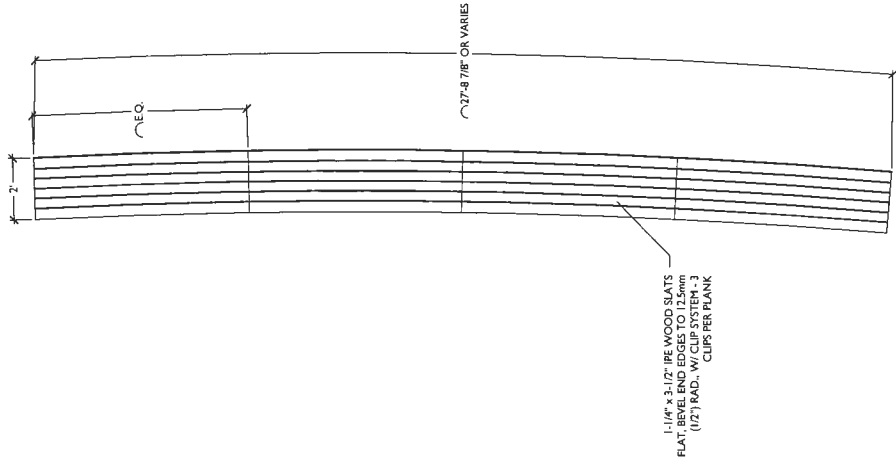
33. TREE PLANTING ON SLAB, WITH VOIDING



34. TREE PLANTING ON SLOPE

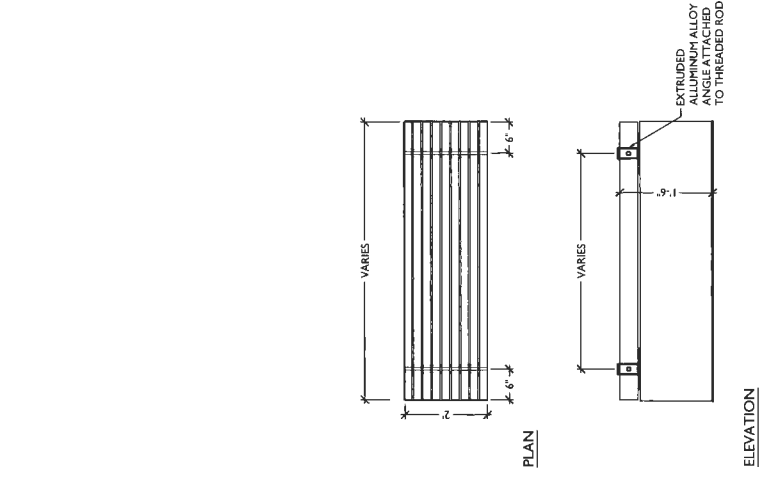


35. SHRUB COVER PLANTING
SCALE: 1"=1'

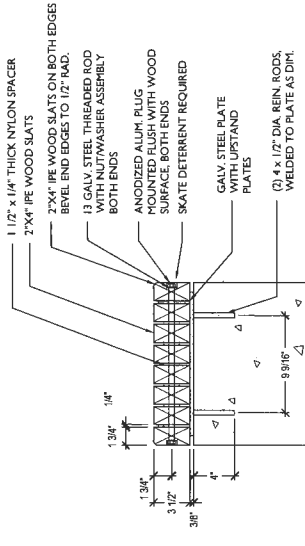


- NOTES:**
1. ALL STEEL IS HOT-DIPPED GALVANIZED HSS UNLESS OTHERWISE INDICATED. GALVANIZED FINISH TO MATCH ARCHITECTURAL FINISHES. HARDWARE FINISH: POLISHED.
 2. PROVIDE SHOP DRAWINGS FOR ALL SCREEN COMPONENTS. MINIMIZE WELDED JOINTS AND USE EXTRUDED COMPONENTS WHEREVER POSSIBLE.
 3. REFER TO SPECIFICATIONS FOR WOOD FINISH SCHEDULE.
 4. PROVIDE MINIMUM 1/2\"/>

1 WOOD TRELLIS
SCALE: 1/2"=1'-0"



3 WOOD-TOP BENCH ON SLAB (BENCH TYPE 5)
SCALE: 1/2"=1'-0"



4 WOOD ASSEMBLY
SCALE: 1"=6"

Plant Name	Flower Color	Flower Time	Winter Interest	Zone	Soil Depth	Mature Height	Mature Width
Sedum album 'Coral Carpet'	Coral Pink	Early Summer through Fall	Yes	4-8	3-4"	0.5'-1'	6-8"
Sedum album 'Summer Carpet'	Yellow	Summer through Fall	No	4-8	3-4"	3-4"	8-10"
Sedum album 'Winter Carpet'	White	Late Spring	Yes	3-7	3-4"	3-5"	8-12"
Sedum album 'Green Carpet'	White	Early Summer	Yes	4-7	3-4"	4-6"	8-12"
Sedum album 'Sun Carpet'	Yellow	Mid-Summer	Yes	4-7	3-4"	3-4"	6-8"
Sedum album 'Coral Carpet'	Red	Mid-Summer	Yes	3-7	3-4"	2-3"	5-8"
Sedum album 'Coral Carpet'	Pink	Mid-Summer	Yes	4-7	3-4"	4-6"	5-8"
Sedum album 'Coral Carpet'	White	Mid-Summer	Yes	4-8	3-4"	4-6"	6-10"
Sedum album 'Sun Carpet'	Pink	Early Summer	Yes	3-5	3-4"	5-12"	12-12"

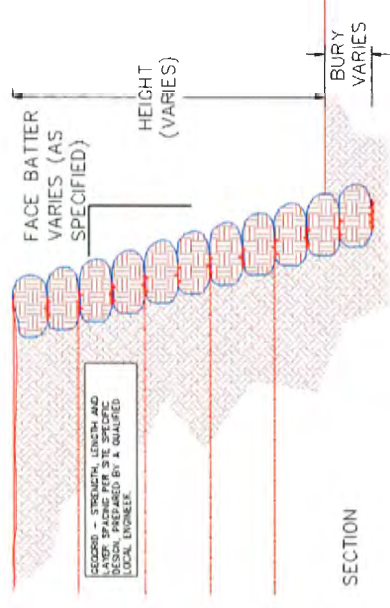
Benefits:

- Quick and easy installation
- Immediate vegetative cover
- Plants to the underlying growth media
- Minimal maintenance requirements once established

Installation:

Install SEDUM TILE directly over a minimum 2" layer of growth media. The tile is designed to be installed over a concrete or stone substrate. The tile is designed to be installed over a concrete or stone substrate. The tile is designed to be installed over a concrete or stone substrate.

5 GREEN ROOF TILE
SCALE: -



6 GEOBAG WALL - FLEX MSE WALL
SCALE: -



RIVER GREEN - LOT 17

AC-2
CONCRETE (PAINTED DARK)
BENJAMIN MOORE 2127-30



AC-1
CONCRETE (PAINTED LIGHT)
BENJAMIN MOORE 2119-70

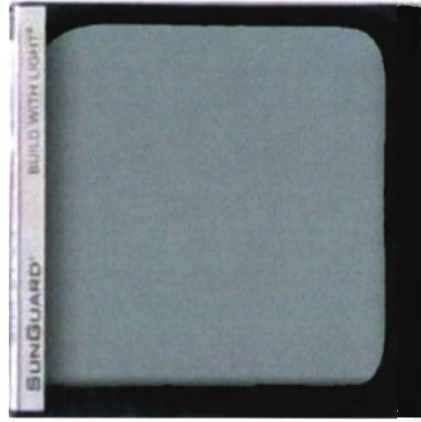


CP-2/SP2
CHARCOL GREY
ALUMINIUM

MC-2
METAL CLADDING -SILVER



MC-1
METAL CLADDING-WHITE



GL-1/CG-1
CLEAR GLASS WITH LOW-E COATING



SP-1/CP-1
SPANDREL GLASS



ST-1
STONE WHITE



ST-2
STONE DARK

APR 24 2019

MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)

ST-1 - STONE CLADDING - LIGHT

ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)

GL-1: TYP. TOWER GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME

WINDOW WALL SPANDREL (EW-5A & EW-5E)

SP-1 SPANDREL PANEL - DARK GREY

SP-2 METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)

CG-1: TYP. PODIUM GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)

CP-1 SPANDREL PANEL - DARK GREY

CP-2 METAL PANEL - DARK GREY

METAL CLADDING (EW-3, EW-3A & EW-3B)

MC-1 METAL CLADDING - WHITE

MC-2 METAL CLADDING - SILVER

ARCHITECTURAL CONCRETE (EW-1 & EW-1A)

AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB

AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS

AC-3: ARCHITECTURAL CONCRETE - SEALED

AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)

CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)

GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME

GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN

GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)

M-1: MECHANICAL LOUVER - DARK GREY

M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY

M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY

M-4: MECHANICAL GRATES

M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

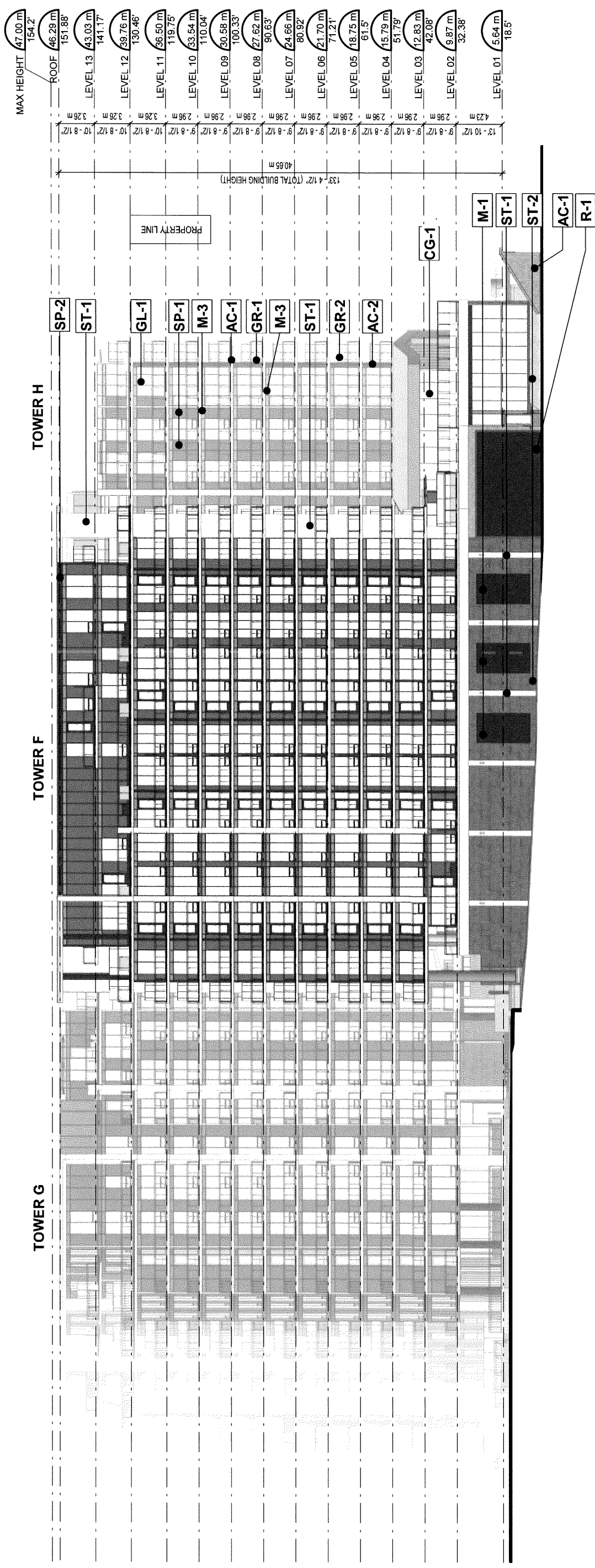
ROLLING DOOR / GATE

R-1: ROLLING DOOR / GATE - DARK GREY

TOWER G

TOWER F

TOWER H



APR 23 2019

MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
 ST-1 - STONE CLADDING - LIGHT
 ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
 GL-1: TYP. TOWER GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME
 WINDOW WALL SPANDREL (EW-5A & EW-5E)
 SP-1 SPANDREL PANEL - DARK GREY
 SP-2 METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)
 CG-1: TYP. PODIUM GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)
 CP-1 SPANDREL PANEL - DARK GREY
 CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3, EW-3A & EW-3B)
 MC-1: METAL CLADDING - WHITE
 MC-2: METAL CLADDING - SILVER

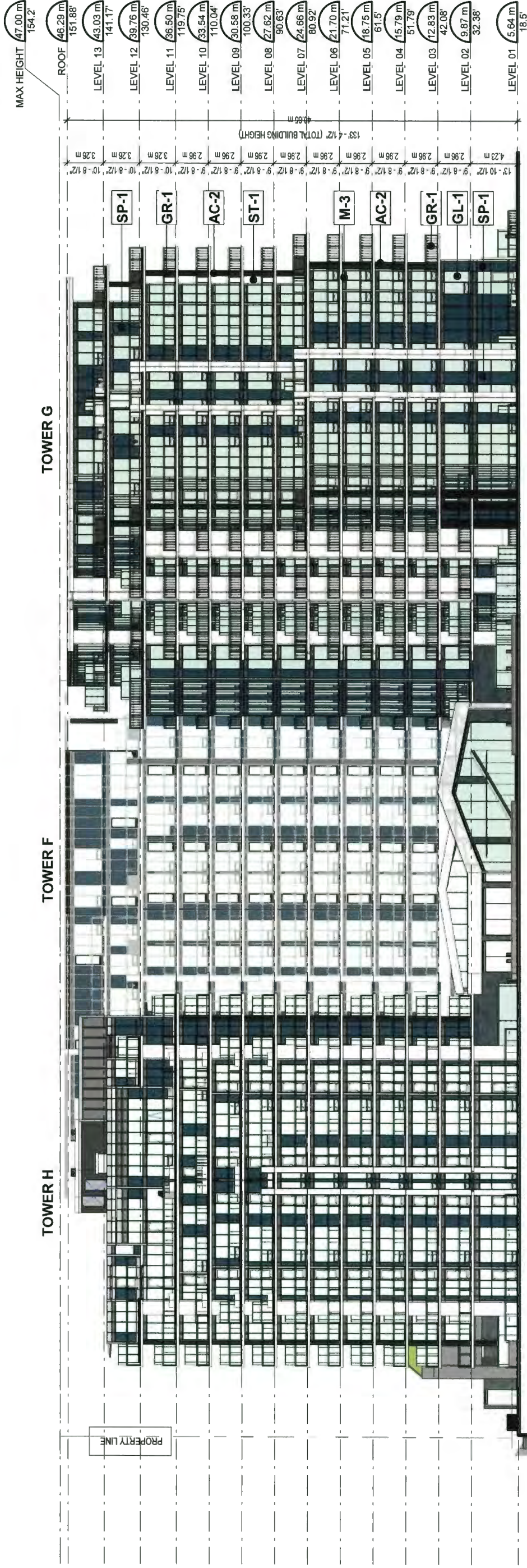
ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
 AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
 AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
 AC-3: ARCHITECTURAL CONCRETE - SEALED
 AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)
 CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
 GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
 GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
 GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
 M-1: MECHANICAL LOUVER - DARK GREY
 M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
 M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
 M-4: MECHANICAL GRATES
 M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE
 R-1: ROLLING DOOR / GATE - DARK GREY

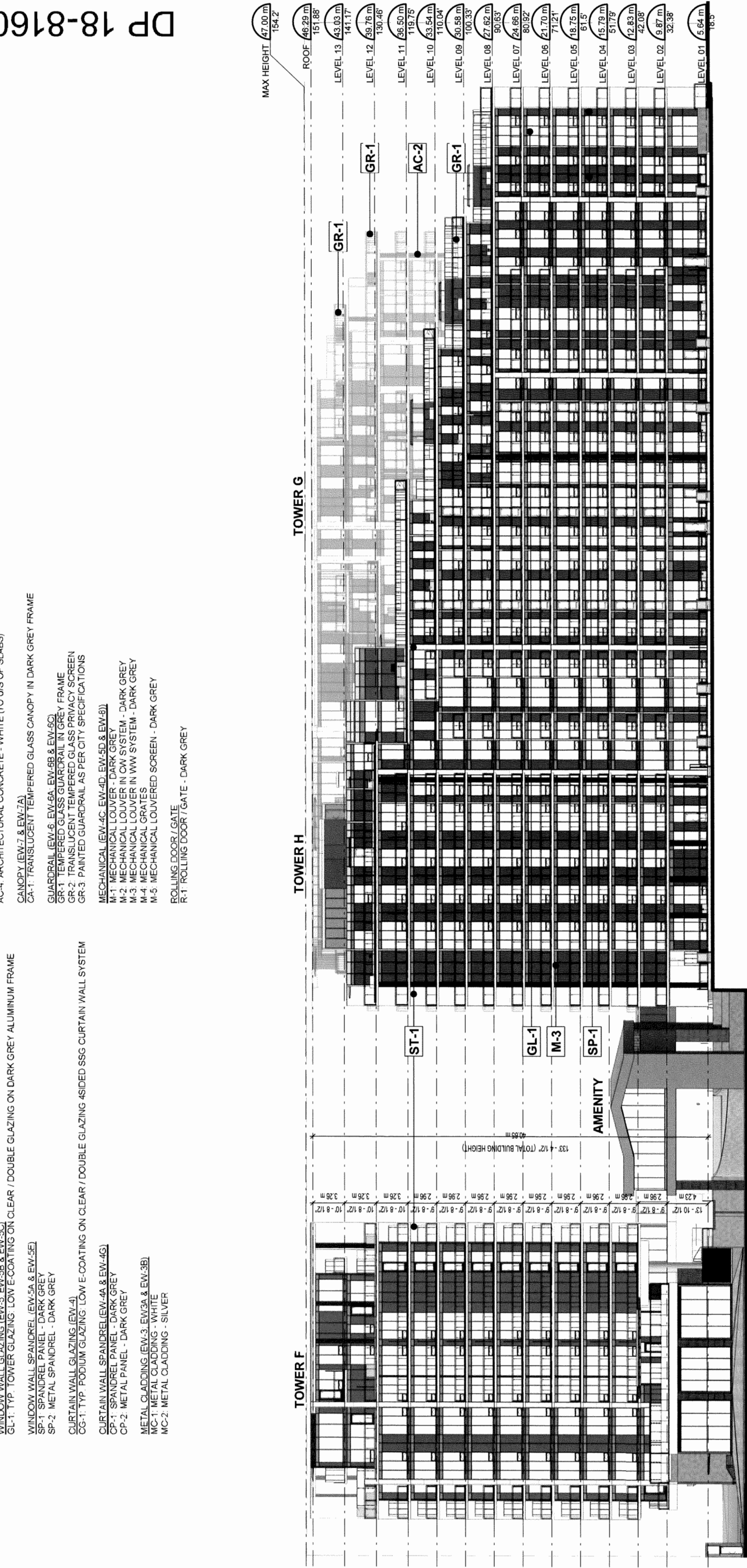


DP 18-816029

MATERIAL LEGEND

- STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
- ST-1 - STONE CLADDING - LIGHT
- ST-2 - STONE CLADDING - DARK
- WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
- GL-1: TYP. TOWER GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME
- WINDOW WALL SPANDREL (EW-5A & EW-5E)
- SP-1 SPANDREL PANEL - DARK GREY
- SP-2 METAL SPANDREL - DARK GREY
- CURTAIN WALL GLAZING (EW-4)
- CG-1: TYP. PODIUM GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM
- CURTAIN WALL SPANDREL (EW-4A & EW-4G)
- CP-1 SPANDREL PANEL - DARK GREY
- CP-2 METAL PANEL - DARK GREY
- METAL CLADDING (EW-3, EW-3A & EW-3B)
- MC-1 METAL CLADDING - WHITE
- MC-2 METAL CLADDING - SILVER

- ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
- AC-1 ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
- AC-2 ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
- AC-3 ARCHITECTURAL CONCRETE - SEALED
- AC-4 ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)
- CANOPY (EW-7 & EW-7A)
- CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME
- GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
- GR-1 TEMPERED GLASS GUARDRAIL IN GREY FRAME
- GR-2 TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
- GR-3 PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS
- MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
- M-1 MECHANICAL LOUVER - DARK GREY
- M-2 MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
- M-3 MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
- M-4 MECHANICAL GRATES
- M-5 MECHANICAL LOUVERED SCREEN - DARK GREY
- ROLLING DOOR / GATE
- R-1 ROLLING DOOR / GATE - DARK GREY



MAX HEIGHT 47.00 m
154.2'

ROOF 46.29 m
151.88'

LEVEL 13 43.03 m
141.17'

LEVEL 12 39.76 m
130.46'

LEVEL 11 36.50 m
119.75'

LEVEL 10 33.54 m
110.04'

LEVEL 09 30.58 m
100.33'

LEVEL 08 27.62 m
90.63'

LEVEL 07 24.66 m
80.92'

LEVEL 06 21.70 m
71.21'

LEVEL 05 18.75 m
61.5'

LEVEL 04 15.79 m
51.79'

LEVEL 03 12.83 m
42.08'

LEVEL 02 9.87 m
32.38'

LEVEL 01 5.64 m
18.5'

APR 23 2019

DP 18-816029

MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
 ST-1 - STONE CLADDING - LIGHT
 ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
 GL-1: TYP. TOWER GLAZING; LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINUM FRAME
 WINDOW WALL SPANDREL (EW-5A & EW-5E)
 SP-1 SPANDREL PANEL - DARK GREY
 SP-2 METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)
 CG-1: TYP. PODIUM GLAZING; LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)
 CP-1 SPANDREL PANEL - DARK GREY
 CP-2 METAL PANEL - DARK GREY
 METAL CLADDING (EW-3, EW-3A & EW-3B)
 MC-1 METAL CLADDING - WHITE
 MC-2 METAL CLADDING - SILVER

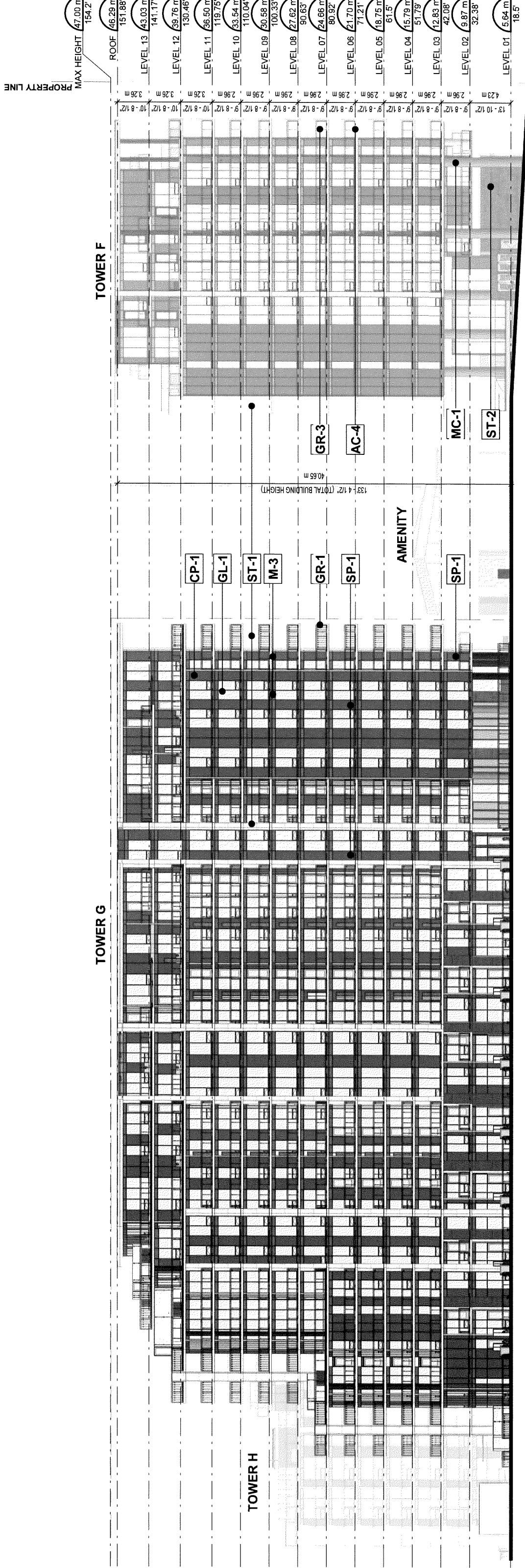
ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
 AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
 AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
 AC-3: ARCHITECTURAL CONCRETE - SEALED
 AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)
 CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
 GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
 GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
 GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-6)
 M-1 MECHANICAL LOUVER - DARK GREY
 M-2 MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
 M-3 MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
 M-4 MECHANICAL GRATES
 M-5 MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE
 R-1 ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)

ST-1 - STONE CLADDING - LIGHT

ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)

GL-1 - TYP. TOWER GLAZING / LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINUM FRAME

WINDOW WALL SPANDREL (EW-5A & EW-5E)

SP-1: SPANDREL PANEL - DARK GREY

SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)

CG-1 - TYP. PODIUM GLAZING / LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)

CP-1: SPANDREL PANEL - DARK GREY

CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3, EW-3A & EW-3B)

MC-1: METAL CLADDING - WHITE

MC-2: METAL CLADDING - SILVER

ARCHITECTURAL CONCRETE (EW-1 & EW-1A)

AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB

AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS

AC-3: ARCHITECTURAL CONCRETE - SEALED

AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)

CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)

GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME

GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN

GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)

M-1: MECHANICAL LOUVER - DARK GREY

M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY

M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY

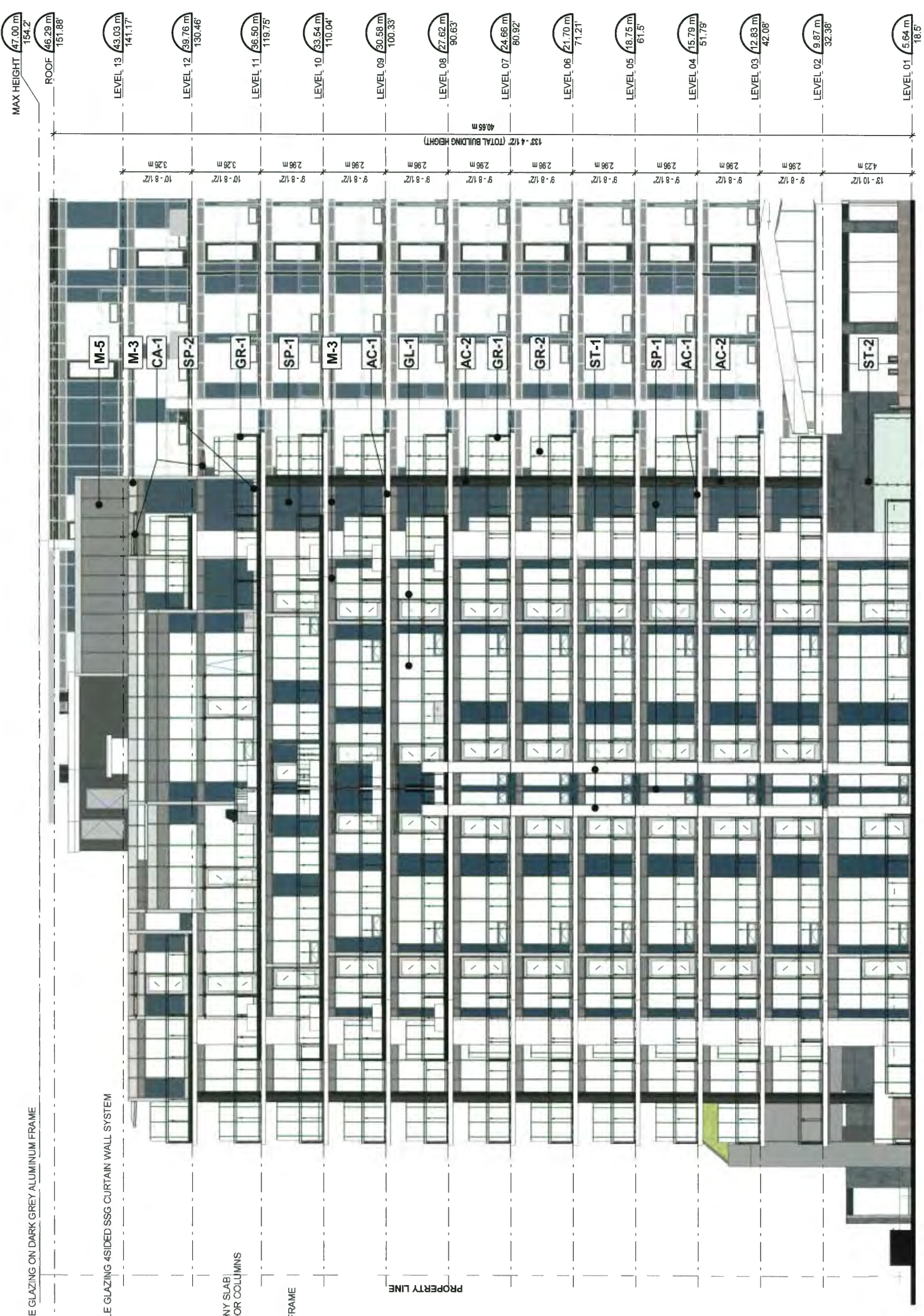
M-4: MECHANICAL GRATES

M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE

R-1: ROLLING DOOR / GATE - DARK GREY

DP 18-816029



Level	Height (m)
MAX HEIGHT	47.00 m
ROOF	46.29 m
LEVEL 13	43.03 m
LEVEL 12	39.76 m
LEVEL 11	36.50 m
LEVEL 10	33.54 m
LEVEL 09	30.58 m
LEVEL 08	27.62 m
LEVEL 07	24.66 m
LEVEL 06	21.70 m
LEVEL 05	18.75 m
LEVEL 04	15.79 m
LEVEL 03	12.83 m
LEVEL 02	9.87 m
LEVEL 01	5.64 m

APR 23 2019

MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)

ST-1 - STONE CLADDING - LIGHT

ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)

GL-1, TYP. TOWER GLAZING, LOW E-COATING ON CLEAR / DOUBLE GLAZING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME

WINDOW WALL SPANDREL (EW-5A & EW-5E)

SP-1: SPANDREL PANEL - DARK GREY

SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)

CG-1, TYP. PODIUM GLAZING, LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)

CP-1: SPANDREL PANEL - DARK GREY

CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3, EW-3A & EW-3B)

MC-1: METAL CLADDING - WHITE

MC-2: METAL CLADDING - SILVER

ARCHITECTURAL CONCRETE (EW-1 & EW-1A)

AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB

AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS

AC-3: ARCHITECTURAL CONCRETE - SEALED

AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)

CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)

GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME

GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN

GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-5)

M-1: MECHANICAL LOUVER - DARK GREY

M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY

M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY

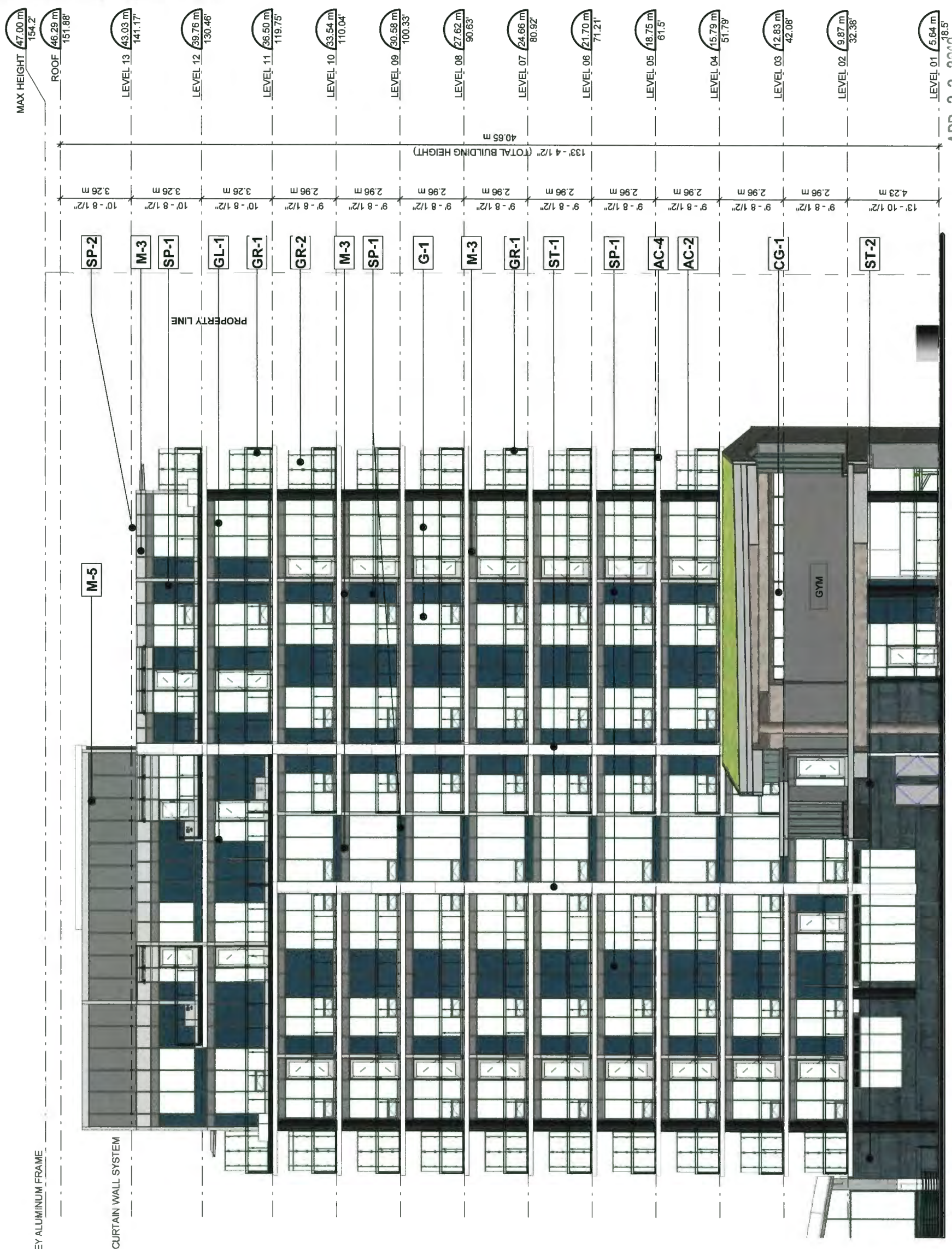
M-4: MECHANICAL GRATES

M-5: MECHANICAL LOWERED SCREEN - DARK GREY

ROLLING DOOR / GATE

R-1: ROLLING DOOR / GATE - DARK GREY

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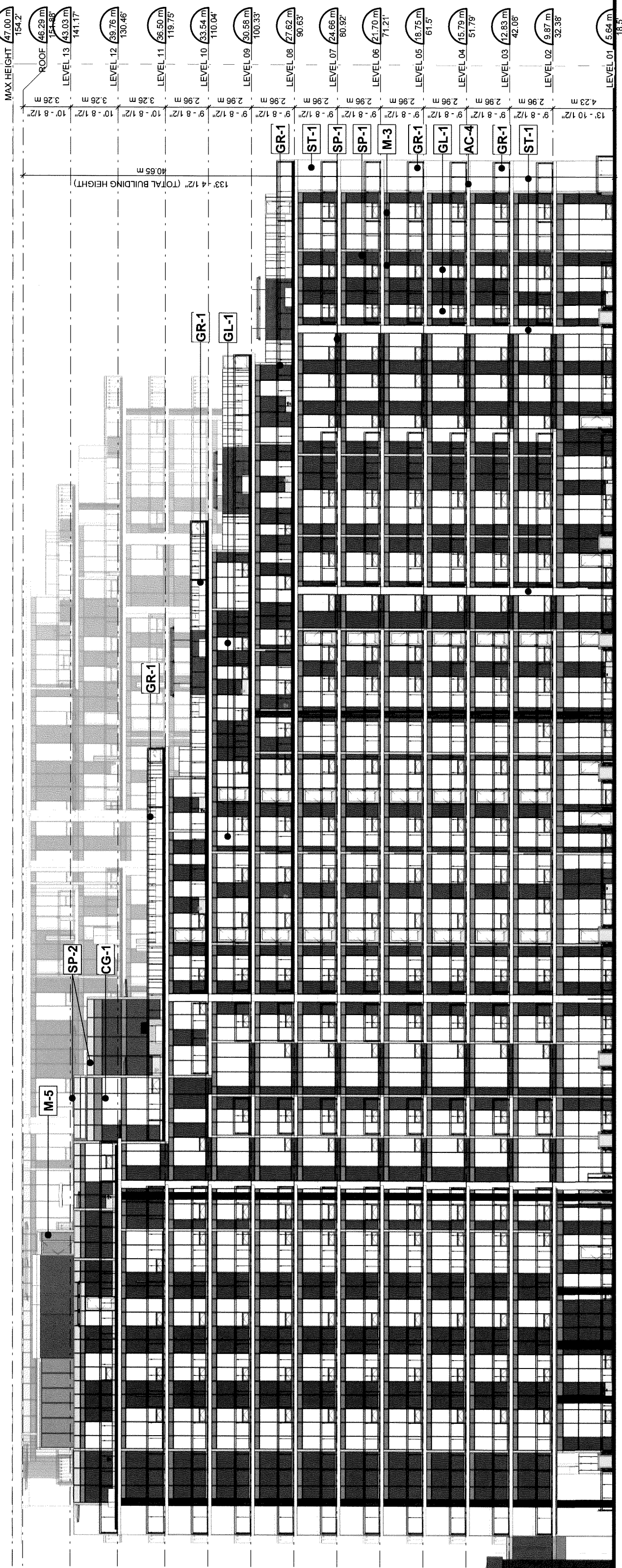


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MATERIAL LEGEND

- STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
- ST-1 - STONE CLADDING - LIGHT
- ST-2 - STONE CLADDING - DARK
- WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
- GL-1 - TYP. TOWER GLAZING, LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINUM FRAME
- WINDOW WALL SPANDREL (EW-5A & EW-5E)
- SP-1 - SPANDREL PANEL - DARK GREY
- SP-2 - METAL SPANDREL - DARK GREY
- CURTAIN WALL GLAZING (EW-4)
- CG-1 - TYP. PODIUM GLAZING, LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM
- CURTAIN WALL SPANDREL (EW-4A & EW-4G)
- CP-1 - SPANDREL PANEL - DARK GREY
- CP-2 - METAL PANEL - DARK GREY
- METAL CLADDING (EW-3, EW-3A & EW-3B)
- MC-1 - METAL CLADDING - WHITE
- MC-2 - METAL CLADDING - SILVER

- ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
- AC-1 ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
- AC-2 ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
- AC-3 ARCHITECTURAL CONCRETE - SEALED
- AC-4 ARCHITECTURAL CONCRETE - WHITE (TO US OF SLABS)
- CANOPY (EW-7 & EW-7A)
- CA-1 - TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME
- GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
- GR-1 - TEMPERED GLASS GUARDRAIL IN GREY FRAME
- GR-2 - TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
- GR-3 - PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS
- MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
- M-1 - MECHANICAL LOUVER - DARK GREY
- M-2 - MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
- M-3 - MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
- M-4 - MECHANICAL GRATES
- M-5 - MECHANICAL LOUVERED SCREEN - DARK GREY
- ROLLING DOOR / GATE
- R-1 - ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

- STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
- ST-1 - STONE CLADDING - LIGHT
- ST-2 - STONE CLADDING - DARK
- WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
- GL-1 - TYP. TOWER GLAZING LOW E-COATING ON CLEAR / DOUBLE GLAZING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINUM FRAME
- WINDOW WALL SPANDREL (EW-5A & EW-5E)
- SP-1 SPANDREL PANEL - DARK GREY
- SP-2 METAL SPANDREL - DARK GREY
- CURTAIN WALL GLAZING (EW-4)
- CG-1 - TYP. PODIUM GLAZING LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM
- CURTAIN WALL SPANDREL (EW-4A & EW-4G)
- CP-1 SPANDREL PANEL - DARK GREY
- CP-2 METAL PANEL - DARK GREY
- METAL CLADDING (EW-3, EW-3A & EW-3B)
- MC-1 METAL CLADDING - WHITE
- MC-2 METAL CLADDING - SILVER

- ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
- AC-1 ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
- AC-2 ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
- AC-3 ARCHITECTURAL CONCRETE - SEALED
- AC-4 ARCHITECTURAL CONCRETE - WHITE (TO UIS OF SLABS)
- CANOPY (EW-7 & EW-7A)
- CA-1 TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME
- GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
- GR-1 TEMPERED GLASS GUARDRAIL IN GREY FRAME
- GR-2 TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
- GR-3 PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS
- MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
- M-1 MECHANICAL LOUVER - DARK GREY
- M-2 MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
- M-3 MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
- M-4 MECHANICAL GRATES
- M-5 MECHANICAL LOUVERED SCREEN - DARK GREY
- ROLLING DOOR / GATE
- R-1 ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
 ST-1 - STONE CLADDING - LIGHT
 ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
 GL-1: TYP. WINDOW WALL GLAZING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME

WINDOW WALL SPANDREL (EW-5A & EW-5E)
 SP-1: SPANDREL PANEL - DARK GREY
 SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)
 CG-1: TYP. CURTAIN WALL GLAZING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CI
 CG-2: TYP. CURTAIN WALL GLAZING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CI

METAL CLADDING (EW-3, EW-3A & EW-3B)
 MC-1: METAL CLADDING - WHITE
 MC-2: METAL CLADDING - SILVER

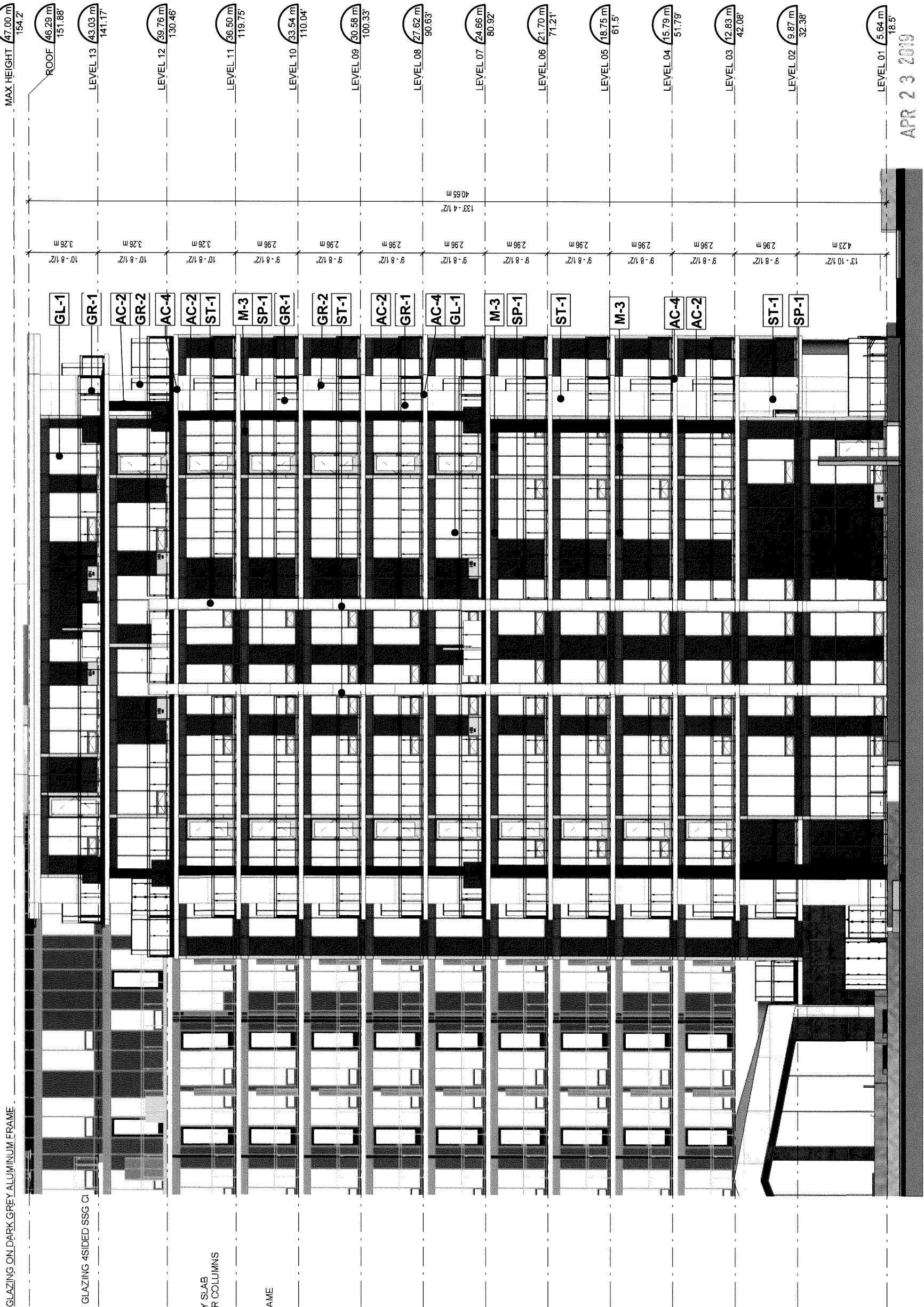
ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
 AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
 AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
 AC-3: ARCHITECTURAL CONCRETE - SEALED
 AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)
 CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
 GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
 GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
 GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-5)
 M-1: MECHANICAL LOUVER - DARK GREY
 M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
 M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
 M-4: MECHANICAL GRATES
 M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE
 R-1: ROLLING DOOR / GATE - DARK GREY

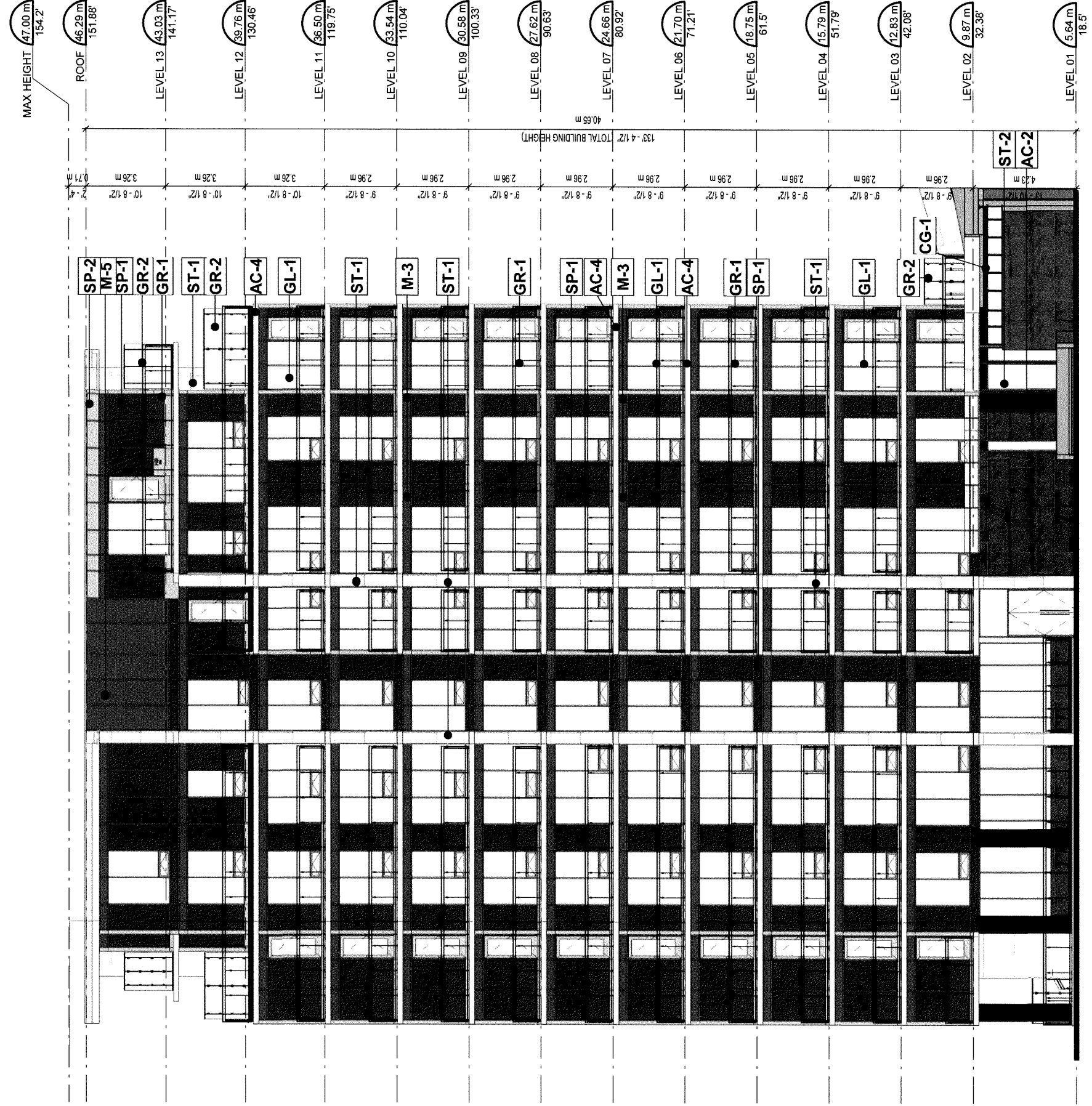


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MATERIAL LEGEND

- STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
- ST-1 - STONE CLADDING - LIGHT
- ST-2 - STONE CLADDING - DARK
- WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
- GL-1: TYP. TOWER GLAZING LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME
- WINDOW WALL SPANDREL (EW-5A & EW-5E)
- SP-1: SPANDREL PANEL - DARK GREY
- SP-2: METAL SPANDREL - DARK GREY
- CURTAIN WALL GLAZING (EW-4)
- CG-1: TYP. PODIUM GLAZING LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM
- CURTAIN WALL SPANDREL (EW-4A & EW-4G)
- CP-1: SPANDREL PANEL - DARK GREY
- CP-2: METAL PANEL - DARK GREY
- METAL CLADDING (EW-3, EW-3A & EW-3B)
- MC-1: METAL CLADDING - WHITE
- MC-2: METAL CLADDING - SILVER
- ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
- AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
- AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
- AC-3: ARCHITECTURAL CONCRETE - SEALED
- AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)
- CANOPY (EW-7 & EW-7A)
- CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME
- GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
- GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
- GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
- GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS
- MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
- M-1: MECHANICAL LOUVER - DARK GREY
- M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
- M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
- M-4: MECHANICAL GRATES
- M-5: MECHANICAL LOWERED SCREEN - DARK GREY
- ROLLING DOOR / GATE
- R-1: ROLLING DOOR / GATE - DARK GREY

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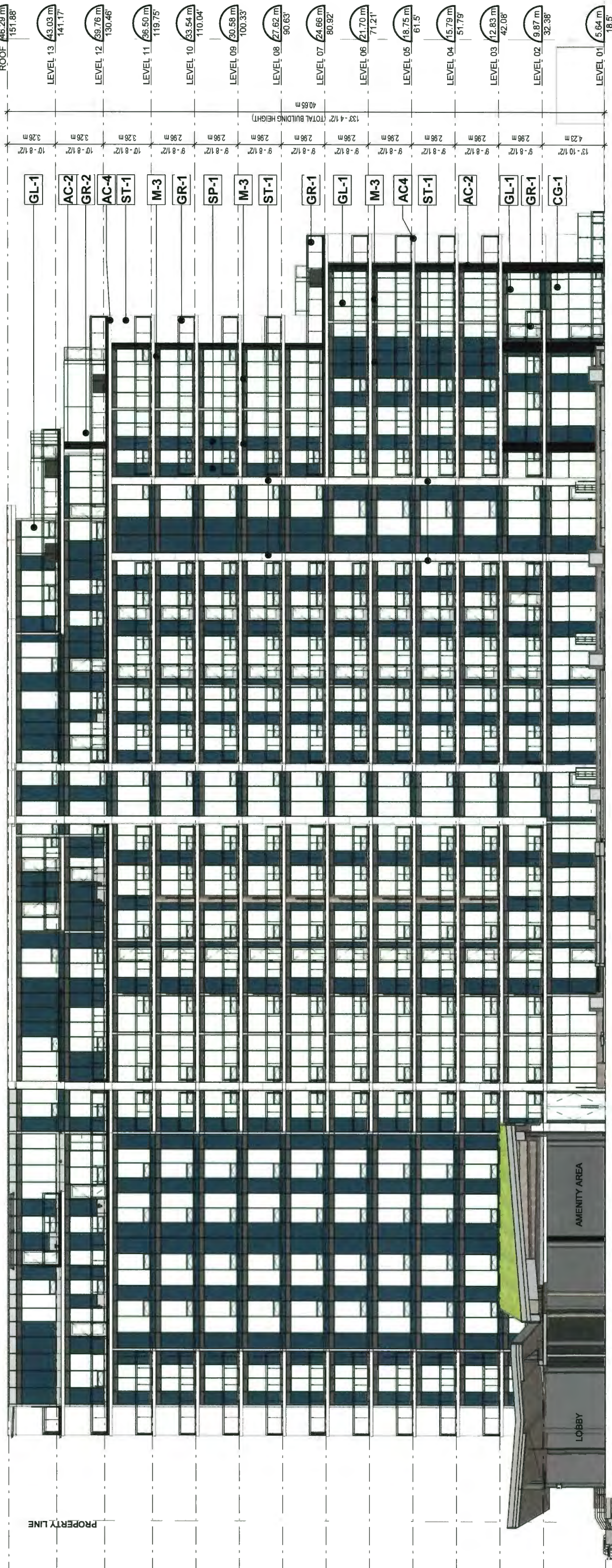


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MATERIAL LEGEND

- STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
- ST-1 - STONE CLADDING - LIGHT
- ST-2 - STONE CLADDING - DARK
- WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
- GL-1: TYP. TOWER GLAZING LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINUM FRAME
- WINDOW WALL SPANDREL (EW-5A & EW-5E)
- SP-1: SPANDREL PANEL - DARK GREY
- SP-2: METAL SPANDREL - DARK GREY
- CURTAIN WALL GLAZING (EW-4)
- CG-1: TYP. PODIUM GLAZING LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM
- CURTAIN WALL SPANDREL (EW-4A & EW-4G)
- CP-1: SPANDREL PANEL - DARK GREY
- CP-2: METAL PANEL - DARK GREY
- METAL CLADDING (EW-3, EW-3A & EW-3B)
- MC-1: METAL CLADDING - WHITE
- MC-2: METAL CLADDING - SILVER

- ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
- AC-1 ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
- AC-2 ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
- AC-3 ARCHITECTURAL CONCRETE - SEALED
- AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)
- CANOPY (EW-7 & EW-7A)
- CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME
- GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
- GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
- GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
- GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS
- MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
- M-1: MECHANICAL LOUVER - DARK GREY
- M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
- M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
- M-4: MECHANICAL GRATES
- M-5: MECHANICAL LOUVERED SCREEN - DARK GREY
- ROLLING DOOR / GATE
- R-1: ROLLING DOOR / GATE - DARK GREY

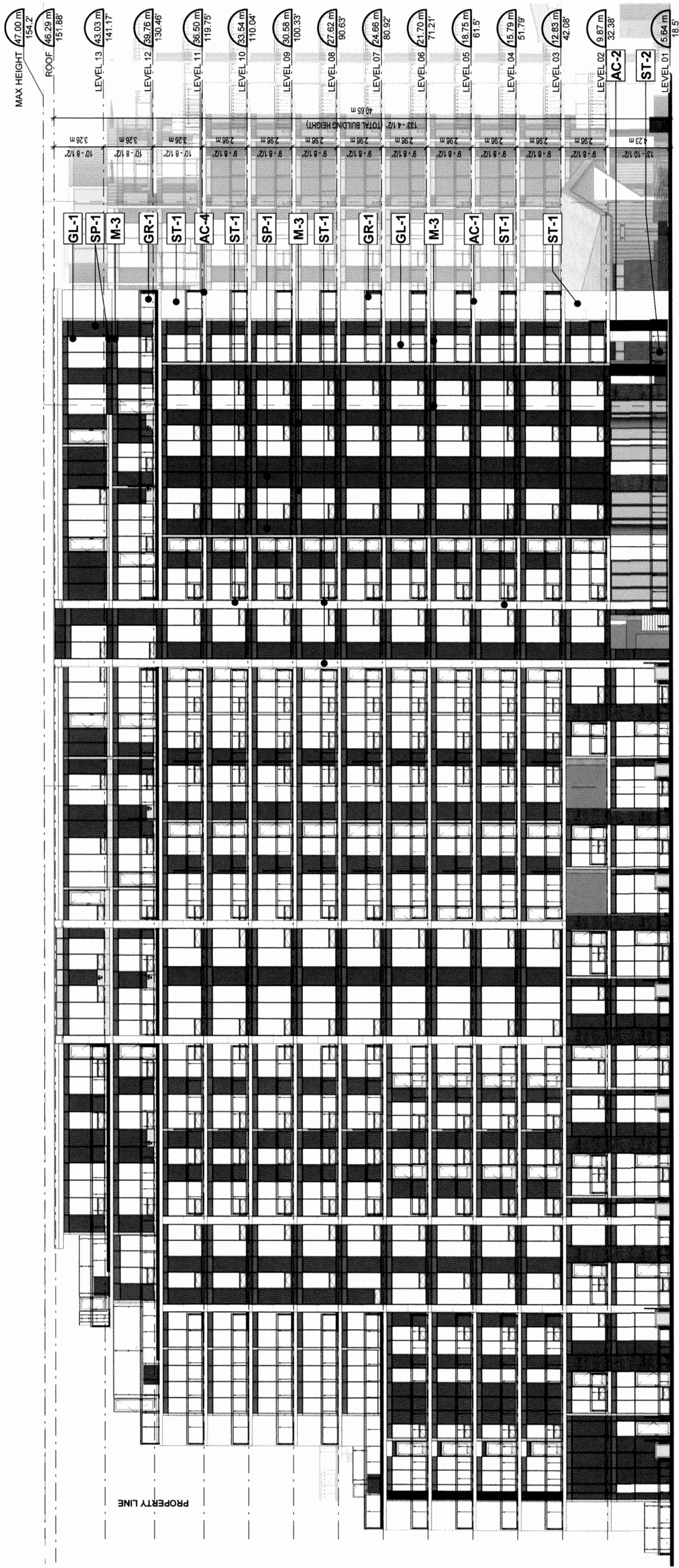


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MATERIAL LEGEND

- STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
- ST-1 - STONE CLADDING - LIGHT
- ST-2 - STONE CLADDING - DARK
- WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
- GL-1 - TYP. TOWER GLAZING / LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME
- WINDOW WALL SPANDREL (EW-5A & EW-5E)
- SP-1 - SPANDREL PANEL - DARK GREY
- SP-2 - METAL SPANDREL - DARK GREY
- CURTAIN WALL GLAZING (EW-4)
- CG-1 - TYP. PODIUM GLAZING / LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM
- CURTAIN WALL SPANDREL (EW-4A & EW-4G)
- CP-1 - SPANDREL PANEL - DARK GREY
- CP-2 - METAL PANEL - DARK GREY
- METAL CLADDING (EW-3, EW-3A & EW-3B)
- MC-1 - METAL CLADDING - WHITE
- MC-2 - METAL CLADDING - SILVER

- ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
- AC-1 - ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
- AC-2 - ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
- AC-3 - ARCHITECTURAL CONCRETE - SEALED
- AC-4 - ARCHITECTURAL CONCRETE - WHITE (TO UIS OF SLABS)
- CANOPY (EW-7 & EW-7A)
- CA-1 - TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME
- GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
- GR-1 - TEMPERED GLASS GUARDRAIL IN GREY FRAME
- GR-2 - TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
- GR-3 - PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS
- MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
- M-1 - MECHANICAL LOUVER - DARK GREY
- M-2 - MECHANICAL LOUVER IN CV SYSTEM - DARK GREY
- M-3 - MECHANICAL LOUVER IN VW SYSTEM - DARK GREY
- M-4 - MECHANICAL GRATES
- M-5 - MECHANICAL LOUVERED SCREEN - DARK GREY
- ROLLING DOOR / GATE
- R-1 - ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

STONE CLADDING (EW-2; EW-2A; EW-2B & EW-2C)
 ST-1 - STONE CLADDING - LIGHT
 ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5; EW-5B & EW-5C)
 GL-1: TYP. TOWER GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME

WINDOW WALL SPANDREL (EW-5A & EW-5E)
 SP-1: SPANDREL PANEL - DARK GREY
 SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)

CG-1: TYP. PODIUM GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL
 CP-1: SPANDREL PANEL - DARK GREY
 CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3; EW-3A & EW-3B)
 MC-1: METAL CLADDING - WHITE
 MC-2: METAL CLADDING - SILVER

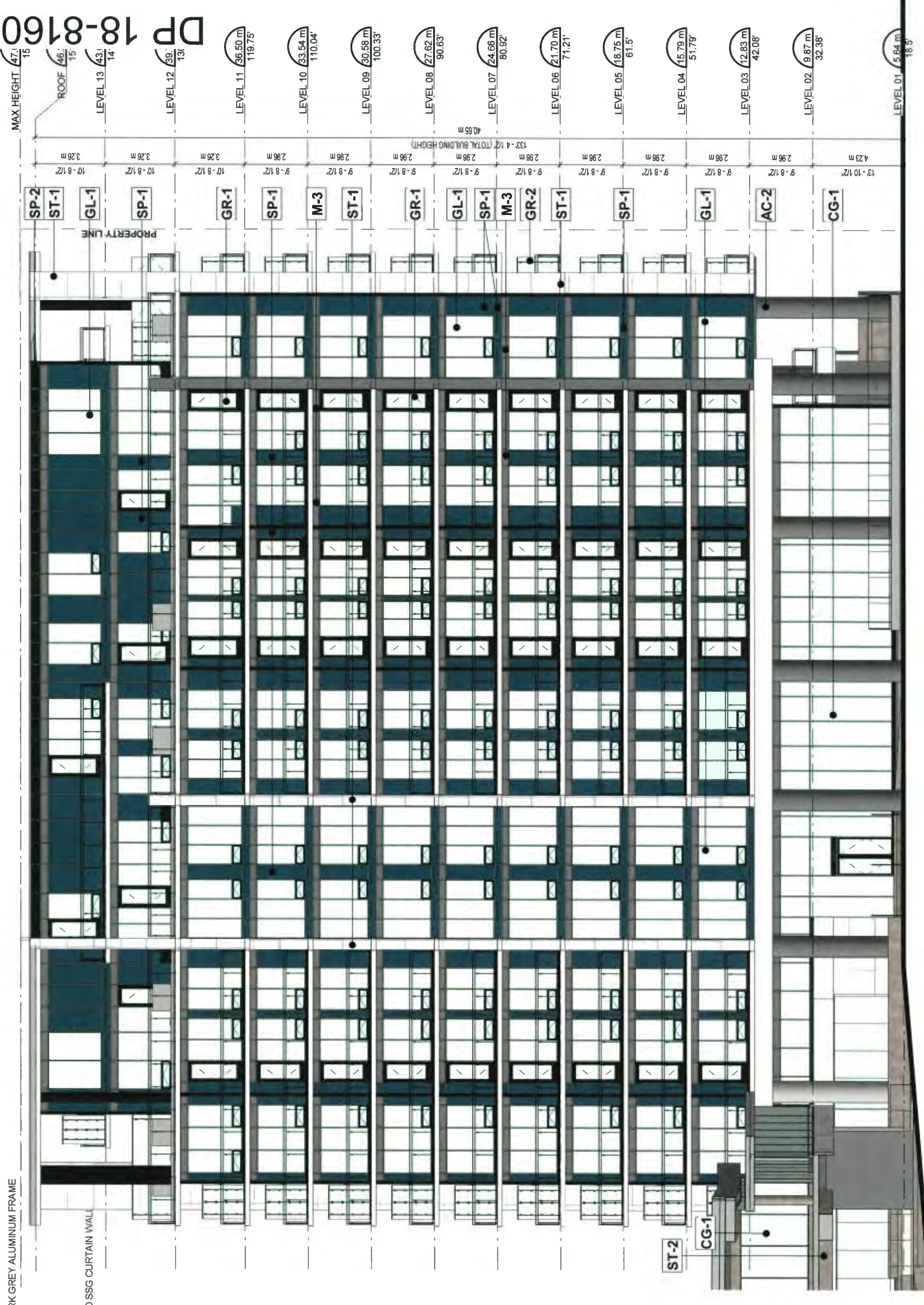
ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
 AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
 AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
 AC-3: ARCHITECTURAL CONCRETE - SEALED
 AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)
 CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6; EW-6A; EW-6B & EW-6C)
 GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
 GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
 GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C; EW-4D; EW-5D & EW-5B)
 M-1: MECHANICAL LOUVER - DARK GREY
 M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
 M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
 M-4: MECHANICAL GRATES
 M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE
 R-1: ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

STONE CLADDING (EW-2: EW-2A; EW-2B & EW-2C)
 ST-1 - STONE CLADDING - LIGHT
 ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
 GL-1: TYP. TOWER GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME

WINDOW WALL SPANDREL (EW-5A & EW-5E)
 SP-1: SPANDREL PANEL - DARK GREY
 SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)

CG-1: TYP. PODIUM GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)

CP-1: SPANDREL PANEL - DARK GREY
 CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3, EW-3A & EW-3B)
 MC-1: METAL CLADDING - WHITE
 MC-2: METAL CLADDING - SILVER

ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
 AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
 AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
 AC-3: ARCHITECTURAL CONCRETE - SEALED
 AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)
 CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)

GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
 GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
 GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)

M-1: MECHANICAL LOUVER - DARK GREY
 M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
 M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
 M-4: MECHANICAL GRATES
 M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE
 R-1: ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)

ST-1 - STONE CLADDING - LIGHT

ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)

GL-1 - TYP. TOWER GLAZING, LOW E-COATING ON CLEAR / DOUBLE GLAZING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINUM

WINDOW WALL SPANDREL (EW-5A & EW-5E)

SP-1 - SPANDREL PANEL - DARK GREY

SP-2 - METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)

CG-1 - TYP. PODIUM GLAZING, LOW E-COATING ON CLEAR / DOUBLE GLAZING / ASSED SSG CURTAIN WALL

CURTAIN WALL SPANDREL (EW-4A & EW-4G)

CP-1 - SPANDREL PANEL - DARK GREY

CP-2 - METAL PANEL - DARK GREY

METAL CLADDING (EW-3, EW-3A & EW-3B)

MC-1 - METAL CLADDING - WHITE

MC-2 - METAL CLADDING - SILVER

ARCHITECTURAL CONCRETE (EW-1 & EW-1A)

AC-1 - ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB

AC-2 - ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS

AC-3 - ARCHITECTURAL CONCRETE - SEALED

AC-4 - ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)

CA-1 - TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)

GR-1 - TEMPERED GLASS GUARDRAIL IN GREY FRAME

GR-2 - TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN

GR-3 - PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-5I)

M-1 - MECHANICAL LOUVER - DARK GREY

M-2 - MECHANICAL LOUVER IN CW SYSTEM - DARK GREY

M-3 - MECHANICAL LOUVER IN WW SYSTEM - DARK GREY

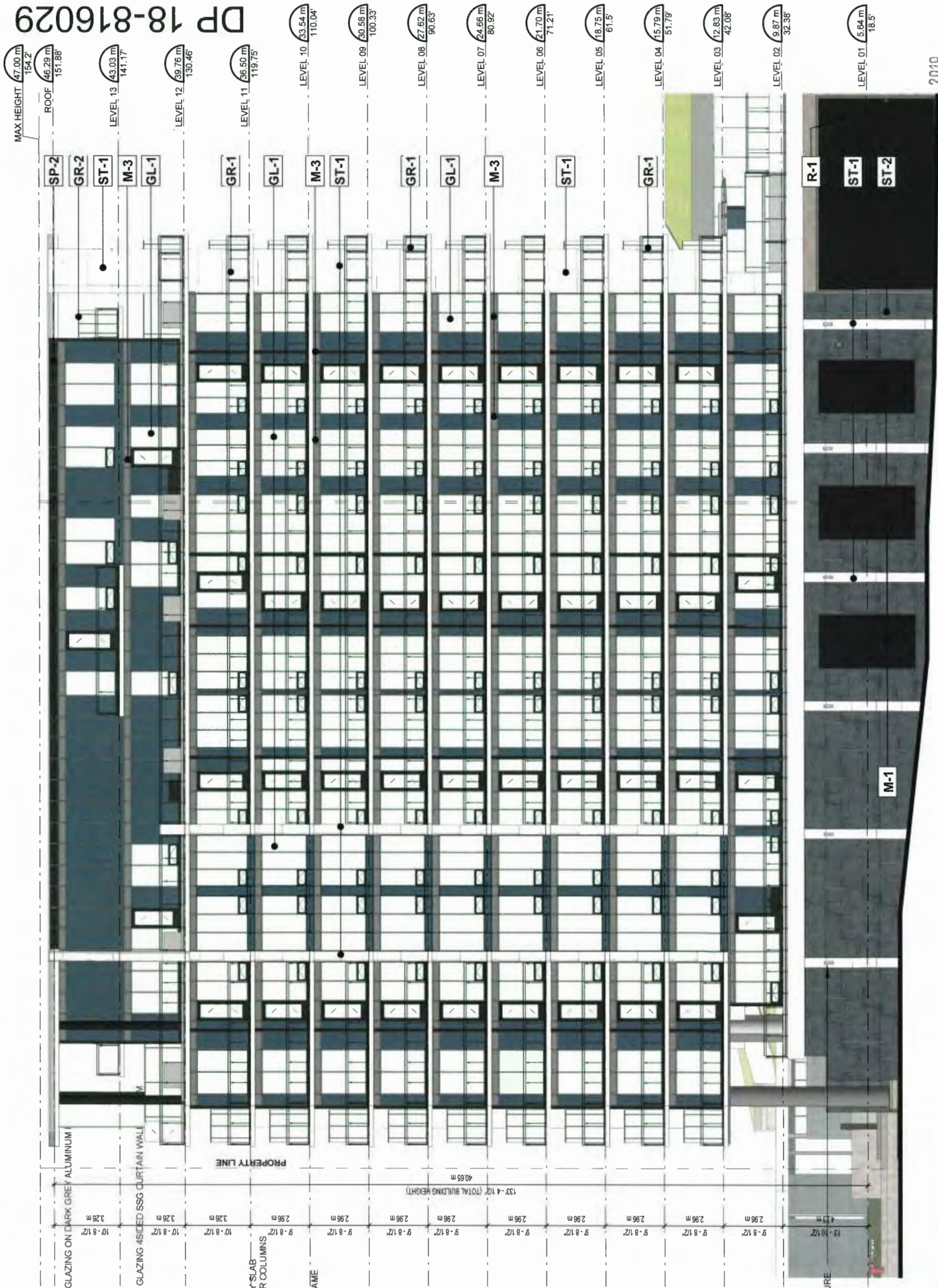
M-4 - MECHANICAL GRATES

M-5 - MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE

R-1 - ROLLING DOOR / GATE - DARK GREY

DECORATIVE LIGHT FIXTURE



MATERIAL LEGEND

STONE CLADDING (EW-2; EW-2A; EW-2B & EW-2C)

ST-1 - STONE CLADDING - LIGHT

ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5; EW-5B & EW-5C)

GL-1: TYP. TOWER GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINUM FRAME

WINDOW WALL SPANDREL (EW-5A & EW-5E)

SP-1: SPANDREL PANEL - DARK GREY

SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)

CG-1: TYP. PODIUM GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)

CP-1: SPANDREL PANEL - DARK GREY

CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3; EW-3A & EW-3B)

MC-1: METAL CLADDING - WHITE

MC-2: METAL CLADDING - SILVER

ARCHITECTURAL CONCRETE (EW-1 & EW-1A)

AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB

AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS

AC-3: ARCHITECTURAL CONCRETE - SEALED

AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)

CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6; EW-6A; EW-6B & EW-6C)

GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME

GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN

GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C; EW-4D; EW-5D & EW-5)

M-1: MECHANICAL LOUVER - DARK GREY

M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY

M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY

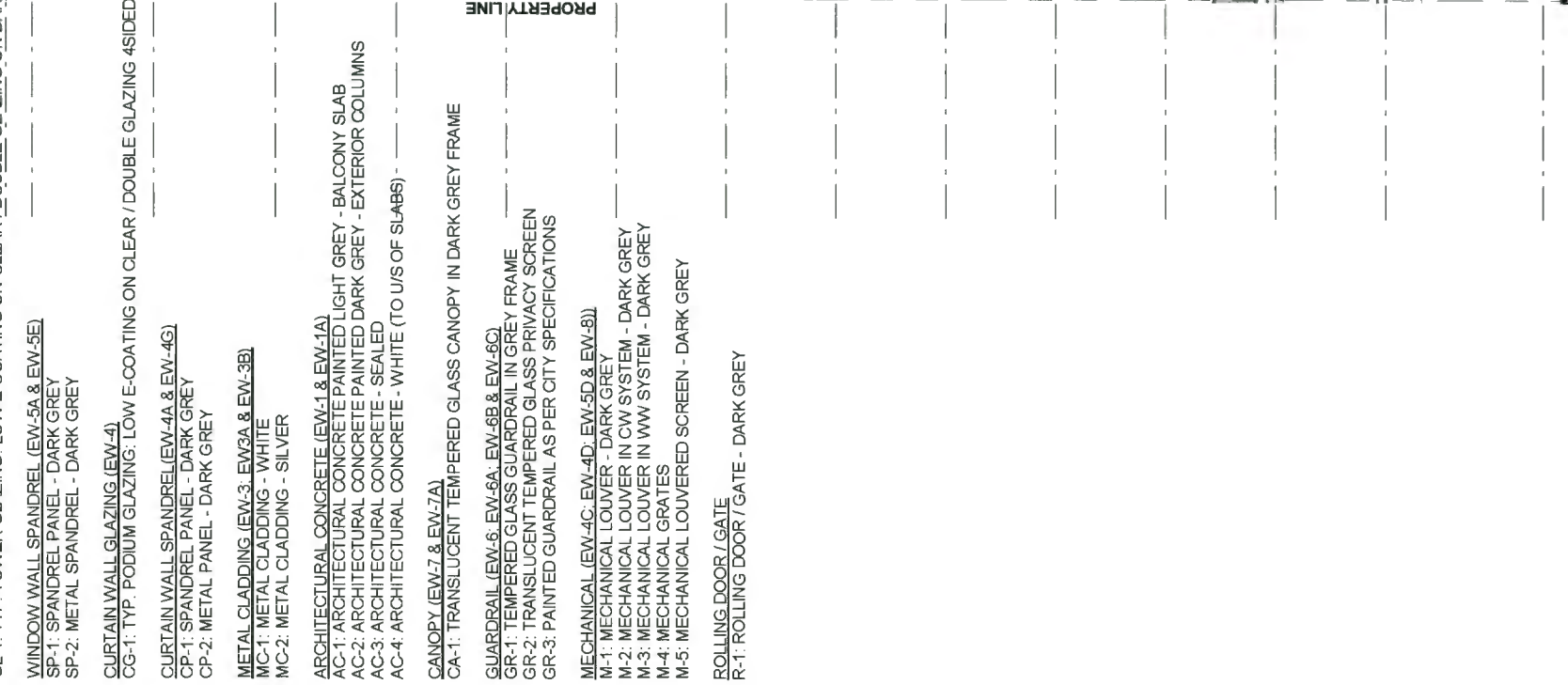
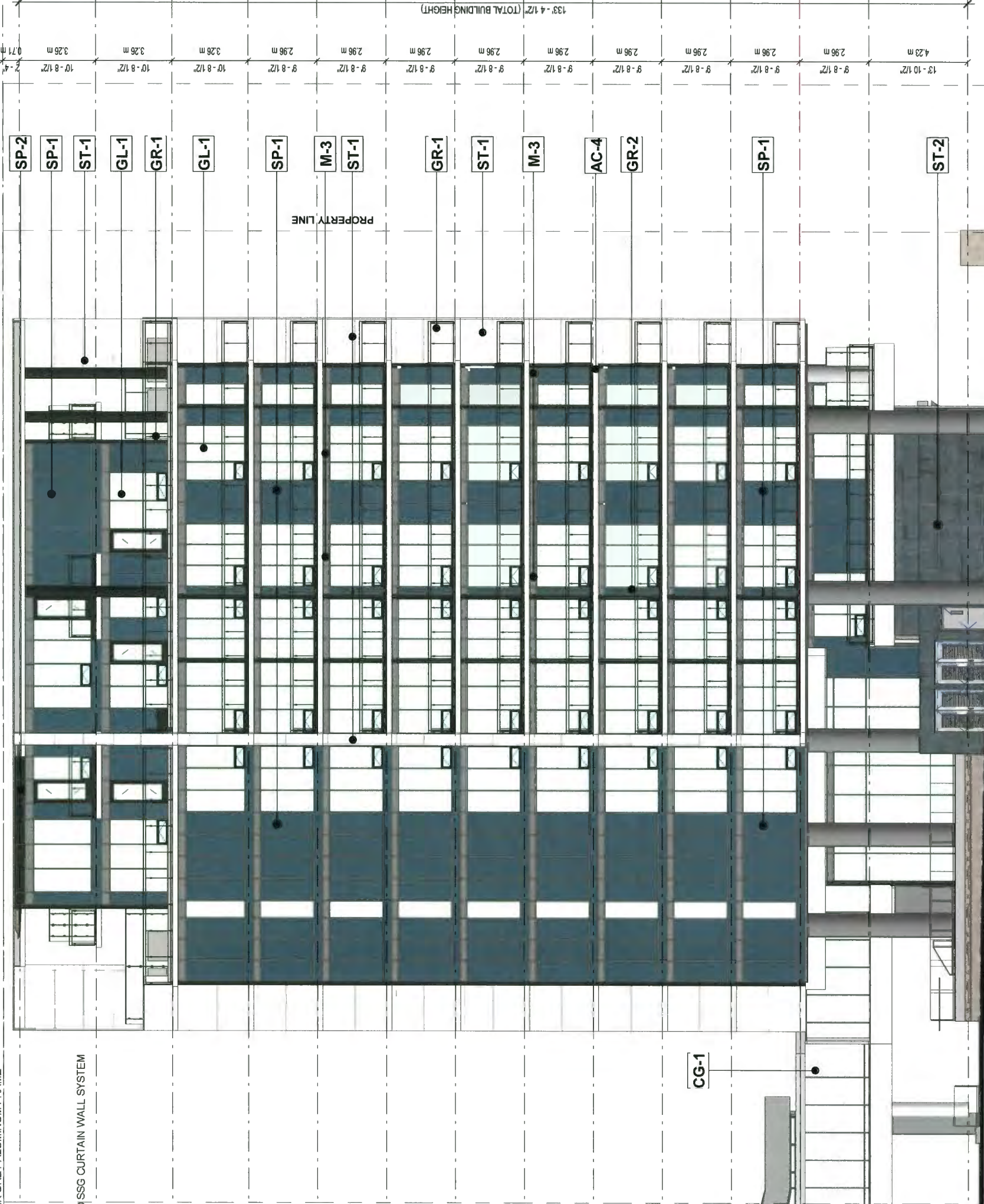
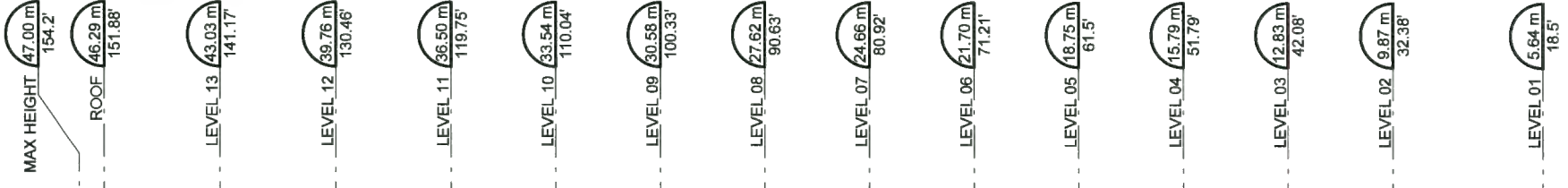
M-4: MECHANICAL GRATES

M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE

R-1: ROLLING DOOR / GATE - DARK GREY

DP 18-816029



MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)

ST-1 - STONE CLADDING - LIGHT
ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)

GL-1: TYP. TOWER GLAZING; LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME

WINDOW WALL SPANDREL (EW-5A & EW-5E)

SP-1: SPANDREL PANEL - DARK GREY
SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)

CG-1: TYP. PODIUM GLAZING; LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)

CP-1: SPANDREL PANEL - DARK GREY
CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3, EW-3A & EW-3B)

MC-1: METAL CLADDING - WHITE
MC-2: METAL CLADDING - SILVER

ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
AC-3: ARCHITECTURAL CONCRETE - SEALED
AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)

CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)

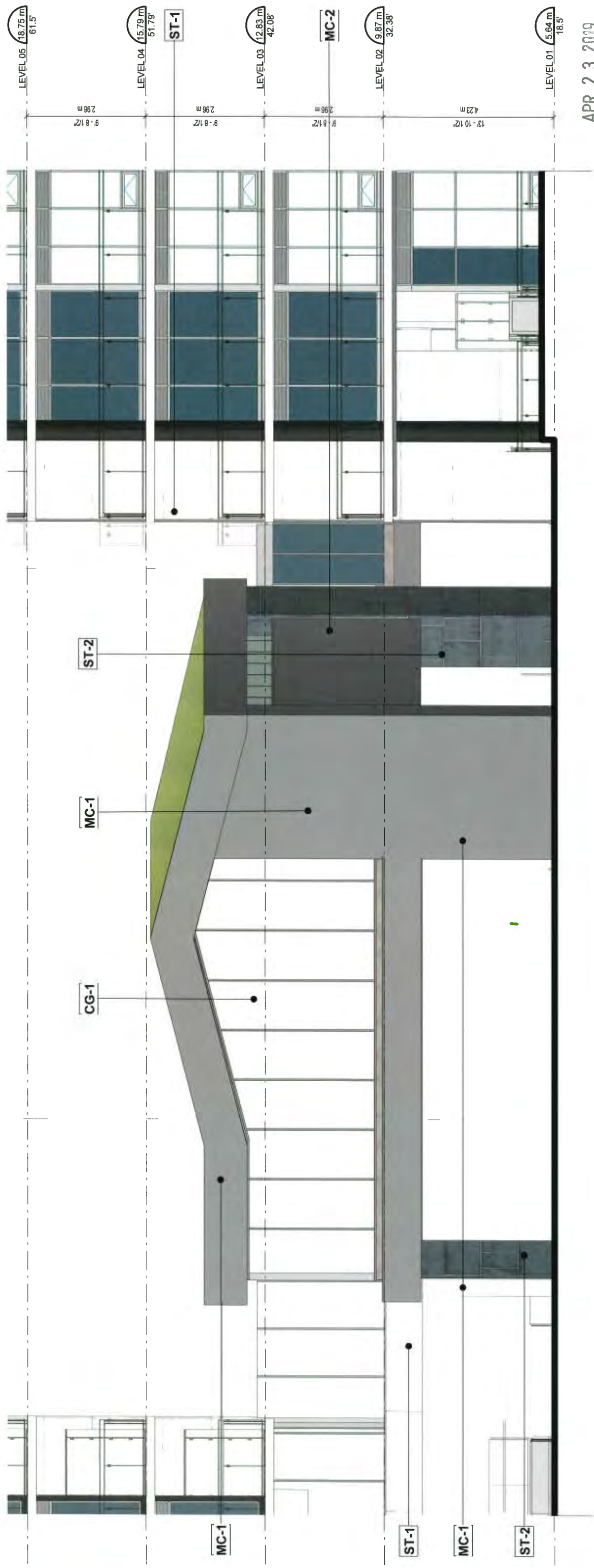
GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)

M-1: MECHANICAL LOUVER - DARK GREY
M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
M-4: MECHANICAL GRATES
M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE

R-1: ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
 ST-1 - STONE CLADDING - LIGHT
 ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
 GL-1: TYP. TOWER GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME
 WINDOW WALL SPANDREL (EW-5A & EW-5E)
 SP-1: SPANDREL PANEL - DARK GREY
 SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)
 CG-1: TYP. PODIUM GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4C)
 CP-1: SPANDREL PANEL - DARK GREY
 CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3, EW-3A & EW-3B)
 MC-1: METAL CLADDING - WHITE
 MC-2: METAL CLADDING - SILVER

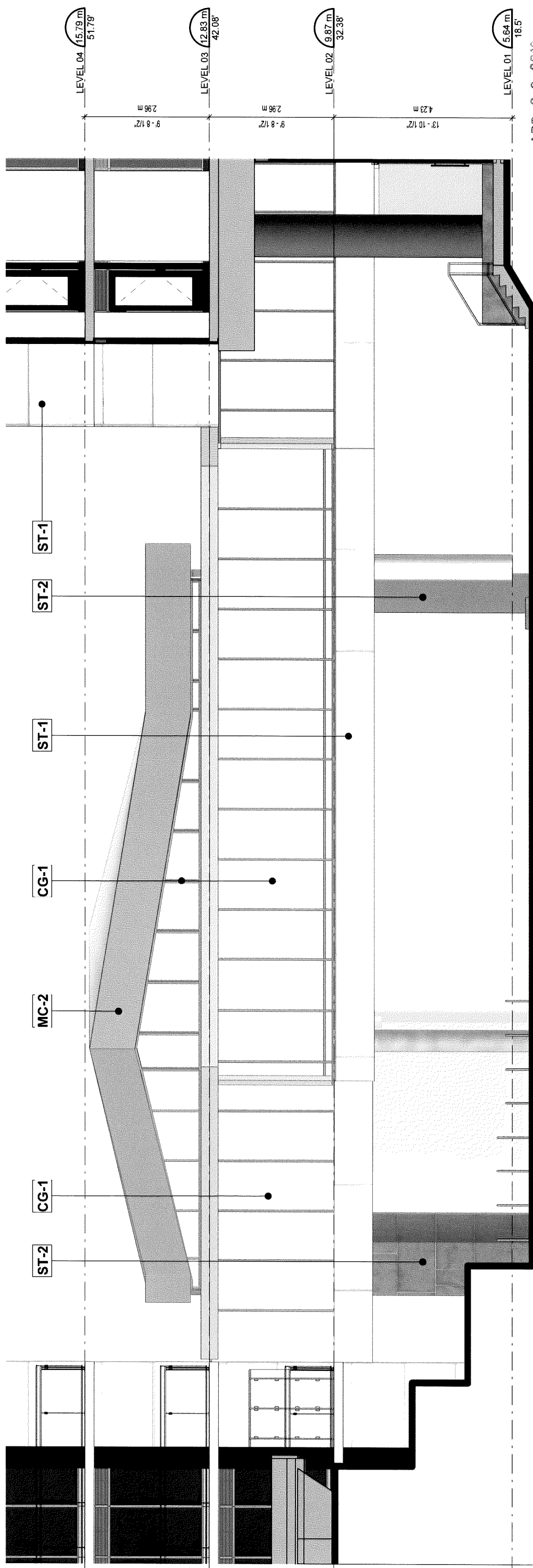
ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
 AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
 AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
 AC-3: ARCHITECTURAL CONCRETE - SEALED
 AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)
 CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
 GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
 GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
 GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
 M-1: MECHANICAL LOUVER - DARK GREY
 M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
 M-3: MECHANICAL LOUVER IN VW SYSTEM - DARK GREY
 M-4: MECHANICAL GRATES
 M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE
 R-1: ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

STONE CLADDING (EW-2, EW-2A, EW-2B & EW-2C)
 ST-1 - STONE CLADDING - LIGHT
 ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5, EW-5B & EW-5C)
 GL-1: TYP. TOWER GLAZING; LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME
 WINDOW WALL SPANDREL (EW-5A & EW-5E)
 SP-1: SPANDREL PANEL - DARK GREY
 SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)
 CG-1: TYP. PODIUM GLAZING; LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

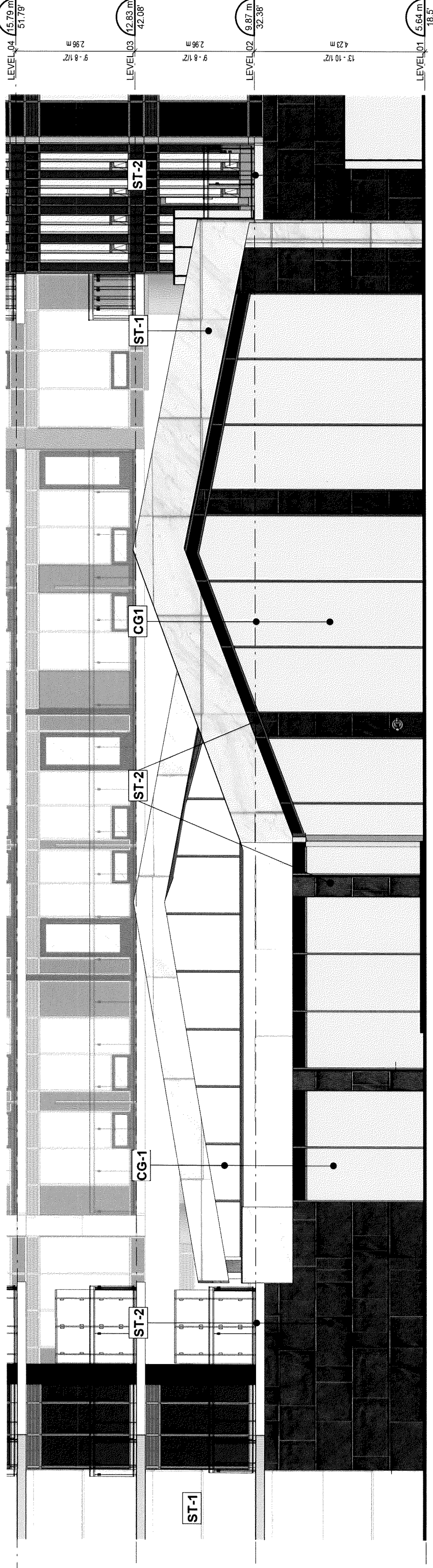
CURTAIN WALL SPANDREL (EW-4A & EW-4G)
 CP-1: SPANDREL PANEL - DARK GREY
 CP-2: METAL PANEL - DARK GREY
 METAL CLADDING (EW-3, EW-3A & EW-3B)
 MC-1: METAL CLADDING - WHITE
 MC-2: METAL CLADDING - SILVER

ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
 AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
 AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
 AC-3: ARCHITECTURAL CONCRETE - SEALED
 AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)
 CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME
 GUARDRAIL (EW-6, EW-6A, EW-6B & EW-6C)
 GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
 GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
 GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C, EW-4D, EW-5D & EW-8)
 M-1: MECHANICAL LOUVER - DARK GREY
 M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
 M-3: MECHANICAL LOUVER IN WW SYSTEM - DARK GREY
 M-4: MECHANICAL GRATES
 M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE
 R-1: ROLLING DOOR / GATE - DARK GREY



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MATERIAL LEGEND

STONE CLADDING (EW-2; EW-2A; EW-2B & EW-2C)
 ST-1 - STONE CLADDING - LIGHT
 ST-2 - STONE CLADDING - DARK

WINDOW WALL GLAZING (EW-5; EW-5B & EW-5C)
 GL-1: TYP. TOWER GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING ON DARK GREY ALUMINIUM FRAME
 WINDOW WALL SPANDREL (EW-5A & EW-5E)
 SP-1: SPANDREL PANEL - DARK GREY
 SP-2: METAL SPANDREL - DARK GREY

CURTAIN WALL GLAZING (EW-4)
 CG-1: TYP. PODIUM GLAZING: LOW E-COATING ON CLEAR / DOUBLE GLAZING 4SIDED SSG CURTAIN WALL SYSTEM

CURTAIN WALL SPANDREL (EW-4A & EW-4G)
 CP-1: SPANDREL PANEL - DARK GREY
 CP-2: METAL PANEL - DARK GREY

METAL CLADDING (EW-3; EW-3A & EW-3B)
 MC-1: METAL CLADDING - WHITE
 MC-2: METAL CLADDING - SILVER

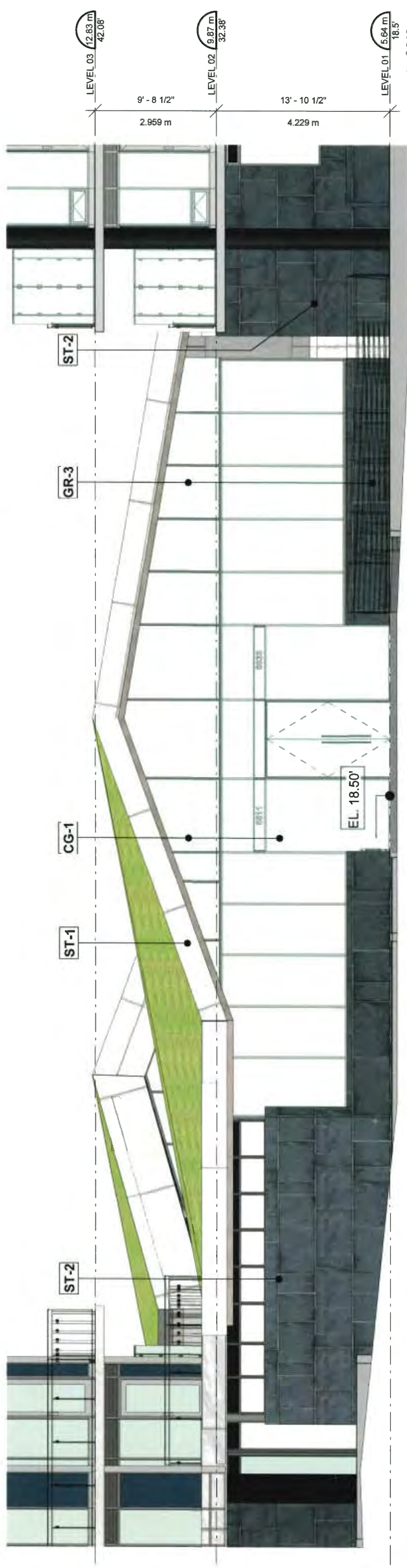
ARCHITECTURAL CONCRETE (EW-1 & EW-1A)
 AC-1: ARCHITECTURAL CONCRETE PAINTED LIGHT GREY - BALCONY SLAB
 AC-2: ARCHITECTURAL CONCRETE PAINTED DARK GREY - EXTERIOR COLUMNS
 AC-3: ARCHITECTURAL CONCRETE - SEALED
 AC-4: ARCHITECTURAL CONCRETE - WHITE (TO U/S OF SLABS)

CANOPY (EW-7 & EW-7A)
 CA-1: TRANSLUCENT TEMPERED GLASS CANOPY IN DARK GREY FRAME

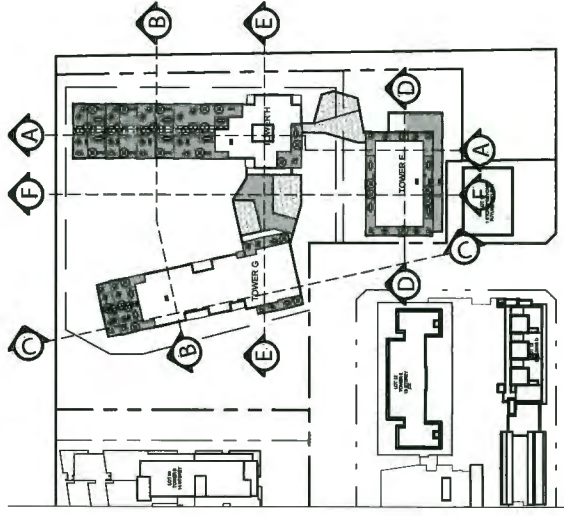
GUARDRAIL (EW-6; EW-6A; EW-6B & EW-6C)
 GR-1: TEMPERED GLASS GUARDRAIL IN GREY FRAME
 GR-2: TRANSLUCENT TEMPERED GLASS PRIVACY SCREEN
 GR-3: PAINTED GUARDRAIL AS PER CITY SPECIFICATIONS

MECHANICAL (EW-4C; EW-4D; EW-5D & EW-8)
 M-1: MECHANICAL LOUVER - DARK GREY
 M-2: MECHANICAL LOUVER IN CW SYSTEM - DARK GREY
 M-3: MECHANICAL LOUVER IN VW SYSTEM - DARK GREY
 M-4: MECHANICAL GRATES
 M-5: MECHANICAL LOUVERED SCREEN - DARK GREY

ROLLING DOOR / GATE
 R-1: ROLLING DOOR / GATE - DARK GREY

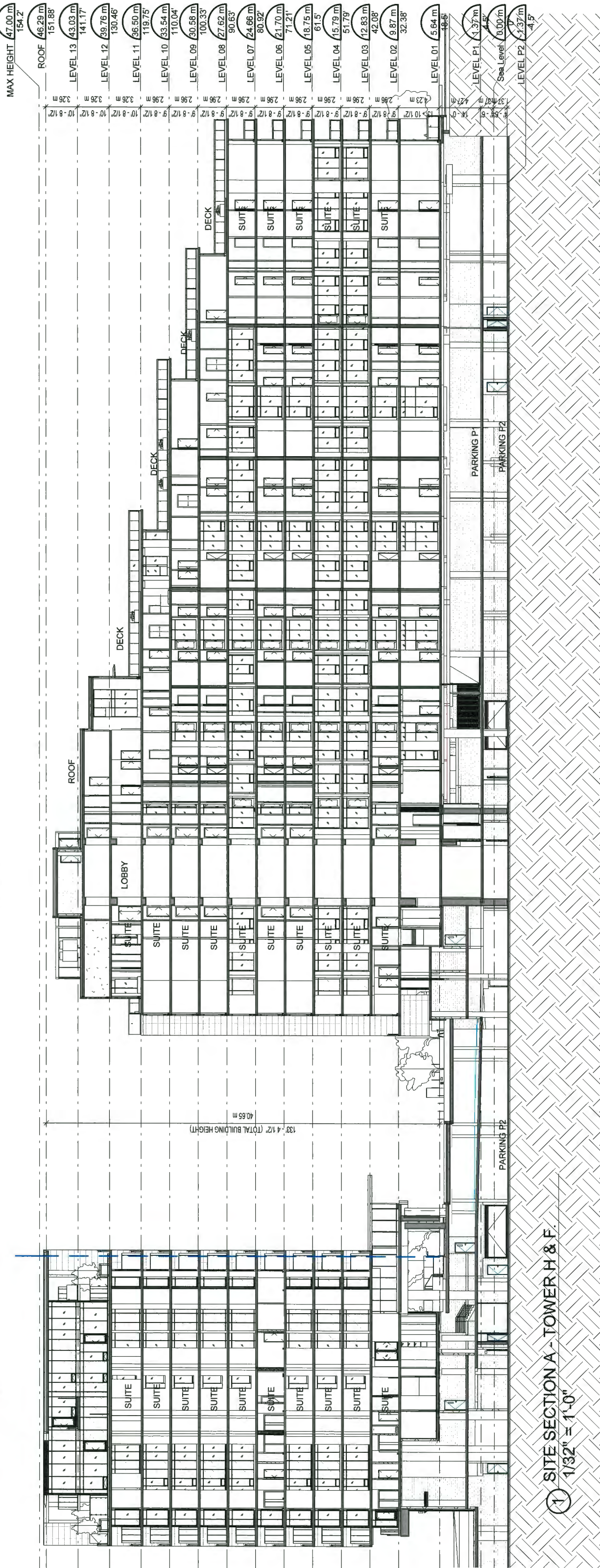


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TOWER F

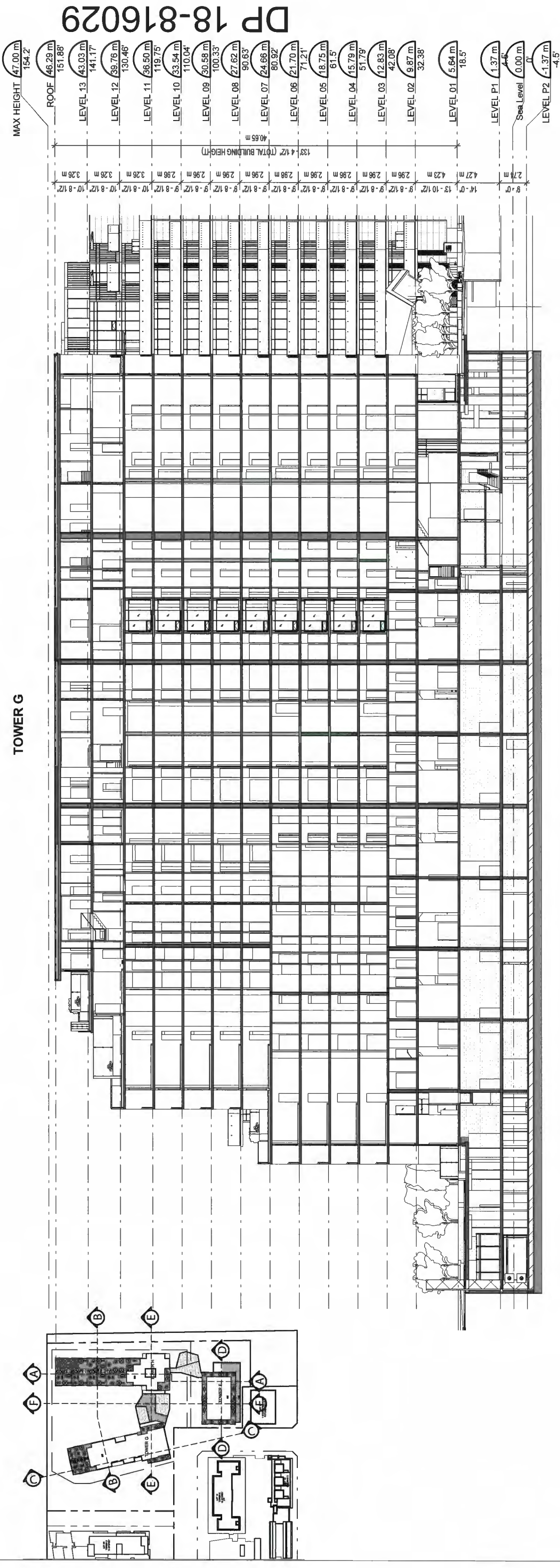
TOWER H



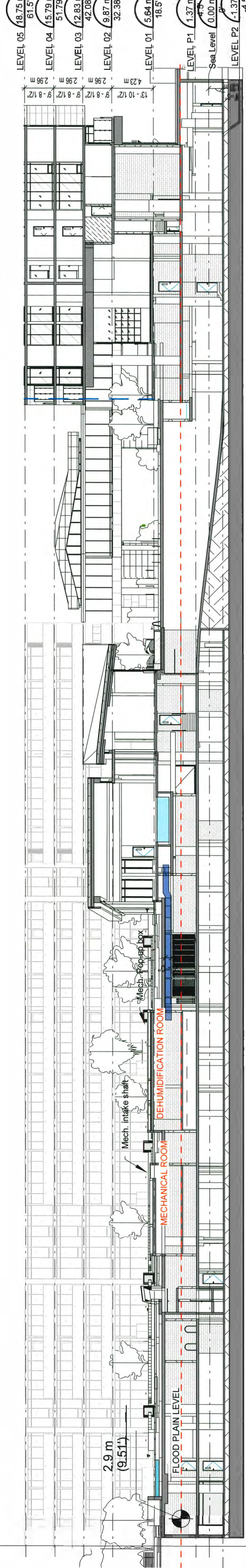
1 SITE SECTION A - TOWER H & F.
1/32" = 1'-0"

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TOWER G



① SITE SECTION C - TOWER G.
1/32" = 1'-0"

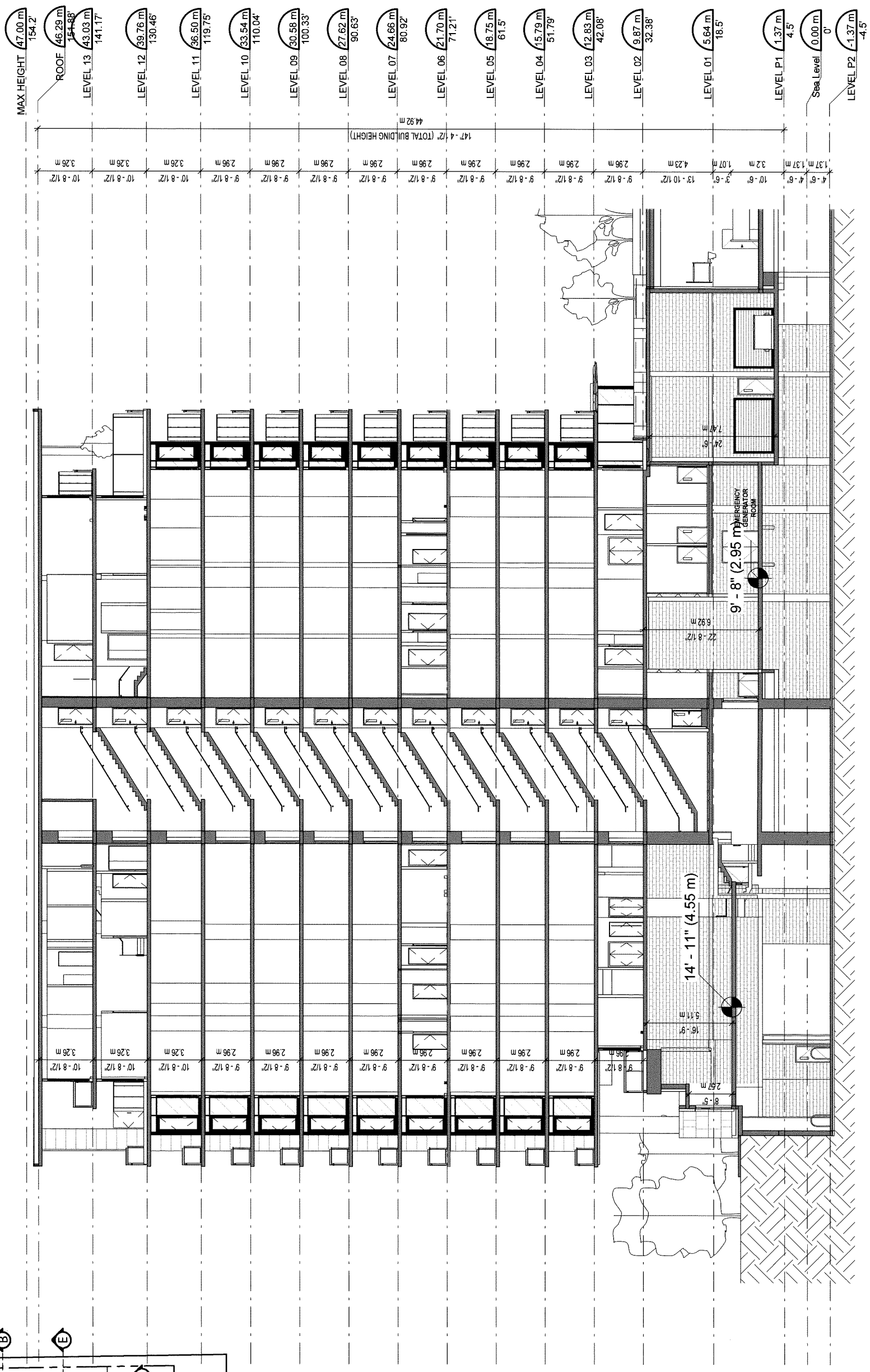
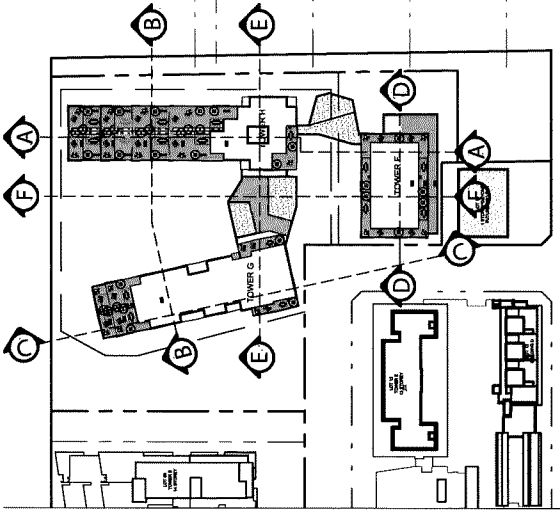


NOTE:

ALL EQUIPMENT WHICH ARE RELATED TO LIFE AND SAFETY OF THE RESIDENTS ARE LOCATED AT OR ABOVE THE FLOOD PLAIN ELEVATION OF 2.9M GEODETIC (9.5') TO MEET THE FLOOD PLANE REQUIREMENTS.

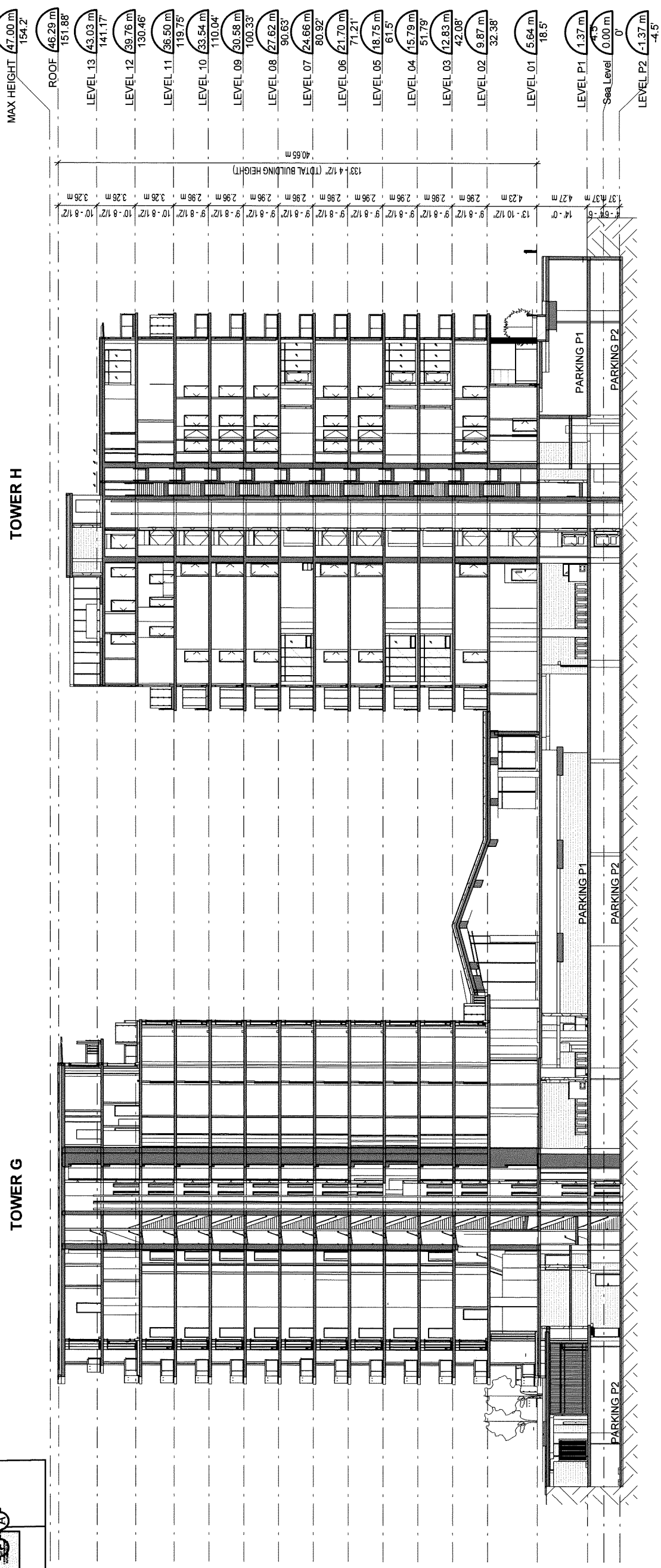
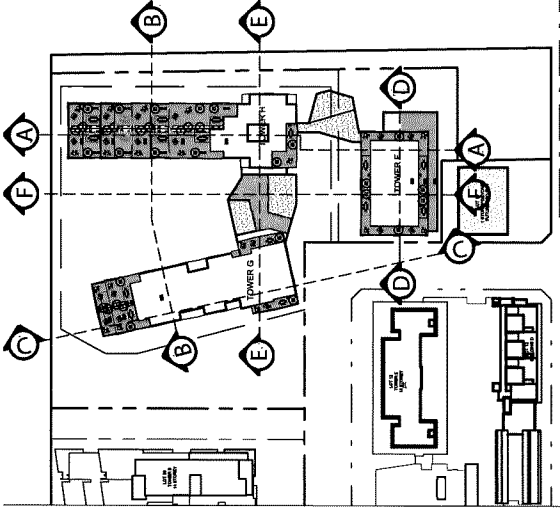
② SECTION THROUGH DE-HUMIDIFICATION UNIT ROOM.
1/32" = 1'-0"

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① SITE SECTION D - TOWER F.
3/64" = 1'-0"

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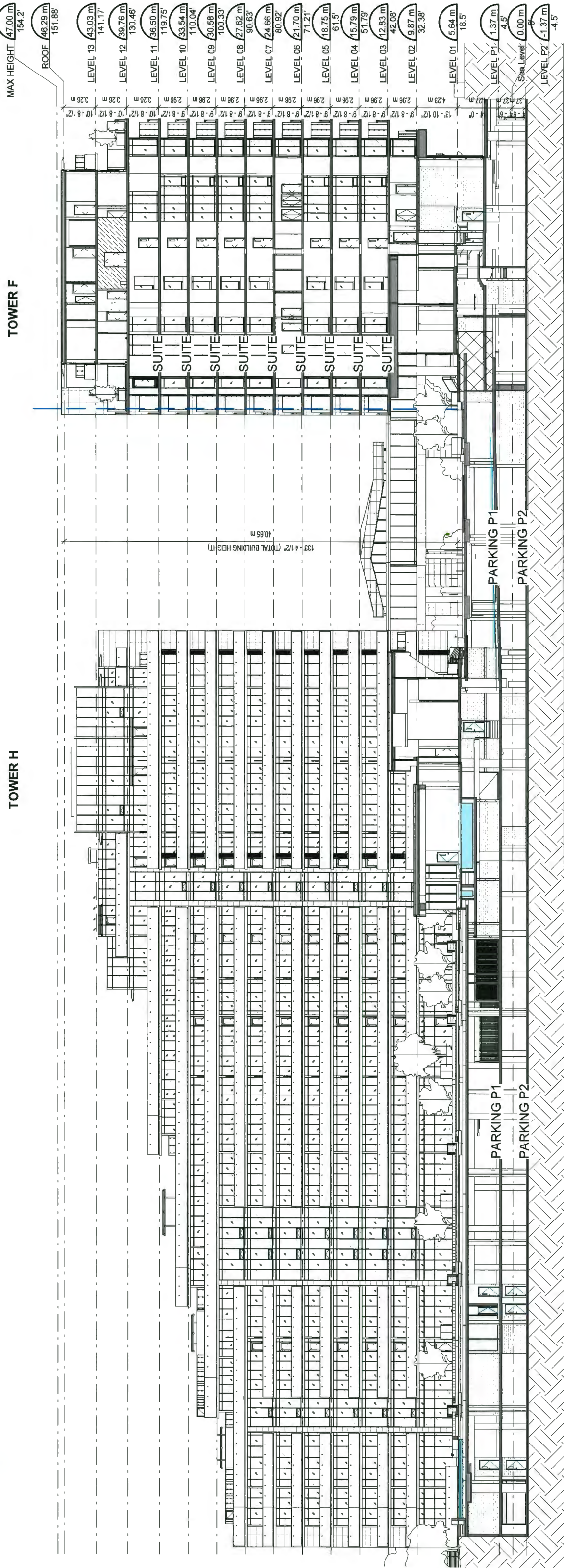
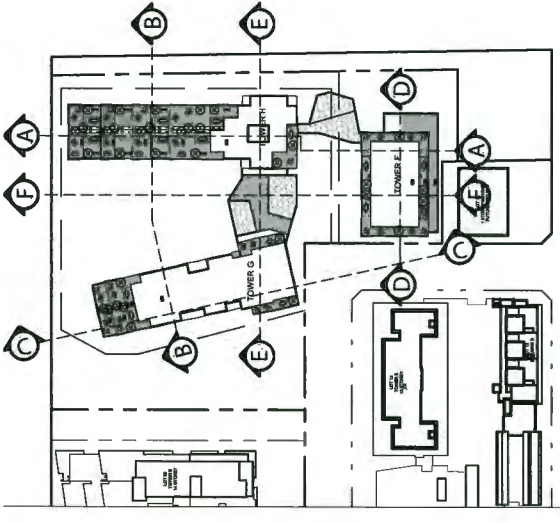


MAX HEIGHT	47.00 m	154.2'
ROOF	46.29 m	151.88'
LEVEL_13	43.03 m	141.17'
LEVEL_12	39.76 m	130.46'
LEVEL_11	36.50 m	119.75'
LEVEL_10	33.54 m	110.04'
LEVEL_09	30.58 m	100.33'
LEVEL_08	27.62 m	90.63'
LEVEL_07	24.66 m	80.92'
LEVEL_06	21.70 m	71.21'
LEVEL_05	18.75 m	61.5'
LEVEL_04	15.79 m	51.79'
LEVEL_03	12.83 m	42.08'
LEVEL_02	9.87 m	32.38'
LEVEL_01	5.64 m	18.5'
LEVEL_P1	1.37 m	4.5'
Sea Level	0.00 m	0'
LEVEL_P2	-1.37 m	-4.5'

1 SITE SECTION E - TOWER G & H.
1/32" = 1'-0"

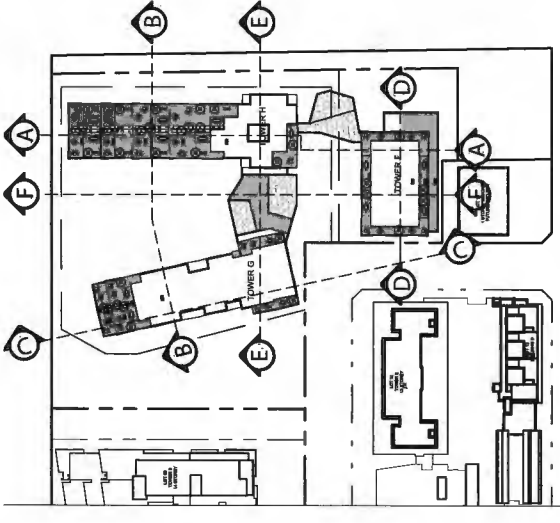
DP 18-816029

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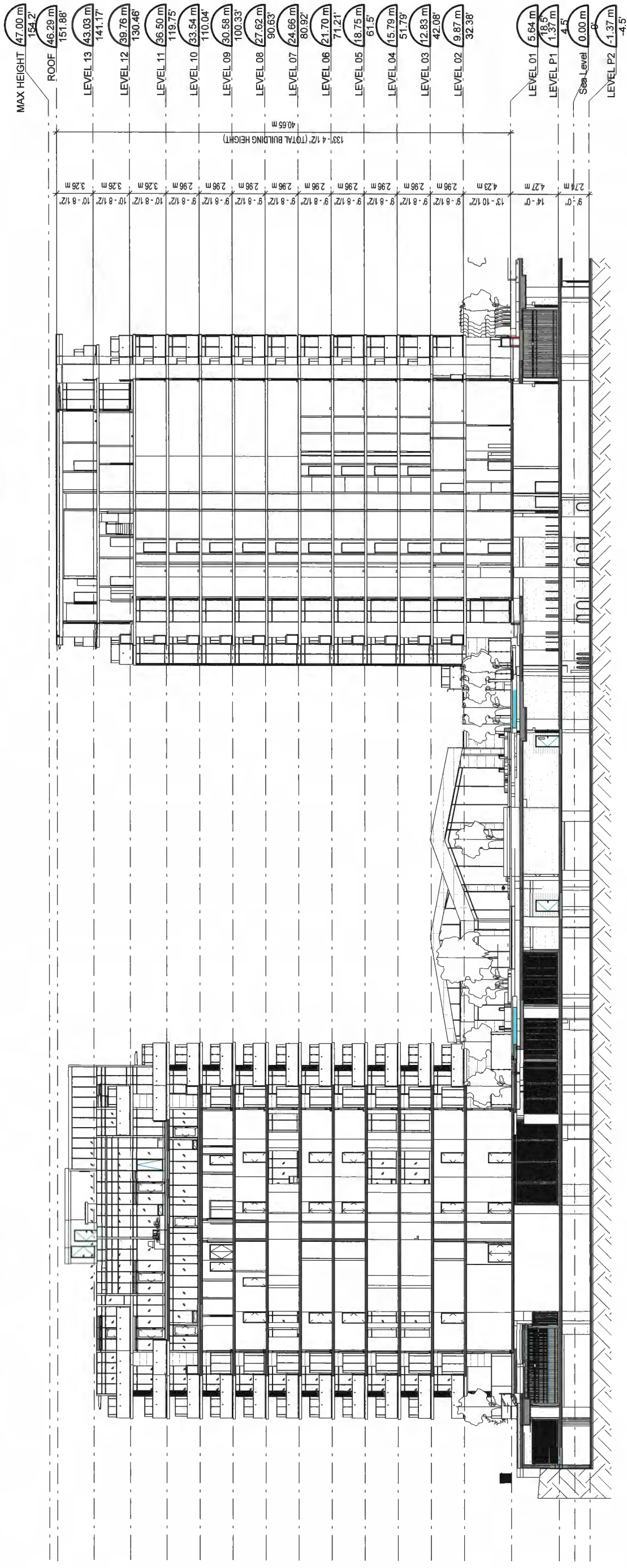
① SITE SECTION F - TOWER F.
1/32" = 1'-0"

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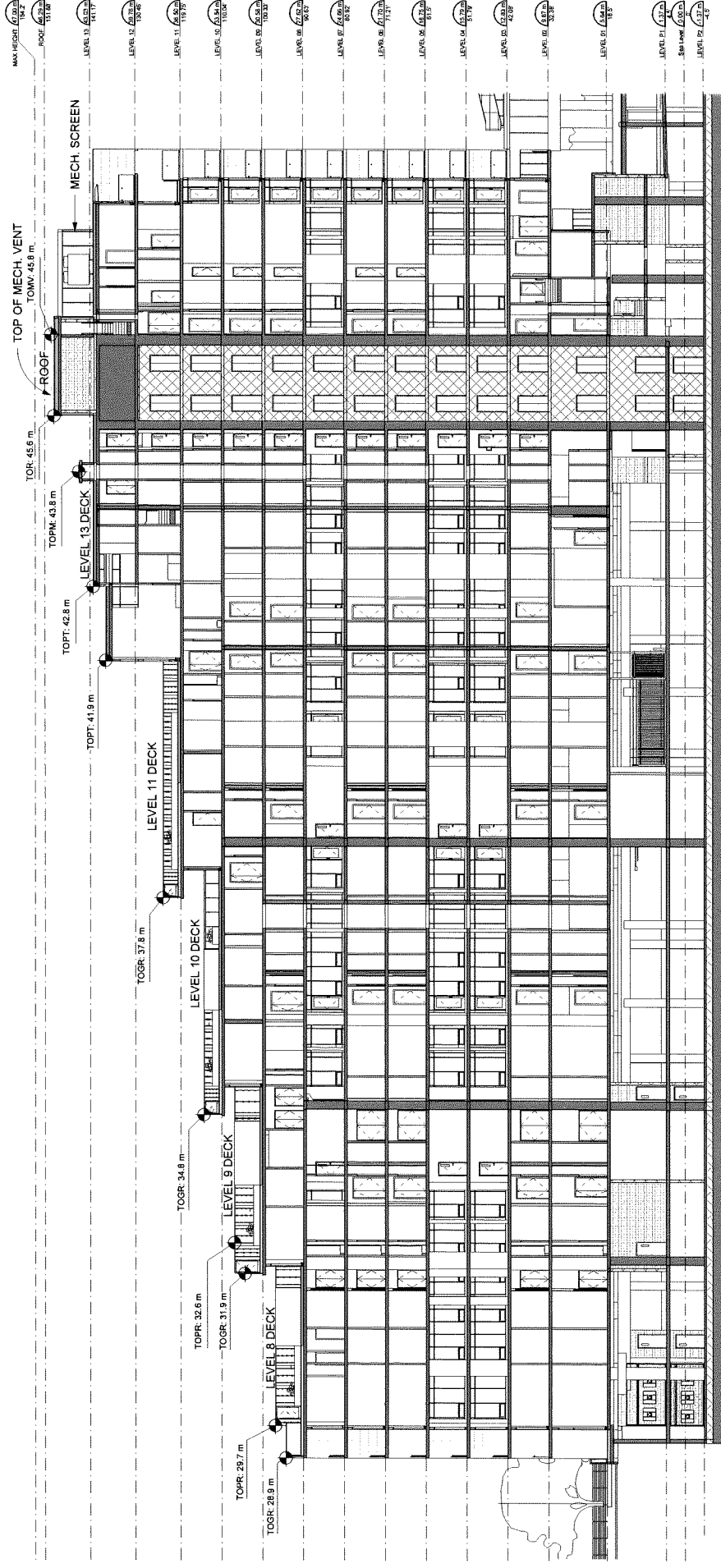
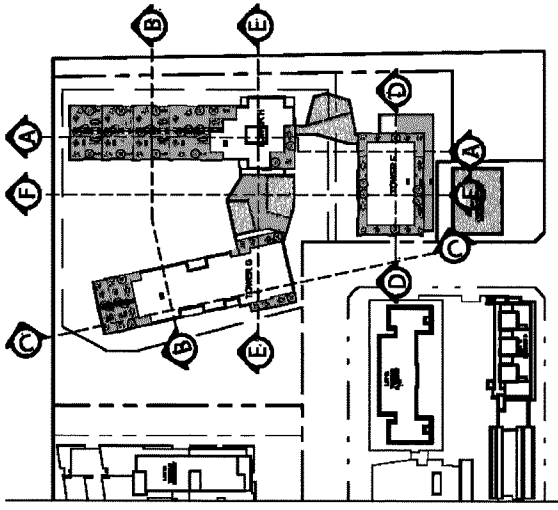


TOWER H

TOWER G



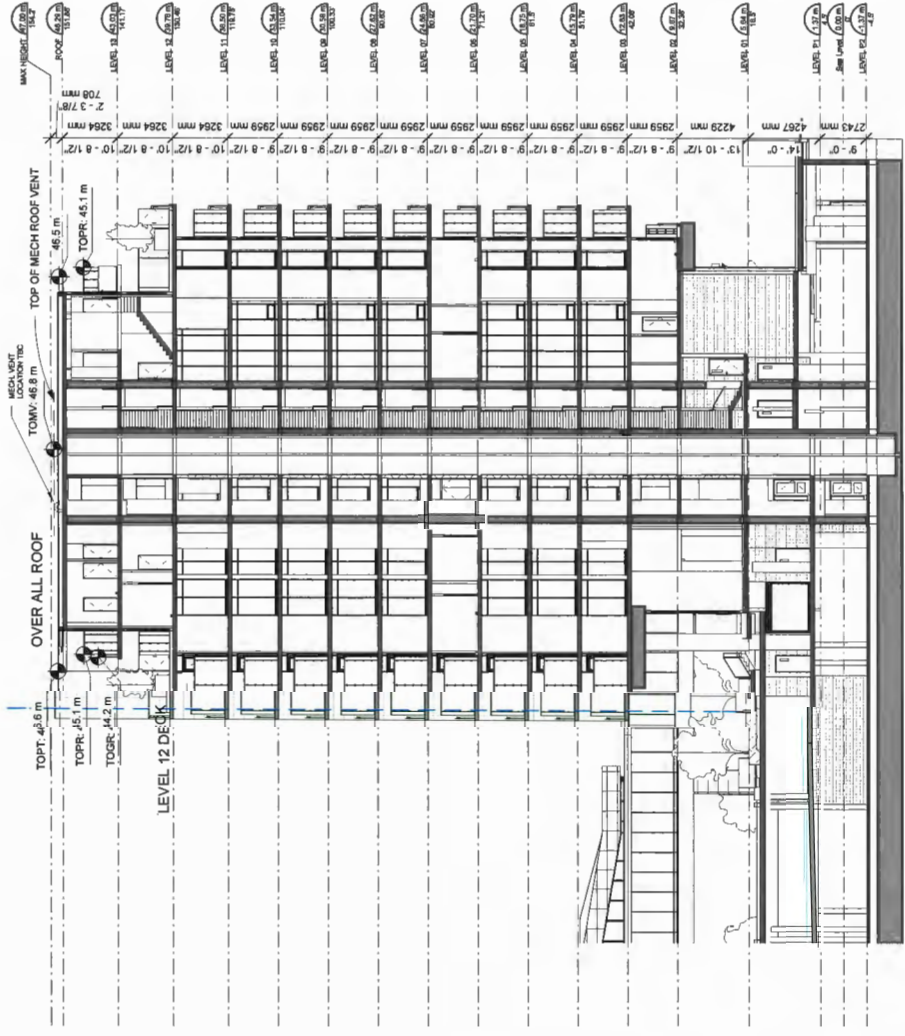
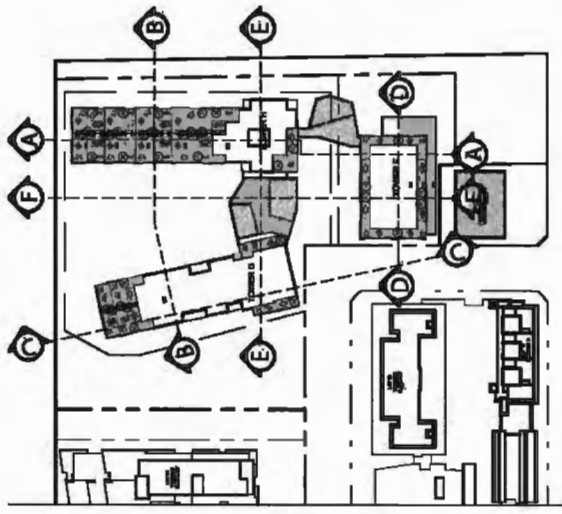
1 SITE SECTION B - TOWER G & H.
1/32" = 1'-0"



2 BUILDING H SECTION
 A1.00A SCALE: 1/16" = 1'-0"

DP 18-816029

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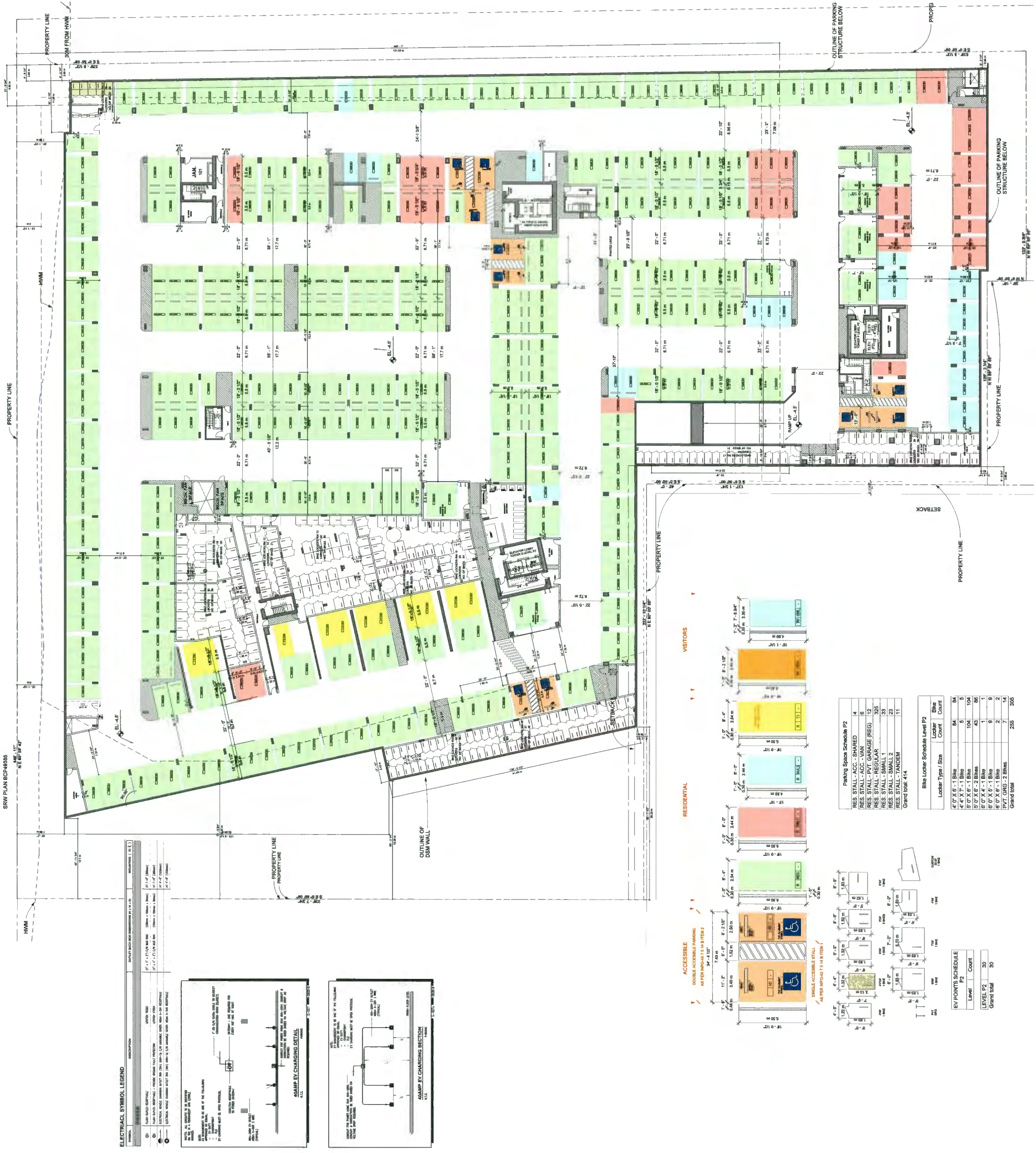


BUILDING F SECTION
1/16" = 1'-0"



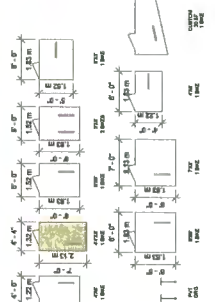
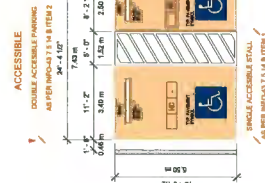
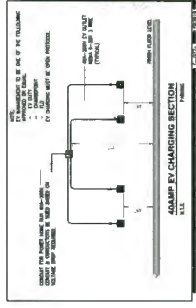
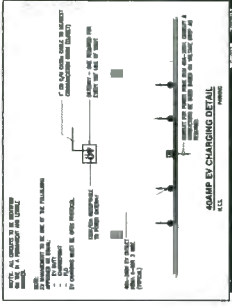
BUILDING G SECTION
1/16" = 1'-0"

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ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
(Symbol)	CLEAR SPACE EQUIPMENT
(Symbol)	CONDUIT RUNWAY SYSTEM - CONCEALED
(Symbol)	CONDUIT RUNWAY SYSTEM - EXPOSED
(Symbol)	CONDUIT RUNWAY SYSTEM - CONCEALED WITH TRAY
(Symbol)	CONDUIT RUNWAY SYSTEM - CONCEALED WITH TRAY WITH IDENTIFICATION
(Symbol)	CONDUIT RUNWAY SYSTEM - CONCEALED WITH TRAY WITH IDENTIFICATION AND TRAY IDENTIFICATION



Parking Space Schedule P2

RES. STALL - ACC - SHARED	RES. STALL - ACC - VAN	RES. STALL - PVT GARAGE (REG)	RES. STALL - REGULAR	RES. STALL - SMALL 1	RES. STALL - SMALL 2	RES. STALL - TANDEM
4	6	12	325	23	2	11

Grand Total: 414

Bike Locker Schedule Level P2

Locker Type / Size	Locker Count	Bike Count
4'0" X 6'-1" Bikes	84	84
4'4" X 7'-1" Bikes	5	5
5'0" X 6'-1" Bikes	104	104
5'0" X 7'-1" Bikes	5	5
6'0" X 6'-1" Bikes	9	9
6'0" X 6'-1" Bikes	2	2
PVT (DRG) - 2 Bikes	7	7
Grand Total	235	305

RVP POINTS SCHEDULE

Level	P2 Count
LEVEL P2	30
Grand Total	30

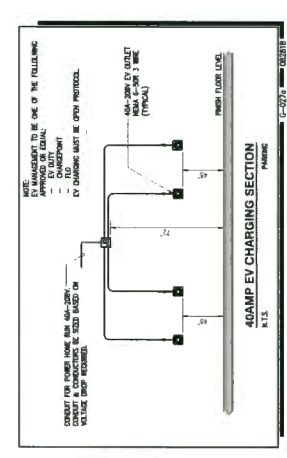
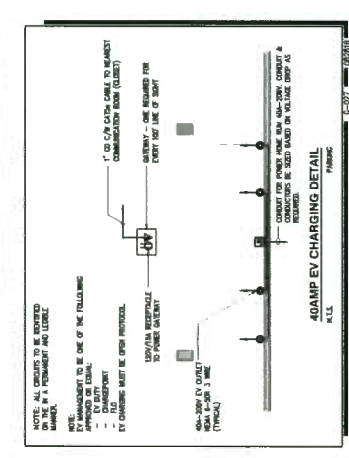




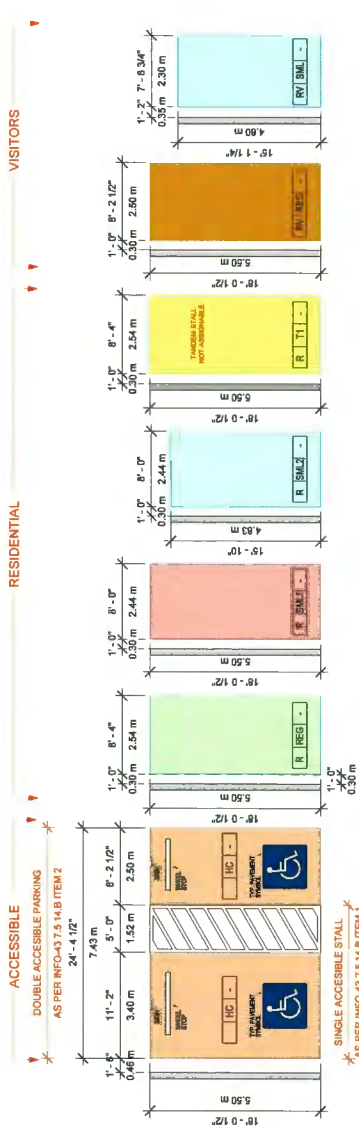
SRW PLAN BCP48386
445'-11"
NE 89° 59' 42"

SYMBOL	DESCRIPTION	OUTLET BACK BOLT DIMENSIONS (IN x W x D)	SPACING (IN x IN)
○	40 AMP EV CHARGING	(6" x 4" x 2") (6" x 4" x 2")	(12" x 12") (12" x 12")
○	20 AMP EV CHARGING	(6" x 4" x 2") (6" x 4" x 2")	(12" x 12") (12" x 12")
○	15 AMP EV CHARGING	(6" x 4" x 2") (6" x 4" x 2")	(12" x 12") (12" x 12")

ELECTRICAL SYMBOL LEGEND



APR 23 2019



Parking Space Schedule P2

RES. STALL - ACC - SHARED	4
RES. STALL - ACC - VAN	6
RES. STALL - PVT. GARAGE (REG)	12
RES. STALL - REGULAR	325
RES. STALL - SMALL 1	33
RES. STALL - SMALL 2	23
RES. STALL - TANDEM	11
Grand total:	414

Bike Locker Schedule Level P2

Locker Type / Size	Locker Count	Bike Count
4'0" X 6' - 1 Bike	84	84
4'4" X 7' - 1 Bike	5	5
5'0" X 6' - 1 Bike	104	104
5'0" X 6' - 2 Bikes	43	86
6'0" X 4' - 1 Bike	1	1
6'0" X 5' - 1 Bike	9	9
6'0" X 6' - 1 Bike	2	2
PVT. GRG - 2 Bikes	7	14
Grand total:	255	305

EV POINTS SCHEDULE P2

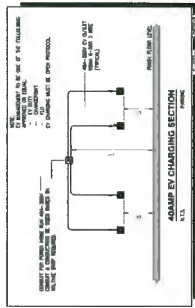
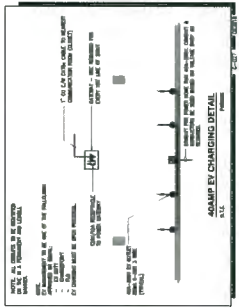
Level	Count
LEVEL P2	30
Grand total:	30

APR 23 2019



ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
(Symbol)	RESIDENTIAL ELECTRICAL SYMBOLS
(Symbol)	COMMERCIAL ELECTRICAL SYMBOLS
(Symbol)	INDUSTRIAL ELECTRICAL SYMBOLS
(Symbol)	POWER AND LIGHTING SYMBOLS
(Symbol)	TELECOMMUNICATIONS SYMBOLS
(Symbol)	PLUMBING SYMBOLS
(Symbol)	Mechanical Symbols
(Symbol)	Structural Symbols
(Symbol)	Other Symbols



Parking Space Schedule P1

Category	Item	Count	Area (sqm)	Area (sqft)
RESIDENTIAL	RES STALL - ACC - VAN	2	11.2	120
	RES STALL - PVT GARAGE (REG)	40	11.2	120
	RES STALL - REGULAR	104	11.2	120
	RES STALL - SMALL 1	5	11.2	120
	RES STALL - SMALL 2	5	11.2	120
	VIS STALL - ACC - SHARED	1	11.2	120
	VIS STALL - ACC - VAN	1	11.2	120
	VIS STALL - REGULAR	153	11.2	120
	VIS STALL - SMALL	137	11.2	120
	Grand Total		270	

EV POINTS SCHEDULE

Level	Count	Grand Total
LEVEL P1	30	
Grand Total	30	

EV Points Schedule

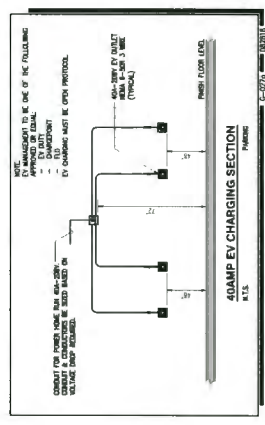
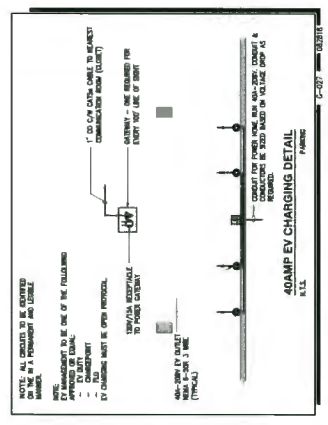
Level	Count	Grand Total
LEVEL P1	30	
Grand Total	30	

SRW PLAN BCP48288

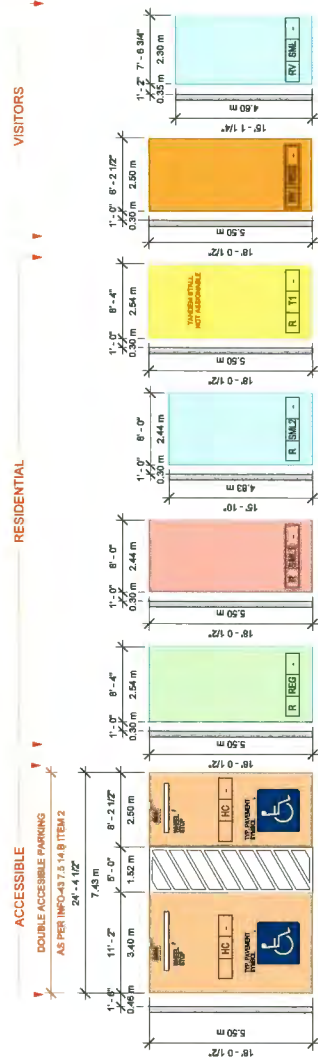
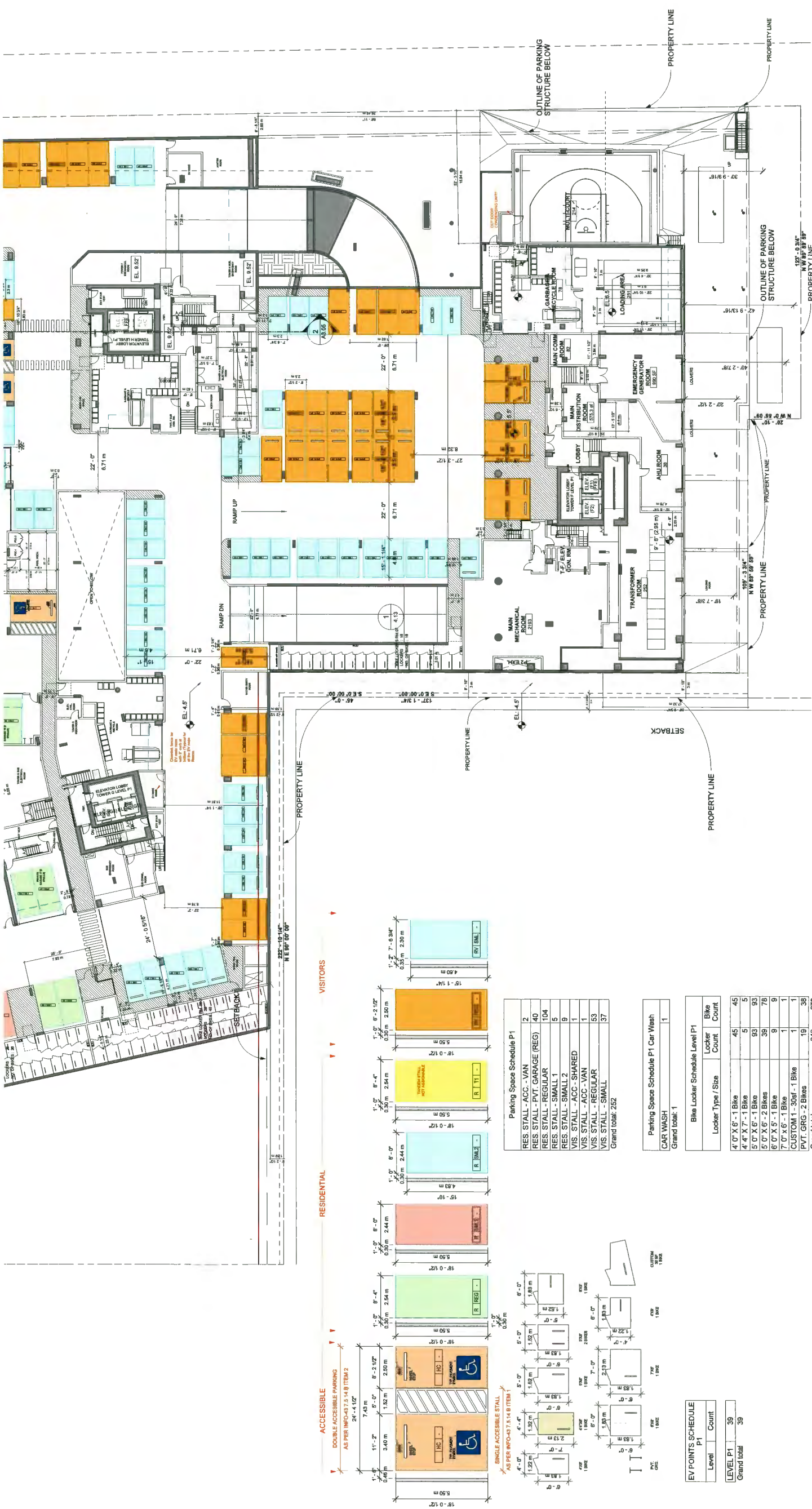
SRW PLAN BCP49388



SYMBOL	DESCRIPTION	OUTLET BOX BOX DIMENSIONS (H x W) (D)	REWORKING (T/F)
CE	FLOOR INLET RESPONSE	(1) 4' x 4' x 4' (1800 x 1800 x 1800)	(T/F) (C) (D) (E) (F)
CE	FLOOR INLET RESPONSE - INDOOR GARAGE ONLY	(1) 4' x 4' x 4' (1800 x 1800 x 1800)	(T/F) (C) (D) (E) (F)
CE	ELECTRICAL SYMBOL RESPONSE - INDOOR GARAGE ONLY	(1) 4' x 4' x 4' (1800 x 1800 x 1800)	(T/F) (C) (D) (E) (F)
CE	ELECTRICAL SYMBOL RESPONSE - OUTDOOR GARAGE ONLY	(1) 4' x 4' x 4' (1800 x 1800 x 1800)	(T/F) (C) (D) (E) (F)



APR 23 2019



Parking Space Schedule P1

RES STALL - ACC - VAN	2
RES STALL - PVT. GARAGE (REG)	40
RES STALL - REGULAR	104
RES STALL - SMALL 1	5
RES STALL - SMALL 2	9
VIS. STALL - ACC - SHARED	1
VIS STALL - ACC - VAN	1
VIS STALL - REGULAR	53
VIS STALL - SMALL	37
Grand total:	252

Parking Space Schedule P1 Car Wash

CAR WASH	1
Grand total:	1

Bike Locker Schedule Level P1

Locker Type / Size	Locker Count	Bike Count
4'0" X 6'-1" Bike	45	45
4'4" X 7'-1" Bike	5	5
5'0" X 6'-1" Bike	93	93
5'0" X 6'-2" Bikes	38	76
6'0" X 5'-1" Bike	9	9
7'0" X 6'-1" Bike	1	1
CUSTOM 1 - 304L - 1 Bike	1	1
PVT. GRG - 2 Bikes	19	38
Grand total:	212	270

EVPOINTS SCHEDULE P1

Level	Count
LEVEL P1	39
Grand total:	39

APR 23 2019



UNIT TYPE LEGEND

1 BED	4 BED
1 BED + DEN	4 BED + DEN
2 BED	COMMON
2 BED + DEN	TH
3 BED + DEN	PH
	BUH

APR 23 2019











UNIT TYPE LEGEND

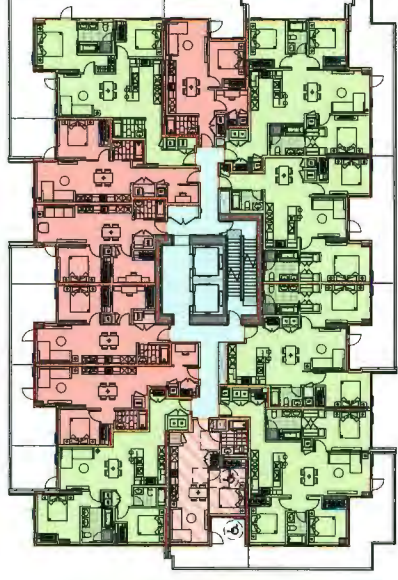
1 BED	4 BED
1 BED + DEN	4 BED + DEN
2 BED	COMMON
2 BED + DEN	TH
3 BED + DEN	PH
	BUH



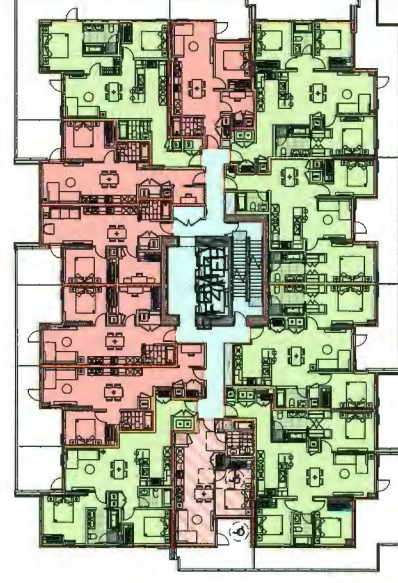
APR 23 2019

UNIT TYPE LEGEND

	1 BED		4 BED
	1BED + DEN		4 BED + DEN
	2 BED		COMMON
	2 BED + DEN		TH
	3 BED + DEN		PH
			BUH



APR 23 2019

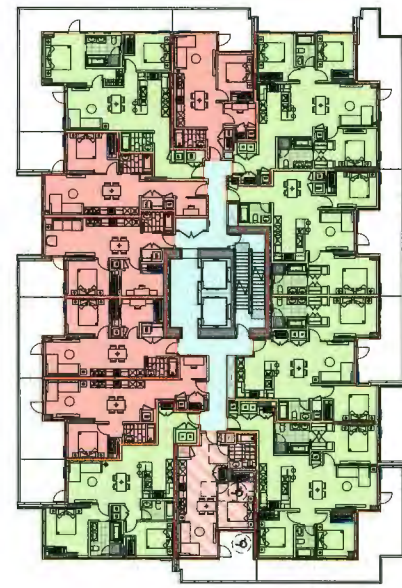


UNIT TYPE LEGEND

- 1 BED
- 4 BED
- 1BED + DEN
- 4 BED + DEN
- 2 BED
- COMMON
- 2 BED + DEN
- TH
- 3 BED + DEN
- PH
- BUH



APR 23 2019



UNIT TYPE LEGEND

- 1 BED
- 1BED + DEN
- 2 BED
- 2 BED + DEN
- 3 BED + DEN
- 4 BED
- 4 BED + DEN
- COMMON
- TH
- PH
- BUH

River Green Lot 17
Development Permit

Submitted to City of Richmond
By IBI Group (Canada) Inc. on behalf of Oval 8 Holdings Ltd.
April 22, 2019

PFS STUDIO
PLANNING • DESIGN • ARCHITECTURE

IBI

ASPAC
World Class Communities

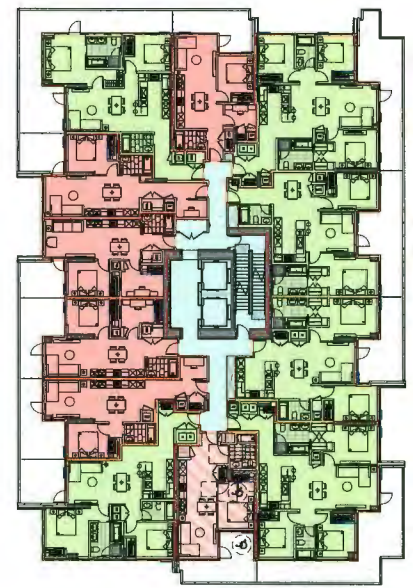
PRJ N
Scale: 1" = 24'-0"

UNIT TYPE LEGEND

- 1 BED
- 1BED + DEN
- 2 BED
- 2 BED + DEN
- 3 BED + DEN
- 4 BED
- 4 BED + DEN
- COMMON
- TH
- PH
- BUH



TOWER H

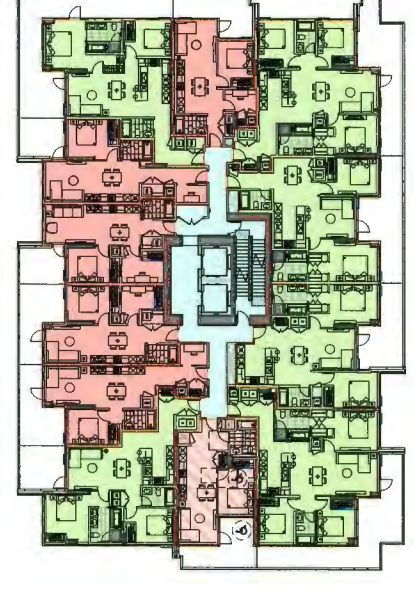


APR 23 2019












APR 23 2019

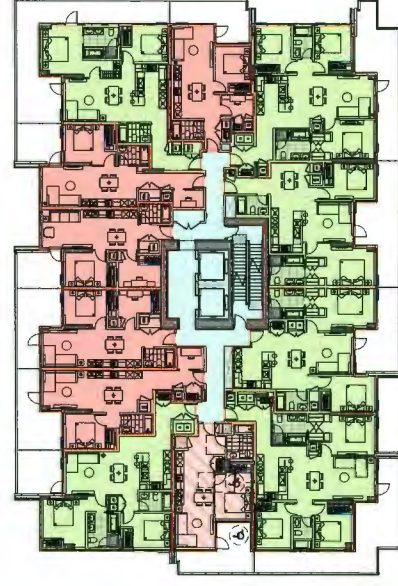
UNIT TYPE LEGEND

- 1 BED
- 1 BED + DEN
- 2 BED
- 2 BED + DEN
- 3 BED + DEN
- 4 BED
- 4 BED + DEN
- COMMON
- TH
- PH
- BUH



UNIT TYPE LEGEND

	1 BED		4 BED
	1BED + DEN		4 BED + DEN
	2 BED		COMMON
	2 BED + DEN		TH
	3 BED + DEN		PH
			BUH



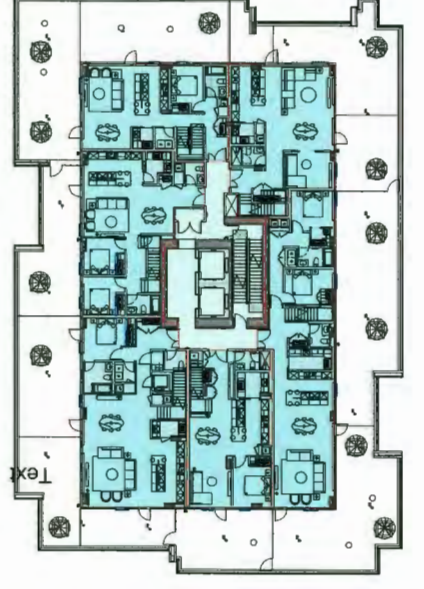
APR 23 2019

UNIT TYPE LEGEND

- 1 BED
- 1BED + DEN
- 2 BED
- 2 BED + DEN
- 3 BED + DEN
- 4 BED
- 4 BED + DEN
- COMMON
- TH
- PH
- BUH



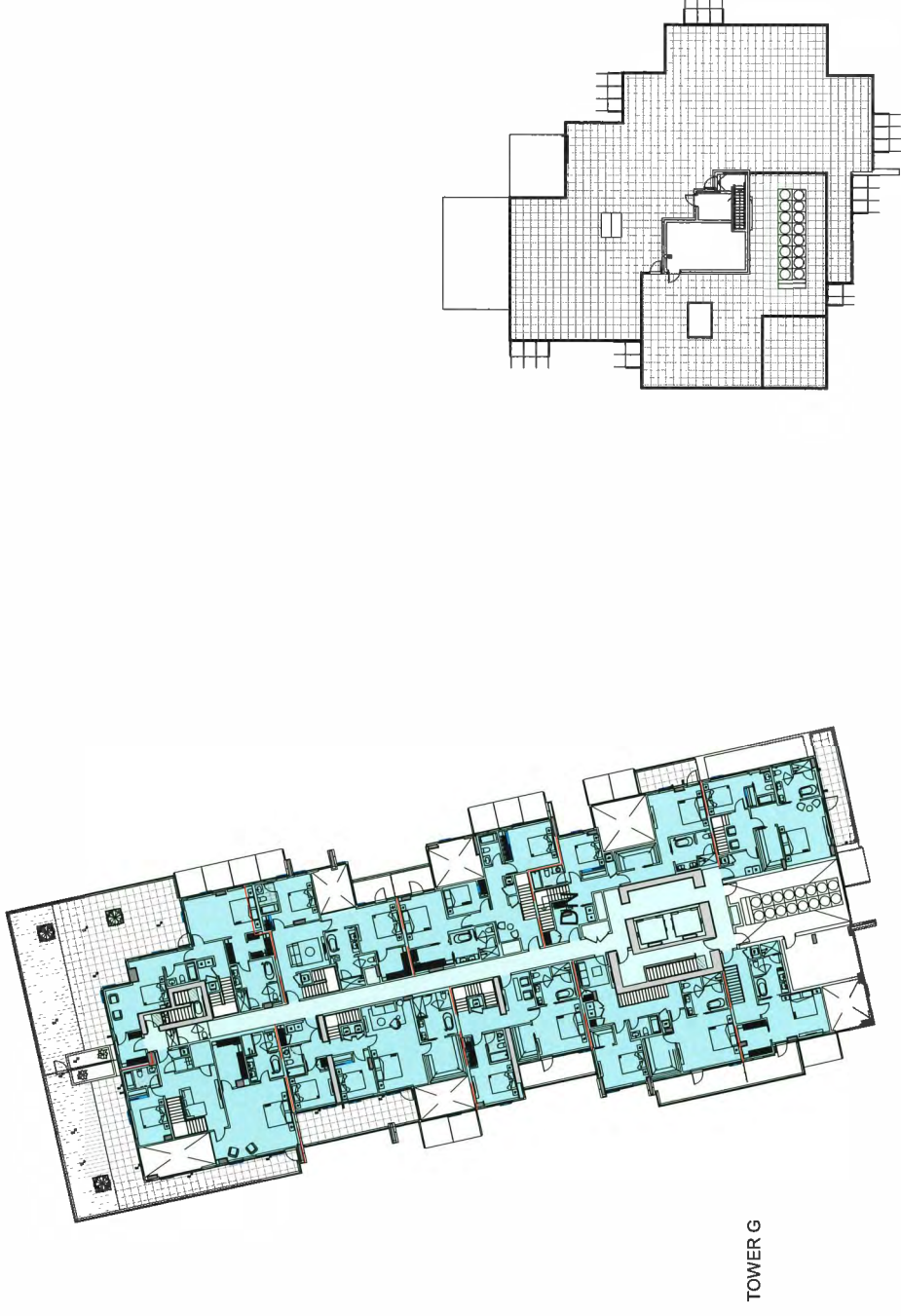
TOWER H



APR 23 2019

UNIT TYPE LEGEND

1 BED	4 BED
1BED + DEN	4 BED + DEN
2 BED	COMMON
2 BED + DEN	TH
3 BED + DEN	PH
	BUH

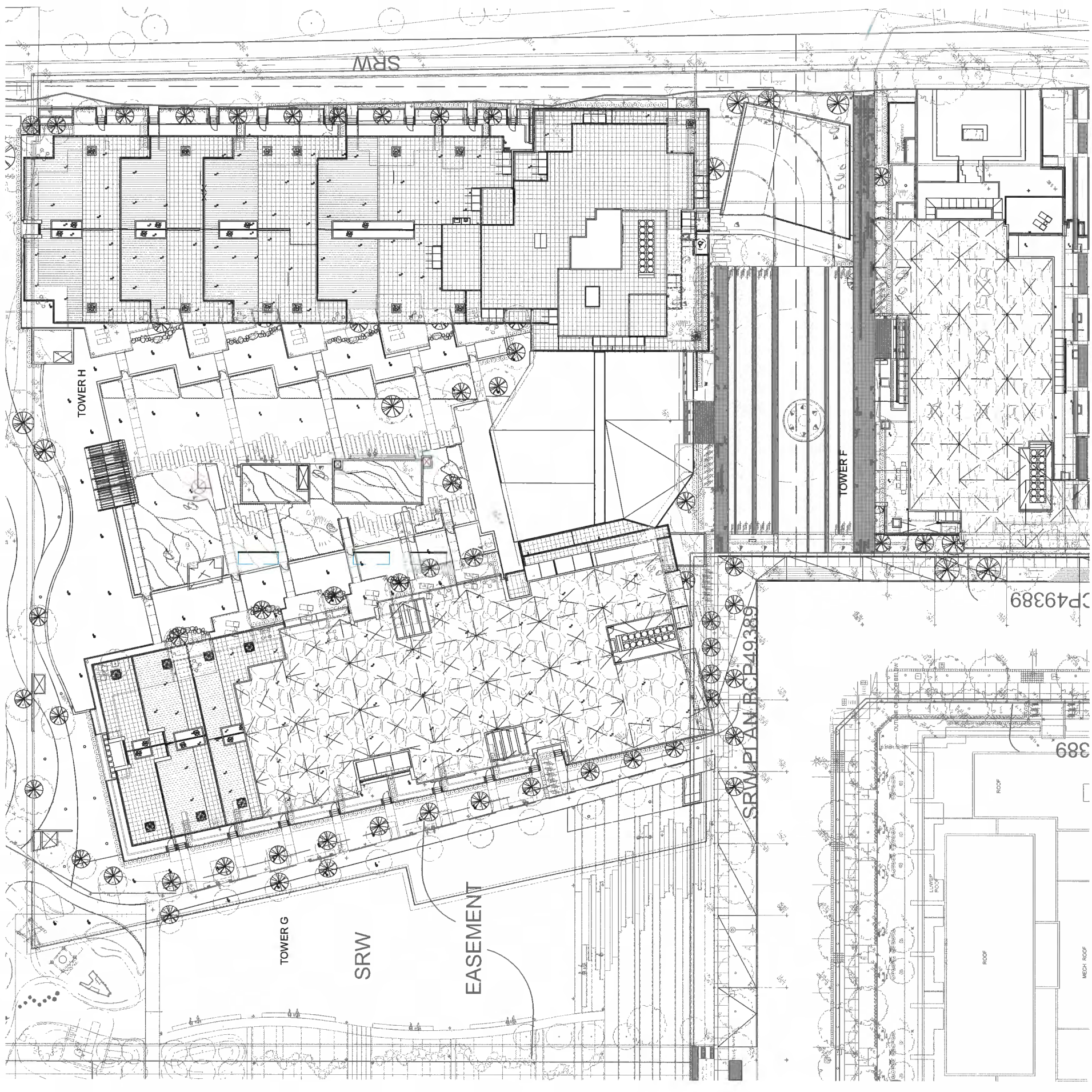


TOWER H



APR 23 2019

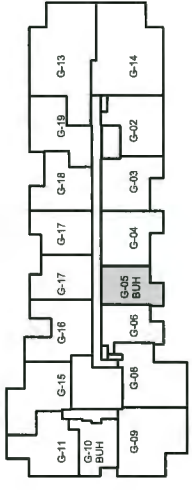
APR 23 2019



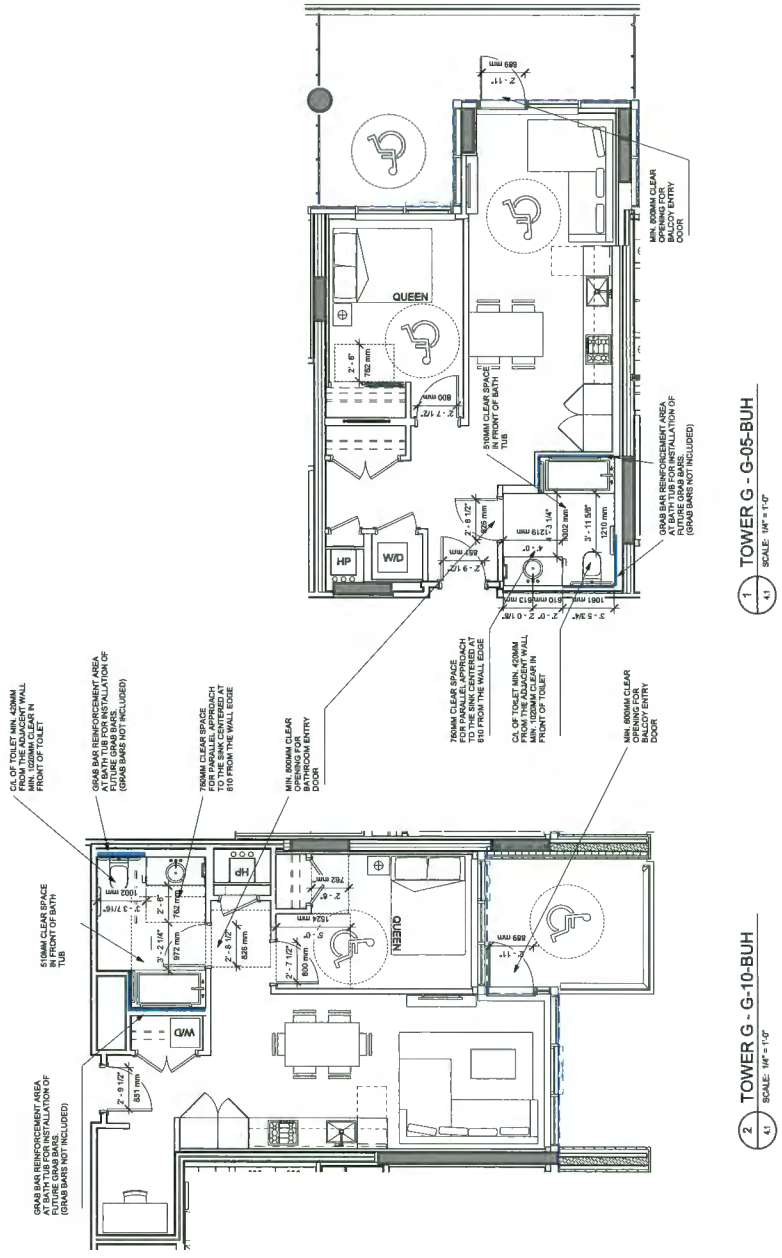
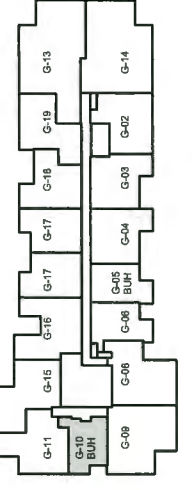
River Green Lot 17 Development Permit

Submitted to City of Richmond By IBI Group (Canada) Inc. on behalf of Oval 8 Holdings Ltd. April 22, 2019

KEY PLAN @ LEVEL 1-11
HATCHED AREA BELOW DENOTES UNIT LOCATION:

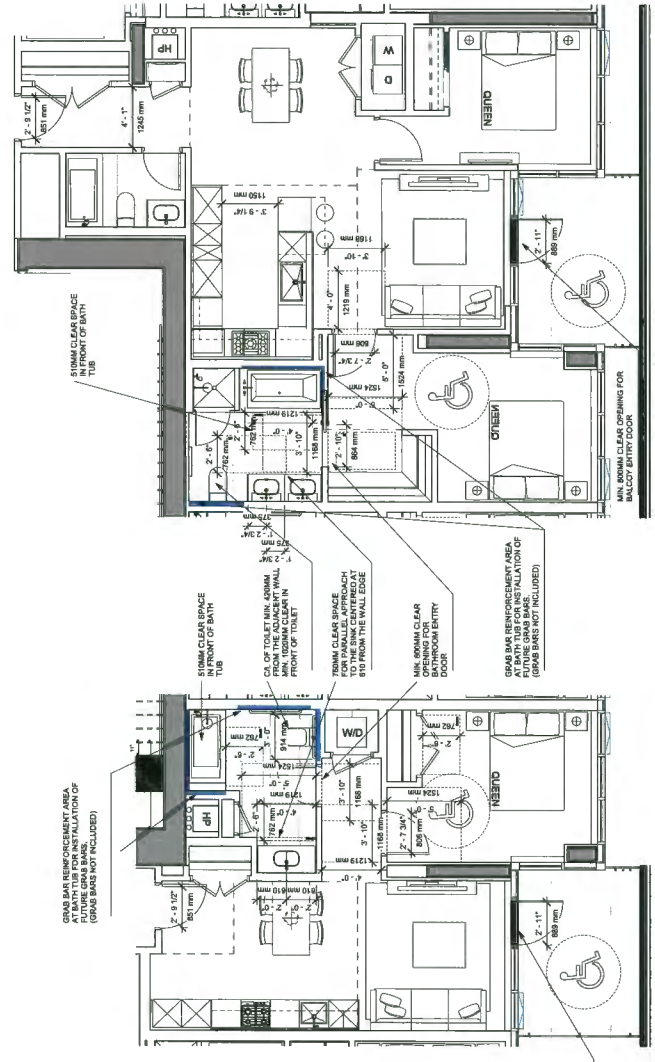


KEY PLAN @ LEVEL 2-11
HATCHED AREA BELOW DENOTES UNIT LOCATION:

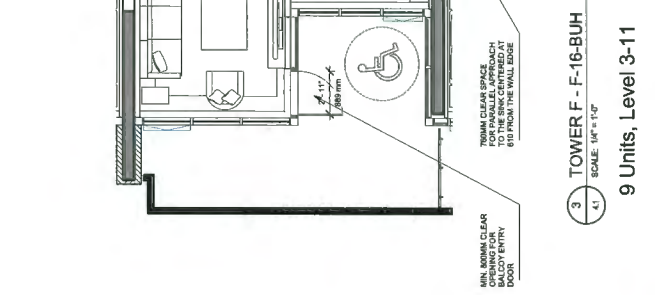


2 TOWER G - G-10-BUH
SCALE: 1/8" = 1'-0"
10 Units, Level 2-11

1 TOWER G - G-05-BUH
SCALE: 1/8" = 1'-0"
11 Units, Level 1-11



4 TOWER F - F-03-BUH
SCALE: 1/8" = 1'-0"
1 Unit, Level 2

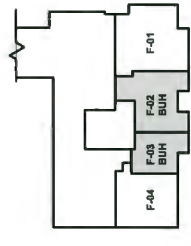


3 TOWER F - F-16-BUH
SCALE: 1/8" = 1'-0"
9 Units, Level 3-11

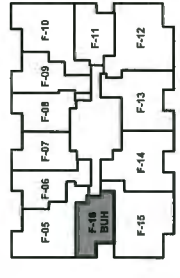
- 4.14 Basic Universal Housing Features Purpose**
- 4.14.1 The basic universal housing features described in section 4.14 are intended to facilitate (needs) access, use and occupancy of a dwelling unit by a person with a disability. **Bulky Access**
 - 4.14.2 Each dwelling unit and each type of entry shall be accessible to a person with a disability from a road and from an on-site parking area.
 - 4.14.3 Access to the elevator shall be provided from both the road and the entry to the on-site parking area.
 - 4.14.4 The minimum clear opening for all entry doors to every dwelling unit and doors to common areas shall be no less than 800.0 mm (31.5 in) high and shall be provided by a swing door.
 - 4.14.5 The minimum clear opening for all entry doors to every dwelling unit and doors to common areas shall be no less than 800.0 mm (31.5 in) high and shall be provided by a swing door.
 - 4.14.6 The minimum clear opening for all entry doors to every dwelling unit and doors to common areas shall be no less than 800.0 mm (31.5 in) high and shall be provided by a swing door.
 - 4.14.7 The minimum clear opening for all entry doors to every dwelling unit and doors to common areas shall be no less than 800.0 mm (31.5 in) high and shall be provided by a swing door.
 - 4.14.8 The above-stated requirements for doors do not apply to mechanical rooms, service areas, closets, etc. where through access is not required and access to a person with a disability is not anticipated.
- Maneuvering Space at Doorways**
- 4.14.11 Entry doors to every dwelling unit and door assemblies in common areas shall have a clear and level area which is not less than the following:
 - a) Where the door swings inward the area (to door) 1500.0 mm long by the width of the door plus at least 600.0 mm clear space on the side side. This requirement shall apply to door assemblies to the bathroom and one bedroom in 2 bedroom and larger dwelling units.
 - b) Where the door swings outward the area (to door) 1500.0 mm long by the width of the door plus at least 600.0 mm clear space on the side side. This requirement shall apply to door assemblies to common areas in every dwelling unit, and one bedroom and one bedroom in 2 bedroom and larger dwelling units.
 - 4.14.12 Where there are doors in a series in common areas, there must be separation of at least 1200.0 mm plus the width of the door.
- Corridor Widths**
- 4.14.22 Common corridors shall be no less than 1200.0 mm wide and provide a clear area not less than 1500.0 mm by 1500.0 mm adjacent to the door.
 - 4.14.23 Common corridors throughout the building shall have no abrupt changes in level, i.e. a maximum break of the flush threshold of 13.0 mm height. This requirement does not apply to exterior balconies, patios and deck areas.
 - 4.14.19 Where carpets are used, they must be firmly fixed, have a firm underlay and pile under 13.0 mm height.
- Windows**
- 4.14.16 Windows which are accessible shall have a window sill height that does not exceed 750.0 mm above the floor to afford seated viewing. At least 100.0 mm of the window sill shall be clear of the floor.
 - 4.14.17 Windows which are accessible shall have opening mechanisms operable with one hand and of a type that does not require light gripping.
 - 4.14.18 Light windows and translucent windows shall be 800.0 to 1200.0 mm from the floor. Vision panes shall be a minimum 1375.0 mm from the floor.
 - 4.14.19 Electronic shades, white, white and translucent shades shall be located 450.0 mm to 1200.0 mm from the floor.
 - 4.14.20 Thermostats shall be located between 800.0 mm to 1200.0 mm from the floor.
 - 4.14.21 The operating parts of controls shall be located within reach of a clear floor area that has a width of not less than 750.0 mm.
 - 4.14.22 Light switches shall be toggle or push-type switches.
- Bathrooms**
- 4.14.24 At least one bathroom shall:
 - a) have a clear floor area at the sink of 750.0 mm by 1200.0 mm positioned for a parallel approach and centered on the sink, and
 - b) have structural reinforcement in walls behind and beside the toilet and the walls around the tub and/or shower to facilitate the installation of grab bars and grab handles on fixtures, e.g. towel-type faucets.
 - 4.14.25 The exterior must have:
 - a) a continuous counter between the sink and sink, adjustable between 810.0 mm height, and grab handles on fixtures, e.g. towel-type faucets,
 - b) easy-to-reach and grasp handles on cabinets, e.g. D or J-type cabinet handles and grab edge under counters,
 - c) plumbing and utility pipes located to provide for a potential 510.0 mm wide under counter workspace so as not to prevent the easy future conversion of counter space and sinks to being universally accessible for three stages under the sink and where there is a counter top above sink.
- Kitchens**
- 4.14.26 The kitchen must have:
 - a) a continuous counter between the sink and sink, adjustable between 810.0 mm height, and grab handles on fixtures, e.g. towel-type faucets,
 - b) easy-to-reach and grasp handles on cabinets, e.g. D or J-type cabinet handles and grab edge under counters,
 - c) plumbing and utility pipes located to provide for a potential 510.0 mm wide under counter workspace so as not to prevent the easy future conversion of counter space and sinks to being universally accessible for three stages under the sink and where there is a counter top above sink.
- Bedroom & Closets**
- 4.14.28 The space around a bed in a dwelling unit that consists of a bed, table and at least one bedroom in every other dwelling unit shall have a clear floor area of 1500.0 mm by 1500.0 mm positioned for a parallel approach and centered on the bed.
 - 4.14.27 The space around a bed in a dwelling unit that consists of a bed, table and at least one bedroom in every other dwelling unit shall have a clear floor area of at least 800.0 mm clear floor space at a height of 750.0 mm, clear floor space of at least 750.0 mm by 1200.0 mm and a clothes hanger rod that can be lowered to 1200.0 mm.
- Panels and Balconies**
- 4.14.29 Access doors shall have a minimum clear opening of 800.0 mm.
 - 4.14.30 Minimum dimensions of any balcony or patio shall be 1500.0 mm by 1500.0 mm. This requirement does not apply to " Juliet or French" type of balcony or patio.

TOWER	TOTAL NO. OF UNIT	TOTAL NO. OF BUH UNIT
TOWER F	128	11
TOWER G	37	3
TOWER H	16	1
TOTAL	161	15

KEY PLAN @ LEVEL 2
HATCHED AREA BELOW DENOTES UNIT LOCATION:



KEY PLAN @ LEVEL 3-11
HATCHED AREA BELOW DENOTES UNIT LOCATION:



- 4.1.9 Basic Universal Housing Features Purpose**
- 4.1.8.1 The basic universal housing features described in Section 4.1.9 are intended to facilitate timely access, use and occupancy of a dwelling unit by a person with a disability. Building Access
 - 4.1.8.2 Access to the dwelling unit and means of egress shall be accessible to a person with a disability from a door and from an on-site parking area.
 - 4.1.8.3 Access to the dwelling unit shall be provided from the road and the entry to the on-site parking area shall be no less than 500.0 mm (20 in) wide.
 - 4.1.8.4 The minimum clear opening for all entry doors to every dwelling unit and doors in common areas shall be no less than 914 mm (36 in) in height.
 - 4.1.8.5 The minimum clear opening for all entry doors to every dwelling unit and doors in common areas shall be no less than 850.0 mm (33 in) in width.
 - 4.1.8.6 The minimum clear opening for all entry doors to every dwelling unit and doors in common areas shall be no less than 850.0 mm (33 in) in width.
 - 4.1.8.7 Windows shall be operable and shall have opening mechanisms operable with one hand and of a type that does not require tight grasping, forceful or awkward reaching movements.
 - 4.1.8.8 Light switches and electrical panels shall be 900.0 mm (35 in) from the floor. Intercom buttons shall be a maximum of 1375.0 mm (54 in) from the floor.
 - 4.1.8.9 Thermostats shall be located between 150.0 mm (6 in) and 1750.0 mm (69 in) from the floor.
 - 4.1.8.10 Light switches shall be operable with one hand and shall be 1200.0 mm (47 in) from the floor.
 - 4.1.8.11 Light switches shall be operable with one hand and shall be 1200.0 mm (47 in) from the floor.

- 4.1.9 Basic Universal Housing Features Purpose**
- 4.1.9.1 Entry doors to every dwelling unit and doors in common areas shall have a clear and level area which is not less than the width of the door plus a minimum of 1500.0 mm (59 in) on each side of the door plus a minimum of 1500.0 mm (59 in) on each side of the door plus a minimum of 1500.0 mm (59 in) on each side of the door.
 - 4.1.9.2 The requirement does not apply to exterior balcony, patio and door sill.
 - 4.1.9.3 Where curbs are used, they must be firm, level, have a firm upright and rise under 13.0 mm height.
 - 4.1.9.4 Where curbs are used, they must be firm, level, have a firm upright and rise under 13.0 mm height.

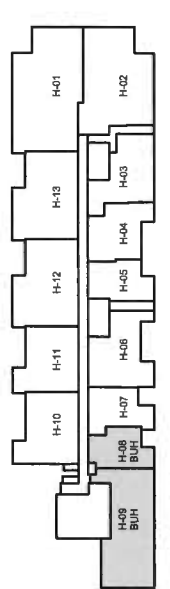
- 4.1.9.5 Windows**
- 4.1.9.5.1 Windows shall be operable with one hand and shall be 900.0 mm (35 in) from the floor to afford seated viewing. At least one window of the bedroom and one window in the living room shall afford such seated viewing.
 - 4.1.9.5.2 Windows shall be operable and shall have opening mechanisms operable with one hand and of a type that does not require tight grasping, forceful or awkward reaching movements.
 - 4.1.9.5.3 Light switches and electrical panels shall be 900.0 mm (35 in) from the floor. Intercom buttons shall be a maximum of 1375.0 mm (54 in) from the floor.
 - 4.1.9.5.4 Thermostats shall be located between 150.0 mm (6 in) and 1750.0 mm (69 in) from the floor.
 - 4.1.9.5.5 Light switches shall be operable with one hand and shall be 1200.0 mm (47 in) from the floor.
 - 4.1.9.5.6 Light switches shall be operable with one hand and shall be 1200.0 mm (47 in) from the floor.

- 4.1.9.6 Bathrooms**
- 4.1.9.6.1 At least one bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit.
 - 4.1.9.6.2 The bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit.
 - 4.1.9.6.3 The bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit.
 - 4.1.9.6.4 The bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit.
 - 4.1.9.6.5 The bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit. At least one bathroom shall be provided in every dwelling unit.

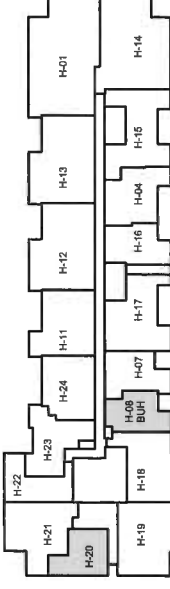
- 4.1.9.7 Kitchens**
- 4.1.9.7.1 The kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit.
 - 4.1.9.7.2 The kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit.
 - 4.1.9.7.3 The kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit.
 - 4.1.9.7.4 The kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit.
 - 4.1.9.7.5 The kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit. At least one kitchen shall be provided in every dwelling unit.

- 4.1.9.8 Bedrooms & Closets**
- 4.1.9.8.1 The bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit.
 - 4.1.9.8.2 The bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit.
 - 4.1.9.8.3 The bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit.
 - 4.1.9.8.4 The bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit.
 - 4.1.9.8.5 The bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit. At least one bedroom shall be provided in every dwelling unit.

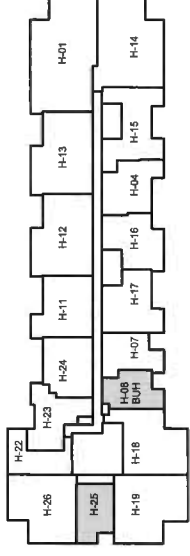
UNIT	TOTAL NO. OF UNIT	TOTAL NO. OF BUH UNIT
TOWER F	118	11
TOWER G	177	21
TOWER H	364	18
TOTAL	659	51



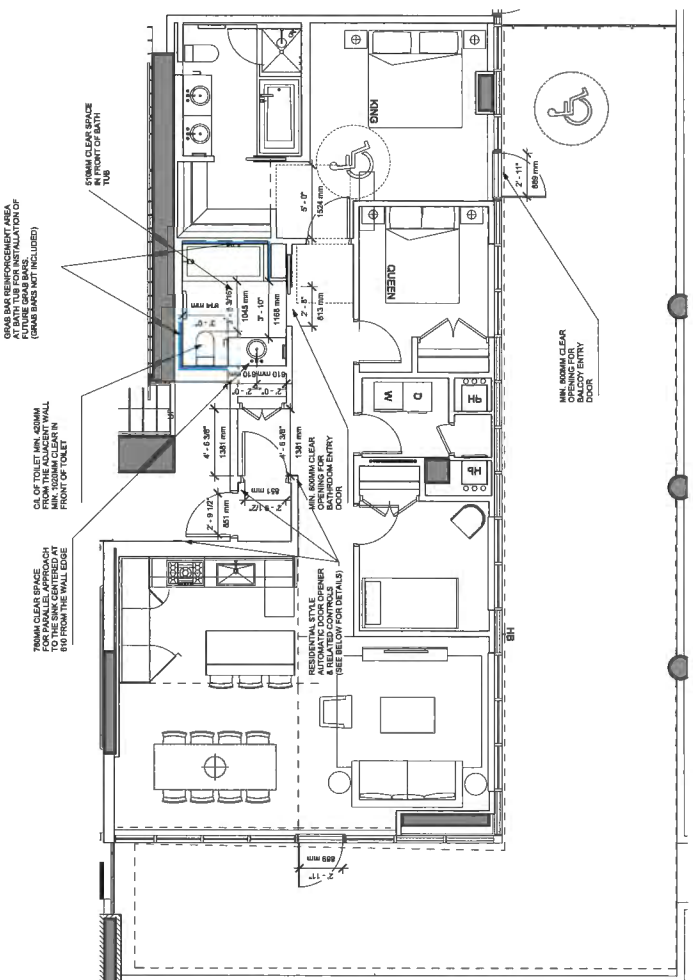
KEY PLAN @ LEVEL 1
HATCHED AREA DENOTES UNIT LOCATION.



KEY PLAN - LEVELS 2
HATCHED AREA DENOTES UNIT LOCATION.

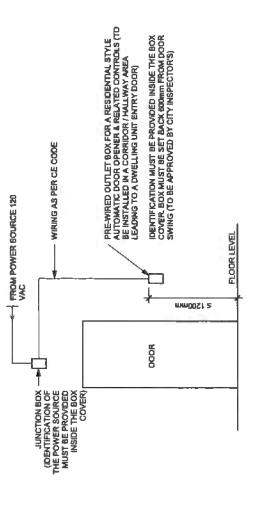


KEY PLAN @ LEVEL 3-10
HATCHED AREA DENOTES UNIT LOCATION.

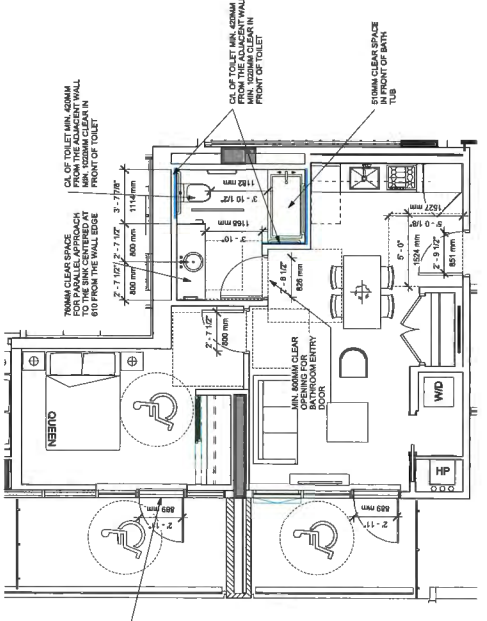


3 TOWER H - H-09-BUH
SCALE: 1/8" = 1'-0"
1 Unit, Level 1

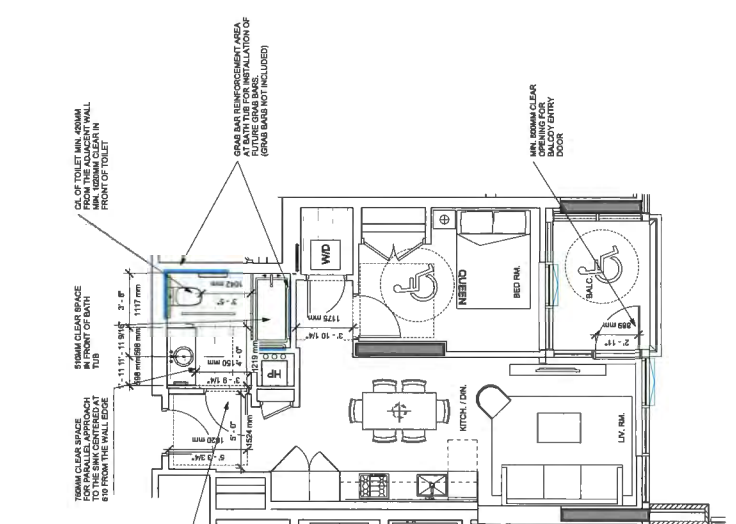
- LEGEND:**
- 30" x 48" CLEAR ACCESS SPACE FOR ADAPTABLE BATHROOM
 - RESIDENTIAL STYLE AUTOMATIC DOOR OPENER RELATED CONTROLS (SEE BELOW FOR DETAILS)
 - CLEAR SPACE ACCESSIBLE TO THE BUILDING AS SHOWN IN THE PLAN. THE CLEAR SPACE IS TO BE MAINTAINED AT ALL TIMES. THE CLEAR SPACE IS TO BE MAINTAINED AT ALL TIMES. THE CLEAR SPACE IS TO BE MAINTAINED AT ALL TIMES.
 - WHERE AN OPTION OF PREWIRING IS PERMITTED IN LINE OF THE REQUIRED CLEAR SPACE ON EACH SIDE OF THE DOOR, THE OPTION MUST BE CONSISTENT WITH THE SWITCH ILLUSTRATED BELOW AND TO BE APPROVED BY CITY INSPECTORS.
 - IT IS EXPECTED THAT THIS OPTION WILL BE INDICATED ON THE ELECTRICAL DRAWINGS. THE ELECTRICAL DRAWINGS MUST BE APPROVED BY CITY INSPECTORS.



NOTES:
1. THIS DETAIL IS SUBJECT TO CITY APPROVAL. THE ELECTRICAL DRAWINGS MUST BE APPROVED BY CITY INSPECTORS.
2. THIS DETAIL IS SUBJECT TO CITY APPROVAL. THE ELECTRICAL DRAWINGS MUST BE APPROVED BY CITY INSPECTORS.

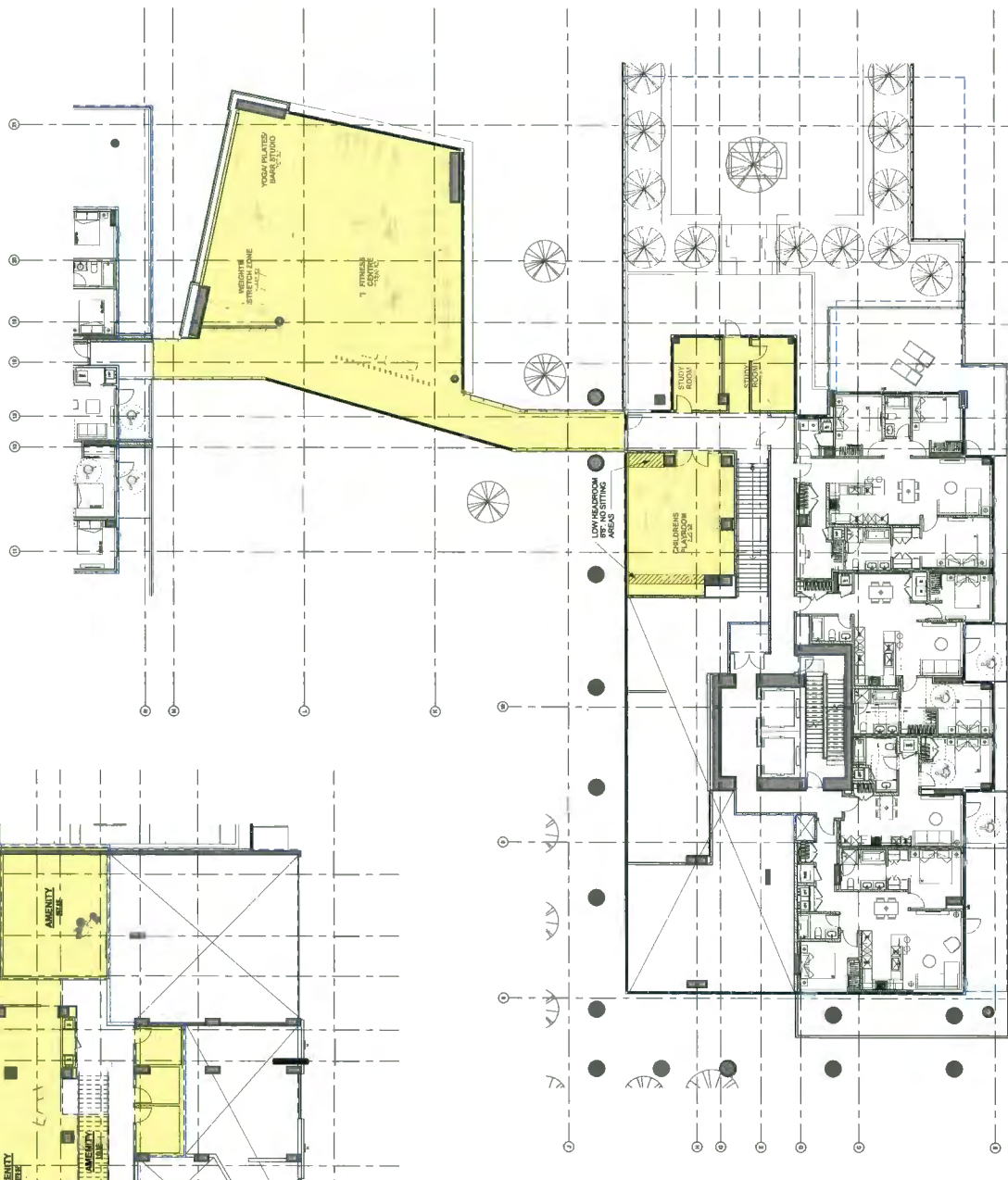
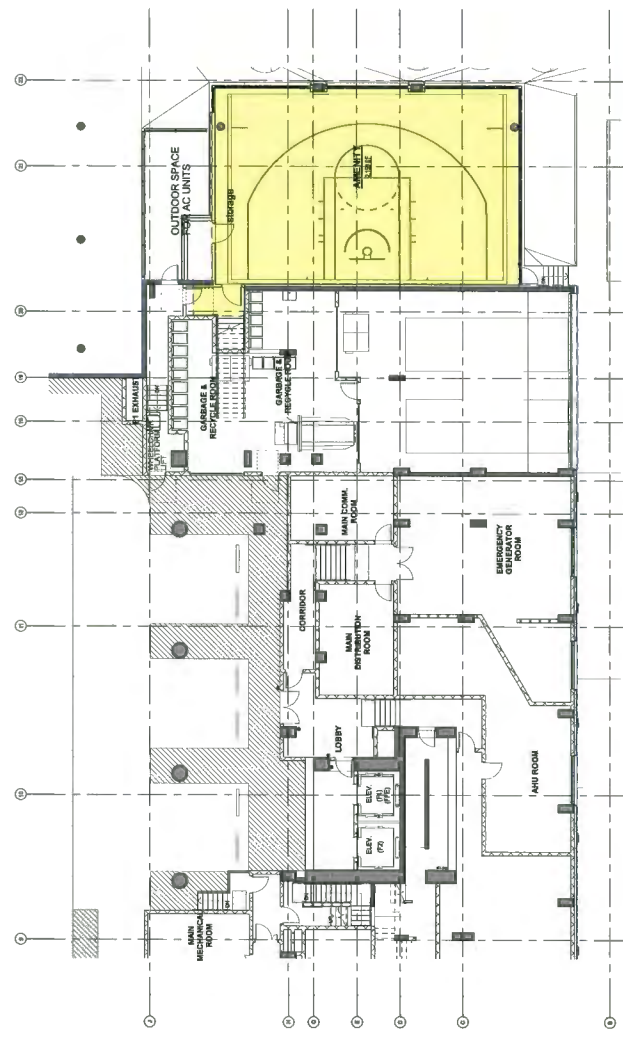
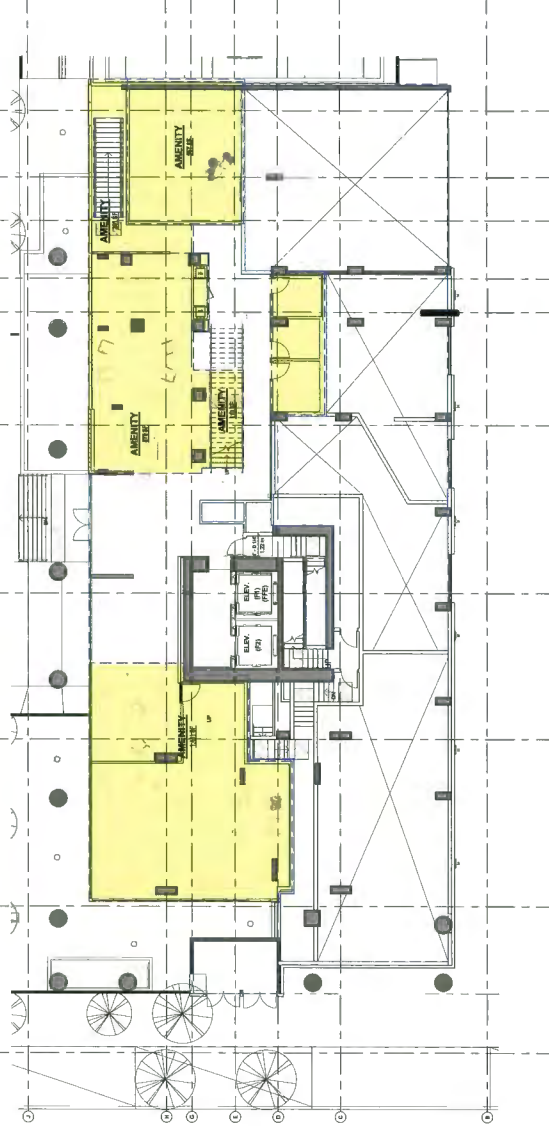
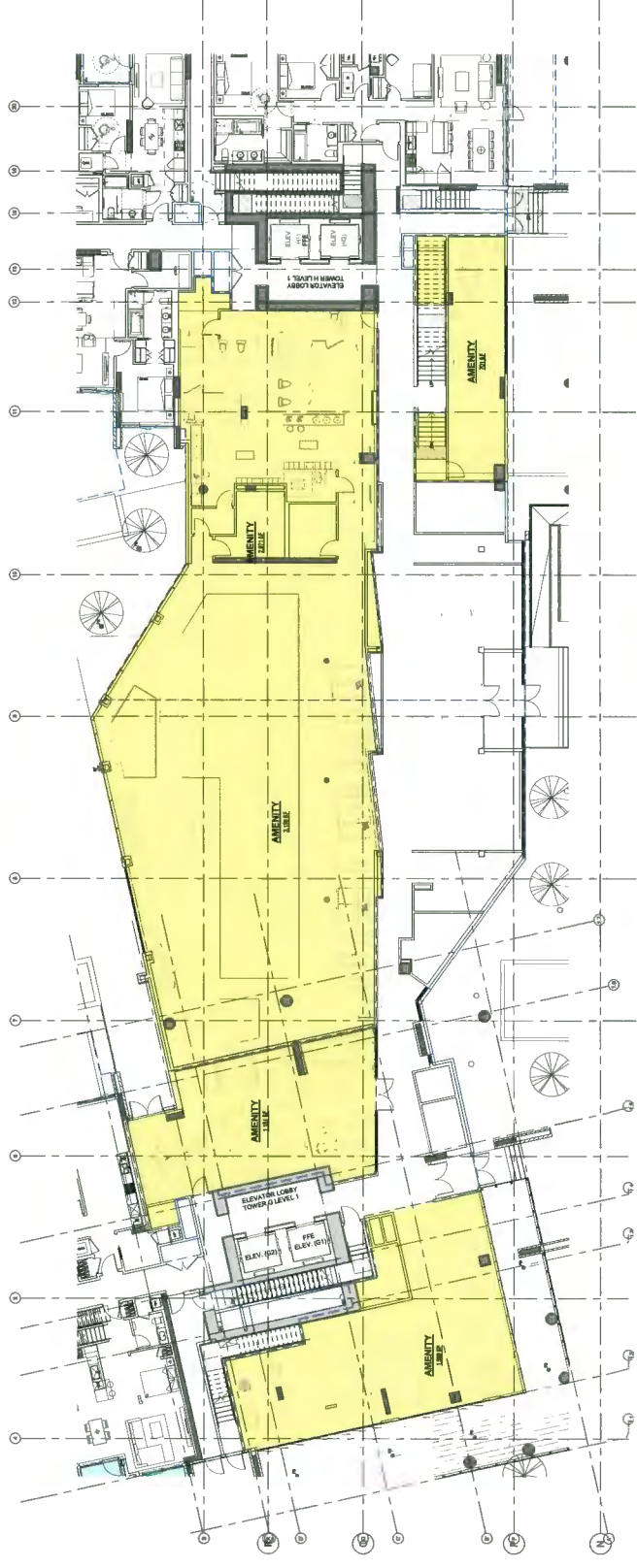


4 TOWER H - H-25-BUH
SCALE: 1/8" = 1'-0"
8 Unit, Levels 3-10



2 TOWER H - H-08-BUH
SCALE: 1/8" = 1'-0"
10 Units, Levels 1-10

AMENITY FAR SUMMARY		Amenity Area	
LEVEL	Comments	Imperial	Metric
LEVEL 02			
FITNESS CENTRE TOWER F		3,228	299.9
CHILDRENS PLAY ROOM TOWER F		627	58.2
STUDY ROOM TOWER F		388	36.0
		4,243	394.2
LEVEL 01			
SWIMMING POOL (TOWER G)		3,159	293.5
MULTI MEDIA ROOM TOWER F		557	51.8
CO-WORKING SPACE TOWER F		879	81.6
DRY STORE CIRCULATION TOWER F		201	18.7
CLUB ROOM TOWER F		1,481	137.6
SW. POOL TOWER H		2,971	276.0
CLUB LOUNGE TOWER G		1,589	147.6
STAFF ROOM		701	65.1
STAIRWAY TOWER F		113	10.5
LOUNGE TOWER G		1,161	107.8
MUSIC ROOM AND COMMON		256	23.8
WASHROOMS TOWER F			
		13,066	1,213.9
LEVEL P1			
MULTI-COURT		2,159	200.6
		2,159	200.6
		19,468	1,808.6

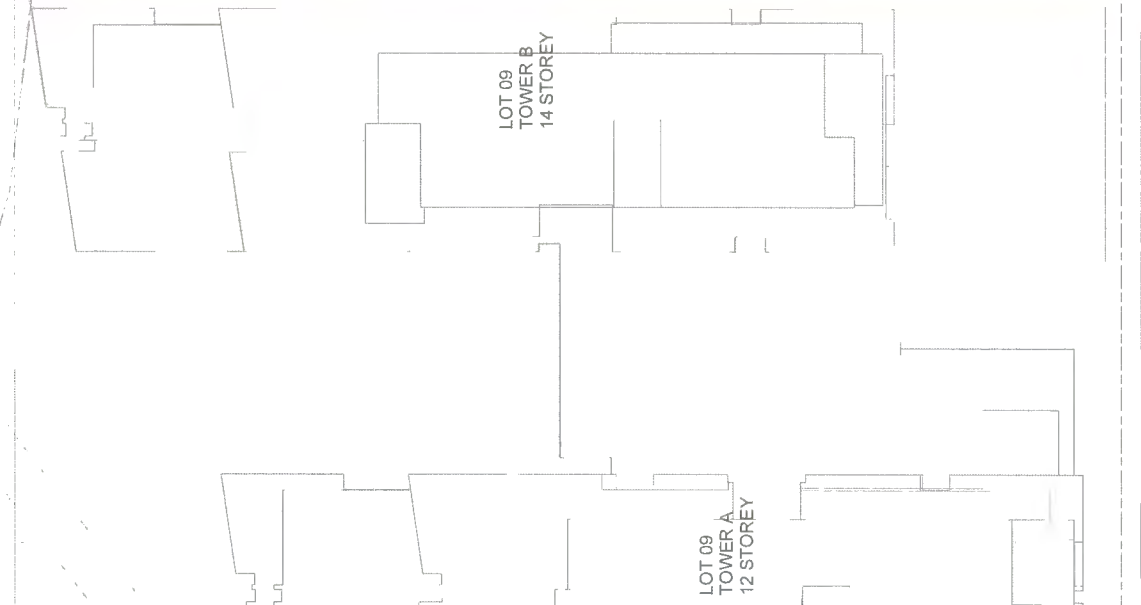
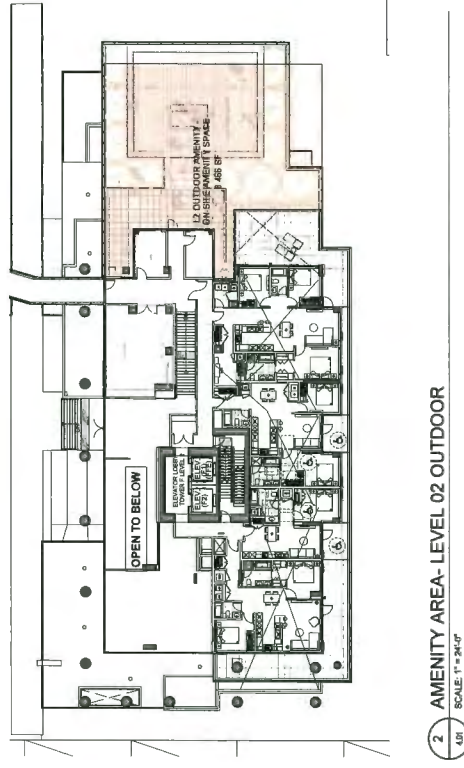


APR 23 2019



Image	CATEGORY	OUTDOOR OPENSOURCE PROVIDED	AREA	Area m
	OPEN SPACE	PUBLIC	42,868 SF	3,977 m ²
	ON-SITE AMENITY SPACE	CENTRAL GARDEN	32,482 SF	3,015 m ²
	ON-SITE AMENITY SPACE	L2 OUTDOOR AMENITY	3,466 SF	322 m ²
	OFF SITE SPACE	OFF-SITE OPEN SPACE AREA	11,432 SF	1,062 m ²
	CHILDREN'S PLAY - OFF-SITE		90,157 SF	8,376 m ²
Grand total: 4				

Image	CATEGORY	OUTDOOR OPENSOURCE CHILDRENS PLAY PROVIDED	AREA	Area m
	ON-SITE AMENITY SPACE	CHILDRENS PLAY - ON-SITE	4,462 SF	415 m ²
	OFF SITE SPACE	CHILDRENS PLAY-OFFSITE	2,252 SF	209 m ²
Grand total: 2				
			6,714 SF	624 m ²



PROPERTY LINE

30M FROM HWY

53.5 M CERTIFICATION HEIGHT

45M CERTIFICATION HEIGHT

40M CERTIFICATION HEIGHT

47M CERTIFICATION HEIGHT

CENTRAL ON-SITE AMENITY SPACE

PUBLIC OPEN SPACE

CHILDREN'S PLAY - ON-SITE

OFF-SITE OPEN SPACE

SRW PLAN BCP49386

SRW PLAN BCP49389

SRW PLAN LMP46822

SET BACK

LOT 09 TOWER A 12 STOREY

LOT 09 TOWER B 14 STOREY

SRW PLAN BCP49386

SRW PLAN BCP49389

SRW PLAN LMP46822

SET BACK

OPEN TO BELOW

STAIRS

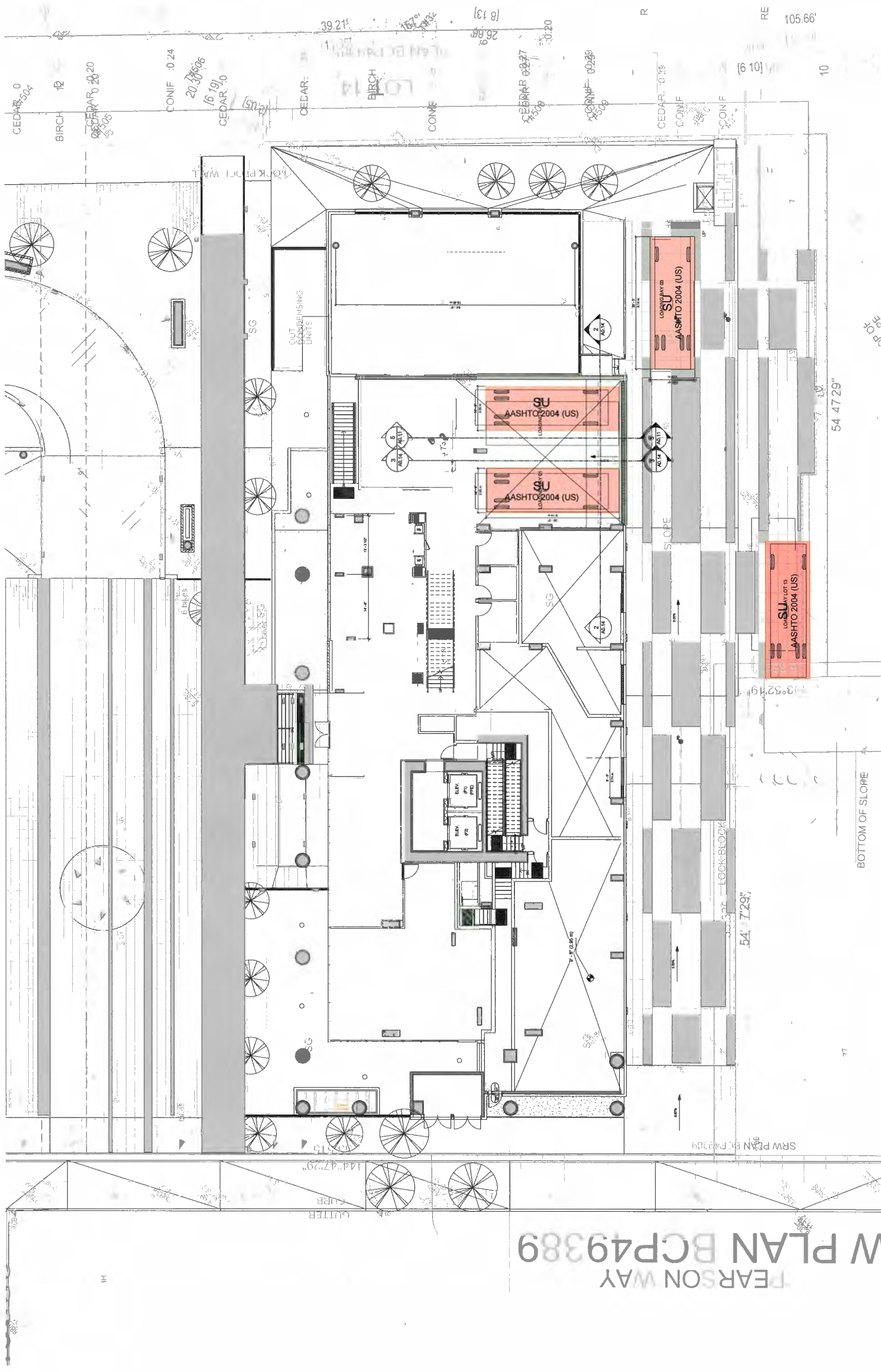
ELEVATOR

L2 OUTDOOR AMENITY SPACE

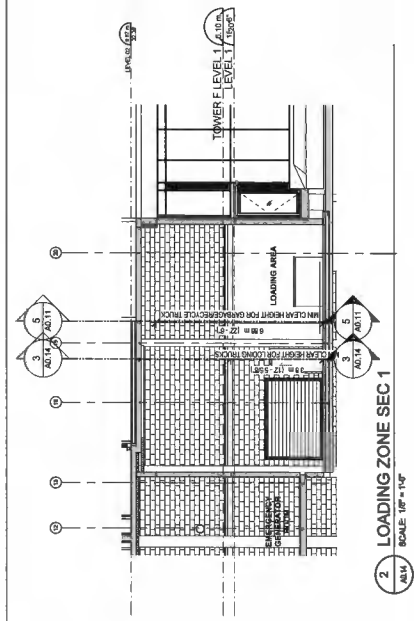
SCALE: 1/8" = 1'-0"

AS

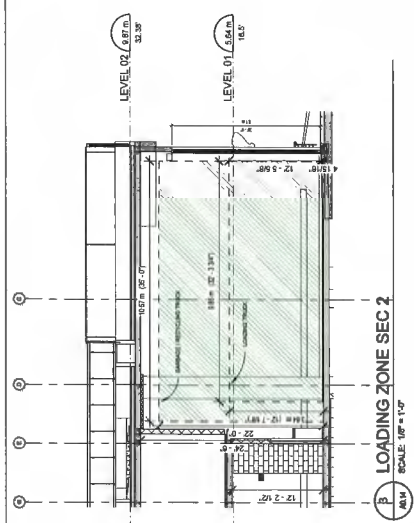
2 AMENITY AREA- LEVEL 02 OUTDOOR



1 LOADING BAY PLAN
SCALE 1/8" = 1'-0"

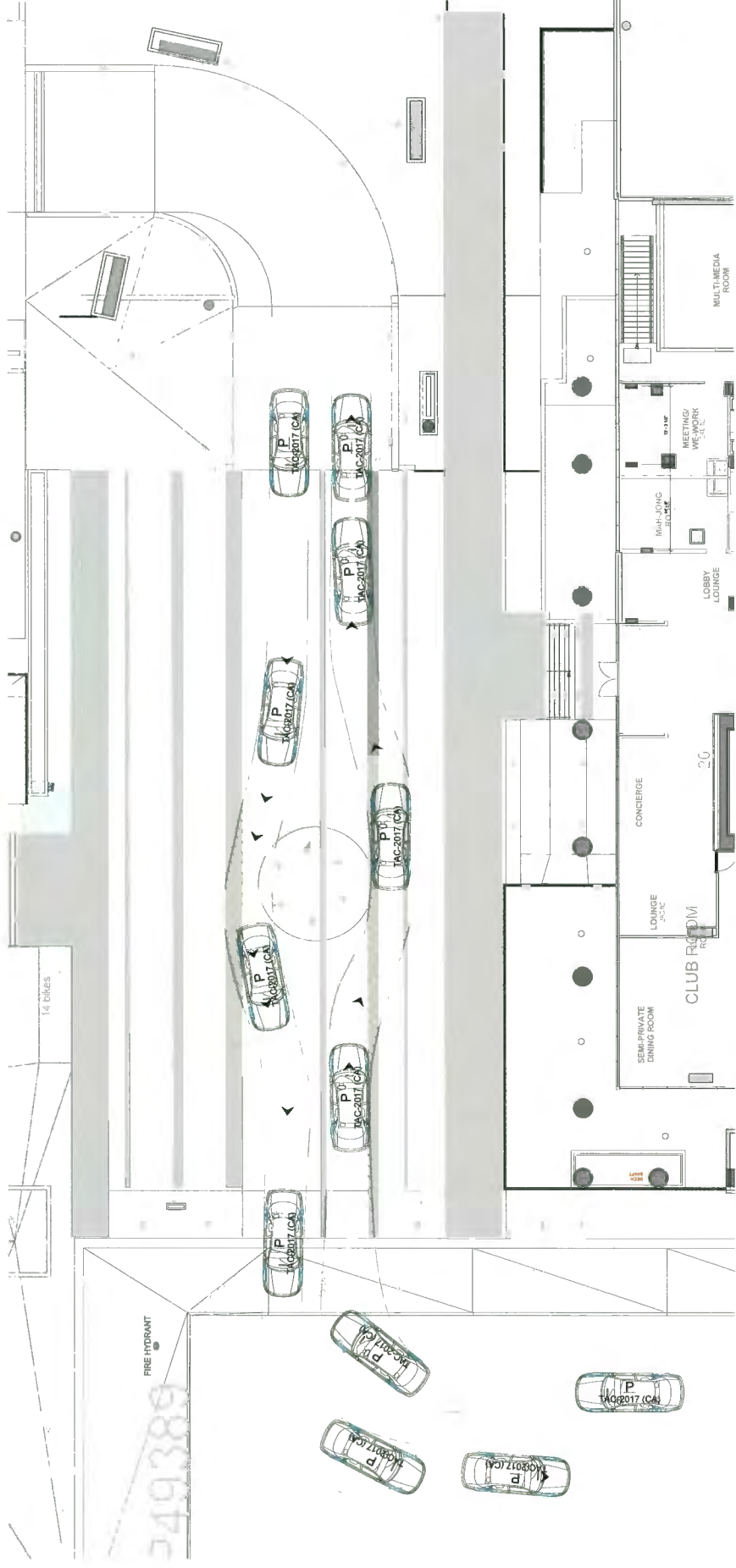


2 LOADING ZONE SEC 1
SCALE 1/8" = 1'-0"

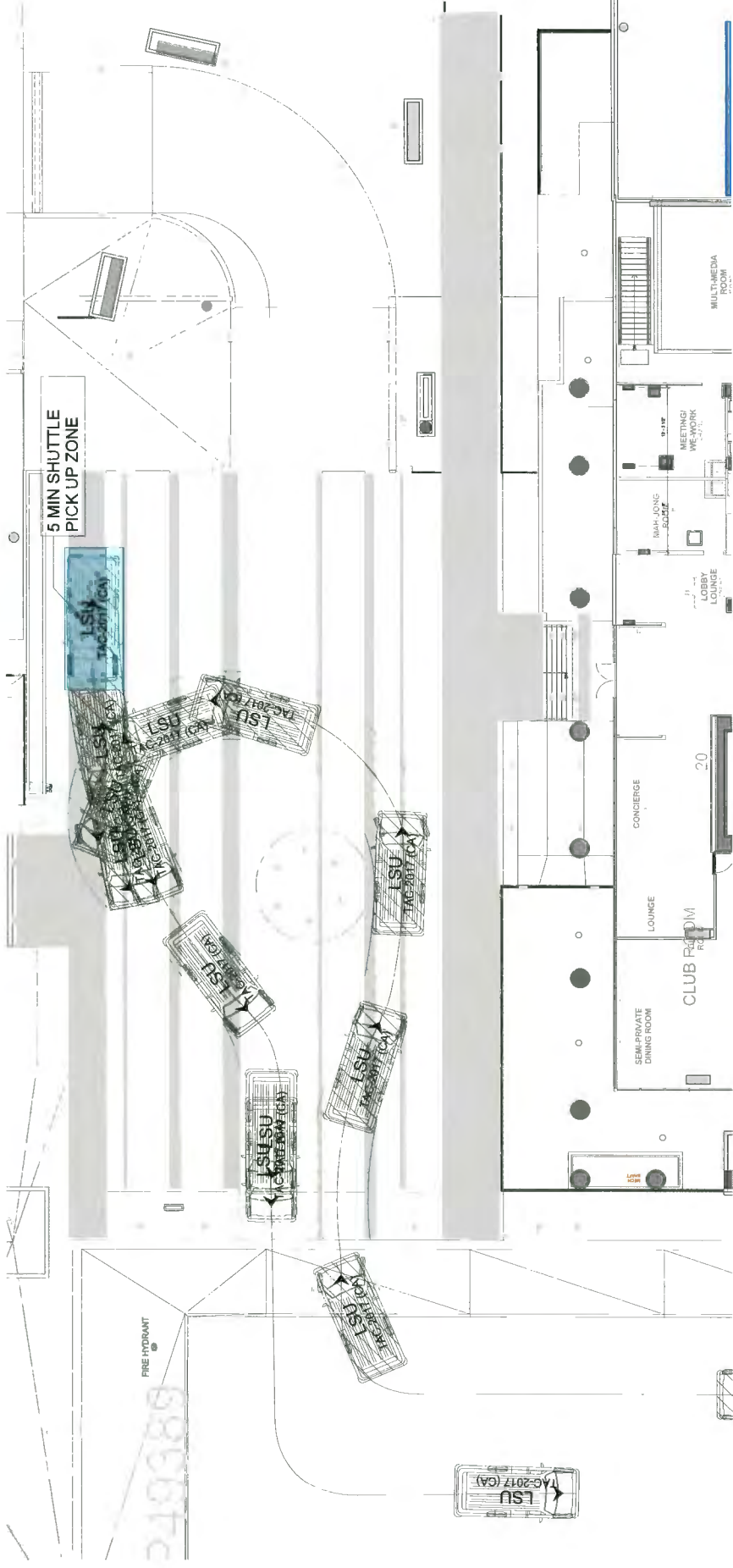


3 LOADING ZONE SEC 2
SCALE 1/8" = 1'-0"

APR 23 2019



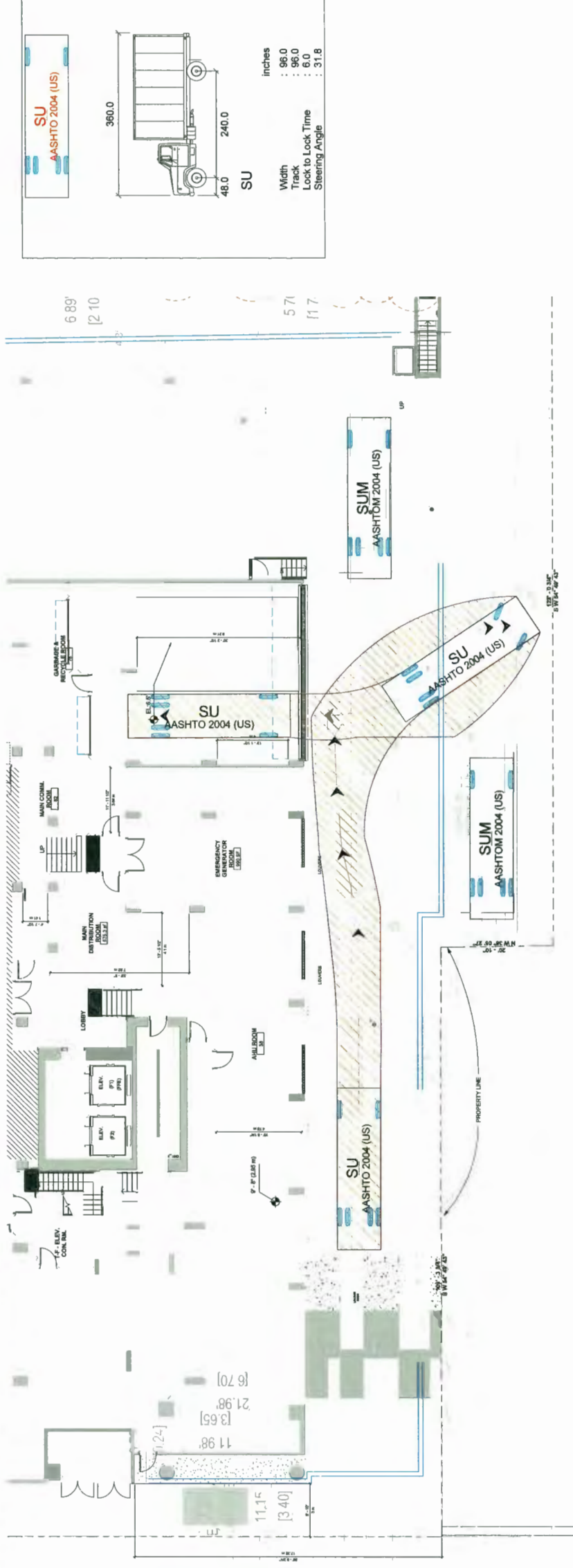
1 DRIVE COURT IN & OUT OF PARKING
SCALE: 1/8" = 1'-0"



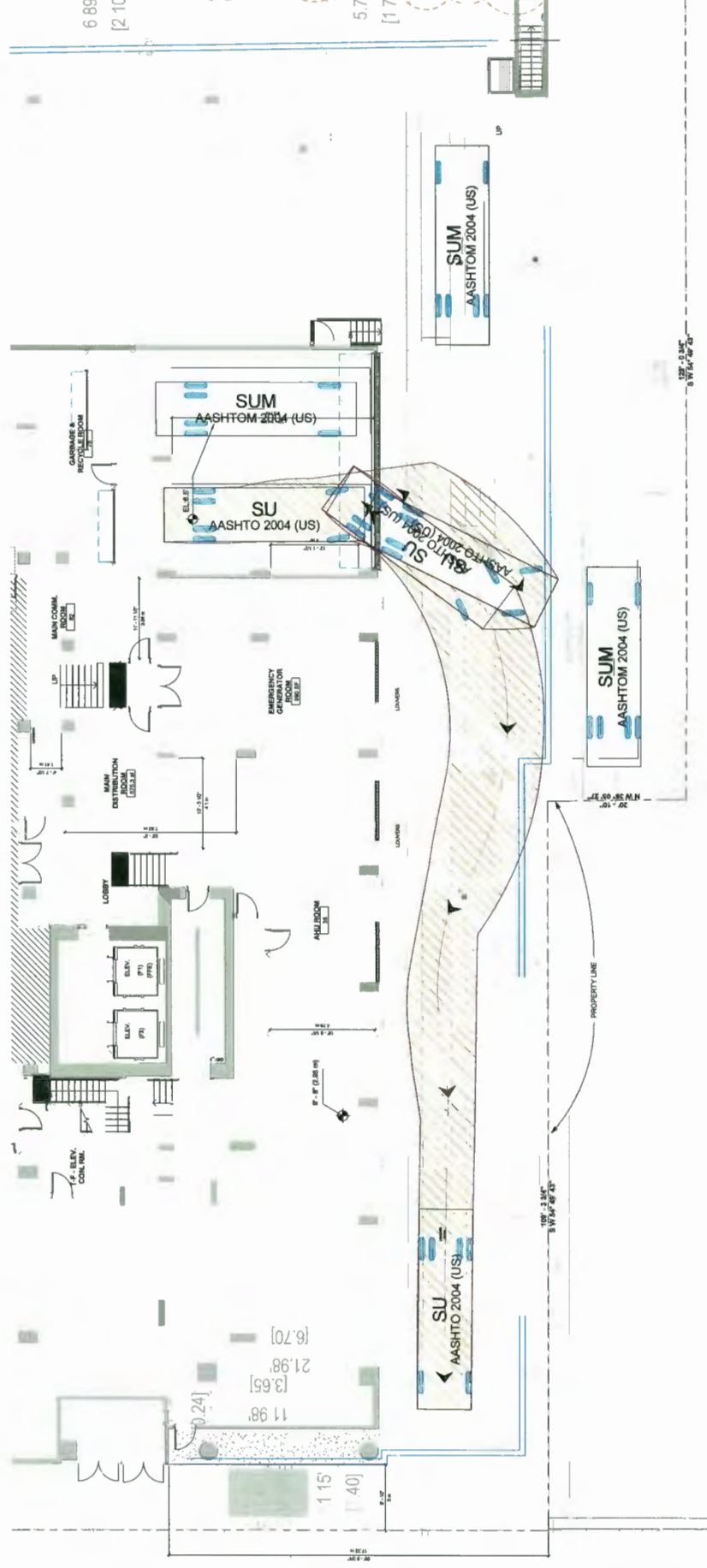
2 DRIVE COURT SHUTTLE
SCALE: 1/8" = 1'-0"

APR 23 2019

LOADING P1-BAY 1:
MSU ENTER INTO LOADING AND EXIT OUT FORWARD (BOTH LOADINGS WORKING TOGETHER).



1 LEVEL P1 -LOADING BAY 01 IN
SCALE: 1/8" = 1'-0"

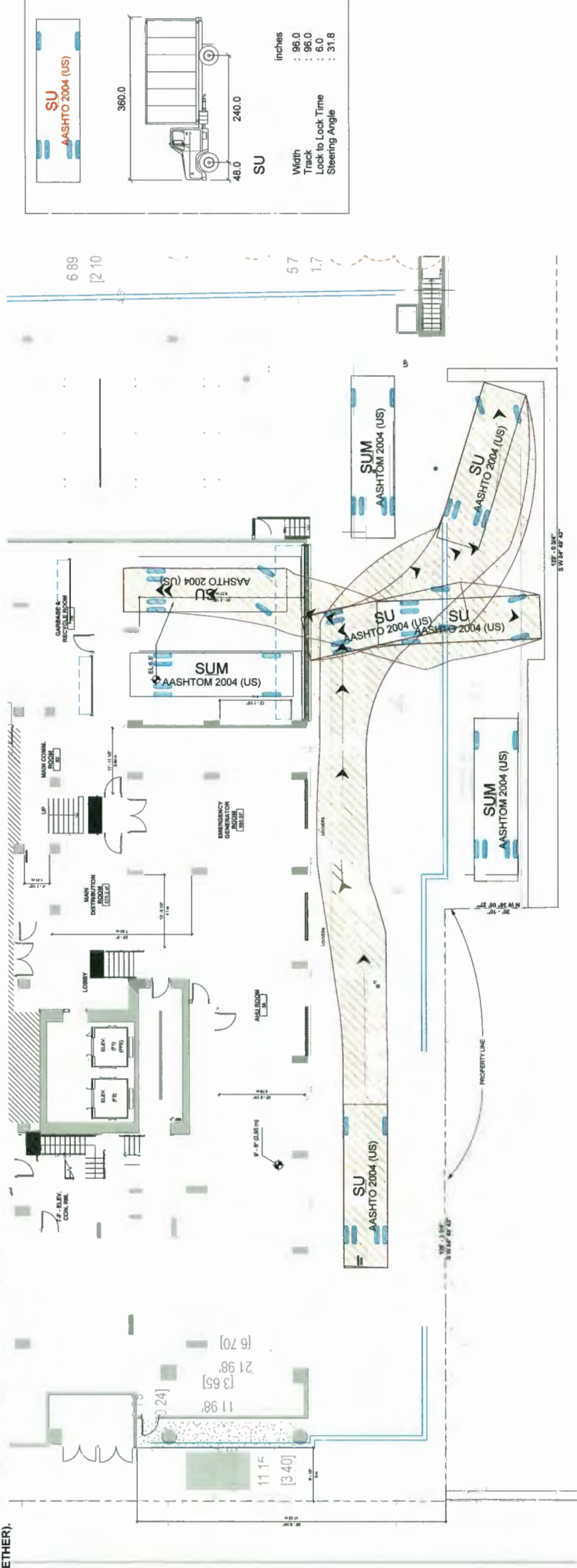


2 LEVEL P1 -LOADING BAY 01 OUT
SCALE: 1/8" = 1'-0"

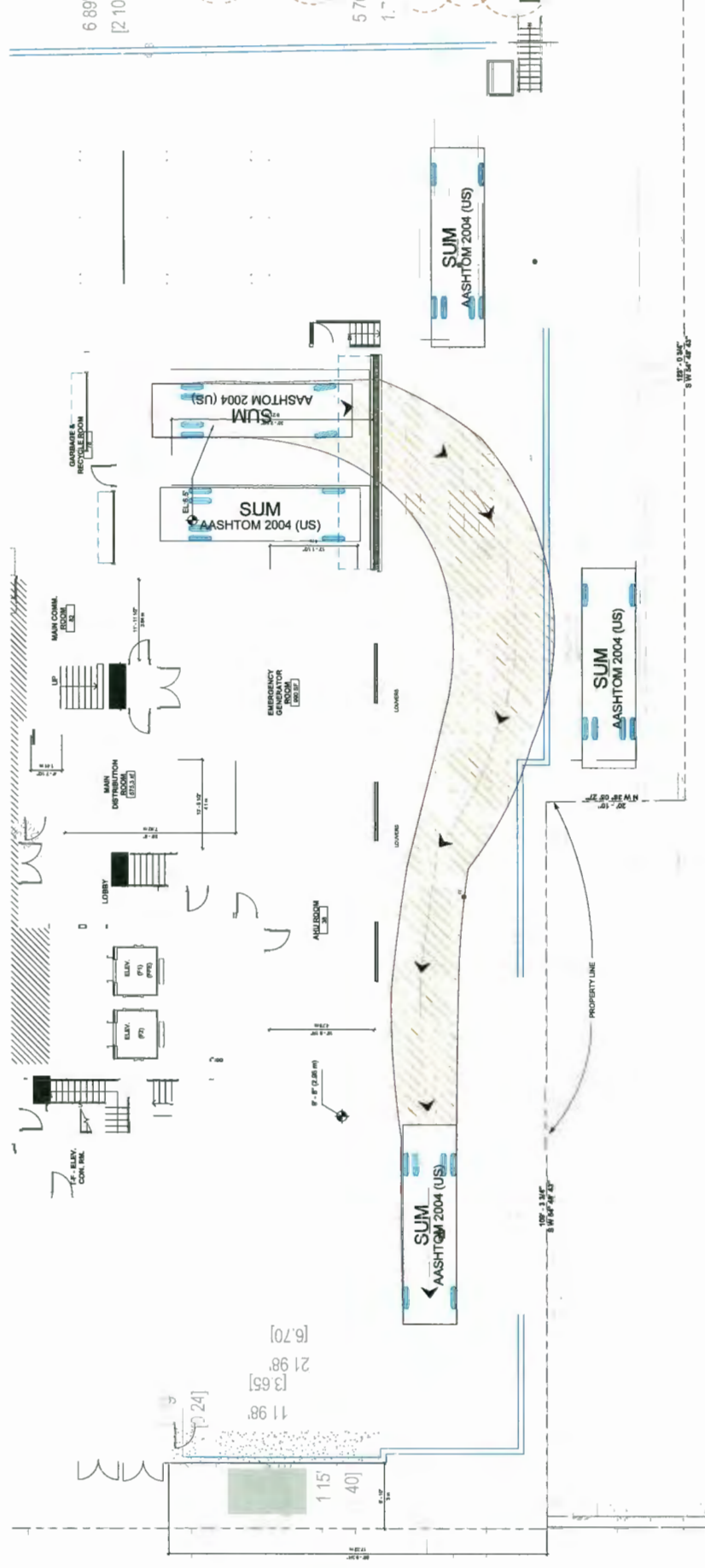
APR 23 2019

DP 18-816029

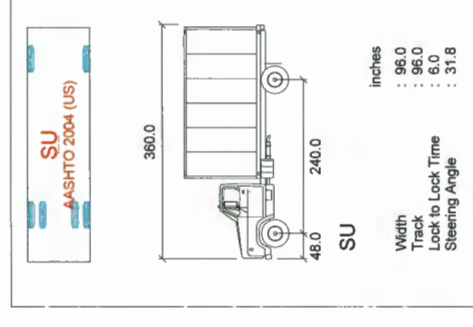
LOADING P1-BAY 2:
MSU ENTER INTO LOADING AND EXIT OUT FORWARD (BOTH LOADING WORKING TOGETHER).



1 LEVEL P1 -LOADING BAY 02 IN
SCALE: 1/8" = 1'-0"



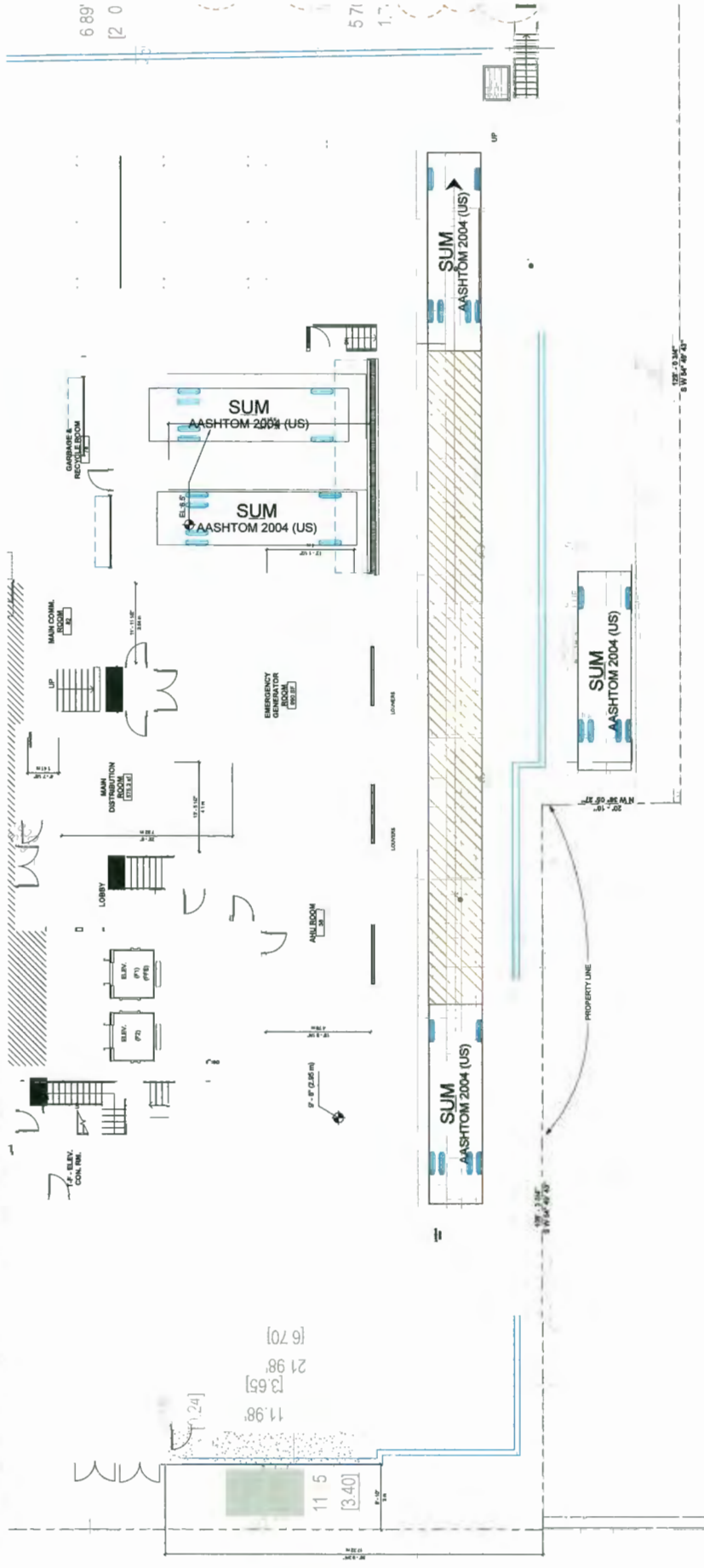
2 LEVEL P1 -LOADING BAY 02 OUT
SCALE: 1/8" = 1'-0"



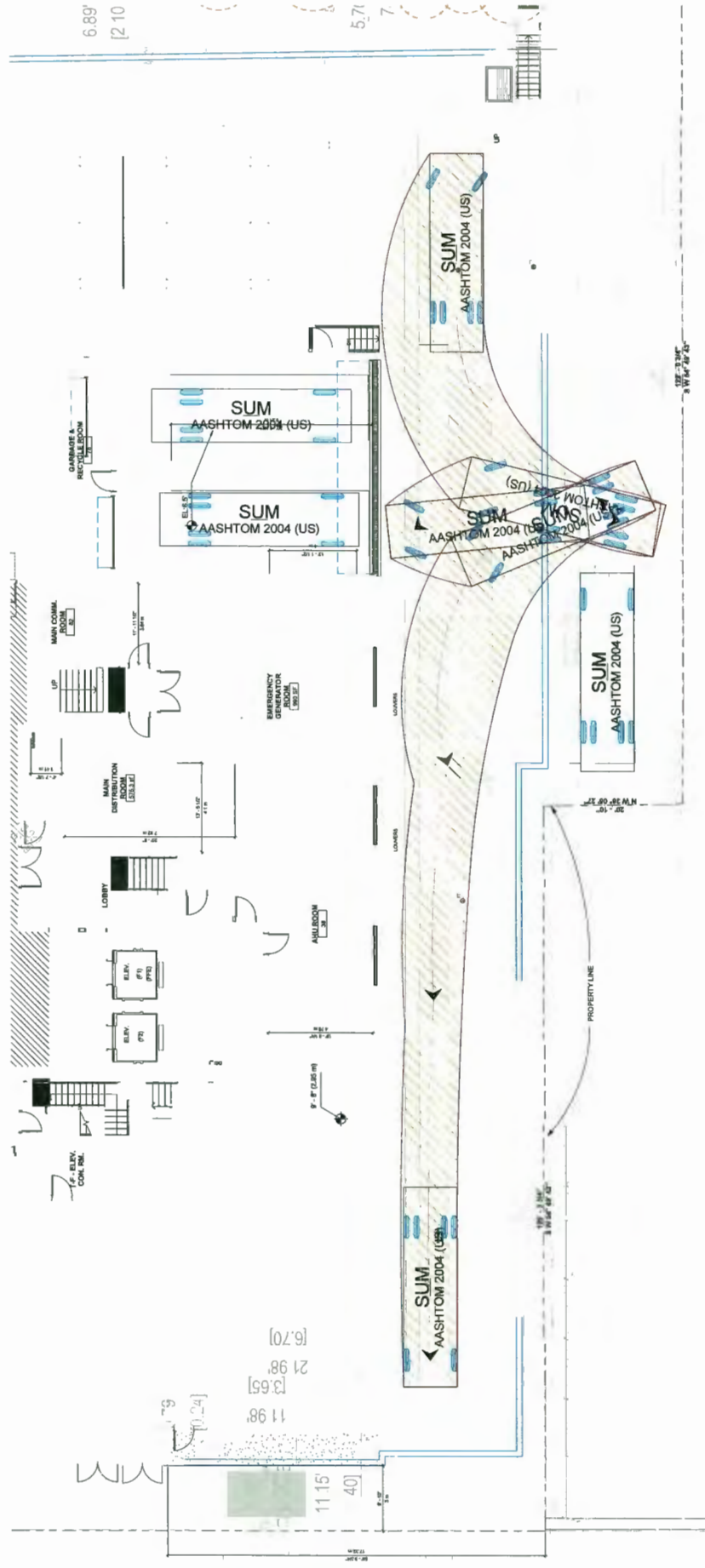
DP 18-816029

APR 23 2019

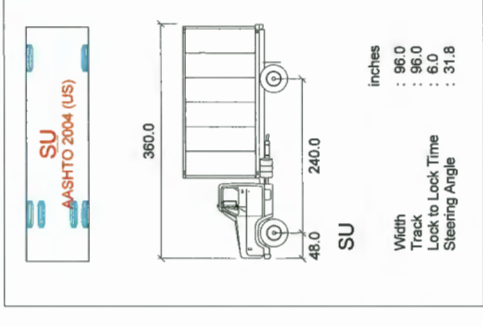
LOADING P1-BAY 3:
MSU ENTER INTO LOADING AND EXIT OUT FORWARD (BOTH LOADING WORKING TOGETHER).



2 LEVEL P1 -LOADING BAY 03 IN
SCALE: 1/8" = 1'-0"

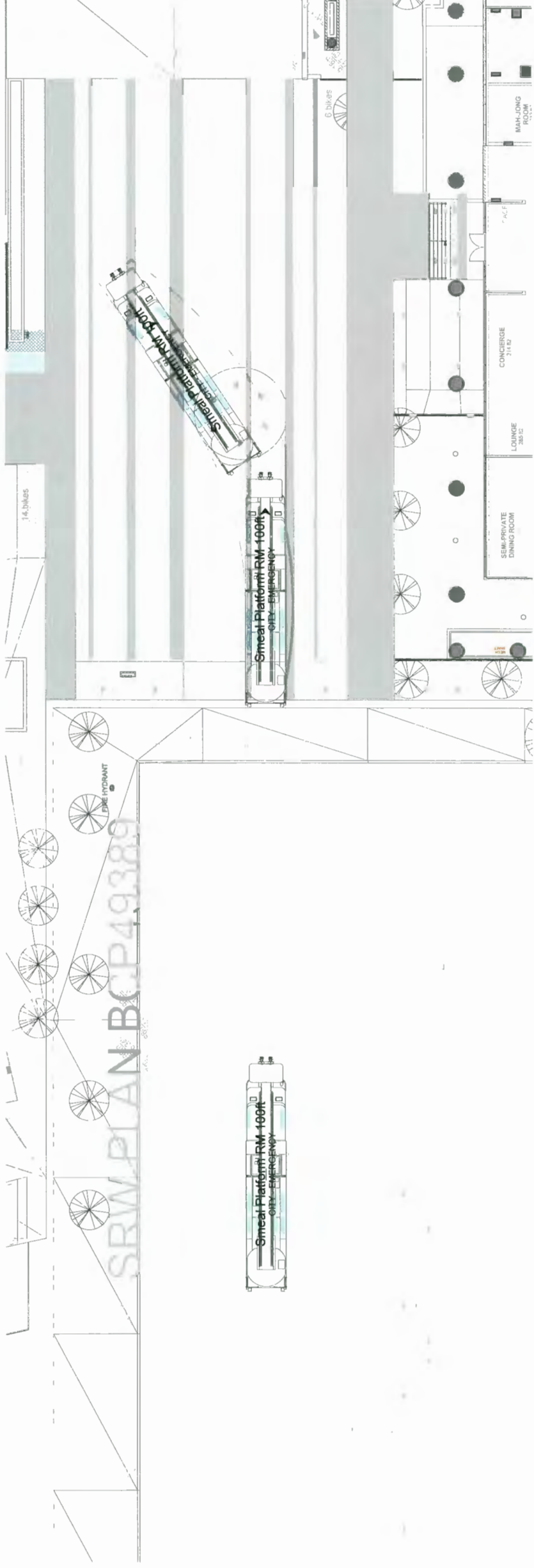


3 LEVEL P1 -LOADING BAY 03 OUT
SCALE: 1/8" = 1'-0"

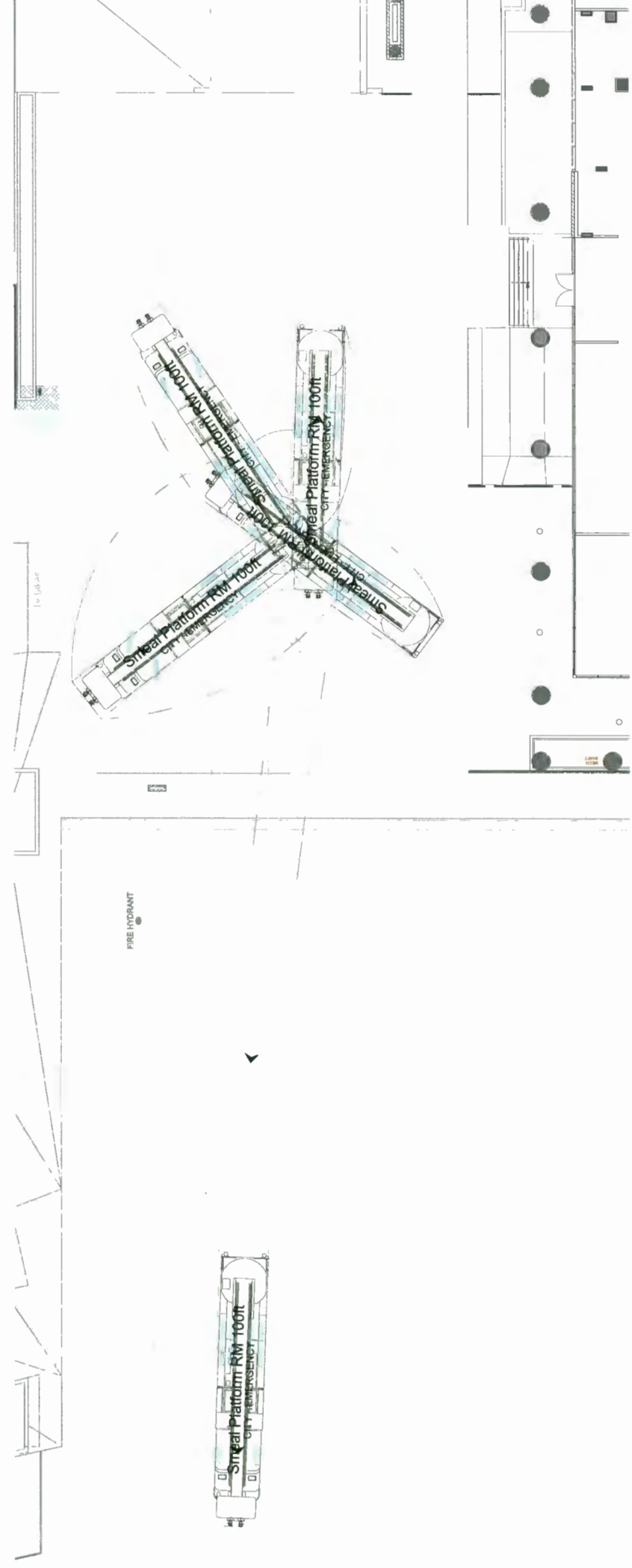


DP 18-816029

APR 23 2019



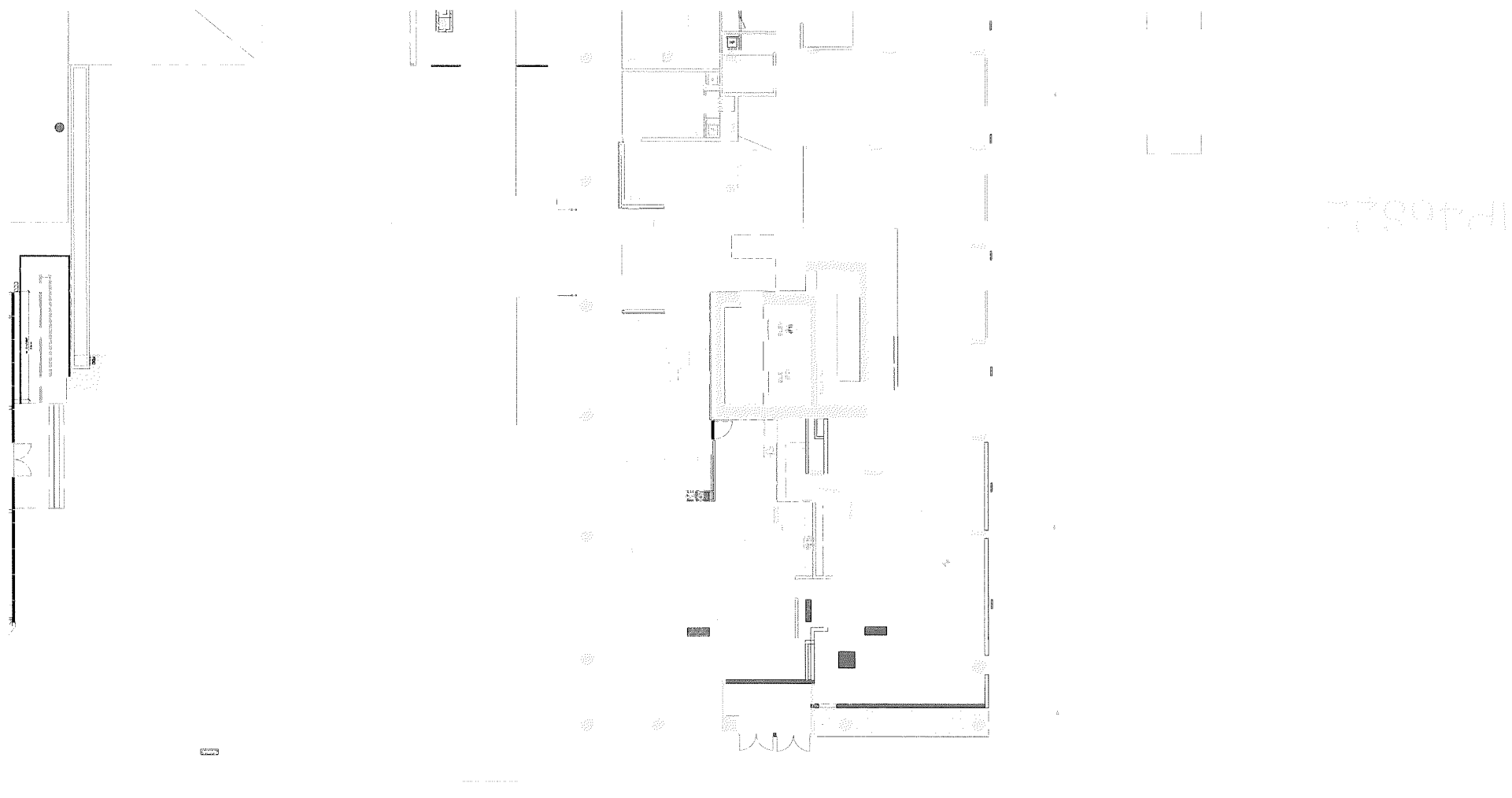
1 FIRE TRUCK IN
SCALE: 1/8" = 1'-0"



2 FIRE TRUCK OUT
SCALE: 1/8" = 1'-0"

APR 23 2019

APR 23 2019



SRW PLAN BCP49389



SRW PLAN BCP49389

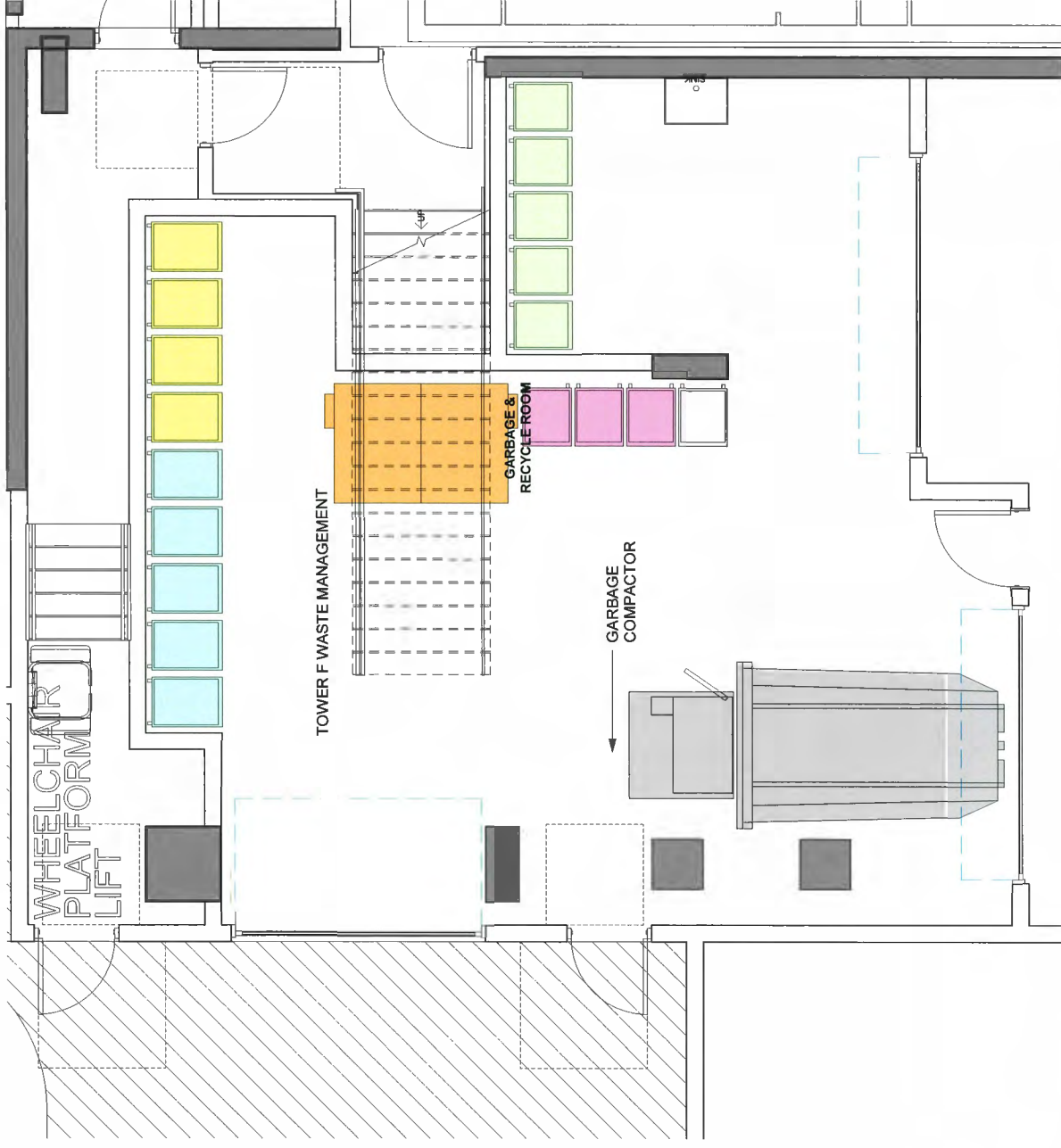
SRW PLAN BCP49389



River Green Lot 17
Development Permit

Submitted to City of Richmond
By IBI Group (Canada) Inc. on behalf of Oval 8 Holdings Ltd.
April 22, 2019





TOWER F TOTAL UNITS: 118 UNITS

TOWER F REQUIREMENT:

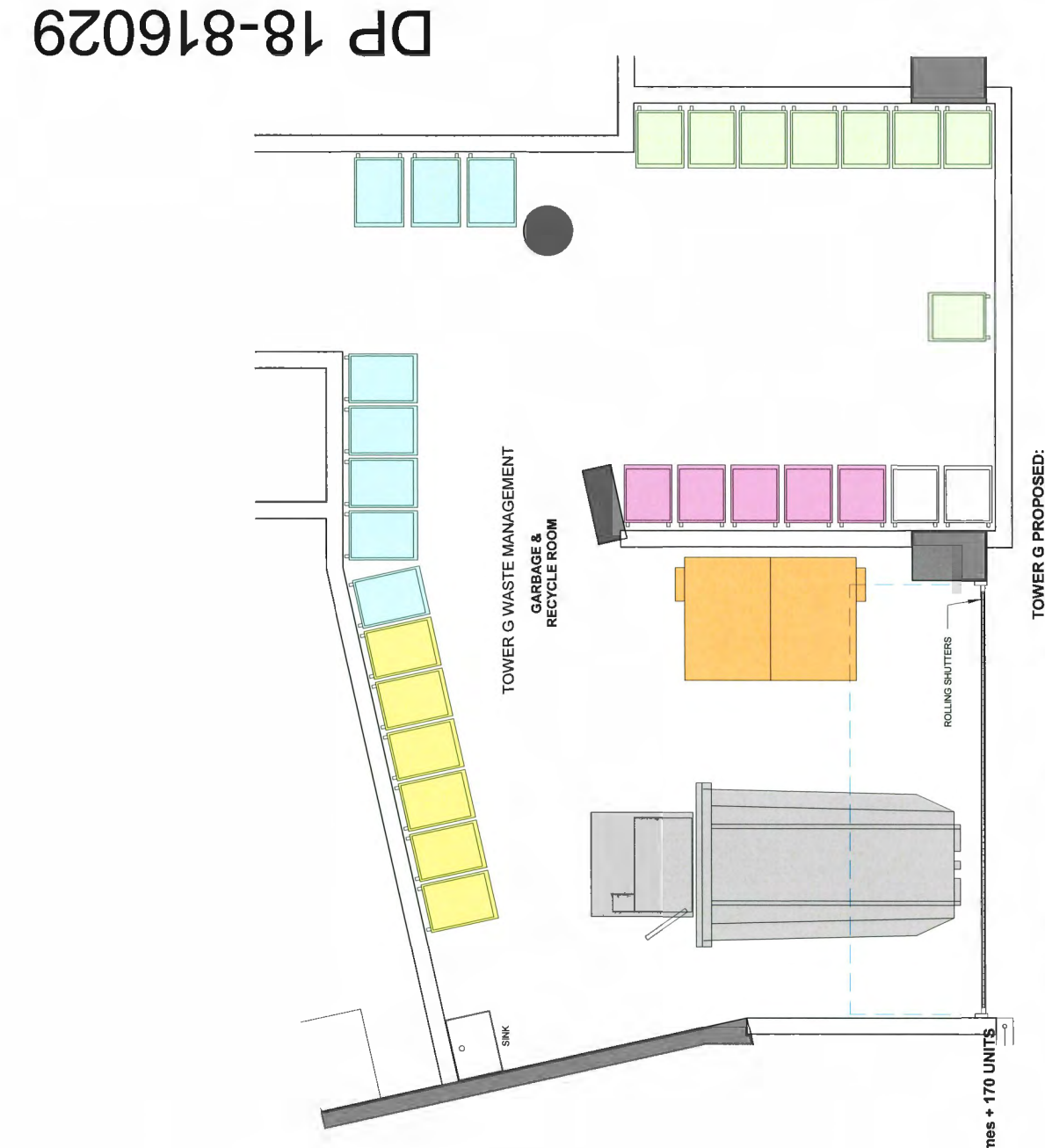
Apartment/Condominium

Apartment/Condominium	Number of Bins	Size of Bin	Collection Frequency
Residential Mixed Containers	5	360L	1x per Week
Residential Refundable Beverage Containers	3	240L	1x per Week
Residential Mixed Paper	4	360L	1x per Week
Residential Glass	1	240L	1x per Week
Residential Food Scraps, and Yard Trimmings	5	240L	1x per Week
Residential Corrugated Cardboard	1	3yd3	1x per Week
Residential Garbage	3	8yd3	1x per Week

TOWER H PROPOSED:

- MIXED CONTAINERS CART
- REFUNDABLE CONTAINERS CART
- MIXED PAPER CART
- GLASS CART
- FOOD SCRAPS CART
- CORRUGATED CARDBOARD BIN
- GARBAGE COMPACTOR

- 5 X 360 L
- 3 X 240 L
- 4 X 360 L
- 1 X 240 L
- 5 X 240 L
- 1 X 3 Yd3



TOWER G TOTAL UNITS: 7 Town Homes + 170 UNITS

TOWER G REQUIREMENT:

Townhouse

Townhouse	Number of Bins	Size of Bin	Collection Frequency
Residential Mixed Containers	1	360L	1x per Week
Residential Refundable Beverage Containers	1	240L	1x per Week
Residential Mixed Paper	1	360L	1x per Week
Residential Glass	1	240L	1x per Week
Residential Food Scraps, and Yard Trimmings	1	240L	1x per Week
Residential Corrugated Cardboard	N/A	N/A	1x per Week
Residential Garbage	3	360L	1x per Week

TOWER G PROPOSED:

- MIXED CONTAINERS CART
- REFUNDABLE CONTAINERS CART
- MIXED PAPER CART
- GLASS CART
- FOOD SCRAPS CART
- CORRUGATED CARDBOARD BIN
- GARBAGE COMPACTOR

- 8 X 360 L
- 5 X 240 L
- 6 X 360 L
- 2 X 240 L
- 8 X 240 L
- 1 X 4 Yd3

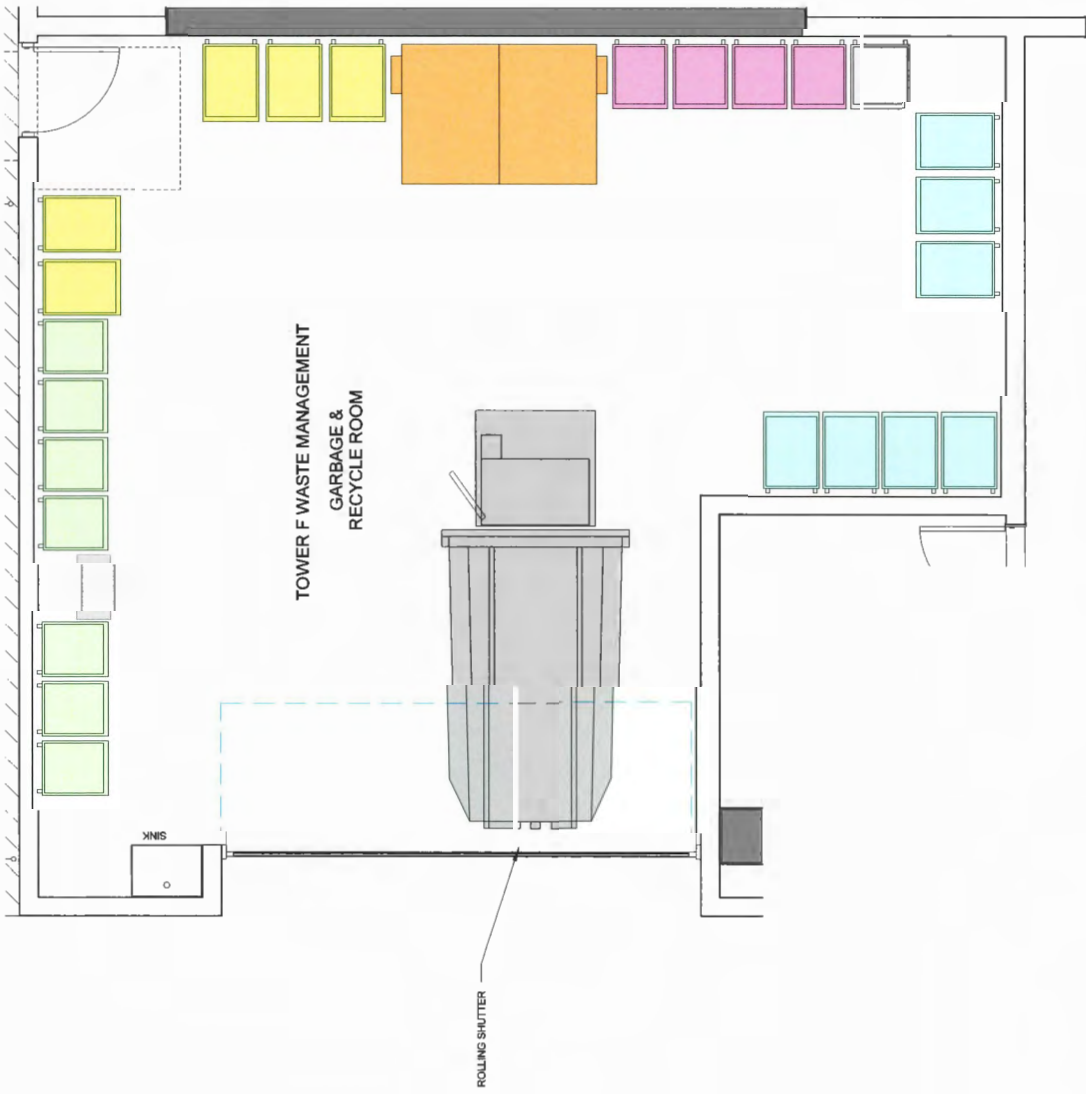
Apartment/Condominium	Number of Bins	Size of Bin	Collection Frequency
Residential Mixed Containers	7	360L	1x per Week
Residential Refundable Beverage Containers	4	240L	1x per Week
Residential Mixed Paper	5	360L	1x per Week
Residential Glass	1	240L	1x per Week
Residential Food Scraps, and Yard Trimmings	7	240L	1x per Week
Residential Corrugated Cardboard	1	4yd3	1x per Week
Residential Garbage	4	8yd3	1x per Week

NOTE:
NO LOADING ALLOWED DURING GARBAGE AND RECYCLING PICKUP TIME.

APR 23 2019

BIN TYPES LEGEND

- FOOD SCRAPS
- MIXED PAPER
- CORRUGATED CARDBOARD
- MIXED CONTAINERS
- GLASS
- GARBAGE COMPACTO
- REFUNDABLE BEVERAGE CONTAINERS



TOWER F WASTE MANAGEMENT
GARBAGE &
RECYCLE ROOM

TOWER H TOTAL UNITS: 118 UNITS

TOWER H REQUIREMENT:

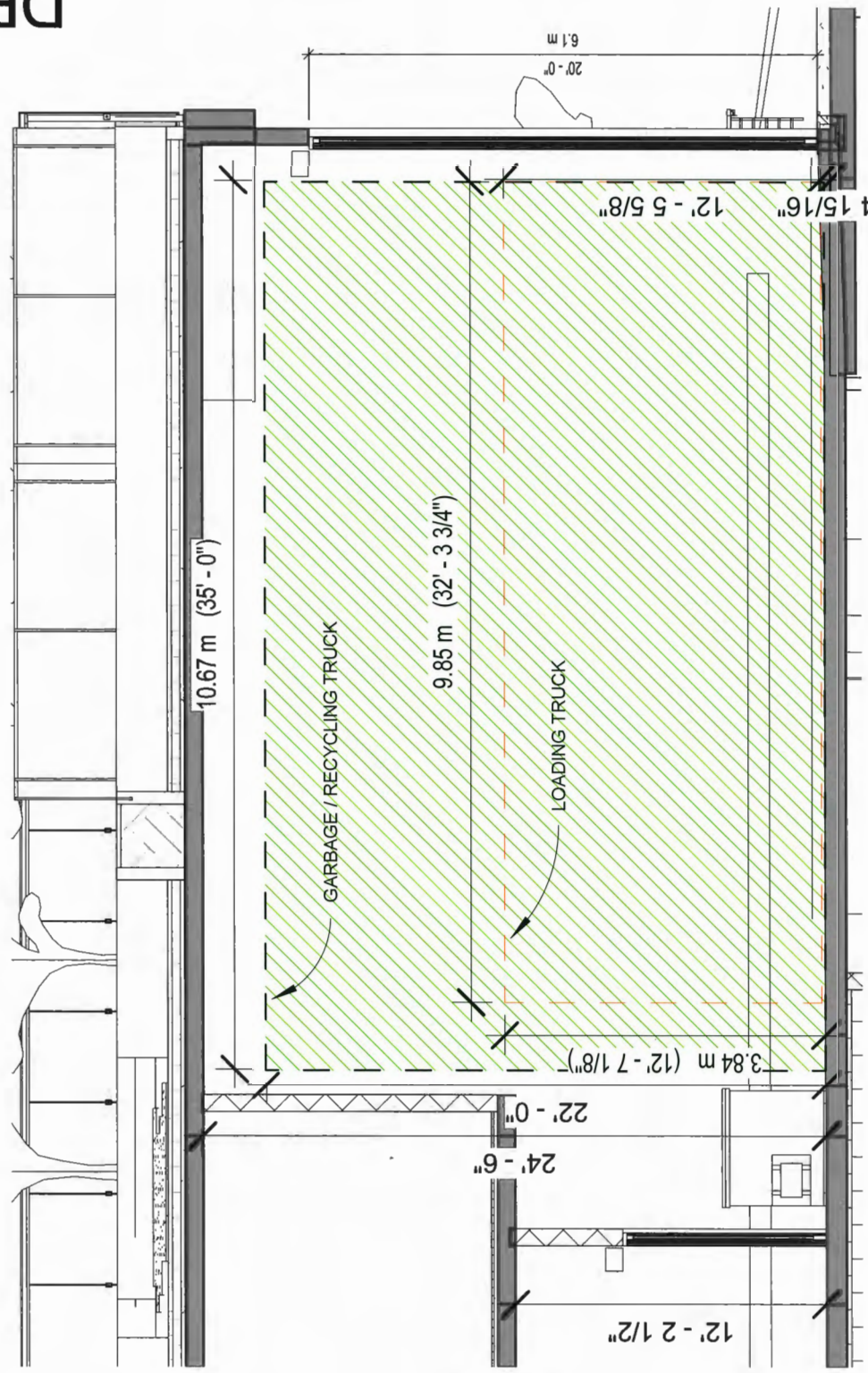
Apartment/Condominium

	Number of Bins	Size of Bin	Collection Frequency
Residential Mixed Containers	7	360L	1x per Week
Residential Refundable Beverage Containers	4	240L	1x per Week
Residential Mixed Paper	5	360L	1x per Week
Residential Glass	1	240L	1x per Week
Residential Food Scraps, and Yard Trimmings	7	240L	1x per Week
Residential Corrugated Cardboard	1	4yd3	1x per Week
Residential Garbage	1	8yd3	1x per Week

TOWER F PROPOSED:

- MIXED CONTAINERS CART
- REFUNDABLE CONTAINERS CART
- MIXED PAPER CART
- GLASS CART
- FOOD SCRAPS CART
- CORRUGATED CARDBOARD BIN
- GARBAGE COMPACTOR

- 7 X 360 L
- 4 X 240 L
- 5 X 360 L
- 1 X 240 L
- 7 X 240 L
- 1 X 4 Yd3

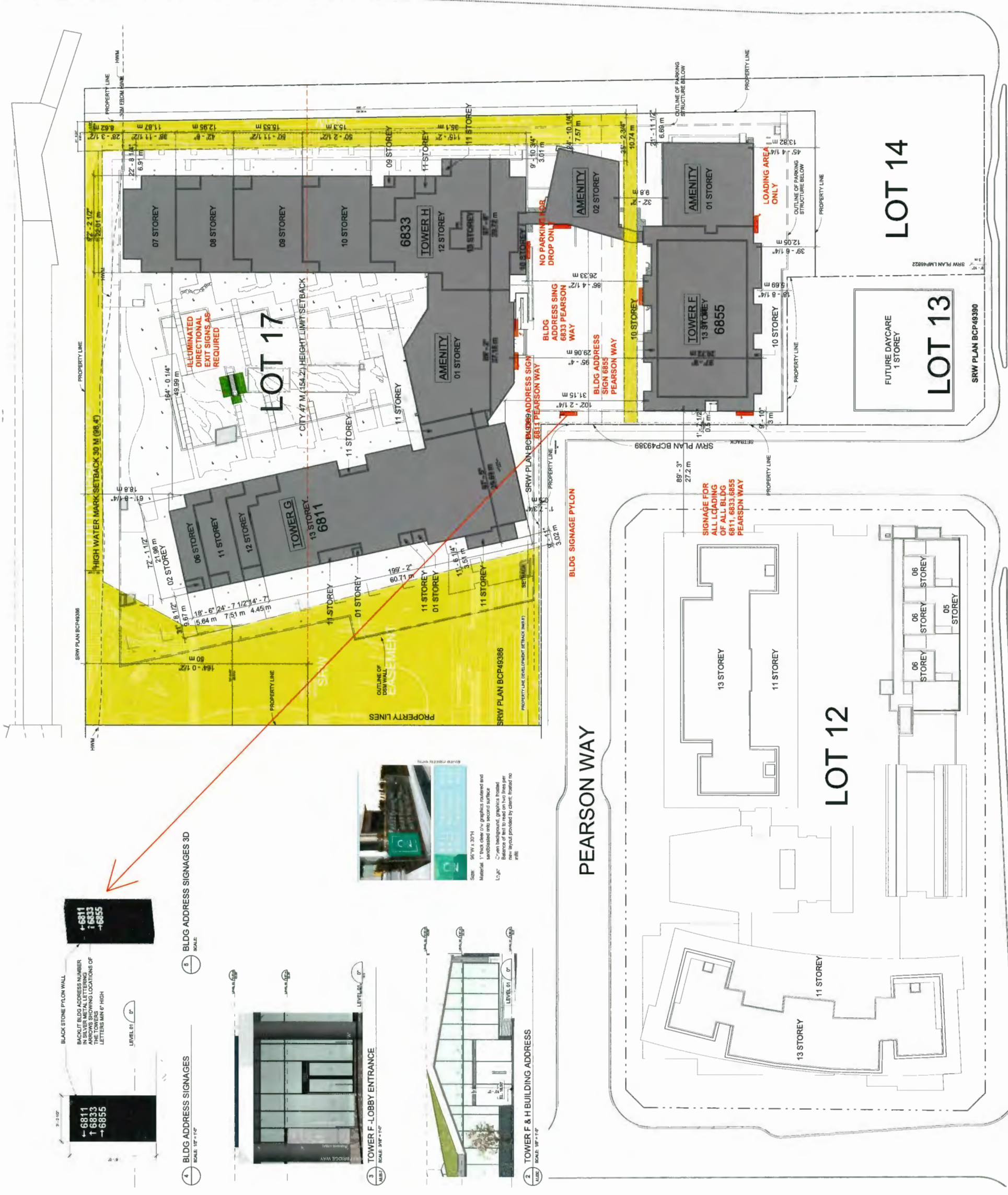


5
A0.14

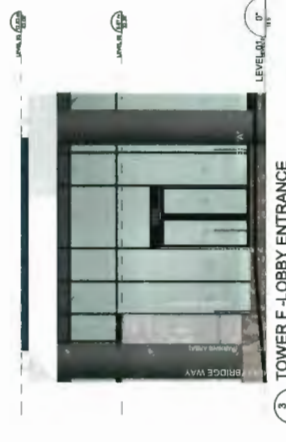
SECTION THROUGH RECYCLING/LOADING AREA

SCALE: 1/8" = 1'-0"

APR 23 2019



1. BLDG ADDRESS SIGNAGES
SCALE: 1/8" = 1'-0"



2. TOWER F - LOBBY ENTRANCE
SCALE: 1/8" = 1'-0"



3. BLDG ADDRESS SIGNAGES 3D
SCALE: 1/8" = 1'-0"



3. TOWER F & H BUILDING ADDRESS
SCALE: 1/8" = 1'-0"

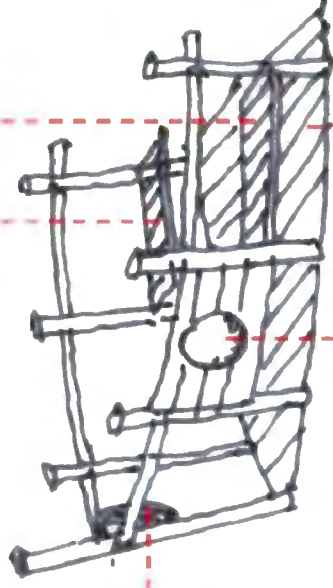
Rock climbing wall



Zone 1

- Wheelchair accessible
- age 2-5

Wood bench



Wood deck



Bull's-eye window

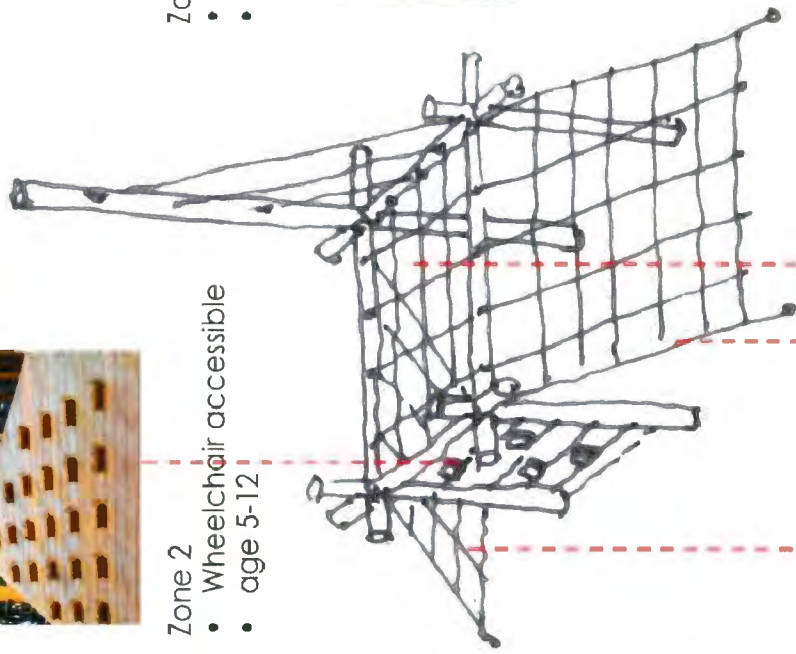
PLAY STRUCTURE (to be design-built by play structure contractor)



Steering wheel

Zone 2

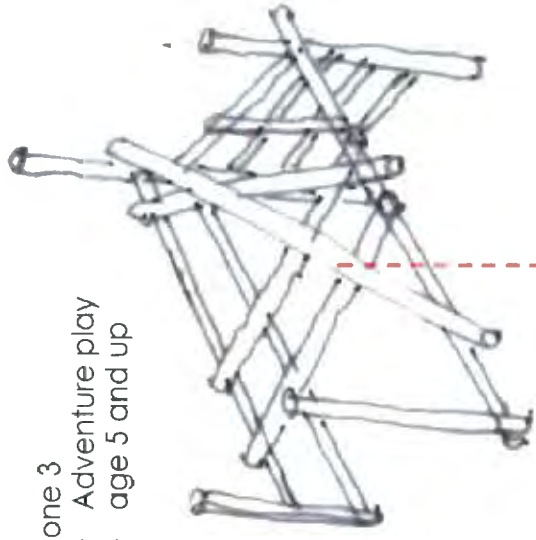
- Wheelchair accessible
- age 5-12



Climbing net

Zone 3

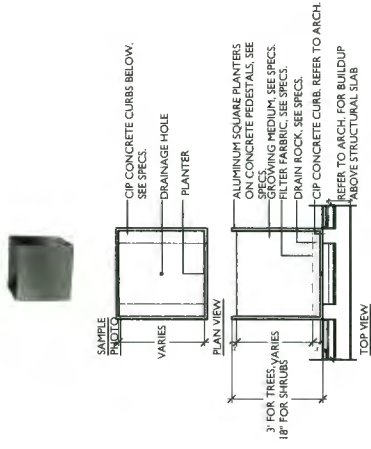
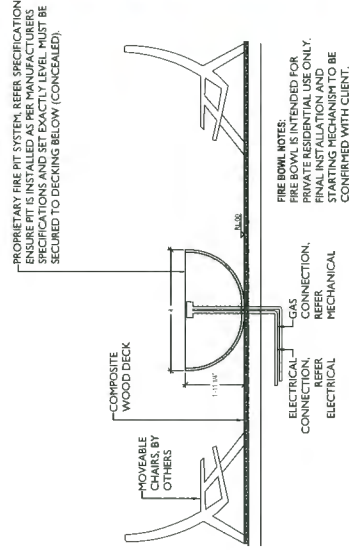
- Adventure play
- age 5 and up



Logs pile



LOG STUMPS



APR 23 2019



23 2019

DP 18-816029

ASPAC
World Class Communities

PFS STUDIO
PLANNING • DESIGN • ARCHITECTURE

Submitted to City of Richmond
By IBI Group (Canada) Inc. on behalf of Oval 8 Holdings Ltd.
April 22, 2019

River Green Lot 17
Development Permit

AERIAL VIEW LOOKING SOUTH WEST

Sheet No. *REFERENCE*



APR 23 2019

DP 18-816029



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APR 23 2019













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DP 18-816029



DP 18-816029

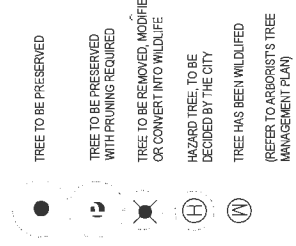
PR 23 2019

Reference

PLANTS SCHEDULE

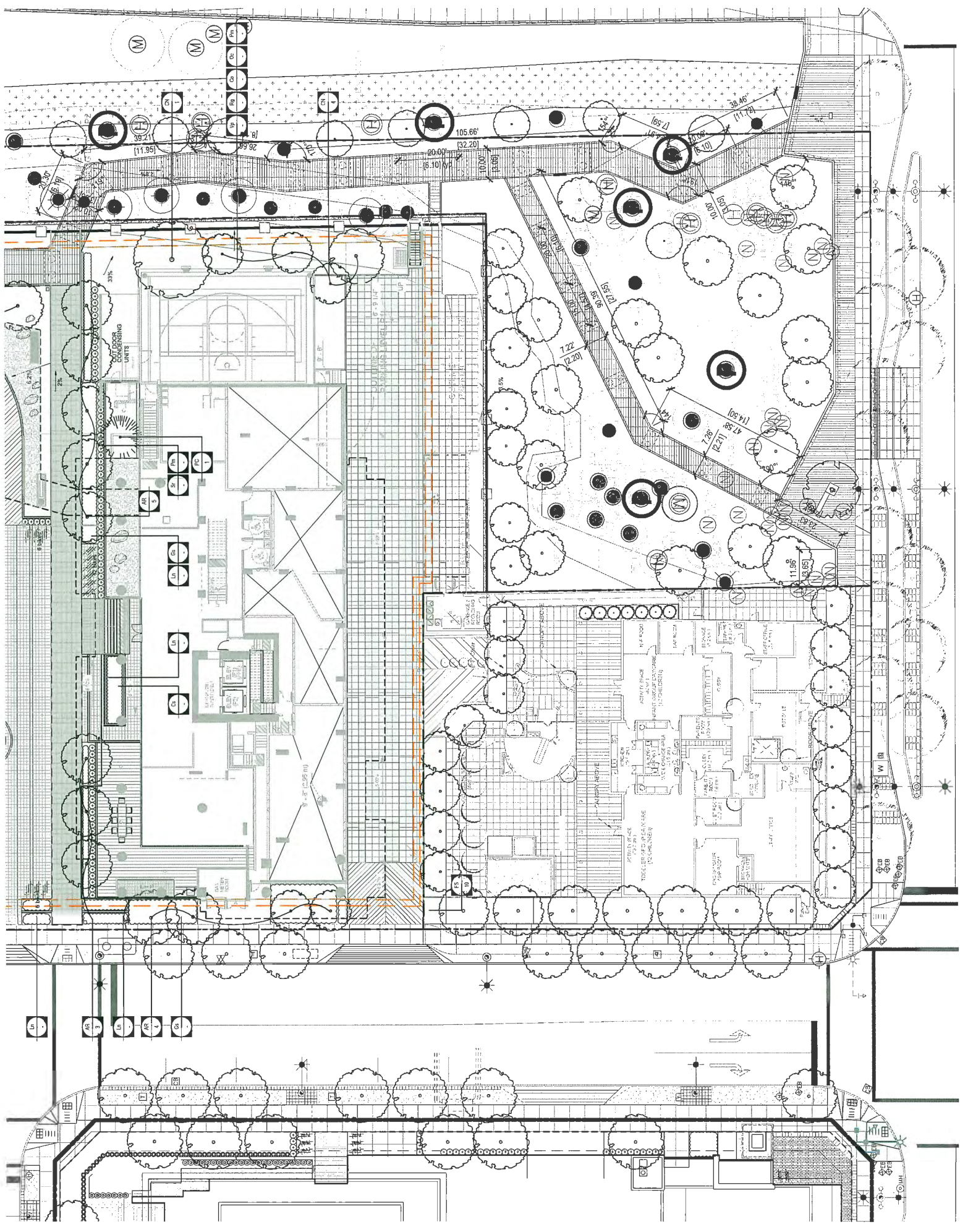
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
TREES					
AC 24		ACER PALMATUM 'OSAKAZUKI'	OSAKAZUKI JAPANESE MAPLE	3.5M HT. WB	MULTISTEMMED (3 MN) FULL
AC 2		ACER CROBATUM	VINE MAPLE	8CM CAL. WB	MULTISTEMMED (3 MN) FULL
AR 8		ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	8CM CAL. WB	FULL UNIFORM SIZE & QUALITY
AR 15		ACER RUBRUM 'PEPULOID'	COLUMBIAN RED MAPLE	8CM CAL. WB	FULL UNIFORM SIZE & QUALITY
FN 8		FRAXINUS PENNILLI	WESTERN FLOWERING DOGWOOD	7CM CAL. WB	FULL UNIFORM SIZE & QUALITY
FL 1		CORNUS NUTTALLII	LEPRECHAUN ASH	8CM CAL. WB	FULL UNIFORM SIZE & QUALITY
MG 22		MAGNOLIA GRANDIFLORA 'LITTLE GEM'	ROYAL CROWN MAGNOLIA	8CM CAL. WB	6" STANDARD, UNIFORM SIZE & QUALITY
MR 4		MALUS RED SENTINEL	RED SENTINEL CRABAPPLE	7CM CAL. WB	MULTISTEMMED (3 MN) FULL
MR 9		MALUS COMITATA	SHORE PINE	7CM CAL. WB	FULL UNIFORM SIZE & QUALITY
PC 3		PRUNUS SEROTINATA 'KANSAN'	JAPANESE FLOWERING CHERRY	7CM CAL. WB	SPECIMEN & PICTURESQUE QUALITY
PC 26		PRUNUS SEROTINATA 'KANSAN'	JAPANESE FLOWERING CHERRY	7CM CAL. WB	SPECIMEN QUALITY, 8 STD. FULL
AS 23		ACER PALMATUM 'SHINESHODU'	SHINESHODU JAPANESE MAPLE	7 CM CAL. WB	MULTISTEMMED (3 MN) FULL
SHRUBS					
BE		BERGENIA FIORENTINA	ELFANT BARS	#2 POT	24" O.C.
ZE		ZEE HEATHER	ZEE HEATHER	#2 POT	24" O.C.
CO		CORNUS STOLONIFERA	RED OSIER DOGWOOD	#2 POT	24" O.C.
CO		CORNUS SERICEA	RED STEM DOGWOOD	#2 POT	24" O.C.
ER		ERICA DARLEYENSIS X MEDITERRANEAN WHITE	MEDITERRANEAN HEATHER	#2 POT	24" O.C.
GA		GAULTHERIA SHALLOON	SALAL	#2 POT	12" O.C.
LA		LAVANDULA ANGLUSTIFOLIA	ENGLISH LAVENDER	#2 POT	24" O.C.
LZ		LEUCODIUM ZEBILD	DRIPPING LAUREL	#2 POT	24" O.C.
LN		LONICERA NITIDA	SOXLEAF HONEY-SUCKLE	#2 POT	18" O.C.
MA		MAGNOLIA NERVENA	WAXY MAGNOLIA	#2 POT	24" O.C.
MA		MAGNOLIA GRANDIFLORA	WAXY MAGNOLIA	#2 POT	24" O.C.
OC		OLEA EUROPAEA 'SERRAFOREMIS'	INDIAN PLUM	#2 POT	24" O.C.
PM		POLYSTICHUM MUNITUM	WESTERN SWARTHORN	#2 POT	24" O.C.
PI		PINUS MUGO 'SLOWMOUND'	DWARF MOUNTAIN PINE	#2 POT	24" O.C.
PI		PACHYSAURA TERMINALIS	JAPANESE SPURGE	#2 POT	18" O.C.
RG		ROSA 'OTYANCARPA'	BALDHIP ROSE	#2 POT	18" O.C.
RO		ROSA X CAMPFIRE	CAMPFIRE ROSE	#2 POT	24" O.C.
RH		RHOODODENDRON 'YAKU PRINCESS'	WHITE DWARF RHOODODENDRON	#2 POT	24" O.C.
RS		RIBES SPECTABILIS	SALMONBERRY	#1 POT	12" O.C.
SA		SAULUS CAUCASICA	CARICOLA STONECROP	#1 POT	12" O.C.
SA		SAULUS RACEMOSA	RED STONECROP	#1 POT	12" O.C.
SB		SAMBUCUS PARVIFOLIUM	RED ELDERBERRY	#2 POT	24" O.C.
SB		SAMBUCUS PARVIFOLIUM	RED ELDERBERRY	#2 POT	24" O.C.
VO		VACCINIUM PARVIFOLIUM	RED HUCKLEBERRY	#2 POT	24" O.C.
SK		SKIMMIA REEVESSIANA 'FEMALE 90% MALE 10%'	REEDS SKIMMIA	#3 POT	18" O.C.
HEGELDS					
BM		BUXUS MICROPHYLLA 'WINTER GEM'	LITTLE LEAF BOXWOOD	#3 POT	18" O.C.
HM		HAMMILIA 'M. EDIE' MALE	H.M. EDIE YEW	40" HIGH FIELD GROWN 24" O.C.	
FS		FAGUS SYLVATICA 'DAWYTON'	COLUMNAR EUROPEAN BIRCH	15.20" DIA ROOTBALL, 8.4E FULLY BRANCHED TO BASE	
GRASSES/ PERENNIALS					
BL		BLECHNIUM SPICATUM	DEER FERN	#1 POT	12" O.C.
CA		CAREX EVERLIME	EVERLIME SEDGE	#1 POT	12" O.C.
CA		CAREX MORROWII 'ICE DANCE'	MORROW'S SEDGE	#1 POT	12" O.C.
CA		CAREX ORNUPITA	SLOUGH SEDGE	#1 POT	12" O.C.
CA		CAREX SITCHENSIS	SITKA SEDGE	#1 POT	12" O.C.
GD		DESCHAMPSIA CESPOSITA 'GOLDTAP'	GOLD TAP TUFTED HAW GRASS	#2 POT	18" O.C.
EC		ERCHINACA PALUDA	PALE PURPLE CONE FLOWER	#1 POT	12" O.C.
ER		ERINACIUM HERACIUM	BLUE SCROPE	#1 POT	12" O.C.
FE		FESTUCA MAREI	ATLAS FESCUE	#2 POT	18" O.C.
FE		FESTUCA MAREI	ATLAS FESCUE	#2 POT	18" O.C.
FM		FERNICULUM VULGARE 'GIANT BRONZE'	BRONZE FENNEL	#2 POT	18" O.C.
FM		HAKONECILOA MACRA	JAPANESE FOREST GRASS	#1 POT	12" O.C.
MS		MISCANTHUS SINENSIS 'LITTLE KITTY'	MADEN GRASS	#2 POT	18" O.C.
PA		PETRIDUM AQUIFOLIUM	BRACKEN FERN	#2 POT	18" O.C.
PA		PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	#1 POT	12" O.C.
SA		SALVIA NEMOROSA 'AMETHYST'	AMETHYST SAGE	#1 POT	12" O.C.
SB		RUBECENIA MAXIMA	GREAT CONEFLOWER	#1 POT	12" O.C.
SS		SEDUM TILE, FOUR-SEASONS	GREEN ROOF SEDUM	#1 POT	12" O.C.

EXISTING TREE LEGEND



PLANTING GENERAL NOTES

- GREEN ROOF TILES PLANT SPECIES REFER TO SUPPLIER'S DESIGN
- ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARD SPECIFIED IN THE SCHEDULE. PLANT MATERIAL SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE INSPECTED AND APPROVED BY THE BC SOCIETY OF LANDSCAPE ARCHITECTS (BCSLA) AND THE BC SOCIETY OF PLANT PROPAGATORS (BCSP) AT THE TIME OF DELIVERY TO THE SITE.
- SEARCH AREA FOR ALL PLANT MATERIAL SHALL INCLUDE ALL OF WESTERN NORTH AMERICA OR AS SPECIFIED.
- PLANT MATERIAL SIZES SPECIFIED ARE THE MINIMUM ACCEPTABLE SIZES TO BE SUPPLIED TO THIS PROJECT.
- ALL PLANT MATERIAL SHALL BE WELL ESTABLISHED AND UNIFORM IN SHAPE AND SIZE.
- PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED. ONLY CERTIFIED S.O.D. NURSERY STOCK WILL BE ACCEPTED.
- THE CONTRACTOR SHALL PROVIDE A GROWING MEDIUM ANALYSIS FOR REVIEW BY THE CONSULTANT AS PER SPECIFICATIONS - PRIOR TO THE START OF CONSTRUCTION. GROWING MEDIUM SUPPLIED TO THE SITE OR INSTALLED ON SITE PRIOR TO CONSULTANT APPROVAL SHALL BE REJECTED AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL CONFIRM PLANT QUANTITIES ON THE DRAWINGS CORRESPOND TO THOSE INDICATED ON THE PLANT LIST. PLANTING RESPONSES SHALL BE VERIFIED BY THE CONSULTANT FOR COMPLIANCE.
- PLANT LIST TO BE READ IN CONJUNCTION WITH SPECIFICATIONS FOR COMPLIANCE.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF THE PLANT MATERIAL SPECIFIED AS PER SPECIFICATIONS, ALLOWING FOR ANY AND ALL REQUIRED APPROVALS. PLANT SUBSTITUTIONS NOT CONFIRMED AND APPROVED BY THE CONSULTANT WILL BE REJECTED FOR ALL PUBLIC OPEN SPACE, GREEN ROOF, COURTYARD AND LANDSCAPE PATIOS. PLANTING RESPONSES SHALL BE VERIFIED BY THE CONSULTANT FOR COMPLIANCE.
- HOSE BIBS WILL BE PROVIDED FOR COMMON AREAS AND SOME PRIVATE PATIOS. REFER TO ARCHITECTURAL DRAWINGS FOR HOSE BIB LOCATIONS.
- OFF SITE PLANTING DESIGN ARE INCLUDED IN SK. REFER TO THE PROJECT ARCHITECT'S DRAWINGS FOR EXISTING TREE MANAGEMENT. REFER TO THE ENVIRONMENTAL CONSULTANT'S DRAWINGS FOR THE LOT PLANTING DESIGN.





City of Richmond

Heritage Alteration Permit

No. HA18-840992

To the Holder: Oval 8 Holdings Ltd. Inc. No. 0805724

Property Address: 6900 River Road

Address: Suite 1830 - 1055 West Hastings
Vancouver BC V6E 2E9

(s.617, *Local Government Act*)

1. (Reason for Permit)
 - Designated Heritage Property (s.611)
 - Property Subject to Temporary Protection (s.609)
 - Property Subject to Heritage Revitalization Agreement (s.610)
 - Property in Heritage Conservation Area (s.615)
 - Property Subject to s.219 Heritage Covenant (Land Titles Act)
2. This Heritage Alteration Permit is issued to authorize:
 - Construction of the elevated boardwalk and installation of heritage interpretative panels in accordance with plans as shown in Schedule A, Plan #1 to Plan #11.
 - Introduction of ecological enhancement in accordance with approved ESA Development Permit DP18-840993.
3. This Heritage Alteration Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
4. If the work authorized by this Heritage Alteration Permit does not commence within 24 months of the date of this Permit, this Permit lapses.

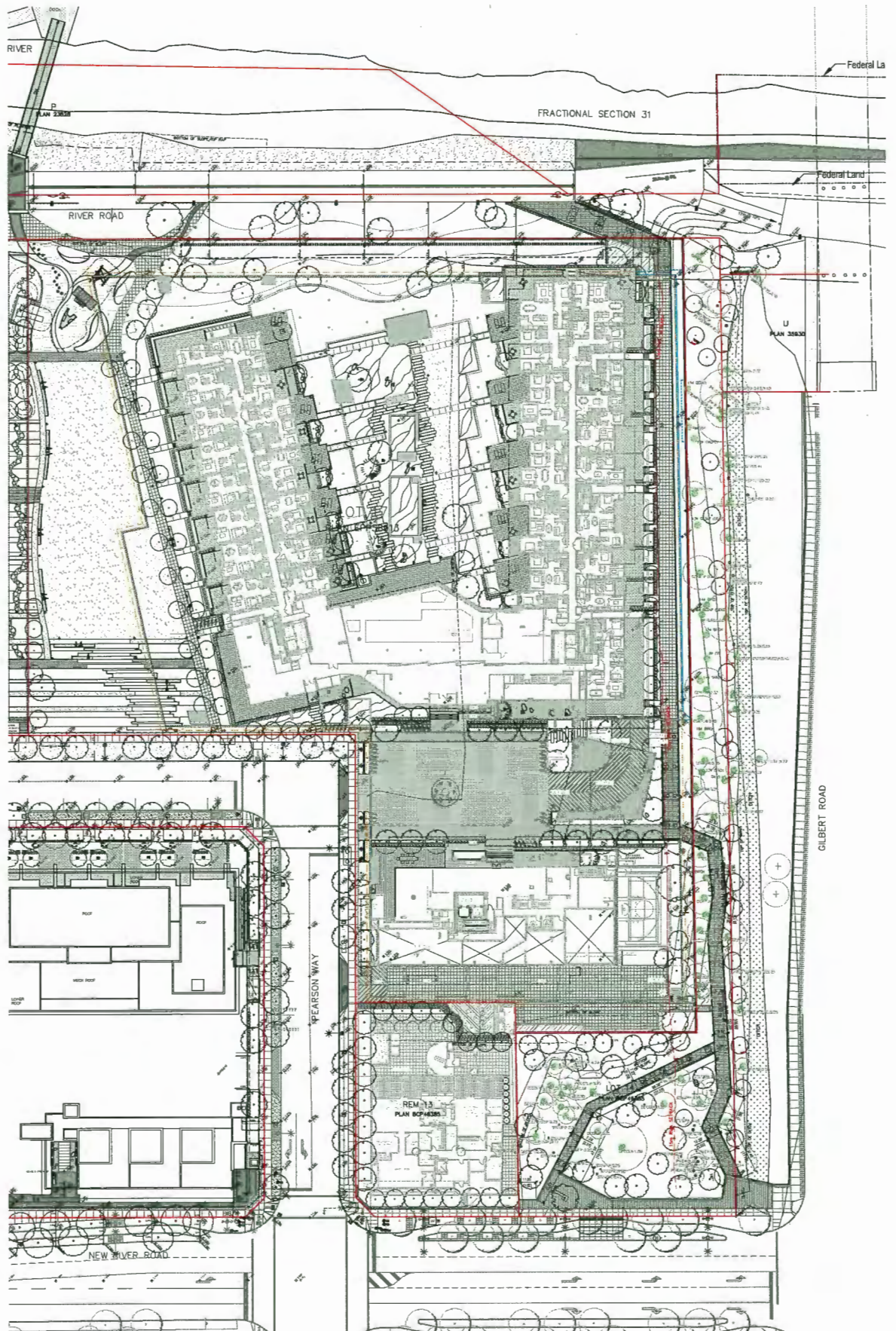
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF

DELIVERED THIS DAY OF , 2018

MAYOR

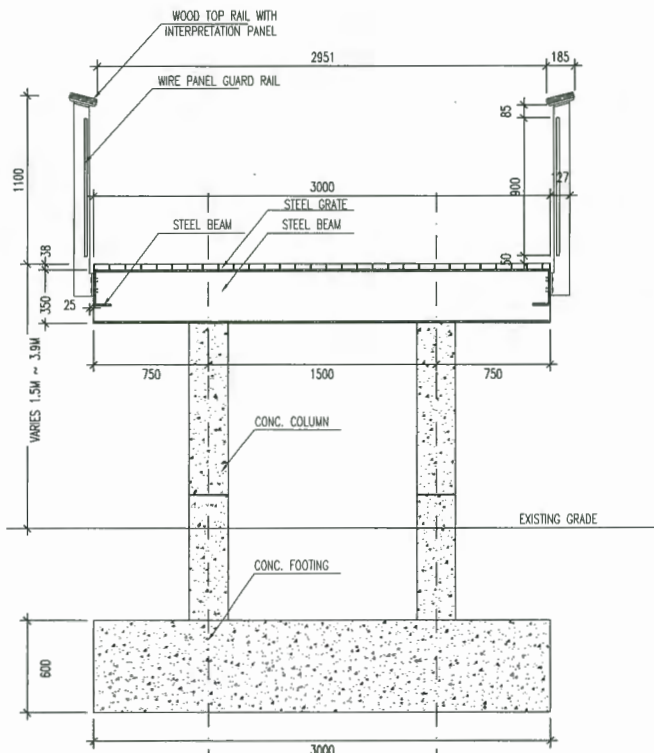
CORPORATE OFFICER

IT IS AN OFFENCE UNDER THE *LOCAL GOVERNMENT ACT*, PUNISHABLE BY A FINE OF UP TO \$50,000 IN THE CASE OF AN INDIVIDUAL AND \$1,000,000 IN THE CASE OF A CORPORATION, FOR THE HOLDER OF THIS PERMIT TO FAIL TO COMPLY WITH THE REQUIREMENTS AND CONDITIONS OF THE PERMIT.

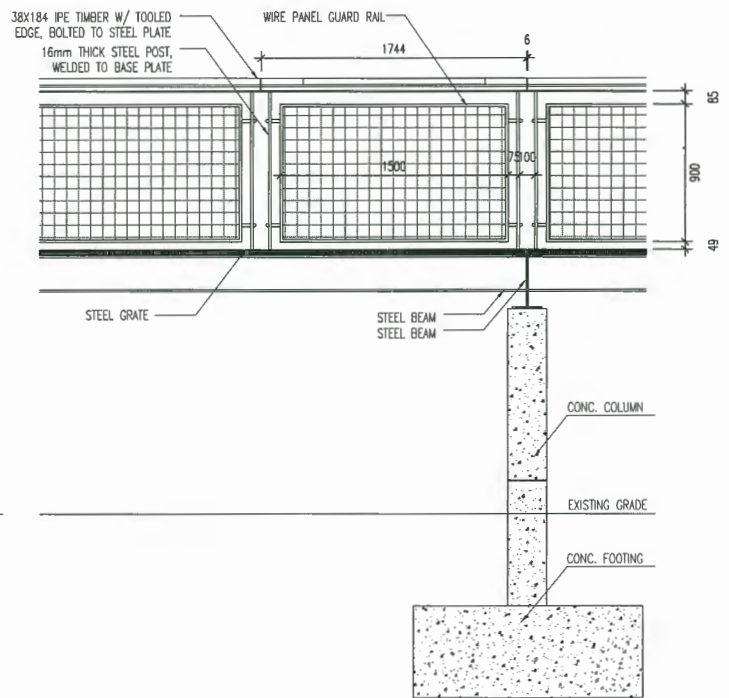


LOT 14 SITE PLAN

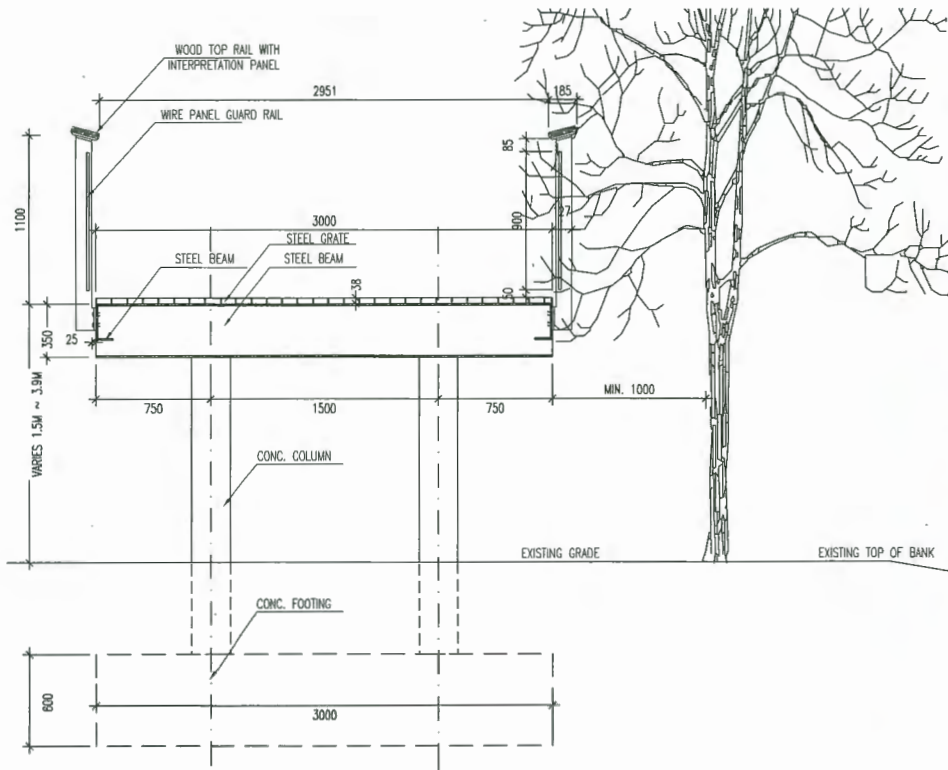
HA 18-840992 Plan #1



1 STEEL GRATE WALKWAY
SCALE: 1:20



2 STEEL GRATE WALKWAY AND WIRE PANEL RAILING
SCALE: 1:20



3 STEEL GRATE WALKWAY @ EX TREE
SCALE: 1:20

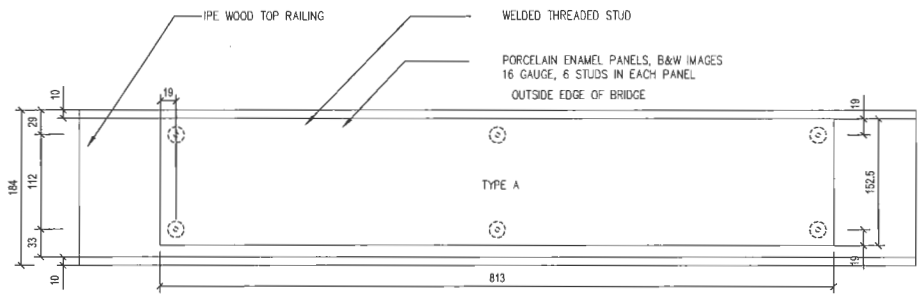
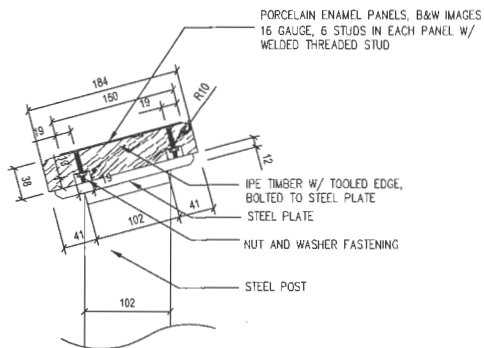


Railing precedent image



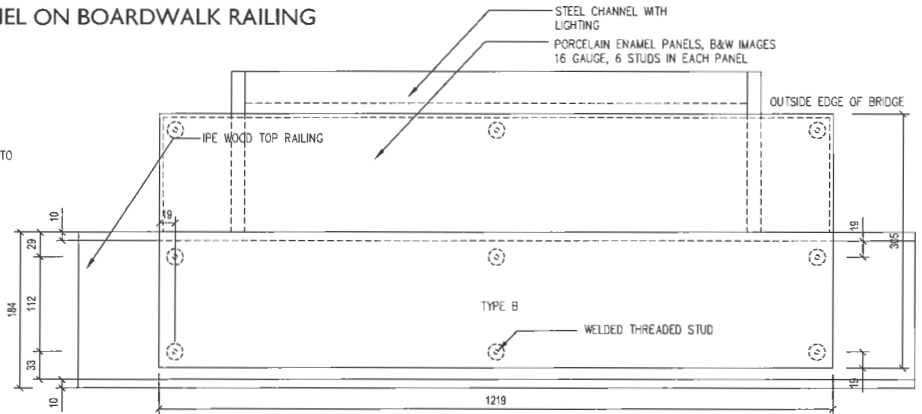
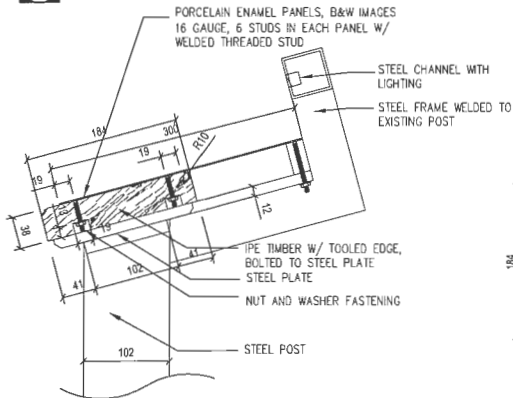
Steel grate precedent image

- * Anti slip
- * Allows light penetration
- * Allows water to pass through
- * Easy maintenance
- * This surface will be designed as per the City's standard and conform to Americans Disabilities Acts (ADA) requirements.



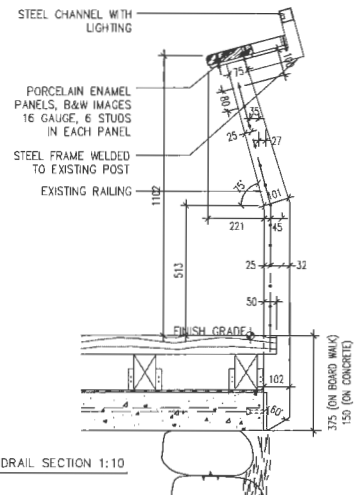
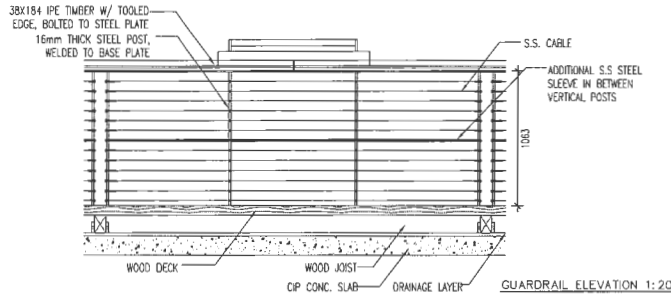
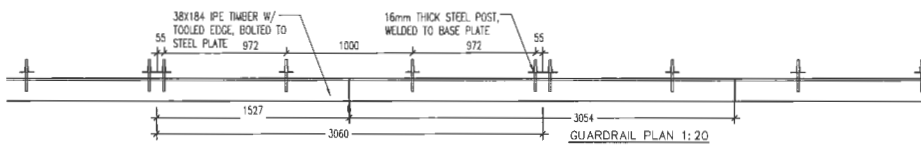
1 TYPE A HERITAGE INTERPRETATION PANEL ON BOARDWALK RAILING

SCALE: 1:3



2 TYPE B HERITAGE INTERPRETATION PANEL ON EXISTING RAILING

SCALE: 1:3



3 EXISTING RAILING AT THE GILBERT INTERSECTION W/ NEW TYPE B PANEL

SCALE: NTS



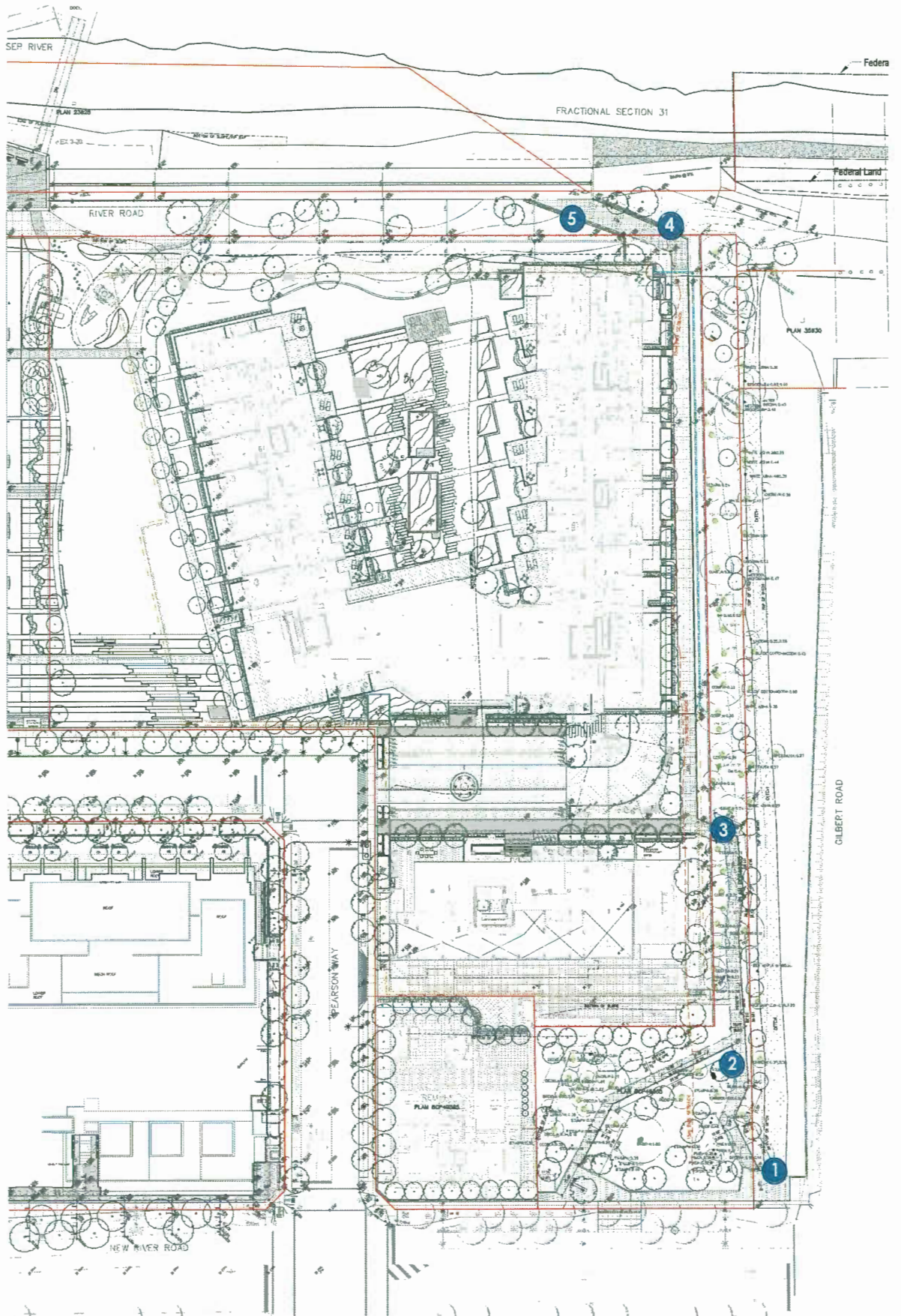
Interpretation panel precedent image



Interpretation panel precedent image



Existing railing at River Road boardwalk



LOT 14 HERITAGE INTERPRETATION PANELS LOCATIONS

HA 18-840992 Plan #4

3.6 HERITAGE INTERPRETATION PANEL DESIGN

The preliminary content for each of the heritage interpretation locations by topic and suggested graphic content:

- 1 Location 1:
Large Panel at Corner of Gilbert and River Roads
- Topic:
Evolution of the Middle Arm and the Brighthouse Estate



Evolution of the Middle Arm and the Brighthouse Estate

For centuries, the lands of the Fraser River delta were low-lying and covered by a network of sloughs used by Indigenous people for transportation and access to resources. With the arrival of European settlers, riverfront lands were raised and diked for agricultural and residential uses. Samuel Brighthouse was an early European settler whose land holdings are now the site of the Richmond Oval and adjacent residential development.

Brighthouse arrived in British Columbia from England in 1862 at age 26. After a brief trip to the Cariboo in the gold rush, he came to Vancouver and bought 22 hectares of the West End next to Stanley Park with two partners. They were known as the Three Greenhorns.

Two years later, Brighthouse acquired a large homestead in Richmond extending from the Fraser River south to Granville Avenue. He built a rural estate typical of those he knew in England with a dairy, agricultural fields and a large house surrounded by hedges, flowerbeds and an orchard near the corner of Gilbert and River Road. He imported several thousand tree seedlings from England, including oaks, that were then cultivated and used widely along roads and dikes in the area.

In 1888, Brighthouse welcomed his sister, Hannah Wilkinson, and her son, Michael, to live in his home. Michael Wilkinson inherited the Brighthouse lands in 1913 and the Wilkinson family stayed in the house, leasing farmland to a number of tenants, until 1962 when the property was bought by the City of Richmond to become an industrial park. In 1965, the Canadian Pacific Railway installed a spur line where River Road is now located to serve the industrial park. The CPR arrived in Richmond in 1902 and was a shaping force in the City's development and land use patterns for many decades.

Brighthouse estate and its heritage landscape areas, 1918. City of Richmond Heritage Resource Catalogue

Samuel Brighthouse, circa 1860. City of Richmond Archives Resource Catalogue

The Three Greenhorns: John Morton (standing), Hillstone and Sam Brighthouse (standing). City of Vancouver Archives

Bird's eye view of the Brighthouse estate in 1959 with many of its heritage areas still in place. City of Richmond Archives 1959-11

Original extent of the Brighthouse estate on today's map. City of Richmond Archives, 1959-11, 1965-11, 1970-11

LOCATION 1: 12"X48" PANEL

NOTE: TYPES A & B PANELS - TOPICS, IMAGES AND TEXTS TO BE DECIDED BY THE CITY HERITAGE DEPARTMENT

HA 18-840992 Plan #5

2 Location 2:
Boardwalk Railing Panel Overlooking the Woodlot

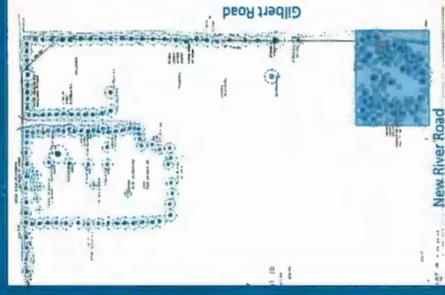
Topic:
Remnants of the Brighouse Cultural Landscape - The Woodlot



Remnants of the Brighouse Cultural Landscape - The Woodlot

The Brighouse homestead was located on both sides of Gilbert Road and contained extensive tree plantings in distinct grid patterns, as the landscaping around the house, a woodlot and windrows around fields. These original patterns can be seen on historical aerial photos. Many of the trees were planted by Samuel Brighouse, between 1870 and his return to England in 1911, mainly along River Road and around the house.

A portion of the original woodlot and a windrow and ditch has been retained within the City park at the corner of Gilbert and River Road and is protected by the City of Richmond with a Heritage Designation By-law. In order to protect the heritage trees, the original elevation of the site has been maintained with a raised boardwalk connecting the new elevation of River Road with the new level of the riverfront dike.



Tree survey of the Brighouse estate, 1985, with the woodlot highlighted (City of Richmond Archives)



Brighouse estate and its heritage landscape areas, 1938, with the woodlot highlighted (City of Richmond Archives Reference Collection)



LOCATION 2: 6 "X32" PANEL

NOTE: TYPES A & B PANELS - TOPICS, IMAGES AND TEXTS TO BE DECIDED BY THE CITY HERITAGE DEPARTMENT

HA 18-040092 Plan #6

3 Location 3:
Boardwalk Railing Panel Overlooking the ESA
 Topic:
Historic Windrow and Ditch and its Ecological Function

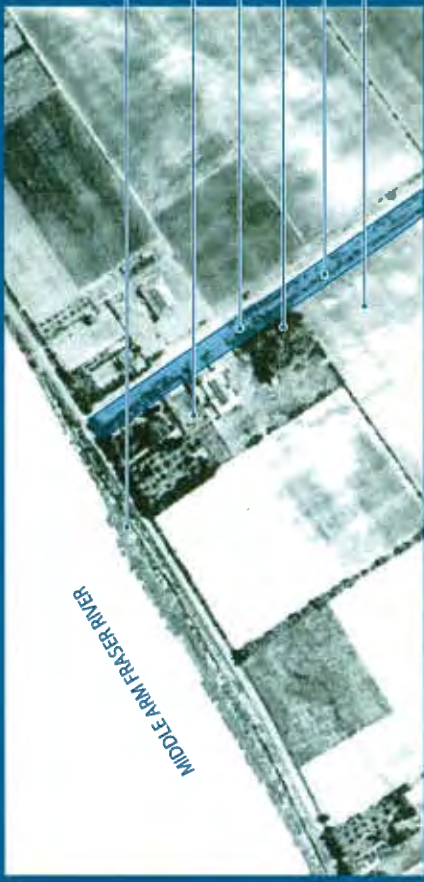


Historic Windrow and Ditch and their Ecological Function

The area along the west side of Gilbert Road is protected by the City of Richmond as an Environmentally Sensitive Area (ESA). Originally it was a drainage ditch within a hedgerow between agricultural fields on the Brighthouse estate.

The ditch continues its original function of providing drainage to the adjacent lands, surviving the construction of Gilbert Road and the Dinsmore Bridge. Some trees, mostly ash, remain from the historic hedgerow while more recently the landscape has been enhanced to improve the ecological function of the area in support of its ESA status. A few native western red cedar and other volunteer species have grown in naturally over the years.

Today the corridor provides wildlife habitat connecting the Fraser River foreshore to the inland woodlot and screens the park from Gilbert Road. Ongoing management of the area is planned to strike a balance between protecting healthy heritage trees and enhancing ecological values of the ESA.



- DIKE
- BRIGHOUSE HOMESTEAD
- WINDROW
- WOODLOT
- DRAINAGE CHANNEL
- AGRICULTURE LANDS

Brighthouse estate and its heritage landscape areas, 1938, with the windrow and ditch highlighted
(City of Richmond Archives Reference Collection)



LOCATION 3: 6"X32" PANEL

NOTE: TYPES A & B PANELS - TOPICS, IMAGES AND TEXTS TO BE DECIDED BY THE CITY HERITAGE DEPARTMENT

HA 18-840992 Plan #7

4 Location 4:
Boardwalk Railing Panel on the North Section of Boardwalk
at the Dike

Topic:
Historic Sloughs Replaced by Dikes and Ditches



Historic Sloughs Replaced by Dikes and Ditches

When Samuel Brighthouse settled on his estate, the low lying land was crisscrossed by sloughs. Prior to coordinated diking and road construction, most transportation in Richmond was done by boat, on the Fraser River and up the sloughs. This affected the settlement patterns around the island, resulting in the small communities of Eburne, Bridgeport, Steveston, South Arm and East Richmond located around the periphery of the island.

Within years, Brighthouse reshaped the land to drain a grid of agricultural fields with ditches that replaced the sloughs and to protect his estate from flooding with a riverfront dike. The ditch and dike system was critical to preparing low-lying delta lands for agriculture and housing.



Historic sloughs prior to the Brighthouse estate changes on a current aerial photograph
(City of Richmond Aerial Photo)



Women and children in dugout canoe on Fraser River, ca 1890
(City of Vancouver Archives. Photographs By Major Matthews)



LOCATION 4: 6"X32" PANEL

NOTE: TYPES A & B PANELS - TOPICS, IMAGES AND TEXTS TO BE DECIDED BY THE CITY HERITAGE DEPARTMENT

HA 18-840992 Plan #8

5 Location 5:
**Boardwalk Railing Panel on the North Section of Boardwalk
 at the Bioswale**

Topic:
Brighouse Estate and its Dikes and Ditches



Brighouse Estate and its Dikes and Ditches

Like most early European settlers in Richmond, Samuel Brighouse diked and ditched his land holdings by hand to create viable farmland when he purchased his extensive properties on the Middle Arm. Typical of his time and his English upbringing, Brighouse shaped his estate with a grid of ditches lined with windrow trees and located his house amidst a landscape of shade trees and ornamental plantings, an orchard and a woodlot.

Brighouse was given permission to build his own dike along his section of waterfront and lined it with oak trees grown from seedlings shipped from England. In 1916, this dike was reconstructed to a more substantial standard and the oaks were cut down to accommodate its widening. New oaks grown from the original tree stock were replanted by Sam Brighouse's nephews and remained in place until higher, wider dike improvements around 2009 again impacted their viability. Lumber milled from these Brighouse oaks can be found throughout River Green in its art and furnishings.



Aerial photo showing trees along the dike and within the estate, 1970s
 (City of Richmond Archives 2004c-21-5)



Second generation of Brighouse oaks along the dike in 2004
 (P's Studio Site Photo)



LOCATION 5: 6"X32" PANEL

NOTE: TYPES A & B PANELS - TOPICS, IMAGES AND TEXTS TO
 BE CONFIRMED BY THE CITY HERITAGE DEPARTMENT

HA 18-040992 Plan #9

Remnant Heritage Trees Summary

Species	Samuel Brighthouse Trees		Brighthouse Descendant Trees		Subtotals
	Retain	Remove	Retain	Remove/ Convert to wildlife stem	
American elm	1	0	6	2	9
English oak	4	0	1	0	5
Green ash	0	0	9	4	13
Horse chestnut	0	0	2	0	2
Little-leaved Linden	0	0	3	3	6
Lombardy poplar	0	0	3	0	3
Scots pine	0	0	0	7	7
	5	0	24	16*	45

Heritage trees to be retained:

- Tag# 353 - American Elm, 35 cm
- Tag# 376 - American Elm, 35 cm
- Tag# 378 - American Elm, 22 cm
- Tag# 380 - American Elm, 90 cm**
- Tag# 381 - American Elm, 51 cm
- Tag# 383 - American Elm, 45 cm
- Tag# 385 - American Elm, 48 cm
- Tag# 315- Linden, 65 cm
- Tag# 318- Linden, 58 cm
- Tag# 884- Linden, 36 cm
- Tag# 310- Poplar, 90 cm
- Tag# 320- Poplar, 80 cm
- Tag# 321- Poplar, 100 cm

- Tag# 338- English Oak, 90 cm**
- Tag# 352- English Oak, 110 cm**
- Tag# 382- English Oak, 95 cm**
- Tag# 384- English Oak, 45 cm
- Tag# 401- English Oak, 51 cm**

LEGEND:

● ASH	13
● ENGLISH OAK	5
● AMERICAN ELM	9
● HORSECHESTNUT	2
● LITTLELEAF LINDEN	6
● LOMBARDY POPLAR	3
● SCOTS PINE	7
SUBTOTALS:	45

- Tag# 304- Ash, 44 cm
- Tag# 306- Ash, 46 cm
- Tag# 311- Ash, 43 cm
- Tag# 312- Ash, 47 cm
- Tag# 314- Ash, 45 cm
- Tag# 322- Ash, 38 cm
- Tag# 324- Ash, 35 cm
- Tag# 325- Ash, 31 cm
- Tag# 326- Ash, 50 cm

- Tag# 323- Horse Chesnut, 65 cm
- Tag# 391- Horse Chesnut, 38 cm

Heritage trees to be removed or converted to wildlife:

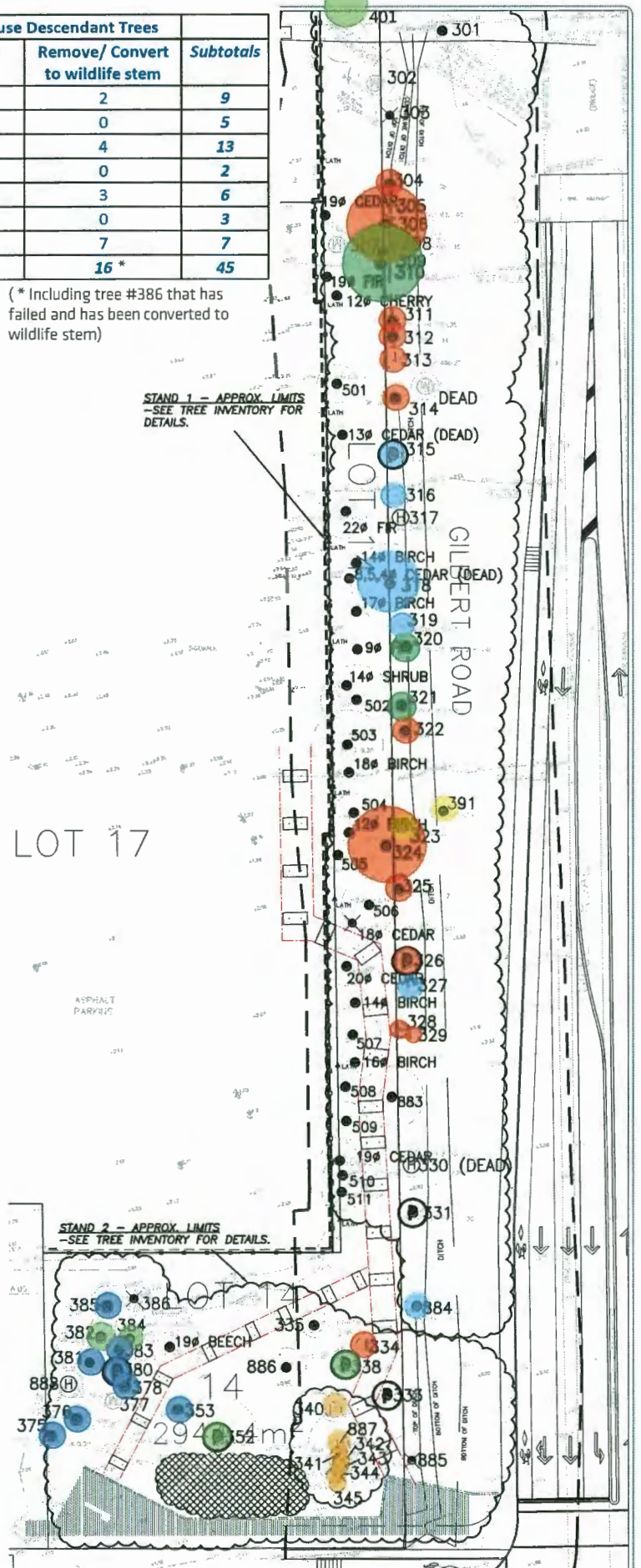
- Tag# 375 - American Elm, 35 cm, to be converted to wildlife
- Tag# 386 - American Elm, 55 cm, converted to wildlife

- Tag# 313- Ash, 40 cm, to be converted to wildlife
- Tag# 328- Ash, 40 cm, to be converted to wildlife
- Tag# 329- Ash, 28 cm, to be converted to wildlife
- Tag# 334- Ash, 25cm, to be converted to wildlife

- Tag# 316- Linden, 67 cm, to be converted to wildlife
- Tag# 319- Linden, 35 cm, to be converted to wildlife
- Tag# 327- Linden, 42 cm, to be removed

- Tag# 340- Scots Pine, 45cm, to be converted to wildlife
- Tag# 341- Scots Pine, 21cm, to be converted to wildlife
- Tag# 342- Scots Pine, 28cm, to be converted to wildlife
- Tag# 343- Scots Pine, 30cm, to be converted to wildlife
- Tag# 344- Scots Pine, 32cm, to be converted to wildlife
- Tag# 345- Scots Pine, 34cm, to be converted to wildlife
- Tag# 887- Scots Pine, 23cm, to be converted to wildlife

(* Including tree #386 that has failed and has been converted to wildlife stem)









LOT 14 REMNANT HERITAGE TREES PLAN

HA 18-840992

Plan #10






RETAINED HERITAGE WOODLOT AND WIND-
ROW TREE SPECIES

LEGEND:

	ASH	9
	ENGLISH OAK	5
	AMERICAN ELM	7
	HORSECHESTNUT	2
	LITTLELEAF LINDEN	3
	LOMBARDY POPLAR	3
	SCOTS PINE	0
SUBTOTALS:		29

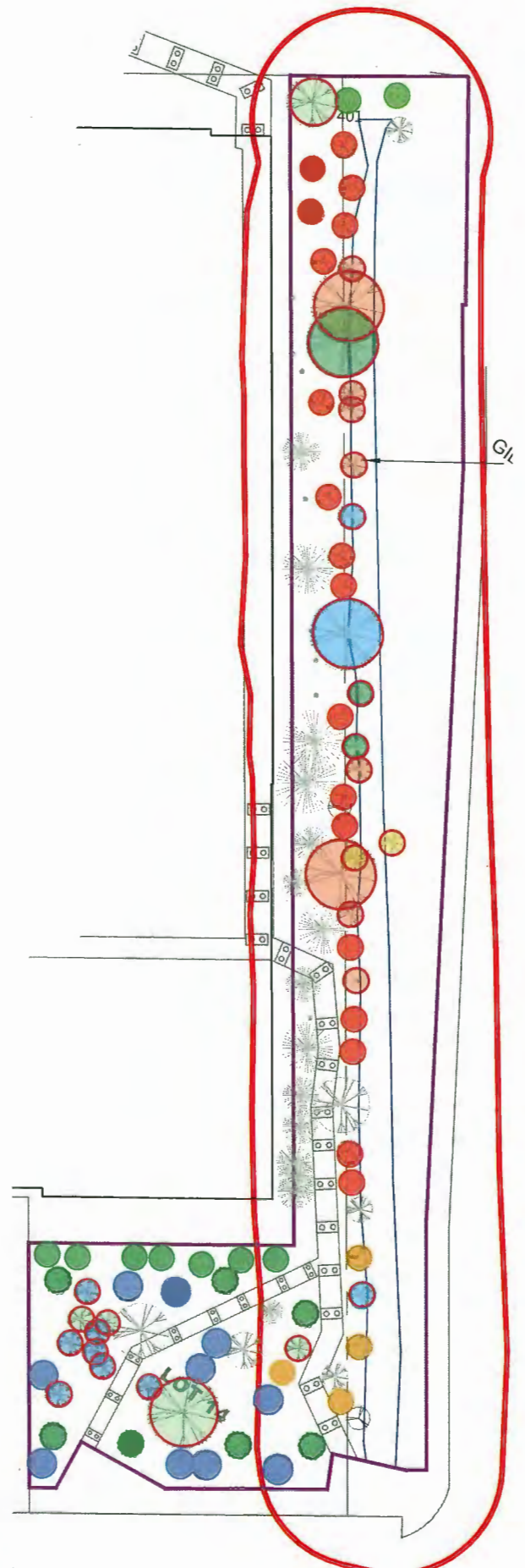


REPLACEMENT TREES IN LOT 14

	Scots pine	4
	Green ash	18
	Red oak	2
	London planetree or american elm	10
	White swamp oak	14
Subtotal		48

Note: Replacement trees should be 5cm-7cm caliper. Tree species subject to availability - possible substitutions to be confirmed by the City.

REFER TO ENVIRONMENTAL REPORT FOR THE LOT 14 PROPOSED PLANTING DESIGN

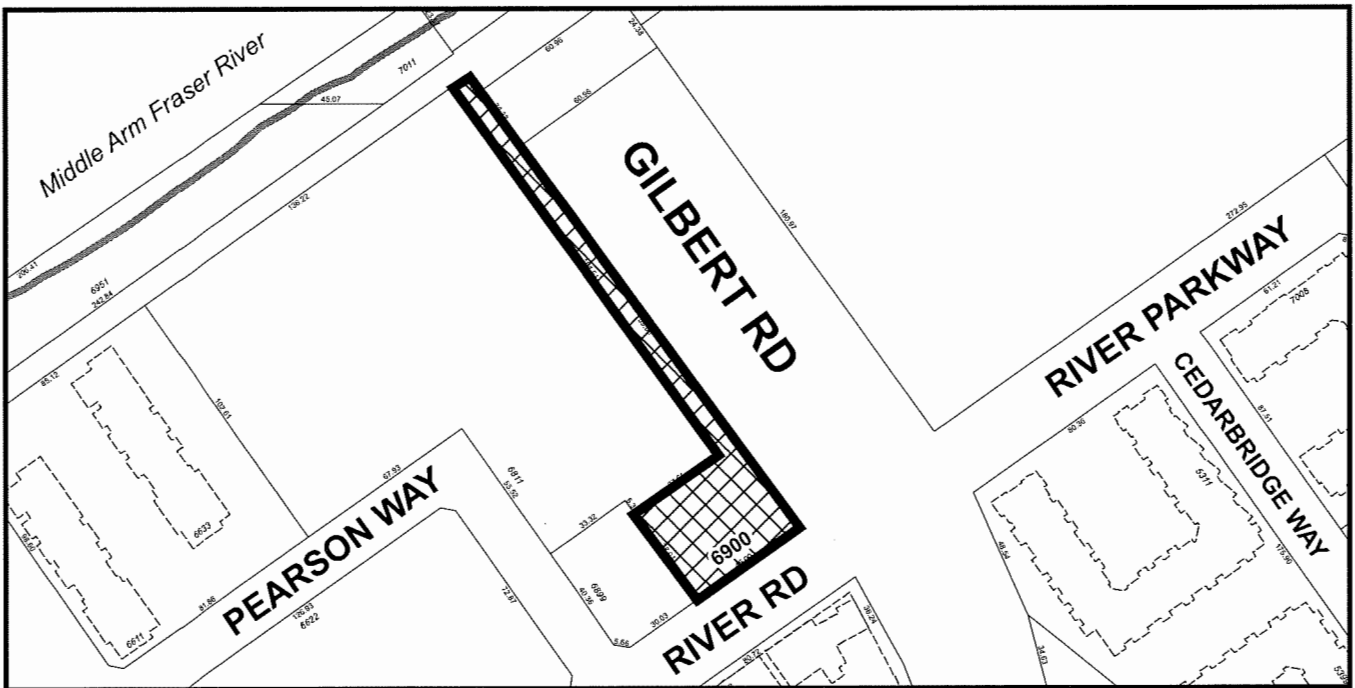
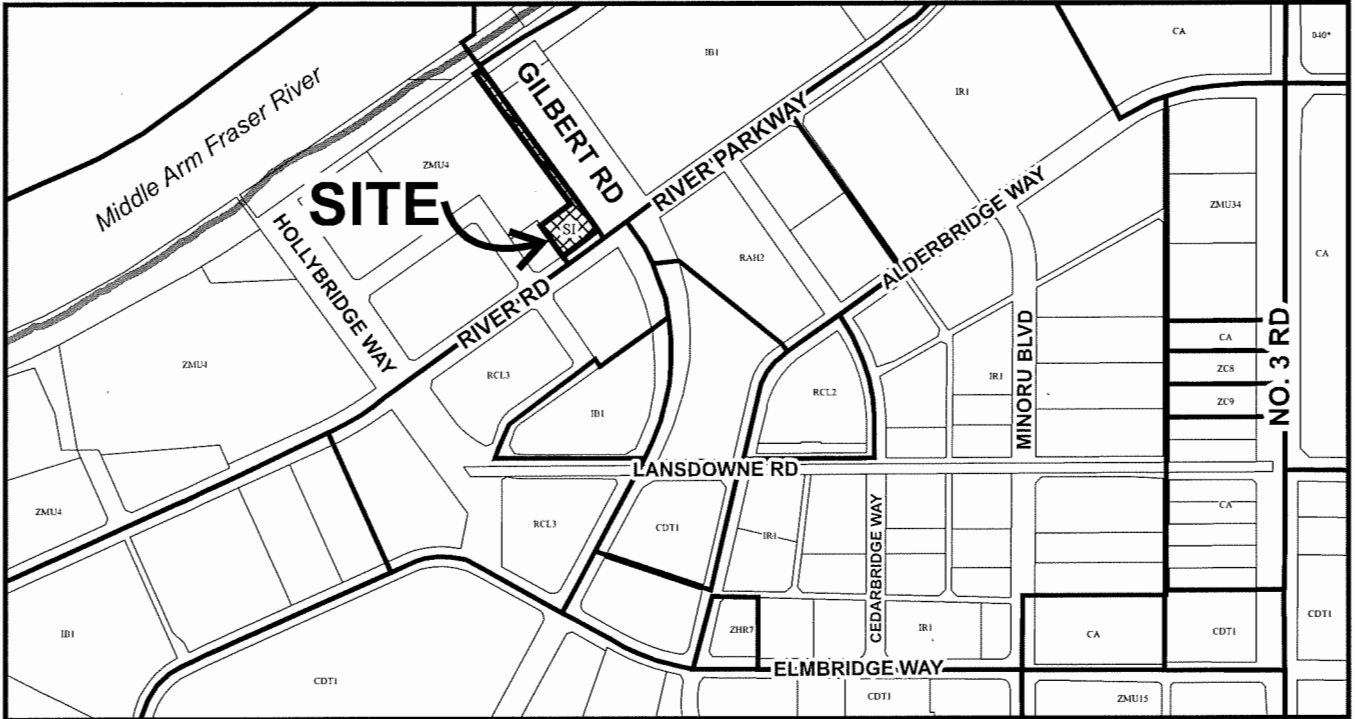


LOT 14 RETAINED HERITAGE TREES AND PROPOSED NEW TREES

HA 15-40992 Plan #11



City of Richmond



HA 18-840992

Original Date: 11/22/18

Revision Date: 12/05/18

Note: Dimensions are in METRES



No. ESA DP 18-840993

To the Holder: Oval 8 Holdings Ltd. Inc. No. 0805724

Property Address: 6900 River Road, and portions of 6811 and 6899 Pearson Way

Address: Suite 1830 - 1055 West Hastings
 Vancouver BC V6E 2E9

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #7 attached hereto.
4. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
5. As a condition of the issuance of this Permit, the City is holding the security in the amount of \$175,002.58 to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit

No. ESA DP 18-840993

To the Holder: Oval 8 Holdings Ltd. Inc. No. 0805724
Property Address: 6811, 6899 Pearson Way, 6900 River Road
Address: Suite 1830 - 1055 West Hastings
Vancouver BC V6E 2E9

7. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

This Permit is not a Building Permit.

AUTHORIZING RESOLUTION NO.
DAY OF , .

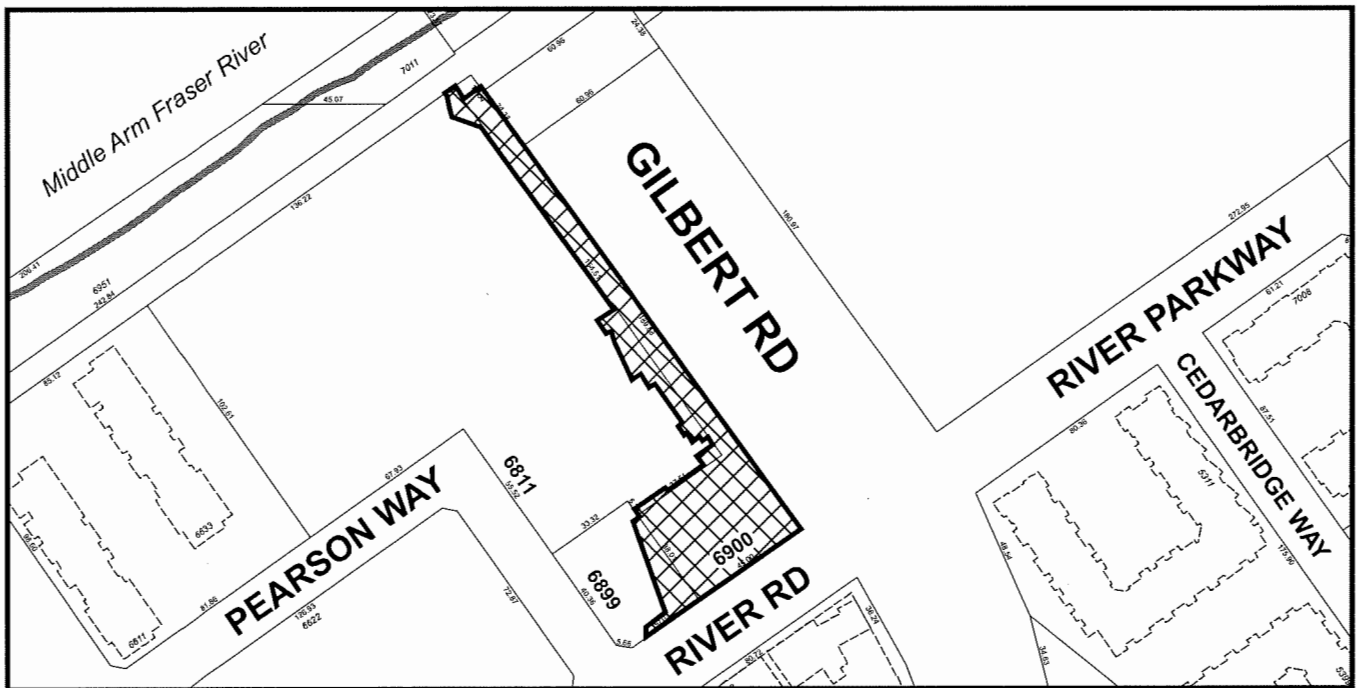
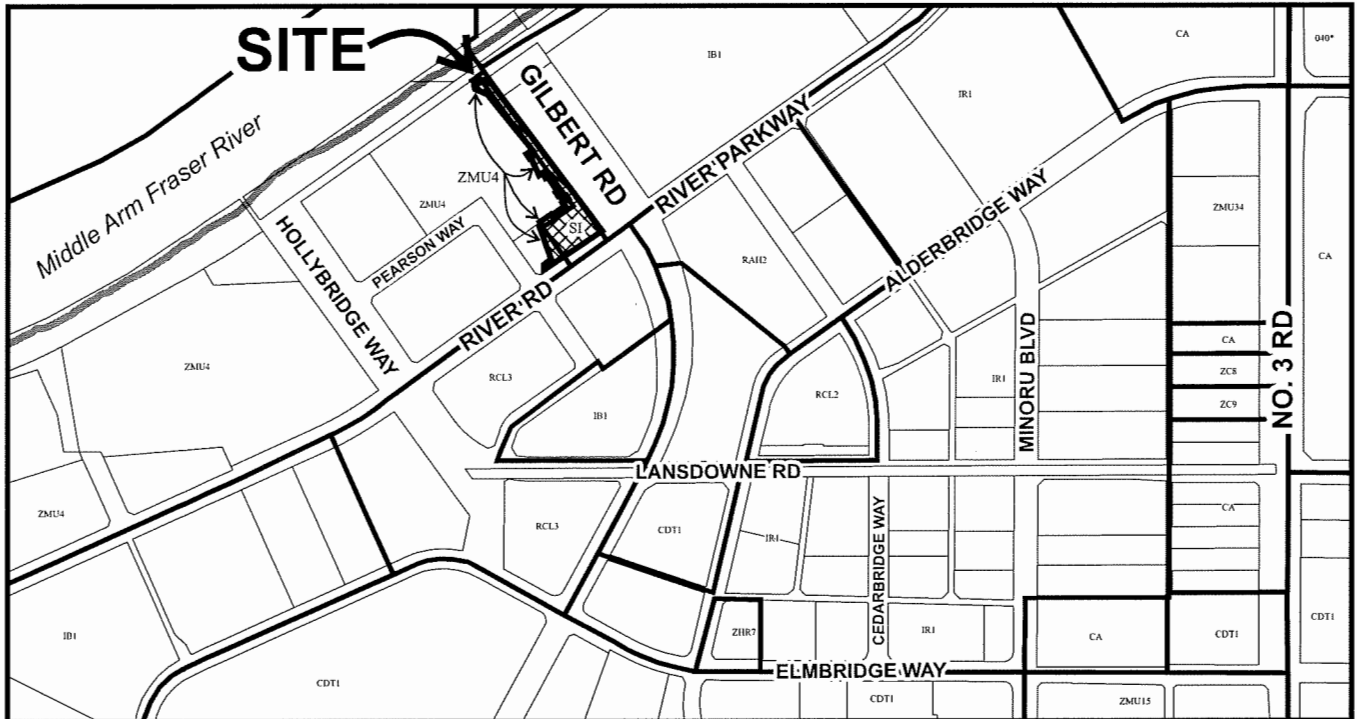
ISSUED BY THE COUNCIL THE

DELIVERED THIS DAY OF , .

MAYOR



City of Richmond



ESA DP 18-840993 SCHEDULE "A"

Original Date: 12/05/18

Revision Date: 04/23/19

Note: Dimensions are in METRES



APR 24 2019

- 15m RMA
- 2012 Shoreline and Intertidal ESA
- 2012 Upland Forest ESA, 7695 m²
- Adjusted 2012 Upland Forest ESA, 7419²
- 2018 Proposed ESA-3, 7827m²
- Total ESA on LOT 17, 726 m²
- ESA-3 Boundary Adjustment Reflecting Onsite Conditions, 276 m²
- Lot 13 ESA-3 Encroachment, 318 m²
- Extent of Previously Approved Works (SA 11-564833), 1810 m²
- Previously Approved Works (ESA-1 DP 11-5933370), 401 m²



2018 PROPOSED ESA BOUNDARY	
River Green, Richmond, BC	
OVAL 8 HOLDINGS LTD.	
	Dwg No.: 0049 Date: APR 2019 File No.: 1994-07-21 Drawn by: IRB
	FIGURE 4

Plan 1

ESA-3 Habitat Balance Summary

Loss of ESA (m ²)	ESA Offset (m ²)	Net Change
Lot 13	317	390
Boardwalk Footings (@100%)	71	143
Boardwalk (@50%)	128	
Total ESA Loss	516	533

Land Designation	Encroachment	Enhancement and/or Compensation	Net Habitat Improvement/Gain
RMA	625m ²	209m ²	-416m ²
RMA & ESA-3	154m ²	2,192m ²	2,038m ²
ESA-3	362m ²	1,123m ²	761m ²
TOTAL (All Categories)	1,141m²	3,524m²	2,383m²

APR 23 2019

- 15m RMA
- 2012 Upland Forest ESA
- RMA Encroachment (100% of 617 m²)
- RMA Encroachment (50% of 16 m²)
- RMA & ESA-3 Encroachment (100% of 56 m²)
- RMA & ESA-3 Encroachment (50% of 196 m²)
- ESA-3 Encroachment (100% of 332 m²)
- ESA-3 Encroachment (50% of 60 m²)
- Previously Approved Works (SA 11-564833, 1810 m²)

Tree to be REMOVED, MODIFIED OR converted into a WILDLIFE TREE at the discretion of the Environmental Consultant in coordination with the Project Arborist.

- Tree to be retained
- 391 Tree tag number



HABITAT ENCROACHMENT SUMMARY	
River Green, Richmond, BC	
Oval 8 Holdings Ltd.	
	Dwg. No.: 0068_19940721
	Date: APR 2019
	Figure
	Drawn by: IRB
	File No.: 1994-07-21
	IRB

ESA-3 Habitat Balance Summary

	Loss of ESA (m ²)	ESA Offset (m ²)	ESA Offset (%)
Lot 13	317	Lot 17 Off Parkade (@100%)	390
Boardwalk Footings (@100%)	71	Lot 17 On Parkade and/or Under Boardwalk (@50%)	143
Boardwalk (@50%)	128		
Total ESA Loss	516	Total ESA Offset	533

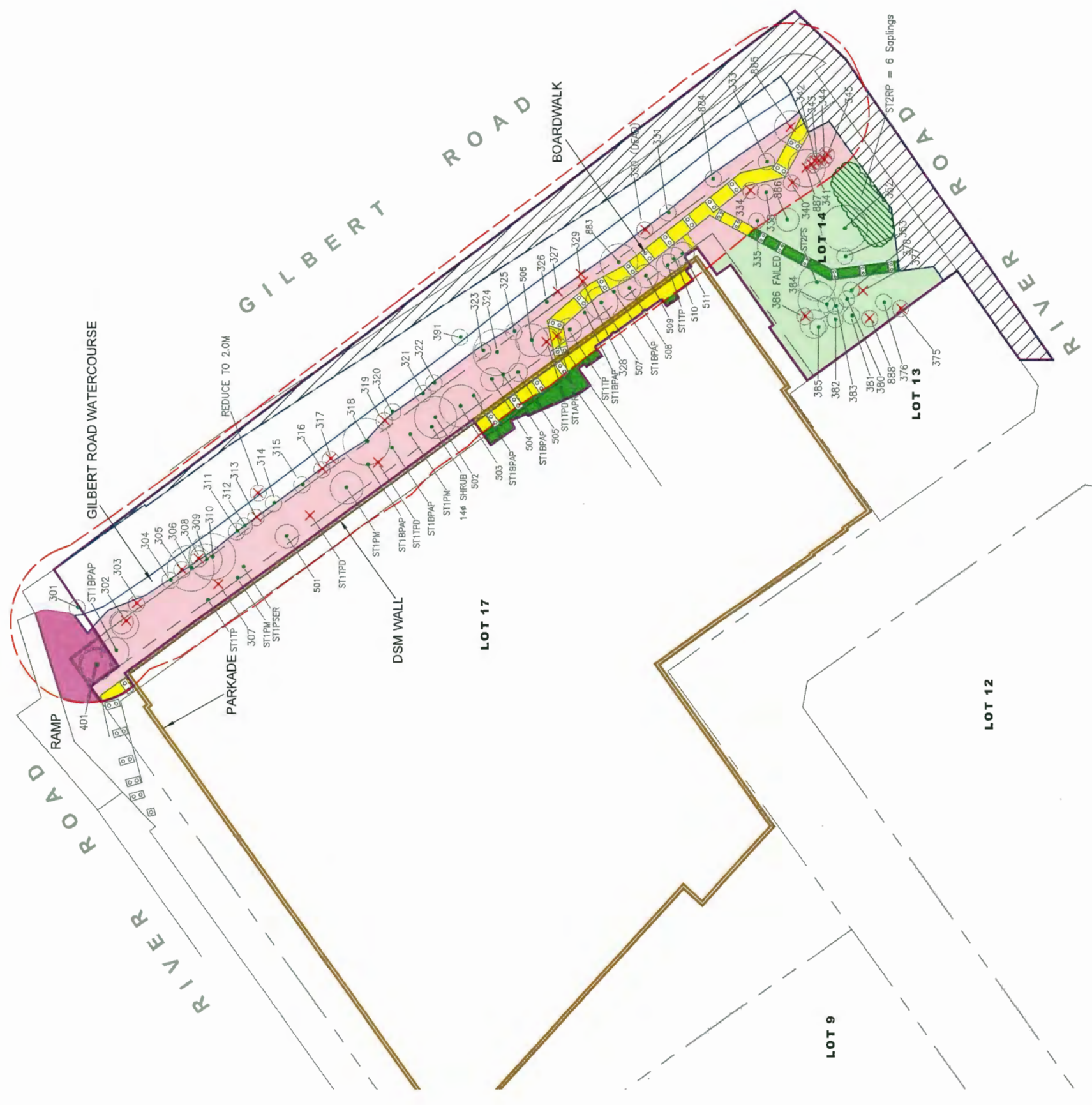
Land Designation	Encroachment	Compensation/Offset	Net Habitat Improvement/Gain
RMA	625m ²	209m ²	-416m ²
RMA & ESA-3	154m ²	2,192m ²	2,038m ²
ESA-3	362m ²	1,123m ²	761m ²
TOTAL (All Categories)	1,141m²	3,524m²	2,383m²

APR 23 2019

- 15m RMA
- Proposed ESA-3
- RMA Offset (100% of 209 m²)
- RMA & ESA-3 Offset (100% of 2001 m²)
- RMA & ESA-3 Offset (50% of 382 m²)
- ESA-3 Offset (100% of 1043 m²)
- ESA-3 Offset (50% of 159 m²)
- Previously Approved Works (SA 11-564833, 1810 m²)

Tree to be REMOVED, MODIFIED OR converted into a WILDLIFE TREE at the discretion of the Environmental Consultant in coordination with the Project Arborist.

- Tree to be retained
- 391 Tree tag number



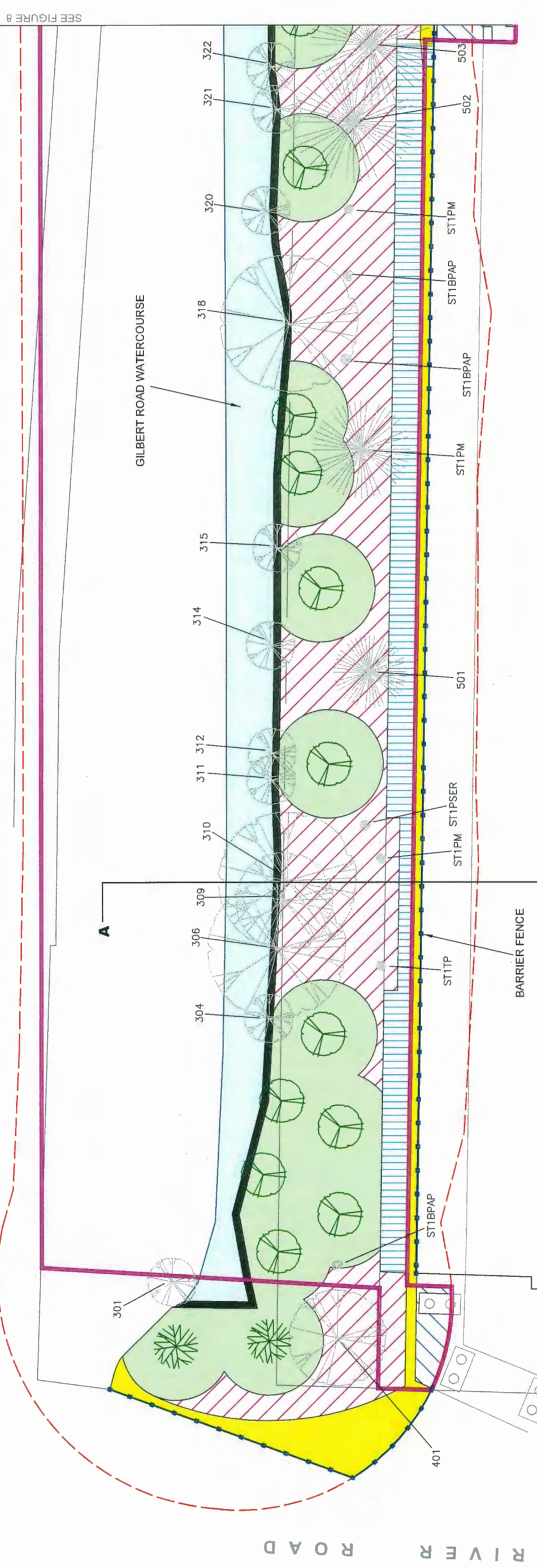
ESA AND RMA HABITAT OFFSET SUMMARY
 River Green, Richmond, BC
Oval 8 Holdings Ltd.



Dwg. No.: 0078_19940721	Date: APR 2019	Figure
File No.: 1994-07.21	Drawn by: IRB	

APR 25 2019

GILBERT ROAD



LOT 17

REPLACEMENT TREES

- Green Ash
- Red Oak

RETAINED TREES

- Coniferous
- Deciduous

508 Tree tag number

PLANTING ZONES

- Zone 1 (Black)
- Zone 2 (Yellow)
- Zone 3 (Blue diagonal lines)
- Zone 4 (Blue horizontal lines)
- Zone 5 (Blue vertical lines)
- Zone 7 (Green)

HABITAT RESTORATION PLAN (2 OF 4)

River Green, Richmond, BC

Oval B Holdings Ltd.

PGL ENVIRONMENTAL CONSULTANTS

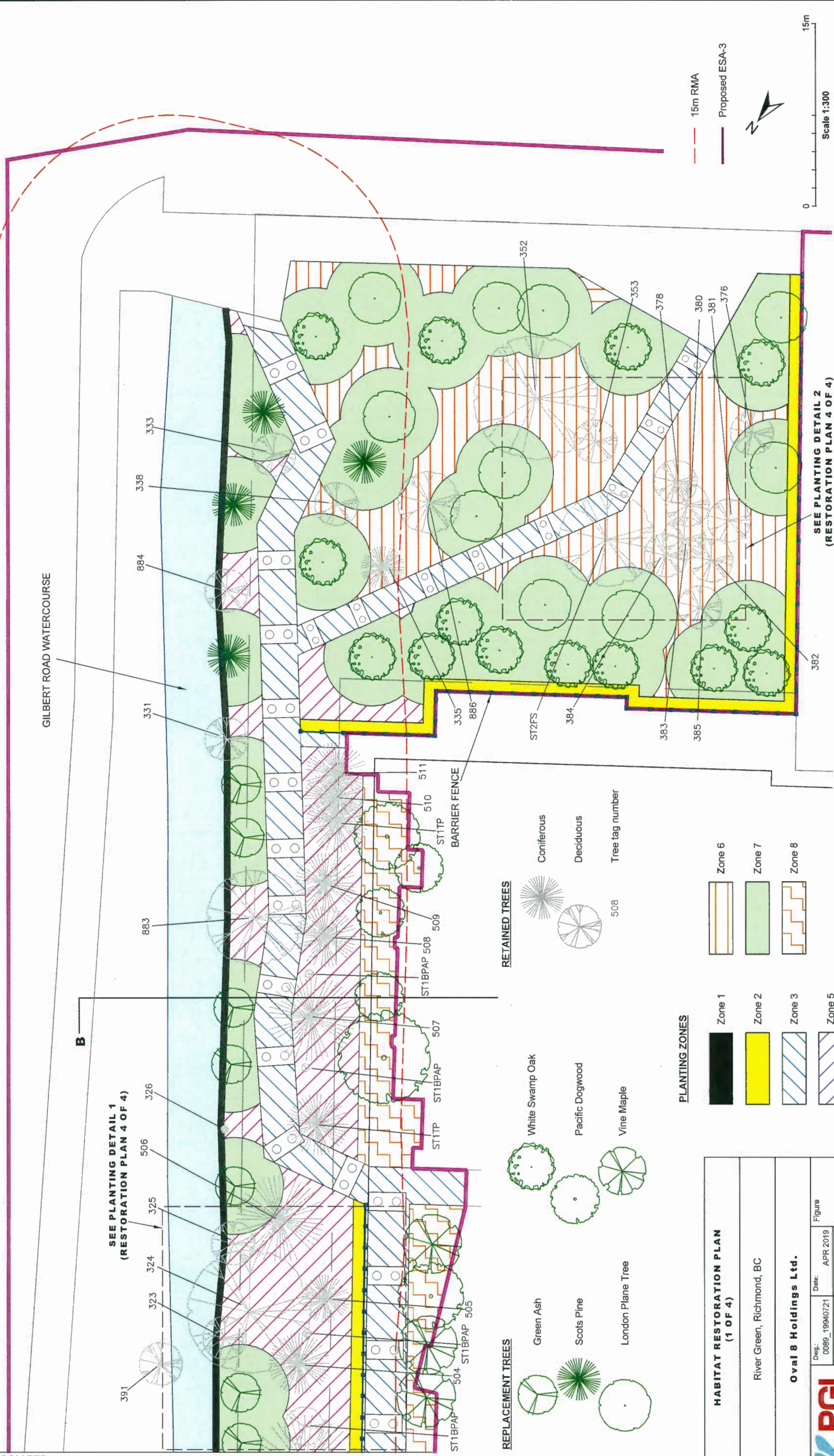
Dwg: 0099_19940721 Date: APR 2019 Figure
 File No: 1994-07-21 Drawn by: IRB

Plan 4

APR 25 2019

GILBERT ROAD

SEE FIGURE 9



SEE PLANTING DETAIL 1
(RESTORATION PLAN 4 OF 4)

SEE PLANTING DETAIL 2
(RESTORATION PLAN 4 OF 4)

REPLACEMENT TREES

- Green Ash
- Scots Pine
- London Plane Tree
- White Swamp Oak
- Pacific Dogwood
- Vine Maple

RETAINED TREES

- Coniferous
- Deciduous
- Tree tag number 508

PLANTING ZONES

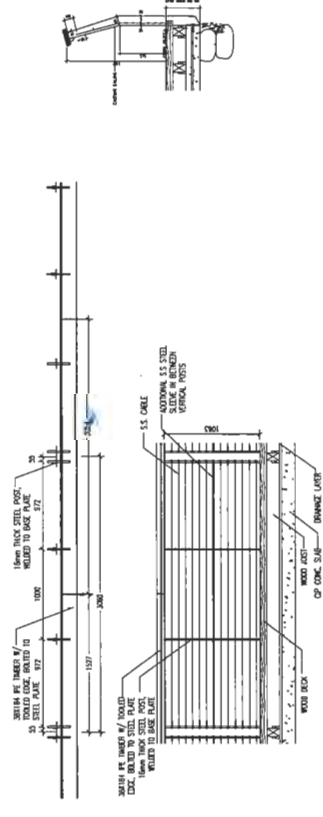
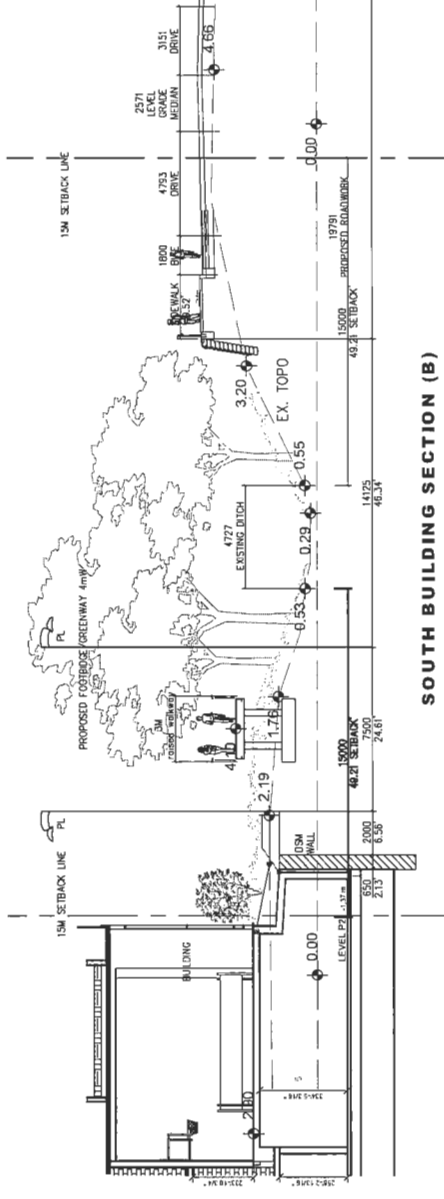
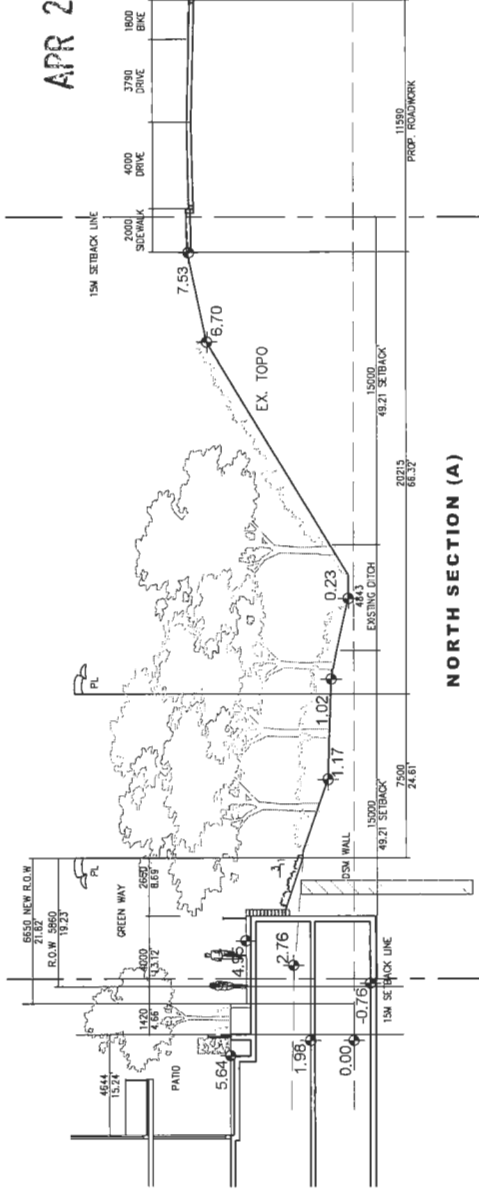
- Zone 1 (Black)
- Zone 2 (Yellow)
- Zone 3 (Blue diagonal lines)
- Zone 5 (White diagonal lines)
- Zone 6 (Orange diagonal lines)
- Zone 7 (Green)
- Zone 8 (Red diagonal lines)

15m RMA
Proposed ESA-3

0 15m
Scale 1:300

HABITAT RESTORATION PLAN (1 OF 4)		River Green, Richmond, BC	
Oval 8 Holdings Ltd.		Figure 8	
Dwg. No.: 0089_19940721	Date: APR 2019	File No.: 1994-07-21	Drawn by: IRB

APR 25 2019



RESTORATION SPECIFICATIONS:

1. All contractors must obtain, be familiar with, and adequately implement all relevant project specifications and management plans, including the Construction Environmental Management Plan (CEMP) and Erosions and Sediment Control Plan.
2. The Restoration Contractor must locate and verify the existence of all utilities prior to the commencement of work.
3. All planting and growing medium is to meet BCSLA/BCLNA standards, latest edition, unless noted otherwise.
4. PGL must be notified of the proposed planting schedule prior to commencement of revegetation works.
5. Planting is to occur during the first optimal planting season (between November and April) following implementation of boardwalk construction and initial invasive plant treatment.
6. Grading and excavation works within the RMA/ESA-3 must leave disturbed areas rough and loose.
7. A soil assessment must be completed prior to planting to determine suitability for revegetation. If deemed necessary, planting medium (topsoil) will be imported and applied where needed, as per current BCSLA/BCLNA standards.
8. Imported topsoil must be clean, seed free, and free of invasive plants and plant parts.
9. The Restoration Contractor must submit a representative sample of the proposed topsoil for testing to Pacific Soil Analysis (or approved alternative laboratory). The Restoration Contractor is responsible for arranging and payment of soil analysis and any required amendments to growing medium. Lab results and a summary plan of any proposed amendment/fertilizer use must be submitted to PGL prior to commencement of work.
10. The Restoration Contractor is to supply all plant material shown on this plan. Sizes of plants listed are considered a minimum.
11. Any proposed material substitutions must be reviewed by PGL prior to use.
12. Nursery stock root balls, containers, and soil must be free of noxious weeds and/or invasive plants and plant parts (e.g., seeds, stems, roots, etc.).
13. All plant material must be provided by a certified, disease/virus free nursery within the Lower Mainland and/or Fraser Valley of BC - proof of certification required. Removal and replacement of disease/virus-affected plant material will be done so at the Restoration Contractor's expense.
14. Replacement trees must meet or exceed structural and health characteristics outlined in *Guideline Specifications for Nursery Tree Quality* published by the Urban Tree Foundation.
15. See detail for replacement tree planting specifications.
16. Treegator® Slow Release Watering Bags, or similar product as approved by PGL, must be installed and maintained on all replacement trees for the first three growing seasons. Watering bags must be installed and maintained, as per manufacturers specifications.
 - a. All watering bags are to be removed and properly disposed of offsite at the end of the third growing season.
17. Planting prescriptions shown are guidelines and can be "field-fit" based on actual field conditions under consultation/direction of PGL.
18. Plant spacing is to achieve densities noted in plant list tables. Both plant and cluster spacing to be measured off centre.
19. Individual plants within a cluster must have a minimal spacing of 100mm off centre for plugs and 300mm off centre for #1 and # 2 pots.
 20. All live-stakes must:
 - a. Measure between 600 and 750mm in length;
 - b. Be a minimum of 30mm in width measured at the base of the stake;
 - c. Be free of foliage/branching;
 - d. Be soaked (fully submerged) in freshwater for a minimum of 5 days prior to installation;
 - e. Be planted between November and March; and
 - f. Be installed so that a minimum of 2/3's of the total length is buried in the soil.
 - i. If suitable depth can not be achieved, then live-stakes should be pruned to minimize the amount of stake exposed above ground (i.e., to 1/3).
21. Guide holes must first be created using a tool (e.g., rebar, pole, etc.) prior to installing live-stakes. Guide holes must be smaller than the width of the base of the live-stakes.
 - a. Live-stakes must not be used to create guide holes and/or inserted directly into the soil without a guide hole.
22. All planting waste materials (e.g., wraps, containers, labels, etc.) must be removed immediately from the site by the Restoration Contractor.
23. The Restoration Contractor is to install an appropriate temporary irrigation system throughout the restored portions of the RMA and ESA-3 for use during the first four growing seasons.
 - a. For the geobag wall, the irrigation system must consist of a drip line system set-up every two to three courses/rows of geobags, as per manufacturer irrigation specifications;
 - b. The irrigation system must conform to current BCSLA/BCLNA standards and is intended to supplement natural rainfall during the dry season so that soil moisture content is maintained between 50% and 100% field capacity during the first two growing seasons.
 - c. The irrigation system is to be scaled back in the third and fourth growing seasons as to wean plants off their reliance.
 - d. The Restoration Contractor will be responsible for removing the temporary irrigation system in the first fall/winter season following the end of the fourth growing season.
24. The Restoration Contractor must complete annual maintenance tasks including invasive plant removal and replacement of failed plant material in the next appropriate planting season for the duration of the five-year monitoring program, as directed by PGL.
25. Vegetation success will be monitored by PGL annually for a period of five years and will begin the first growing season after planting completion.
26. All monitoring data and observations, including photo-point monitoring results and maintenance recommendations, will be summarized in an annual monitoring report, and provided to all interested parties (e.g., Oval 8 Holdings Ltd., City of Richmond, etc.).

HABITAT RESTORATION PLAN
(3 of 4)

River Green, Richmond, BC

ASPAC Developments Ltd.



Dwg: 0106_19940721
Date: MAR 2019
File No: 1994-07-21
Drawn by: IRB

Figure
10

Plan 6

DP 10-040993

Planting Zone 1 - Edge of Watercourse (Estimated Area = 97m²; Density = -3 plants/m²)

Scientific Name	Common Name	Pot Size	# of Plants	Comments
Carex obnupta	slough sedge	plugs	30	- plant in pockets of elevated sun exposure
Cornus stolonifera	red-osier dogwood	#1 pots	30	- spread evenly throughout
Cornus stolonifera	red-osier dogwood	live-stakes	60	- spread evenly throughout
Equisetum hyemale	scouring rush	plugs	90	- spread evenly throughout
Lysichiton americanum	skunk cabbage	#1 pots	90	- plant in clusters of 2. Spread clusters evenly throughout

Planting Zone 2 - Interface with Developed Lands (Estimated Area = 231m²; Density = -4 plants/m²)

Scientific Name	Common Name	Pot Size	# of Plants	Comments
Crataegus douglasii	black hawthorn	#1 pots	95	- spread evenly throughout partially shaded areas
Rosa acicularis	prickly rose	#1 pots	280	- spread evenly throughout
Rosa gymnocarpa	badhip rose	#1 pots	480	- spread evenly throughout
Symphoricarpos albus	common snowberry	#1 pots	95	- spread evenly throughout

Planting Zone 3 - Under Boardwalk (Estimated Area = 356m²; Planting Density = -3 plants/m²)

Scientific Name	Common Name	Pot Size	# of Plants	Comments
Adiantum aleuticum	maidenhair fern	#1 pots	105	- spread evenly throughout
Achlyis triphylla	vanilla leaf	#1 pots	55	- plant in clusters of 3. spread clusters evenly throughout
Athyrium filix-femina	lady fern	#1 pots	215	- spread evenly throughout
Gaultheria shallon	santal	#1 pots	180	- plant in clusters of 2. spread clusters evenly throughout
Mahonia nervosa	dull Oregon grape	#1 pots	110	- spread evenly throughout
Polystichum munifolium	sword fern	#1 pots	430	- spread evenly throughout

Planting Zone 4 - Geobag Wall (Estimated Area = TBDm²; Density = -2.3 plants/bag)

Scientific Name	Common Name	Pot Size	# of Plants	Comments
Cornus stolonifera	red-osier dogwood	plugs	TBD	- plant throughout lower portion of wall
Dryopteris expansa	spiny-wood fern	plugs	TBD	- spread evenly throughout
Lonicera ciliosa	western honey suckle	plugs	TBD	- plant along top edge of wall, as well as evenly throughout
Polypodium glycyrrhiza	licorice fern	plugs	TBD	- spread evenly throughout
Polystichum munifolium	sword fern	plugs	TBD	- spread evenly throughout
Vaccinium ovatum	evergreen huckleberry	plugs	TBD	- spread evenly throughout

Planting Zone 5 - Internal RMA and ESA-3 Windrow (Estimated Area = 979m²; Density = -3 plants/m²)

Scientific Name	Common Name	Pot Size	# of Plants	Comments
Abies grandis	grand fir	#1 pots	10	- spread evenly throughout
Acer circinatum	wine maple	#1 pots	75	- spread evenly throughout partially shaded areas
Alnus rubra	red alder	#1 pots	60	- plant in areas of recent tree removals and/or other openings
Cornus nuttallii	pacific dogwood	#2 pots	45	- plant in outer areas of zone, close to interface with public exposure
Cornus stolonifera	red-osier dogwood	#1 pots	440	- spread evenly throughout
Crataegus douglasii	black hawthorn	#1 pots	220	- spread evenly throughout
Gaultheria shallon	santal	#1 pots	590	- plant in clusters of 2-3. spread clusters evenly throughout
Mahonia nervosa	dull Oregon grape	#1 pots	60	- plant in clusters of 3. spread clusters evenly throughout
Polystichum munifolium	sword fern	plugs	295	- spread evenly throughout partial to full shade areas
Polystichum munifolium	sword fern	#1 pots	735	- spread evenly throughout
Prunus emarginata	bitter cherry	plugs	100	- spread evenly throughout
Pseudotsuga menziesii	Douglas-fir	#1 pots	15	- spread evenly throughout
Rubus spectabilis	siamonberry	#1 pots	295	- spread evenly throughout partial to full shade areas

Planting Zone 6 - ESA-3 Woodlot (Estimated Area = 405m²; Density = -3 plants/m²)

Scientific Name	Common Name	Pot Size	# of Plants	Comments
Cornus nuttallii	pacific dogwood	#2 pots	6	- plant in outer areas of zone, close to interface with public exposure
Cornus stolonifera	red-osier dogwood	#1 pots	245	- spread evenly throughout
Crataegus douglasii	black hawthorn	#1 pots	90	- spread evenly throughout
Gaultheria shallon	santal	#1 pots	180	- plant in clusters of 3-4. spread clusters evenly throughout
Mahonia nervosa	dull Oregon grape	#1 pots	30	- plant in clusters of 2-3. spread clusters evenly throughout
Polystichum munifolium	sword fern	plugs	120	- spread evenly throughout partial to full shade areas
Polystichum munifolium	sword fern	#1 pots	300	- spread evenly throughout partial to full shade areas
Rubus spectabilis	siamonberry	#1 pots	245	- spread evenly throughout partial to full shade areas

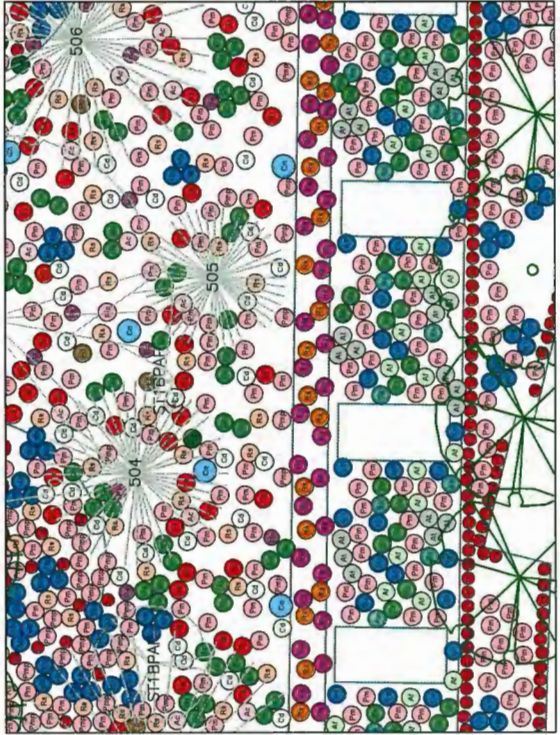
Planting Zone 7 - Within 5m of Replacement Trees in RMA and ESA-3, as Shown (Estimated Area = 1,536m²; Density = -4 plants/m²)

Scientific Name	Common Name	Pot Size	# of Plants	Comments
Cornus stolonifera	red-osier dogwood	plugs	1230	- spread evenly throughout outer perimeter of zone
Mahonia nervosa	dull Oregon grape	#1 pots	615	- plant in clusters of 3. spread clusters evenly throughout
Polystichum munifolium	sword fern	plugs	1535	- spread evenly throughout
Polystichum munifolium	sword fern	#1 pots	1535	- spread evenly throughout
Rubus spectabilis	siamonberry	#1 pots	1230	- spread evenly throughout

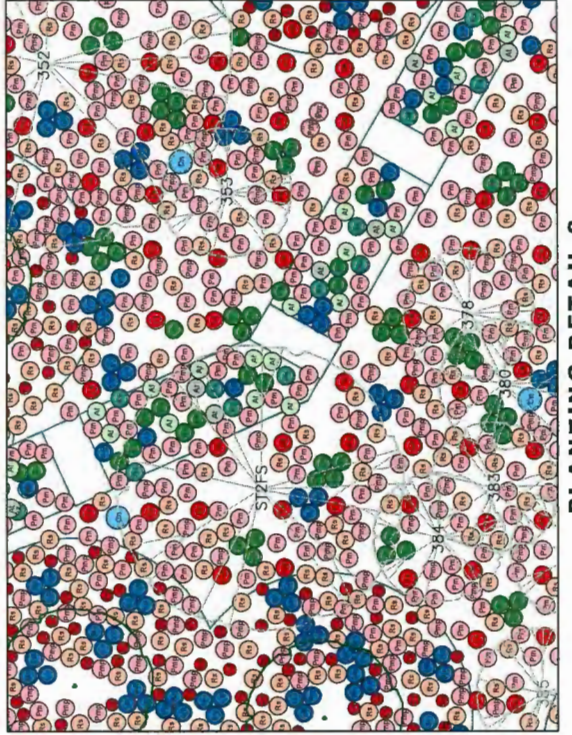
Planting Zone 8 - ESA-3 Over Parkade (Estimated Area = 173m²; Density = -3 plants/m²)

Scientific Name	Common Name	Pot Size	# of Plants	Comments
Cornus stolonifera	red-osier dogwood	plugs	310	- spread evenly throughout outer perimeter of zone
Mahonia nervosa	dull Oregon grape	#1 pots	55	- plant in clusters of 3. spread clusters evenly throughout
Polystichum munifolium	sword fern	#1 pots	155	- spread evenly throughout

Notes:
1) Plant counts in geobag wall to be determined through detailed designs prepared for IFC drawings.



PLANTING DETAIL 1



PLANTING DETAIL 2

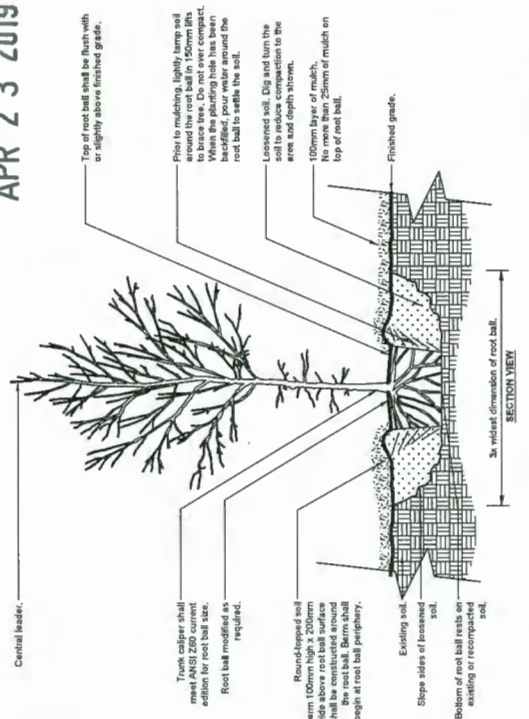
385 Retained tree tag #

Scientific Name	Common Name	Pot Size	# of Plants	Symbol Code
Abies grandis	grand fir	#1 pots	10	Ag
Acer circinatum	wine maple	#1 pots	75	Ac
Achlyis triphylla	vanilla leaf	#1 pots	55	At
Adiantum aleuticum	maidenhair fern	#1 pots	105	Aa
Alnus rubra	red alder	#1 pots	60	Dr
Athyrium filix-femina	lady fern	#1 pots	215	Af
Carex obnupta	slough sedge	plugs	30	Co
Cornus nuttallii	pacific dogwood	#2 pots	51	Cn
Cornus stolonifera	red-osier dogwood	#1 pots	715	Cs
Cornus stolonifera	red-osier dogwood	live-stakes	60	Csl
Cornus stolonifera	red-osier dogwood	plugs	1540	Csp
Crataegus douglasii	black hawthorn	#1 pots	405	Cd
Equisetum hyemale	scouring rush	plugs	90	Eh
Gaultheria shallon	santal	#1 pots	930	Gs
Lysichiton americanum	skunk cabbage	#1 pots	90	La
Mahonia nervosa	dull Oregon grape	#1 pots	870	Min
Polystichum munifolium	sword fern	#1 pots	3155	Pm
Polystichum munifolium	sword fern	plugs	1950	Pmp
Prunus emarginata	bitter cherry	plugs	100	Pe
Pseudotsuga menziesii	Douglas-fir	#1 pots	15	Fd
Rosa acicularis	prickly rose	#1 pots	280	Ra
Rosa gymnocarpa	badhip rose	#1 pots	460	Rg
Rubus spectabilis	siamonberry	#1 pots	1770	Rs
Symphoricarpos albus	common snowberry	#1 pots	95	Sa

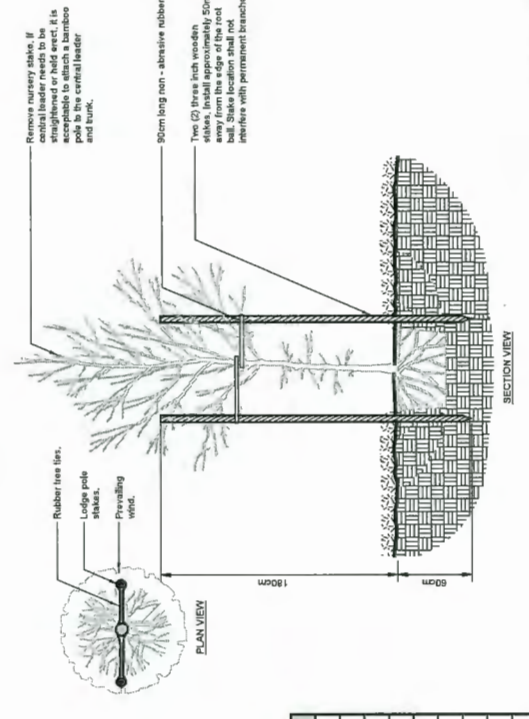
Replacement Tree Summary

Scientific Name	Common Name	Cal. Size	# of Trees
Acer circinatum	wine maple	6-8cm	3
Cornus nuttallii	pacific dogwood	6-8cm	6
Fraxinus pennsylvanica	green ash	6-8cm	18
Pinus sylestris	Scots pine	6-8cm	4
Platanus x acerifolia	London planetree	6-8cm	10
Quercus bicolor	swamp oak	6-8cm	14
Quercus rubra	red oak	6-8cm	2

APR 23 2019



REPLACEMENT TREE PLANTING DETAIL



TREE STAKING DETAIL

HABITAT RESTORATION PLAN (4 of 4)

River Green, Richmond, BC

Oval 8 Holdings Ltd.



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Figure: 11

Plan 7