Nokia Ottawa Campus
570 March Road
Design Brief

November 2024

File No: PC2023-0229

Contents

1. Project Description

- Design Description
- Project Statistics
- Proposal Plan & Renderings

Project Description

The Subject Site comprises 4.49 ha of land bounded by March Road, Terry Fox Drive and Legget Drive. The south boundary of the Subject Site is irregular and approximately 50 m south of the office building. The Subject Site is currently occupied by a large surface parking that was being used by the office building to the north.

The legal description of the Subject Site is:
Parts 5, 7 and 8 on 4R-35453

Gensler NOKIA

Project Description

The Subject Site is poised to be a cornerstone in Kanata's ongoing efforts to enhance its commercial and research infrastructure, creating a dynamic workplace for Nokia. This development strategically integrates state-of-the-art R&D Engineering Hub and R&D lab spaces, designed with flexibility, collaboration, and sustainability in mind, to meet the specific needs of Nokia. The R&D Engineering Hub, prominently fronting March Road, will maximize visibility and establish a strong corporate presence along this major thoroughfare, while the R&D Lab Building will address Legget Drive, anchoring the development's eastern edge.

North of these primary structures, the development will feature a newly envisioned serpentine lifestyle street that serves as the vibrant core of the site. This street will seamlessly connect the Brookstreet Hotel on Legget Drive with a future development, Main & Main, on March Road. The ground floors of the R&D Engineering Hub and R&D Lab Building will be lined with retail spaces, initially accommodating employee dining and fitness facilities, but designed to evolve into a lively retail corridor. This curated mix of retail establishments will serve both the Nokia occupants and the wider community, fostering a lively, pedestrian-friendly atmosphere.

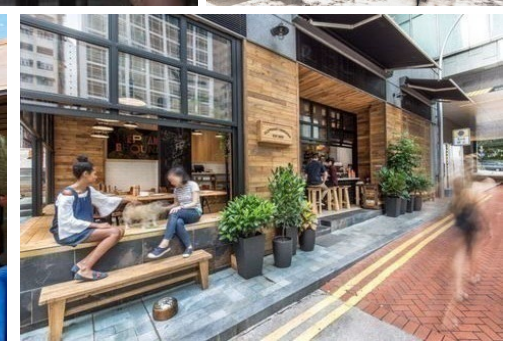
In alignment with the City's vision for sustainable growth and vibrant communities, it is recommended the lifestyle street is planned to be a future mixed-use residential area with retail spaces, creating a vibrant live-work-play environment. This street will become a double-sided retail corridor, capable of being closed to automotive traffic during large events and festivals, further enhancing its role as a community gathering place. Enhanced paving, wide sidewalks, and other streetscape features will make this an ideal pedestrian-friendly environment, encouraging interaction and connection.

The development will include a lush amenity plaza facing March Road, providing a tranquil retreat for employees and promoting well-being and social interaction. The integration of open spaces within the development and the proposed future development north of the lifestyle street that connect with the city's existing open space plan will provide recreational opportunities, promote wellness, and enhance the overall quality of life for employees, residents and visitors.

The project also includes a structured parking garage with a unique architectural expression. Interior to the parking garage is a secure bike storage area, allowing the many employees who choose to ride their bike to work the ability to safely secure their bike during work hours.

A mechanical work yard will be discreetly integrated south of the R&D Lab Building along Legget Road to ensure operational efficiency without detracting from the development's overall visual appeal. The mechanical work yard as well as the loading dock for the R&D Lab building will be screened from the pedestrian view.

This proposed development is designed to be a catalyst for economic growth, community engagement, and sustainable urban living, setting a new standard for future projects in the City of Ottawa.



Gensler NOKIA

Project Description

LAB-CENTRIC DESIGN

The labs are an important part of how we function. We must support and transform this dynamic space into the strategic layout of the campus.

SPACE + BEHAVIOR

Instead of letting space influence behavior, we should recognize that space and behavior equally complement one another.

SPACE PLANNING

Through the creative arrangement of spaces, the goal is to provide campus for people to live, work, and play.

SUSTAINABLE APPROACH

Address sustainable initiatives on both large and small scales throughout the campus.

FUTURE PROOFING

Explore solutions that afford the ability to flex based on immediate and future needs and shift to accommodate various program requirements.

BLENDED APPROACH

The building should support technology, culture, and organization in order for everyone to have the ability to get their best work accomplished.

ENERGY EFFICIENCIES

A space can work smarter not harder by utilizing energy more efficiently.

EXPLORE FUNDING OPPORTNITIES

Leverage opportunities for government funding to offset energy and Infrastructure costs.

RE-ACTIVATED AMENITIES

Activate amenities that support work, move, and play modes. Re-engage entertainment, sports, wellbeing and food related.

COLLABORATION + CONNECTION

We must maintain culture, collaboration, and connection in both virtual and in-person ways to support and engage employees.

WELLNESS FOCUSED

Create spaces that leave people feeling better than when they arrived.

EMPLOYEE JOURNEY

Enhance the campus journey through the use of planning, signage, and wayfinding. The movement should be a positive experience.

IN-HOUSE TECH DEPLOYMENT

Utilize Nokia's technology to showcase capabilities on site and to capture data analytics for analysis.

EMPLOYMENT INPUT

Our campus design must be informed by employees needs. We need to understand impacts of employee-driven flexibility on physical space.

ENGAGEMENT TOOL

Our space can do more for us; it can serve as a way to engage employees, visitors, and clients with the company.

HANDS-ON WORK MODES

Amenities that offer mobility and flexibility in the design of the space to transform, meet the employees needs, and allow for hands-on collaboration.

TALENT ATTRACTION

Creating an environment that is inspiring and engaging to attract the next generation of talent.

FLEXIBILITY + MOBILITY

Opportunities to feel engaged, connected, and productive—leveraging the hybrid work mode.

SPACE ON DEMAND

Ensure that when employees are in the office, they have the space they need to work, collaborate, engage, and connect.

Gensler NOKIA

Project Statistics

PROJECT: NOKIA OTTAWA CAMPUS

ADDRESS: 570 MARCH RD, KANATA OTTAWA ON K2K 2T6

DEVELOPER: TBD

APPPLICANT: GREG WINTERS, NOVATECH

ZONING PERFORMANCE STANDARDS CITY OF OTTAWA ZONING BY-LAW *2008-250*	MC (2845) REQUIRED	PROVIDED
MINIMUM LOT SETBACK (m) EAST	0m	1.934m
MINIMUM LOT SETBACK (m) NORTH	0m	17.674m
MINIMUM LOT SETBACK (m) SOUTH	0m	85.370m
MINIMUM LOT SETBACK (m) WEST	2m	9.673m

LOT AREA	45 445m²	11,066ac.
LOT FRONTAGE	238,4m	782,480ft
LOT DEPT IRREGULAR	133,81m	439,009ft

LOT COVERAGE	50%
BUILDING HEIGHT	44 m

TOTAL GROUND FLOOR AREA	12 700m²	136 702ft²
R&D LAB BUILDING	7 177m²	77 253ft²
RETAIL	2 120m²	22 819ft²
R&D ENGINEERING HUB	3 972m²	42 754ft²

STANDARD SPACE (2.60m X 5.20m)	899
ADS- TYPE A SPACE (3.40m X 5.20m)	12
ADS- TYPE B SPACE (2.60m X 5.20m)	17
TOTAL	928

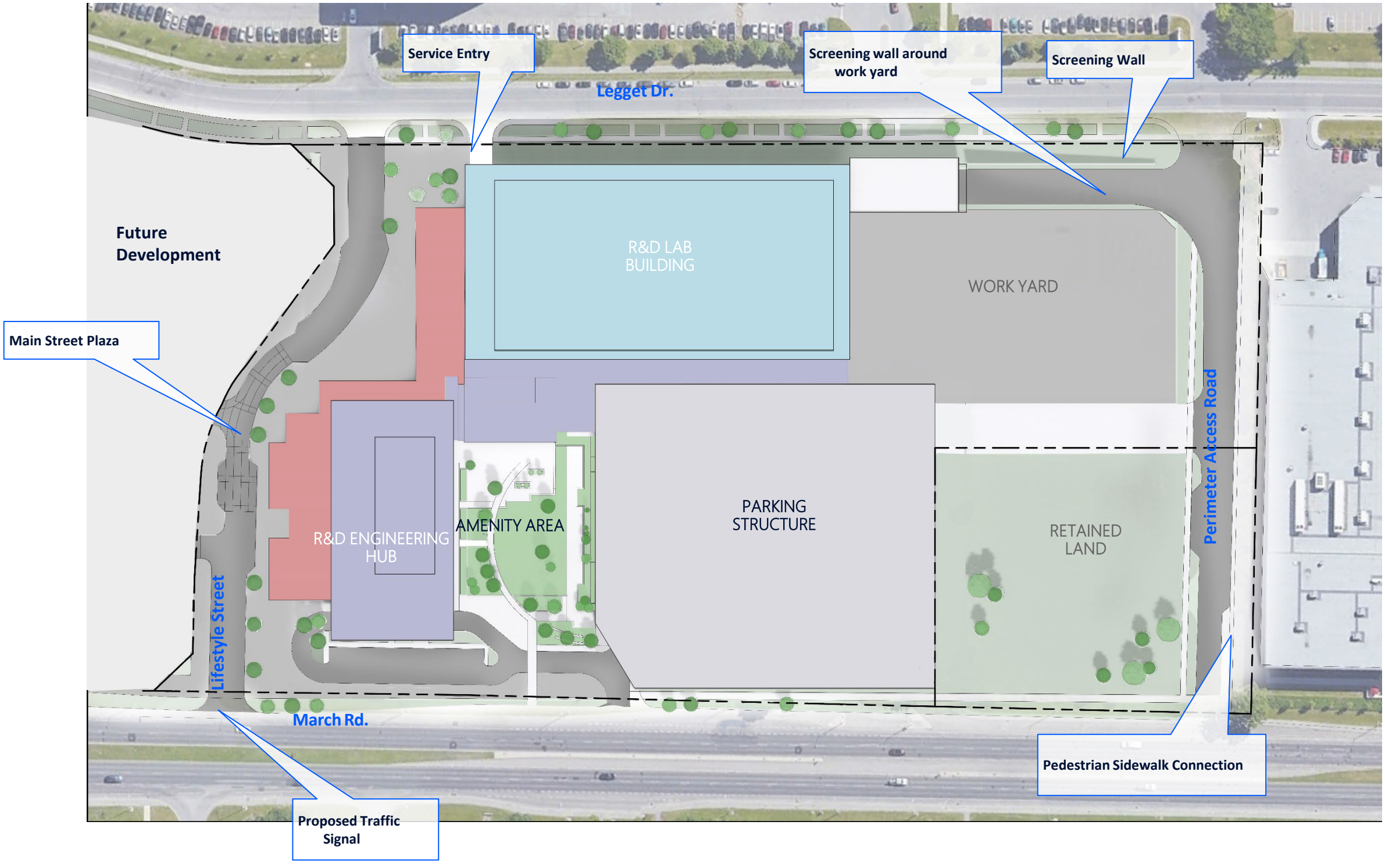
PROVISIONS	PARKING RATE	AREA	REQUIRED	PROVIDED
MINIMUM BICYCLE PARKING SPACES RATES (ENGINEERING HUB) *	1/250 m²	21 042 m²	85	85 *(ITEM B)
MINIMUM BICYCLE PARKING SPACE RATES (LAB) *	1/1500 m²	31 948 m²	22	26 *(ITEM B)
MINIMUM BICYCLE PARKING SPACE RATES (RETAIL)	1/250 m²	2 120m²	9	9
MINIMUM LOADING SPACE RATES (ENGINEERING HUB)	2: 15000-24999 m²	21 042 m²	2	2
MINIMUM LOADING SPACE RATES (LAB)	2: 25000+m²	31 948 m²	2	2
MINIMUM LOADING SPACE RATES (RETAIL)	1: 2000-4999 m²	2 120m²	1	1

*WHERE THE NUMBER OF BICYCLE PARKING SPACES REQUIRED FOR A SINGLE OFFICE OR RESIDENTIAL BUILDING EXCEEDS FIFTY 50 SPACES, A MINIMUM OF 25% OF THAT REQUIRED TOTAL MUST BE LOCATED WITHIN:
A) A BUILDING OR STRUCTURE;
B) A SECURE AREA SUCH AS A SUPERVISED PARKING LOT OR ENCLOSURE WITH SECURE ENTRANCE; OR
C) BICYCLE LOCKERS.
*A MINIMUM OF 50% OF THE BICYCLE PARKING SPACES REQUIRED BY THIS BY-LAW MUST BE HORIZONTAL SPACES AT GROUND LEVEL. (BY-LAW 2021-215)

The Subject Site is zoned Mixed Use Centre with an exception (MC [2854])

PROVISIONS	REQUIRED	PROVIDED
MINIMUM BUILDING HEIGHT	4 STOREYS AND 14 M	8 STOREYS AND 44M
MINIMUM BUILDING HEIGHT DOES NOT APPLY TO ABOVE GRADE PARKING STRUCTURES.	NA. THE PARKING IN THE BUILDING IS NOT A SEPARATE PARKING STRUCTURE.	N/A
MAXIMUM BUILDING HEIGHT	30 STOREYS AND 94 M	8 STOREYS AND 44M
PARKING	NO PARKING IS REQUIRED.	931
TOWER DEFINITION	FOR THE PURPOSE OF THE BELOW PROVISIONS, A TOWER IS DEFINED AS THE PORTION OF THE BUILDING ABOVE THE PODIUM.	ONLY THE R&D ENGINEERING HUB TOWER IS DEFINED AS A TOWER.
MINIMUM SEPARATION BETWEEN TWO TOWERS	32 METRES IN HEIGHT OR GREATER: 25 M.	N/A (ONLY 1 TOWER)
BUILDINGS ON LOTS THAT SHARE A LOT LINE WITH LEGGET DRIVE OR AN INTERNAL PRIVATE STREET SHALL HAVE A MAXIMUM PODIUM HEIGHT OF	4 STOREYS AND 14 M.	THE R&D ENGINEERING HUB PODIUM IS 1 STOREY AND 6.5 M HIGH
TOWERS ARE REQUIRED TO HAVE A STEP BACK FROM THE PODIUM OF THE BUILDING:	1. FOR A BUILDING ABUTTING PRIVATELY OWNED PUBLIC SPACE, LEGGET DRIVE, OR A PUBLIC PARK, MINIMUM STEP BACK REQUIRED, INCLUDING BALCONIES: 3 M; AND 2. IN ALL OTHER CASES, MINIMUM STEP BACK REQUIRED, INCLUDING BALCONIES: 1.5 M.	STEPBACK (E)ABUTTING LEGGET DR 4.575M MINIMUM. STEPBACK (N)ABUTTING PRIVATE DR/ PUBLIC SPACE 3.0 MINIMUM.
BALCONY PROJECTIONS	NOTWITHSTANDING SECTION 65 FOR PERMITTED PROJECTIONS, BALCONIES ARE NOT PERMITTED TO PROJECT BEYOND THE FRONT WALL OF THE PODIUM.	COMPLIES. NO BALCONIES PROJECT BEYOND THE FRONT WALL OF THE PODIUM.

Proposal Plan & Renderings



Gensler NOKIA

Proposal Plan & Renderings

R&D Engineering Hub

Gensler NOKIA

Proposal Plan & Renderings

R&D Lab Building

Gensler NOKIA

Proposal Plan & Renderings

Perspective View

Gensler NOKIA

Proposal Plan & Renderings

Perspective View

Gensler NOKIA

Proposal Plan & Renderings

Perspective View

Gensler NOKIA

2. Design Directives

- City Design Policies Summary
- Response to Urban Design Directions

City Design Policies Summary

Ottawa Official Plan

6.6.3.2 Kanata North Economic District

- New development should promote growth and a competitive position for talent, jobs and investments:
    - *Transform from a car-oriented business park to a mixed use innovation district with a wide range of uses – residential, employment, commercial and institutional.*
    - *Focus highest densities at emerging activity centres – with 600m of Transitway stations at Terry Fox Drive.*
    - *Create a finer grid block pattern and introduce new private and public streets to improve connectivity.*
- The zoning By-law will aim to broaden land use permissions, reduce required setbacks, reduce on-site parking requirements, and establish min/max floor space index ratio.
- Activity centres shall develop a high density of jobs and housing, and permit up to high rise buildings. Activity centres should also include signature a urban plaza which may be privately owned.
- Encourage broad range of dwelling sizes, including market and affordable housing.
- Development shall not require minimum parking.
- Consider new connections to reduce the block length including exploring one or more new intersections between Solandt/March Road and Terry Fox/March Road.

Response to Urban Design Directions

Comment:
The site is within a Design Priority Area. You are encouraged visit to the UDRP even though a visit to the UDRP is not required for properties within the Kanata North Economic District.
Response:
Noted. Based on the above the applicant has opted not to attend UDRP.

Comment:
A Design Brief required. Please refer to the attached Terms of Reference
Response:
Urban Design Brief is now included

Comment:
Treatment of the building along proposed "lifestyle street" appropriate. Would like additional details on how the lifestyle street, including cross sections and paver treatment patterns.
Response:
Outline of buildings now shown on street cross sections. Please refer to the Landscape Plan by CSW for additional details.

Comment:
Per the criteria in OP, there needs to be more consideration to how the development interacts with the existing public streets. As proposed, the development turns it back on March Road and Legget Drive. Recommend at-grade retail or non-residential uses (amenity for office users). For areas where this is not possible, consider green walls and murals.
Response:
Pedestrian plazas at both the junctions with Legget and March road will provide vibrant pedestrian realm, welcoming the public onto the lifestyle street. The design theme of the plaza spaces will extend along the lifestyle street providing an animated pedestrian environment fronted by commercial and mixed-use buildings. The landscape as you head south along both March and Leggett will transition into street trees adjacent to the sidewalk with a buffer of shrub plantings and columnar trees at the base of the parking structure and R&D Lab Building.

Comment:
Public realm treatment needed – please refer to criteria in the OP for March Road and Legget Drive.
Response:
A staggered double avenue of trees has been included along March Road between the sidewalk and underground utilities and a wide shrub planting buffer at the base of the parking structure will include additional columnar tree plantings to provide attractive green space along March Road. As you approach the Lifestyle Street junction, low walls and shrub beds will provide additional year-round visual interest to the drop-off area and surface parking. The meandering walls will lead to a pedestrian plaza at the junction with the Lifestyle Street.

Response to Urban Design Directions

Comment:
Per the OP, surface parking in and around the pick-up drop off area along March Road needs to be removed. This area should be treated like a woonerf.
Response:
This is treated as a woonerf with a curbless drop-off and continuity of the plaza unit paving materials and patterning. The parking needs to remain as part of the programming for visitor parking and handicap accessible parking.

Comment:
Details on the equipment yard, and its relationship to Legget Drive are needed.
Response:
A perforated metal fence system set approximately 24 meters from Legget Drive will screen the equipment yard. The screening system will block eye-level views of the equipment from pedestrians and drivers along Legget Drive.

Comment:
Appreciate the three dimensionality of the façades.
Response:
Noted

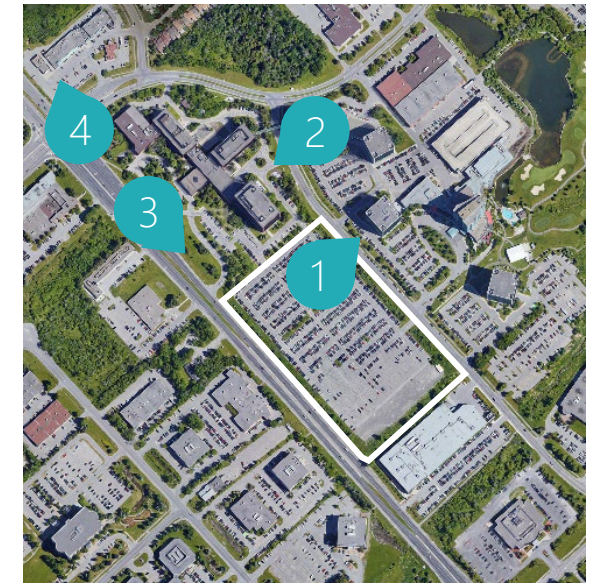
Comment:
Please detail sustainability strategy as part of your formal submission.
Response:
Included in this Urban Design Brief

Comment:
Explore the potential for additional green roofs.
Response:
Green roofs are not currently in the budget

2. Site, Context and Analysis

- Existing Site Conditions and Surrounding Area
- Perspective Images
- Protected View Corridors
- Built and Natural Heritage Assets
- Microclimate Conditions
- Key Surrounding Uses
- Urban Pattern – Streets & Blocks
- Characteristics of Adjacent Streets and Public Realm
- Mobility Networks

Existing Site Conditions and Surrounding Area



1. Commercial uses on East side of Legget Dr.

2. Nokia campus from Legget Dr.

3. Nokia campus from March Rd.

4. March Road Mall at March Rd. & Terry Fox Dr

Gensler NOKIA

Existing Site Conditions and Surrounding Area

1. Brookstreet Hotel on Legget Dr.

2. Nokia campus parkin lot looking Northwest

3. Commercial uses on West side of March Rd.

Gensler NOKIA

Perspective Images

NORTH

To the north of the Subject Site across Terry Fox Dr. is a 1- and 2-storey strip mall, 2-storey townhouses on Banchory Crescent and a wooded section of 360 Terry Fox Dr. which is also developed with a 2-storey office building. The current zoning here permits maximum heights of approximately 6 storeys, 4 storeys and 14 storeys at these locations respectively. In particular, the undeveloped section of 360 Terry Fox could be developed for a mixed use development up to 14 storeys.

EAST

To the east across Legget Dr. are four office buildings at 555, 535 and 515 Legget Dr. and the 18 storey Brookstreet Hotel at 525 Legget Dr. There are current Zoning By-law Amendment and Site Plan Control applications for a 30-storey apartment building further west, connected to the hotel. There is an existing raised covered footbridge over Legget Dr. that connects the existing Nokia office building and 555 Legget Dr.

SOUTH

To the south is a 2-storey office and light industrial building built in 2015 currently occupied by Sanmina, a high-tech manufacturer. The building is oriented to March Rd. and surface parking is provided to the south of the building.

WEST

To the west across March Rd. are several low-rise commercial buildings. Moving south to north there is a 4-storey office building at 50 Hines Rd., the parking lot at the rear of a 1-storey building fronting Hines Rd. and occupied by the Royal Canadian Legion (70 Hines Rd.), a 2-storey office building (84 Hines Rd.), a former dwelling now used as an office (525 March Rd.), a gym and strip mall (555 and 591 March), a vacant parcel and, at the junction with Terry Fox Dr., a 2-storey office building. To the northwest is a low-rise residential neighbourhood.

Gensler NOKIA

Built and Natural Heritage Assets

Park Facilities

1. Richcraft Recreation Complex
2. Monk Environmental Park
3. Morgan's GrantWoods Park
4. Allenby Park
5. Gateshead Park
6. McKinley Park
7. Shirley's Brook Park
8. Ravenscroft Park
9. Juanita Snelgrove Park
10. Trillium Woods Park
11. South March Highlands Conservation Forest
12. Forestbrook Park
13. Klondike Road Park
14. W.C. Bowes Park
15. Dunoille Park
16. Old March Town Hall Park
17. Brookshire Park
18. Lismer Pines Park
19. Kimmin Court Park
20. Logan Lea Park
21. Lawren Harris Park

- Daycare
- Community Centre
- School
- Green Space
- Kanata North Economic District
- Site

Gensler NOKIA

Microclimate Conditions

The front of the R&D Engineering Hub and retail areas, oriented on the northwest side of the site, will receive minimal direct sunlight in the morning but will benefit from ample natural light in the late afternoon and evening, especially during the summer months. This orientation enhances natural lighting, reducing the need for artificial lighting during peak hours and contributing to energy efficiency.

The R&D Engineering Hub will have varied solar exposure throughout the day. The southwest facade will receive significant afternoon sunlight, promoting passive solar heating during the cooler months, which can reduce heating energy consumption. In contrast, the northeast facade will receive softer morning light, which is ideal for reducing glare and enhancing occupant comfort. During winter, shadows cast by the R&D Engineering Hub will extend towards the northeast, with minimal impact on the newly designed amenity plaza due to its strategic positioning.

The R&D Lab Building is designed to optimize natural light while minimizing excessive heat gain. The northwest facade will remain cool in the mornings, while the southeast facade benefits from ample morning sunlight, reducing reliance on artificial lighting. This southeast orientation also protects the building from intense afternoon sun, helping to maintain a comfortable indoor environment and reduce cooling loads. In winter, shadows from the R&D Lab Building will fall towards the southeast, minimally affecting the amenity plaza.

Positioned to receive sunlight during the midday and afternoon hours, the amenity plaza provides a comfortable, sunlit environment that can be used for various activities throughout the year. The amenity plaza is also shielded from cold northwest winds by the R&D Engineering Hub and the parking garage, creating a more sheltered microclimate that enhances usability during colder months. Additionally, this open space promotes natural ventilation and cooling during the summer, reducing the need for mechanical cooling within adjacent buildings.

The parking structure is designed to minimize its shadow impact on the surrounding buildings and open space. Its placement ensures that it does not obstruct significant sunlight from reaching the R&D Engineering Hub or the amenity plaza during peak daylight hours, thereby supporting natural light penetration and enhancing the overall sustainability of the site.

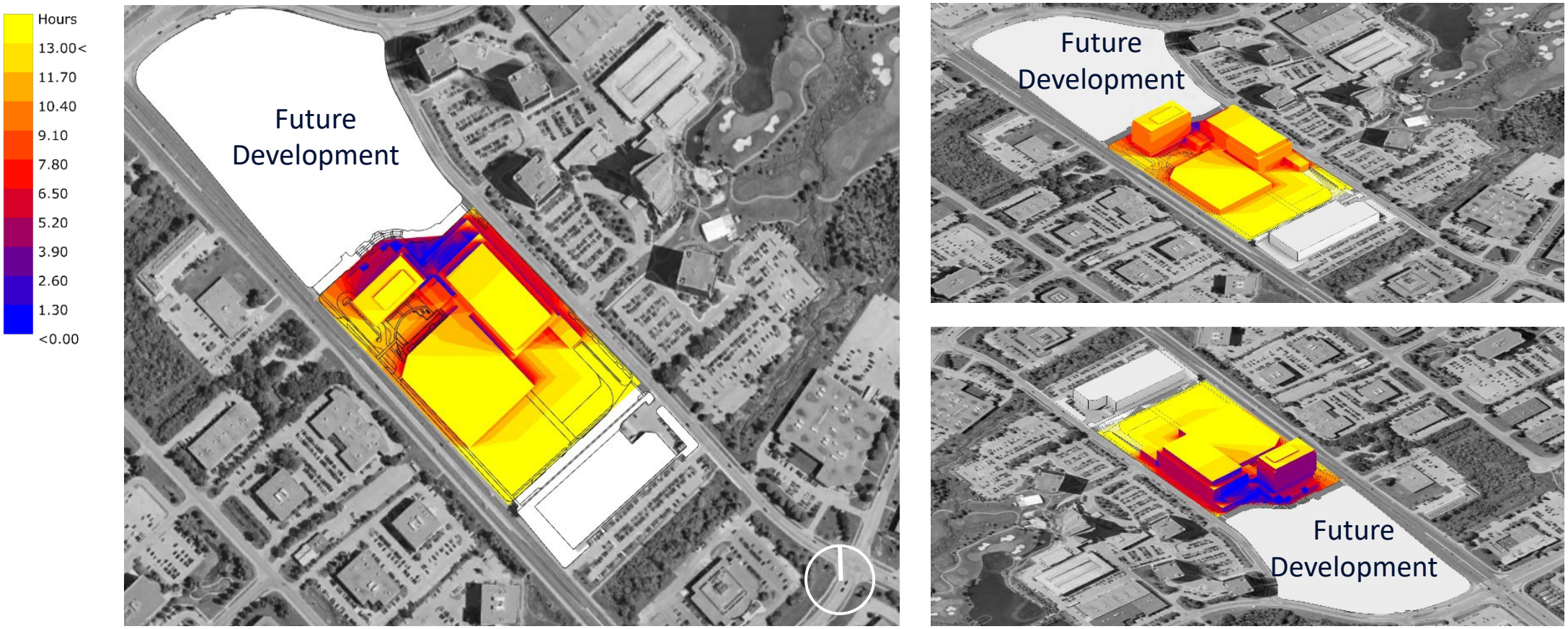
Prevailing winds in Ottawa, typically from the northwest in winter and the southwest in summer, have been strategically considered in the development layout. The northwest-facing front of the R&D Engineering Hub will be exposed to cold northwest winds during winter, but the building design incorporates features such as insulated facades and strategic landscaping to mitigate heat loss and enhance thermal comfort. The southwest winds in summer will naturally ventilate the southwest facade of the R&D Engineering Hub and the amenity plaza, promoting cooling and reducing energy consumption for air conditioning. The R&D Lab Building, with its southeast facade, will benefit from these cooling breezes, further enhancing the development's overall sustainability.

The thoughtful orientation and placement of the R&D Engineering Hub, R&D Lab Building, parking garage, and amenity plaza are key to maximizing solar gains, minimizing shadow impacts, and optimizing natural ventilation.

Microclimate Conditions

Direct Sun Hours Analysis

September 22nd 6am – 8pm



Gensler NOKIA

Key Surrounding Uses

Residential Commercial/Retail Kanata North Economic District Green Space Site

Gensler NOKIA

Urban Pattern – Streets & Blocks

Blocks Site

Gensler NOKIA

Urban Pattern – Streets & Blocks

Future and Current Development Proposals on Adjacent Properties/Planned Functions

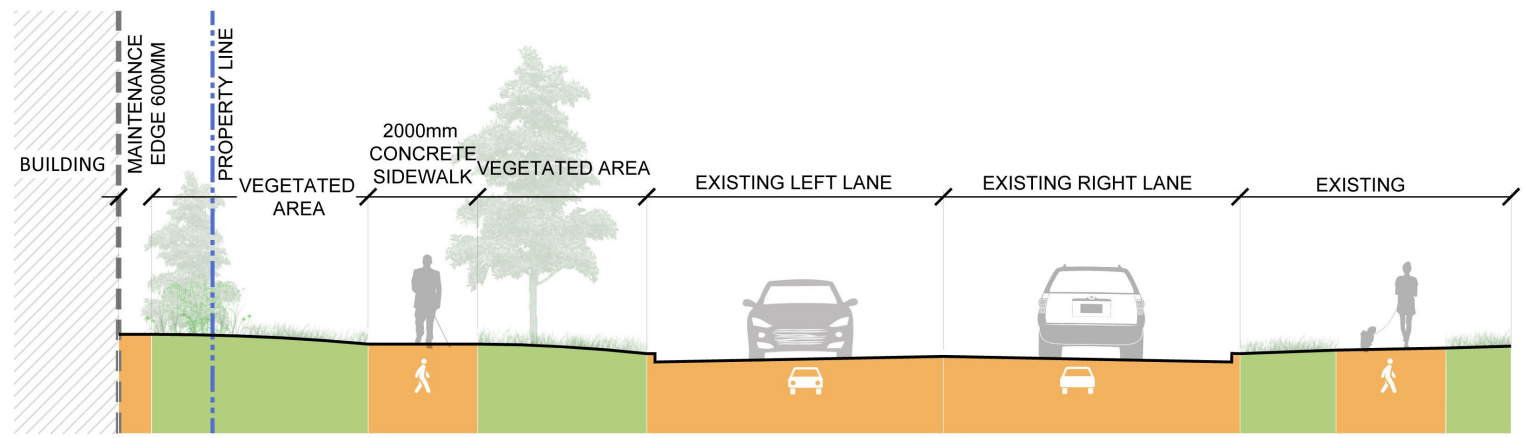
Gensler NOKIA

Characteristics of Adjacent Streets and Public Realm

Legget Drive

Existing Conditions

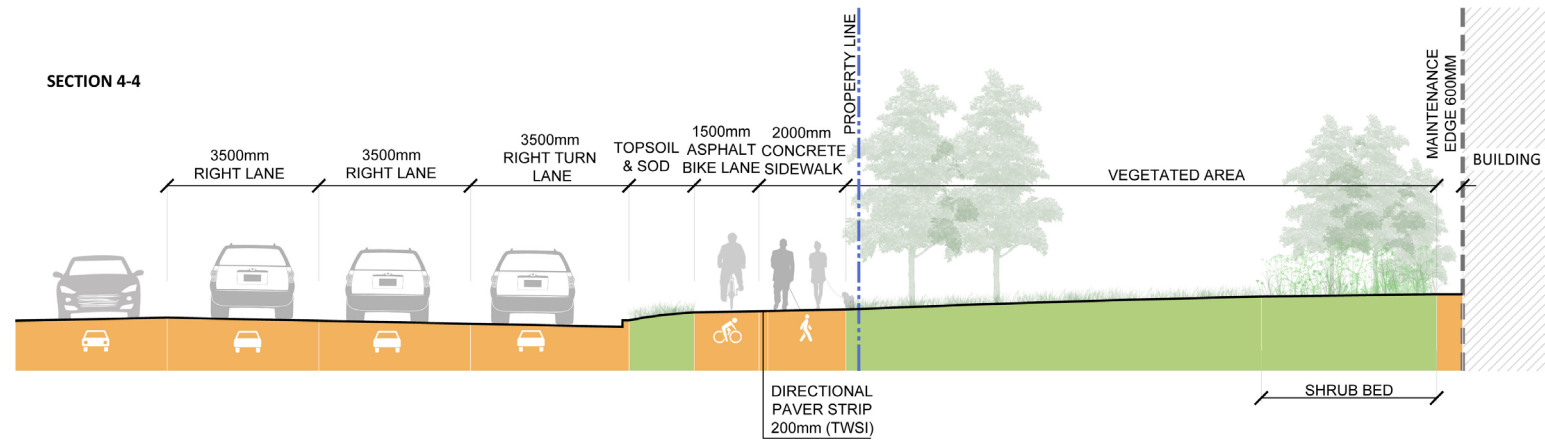
Proposed Cross Section



March Road

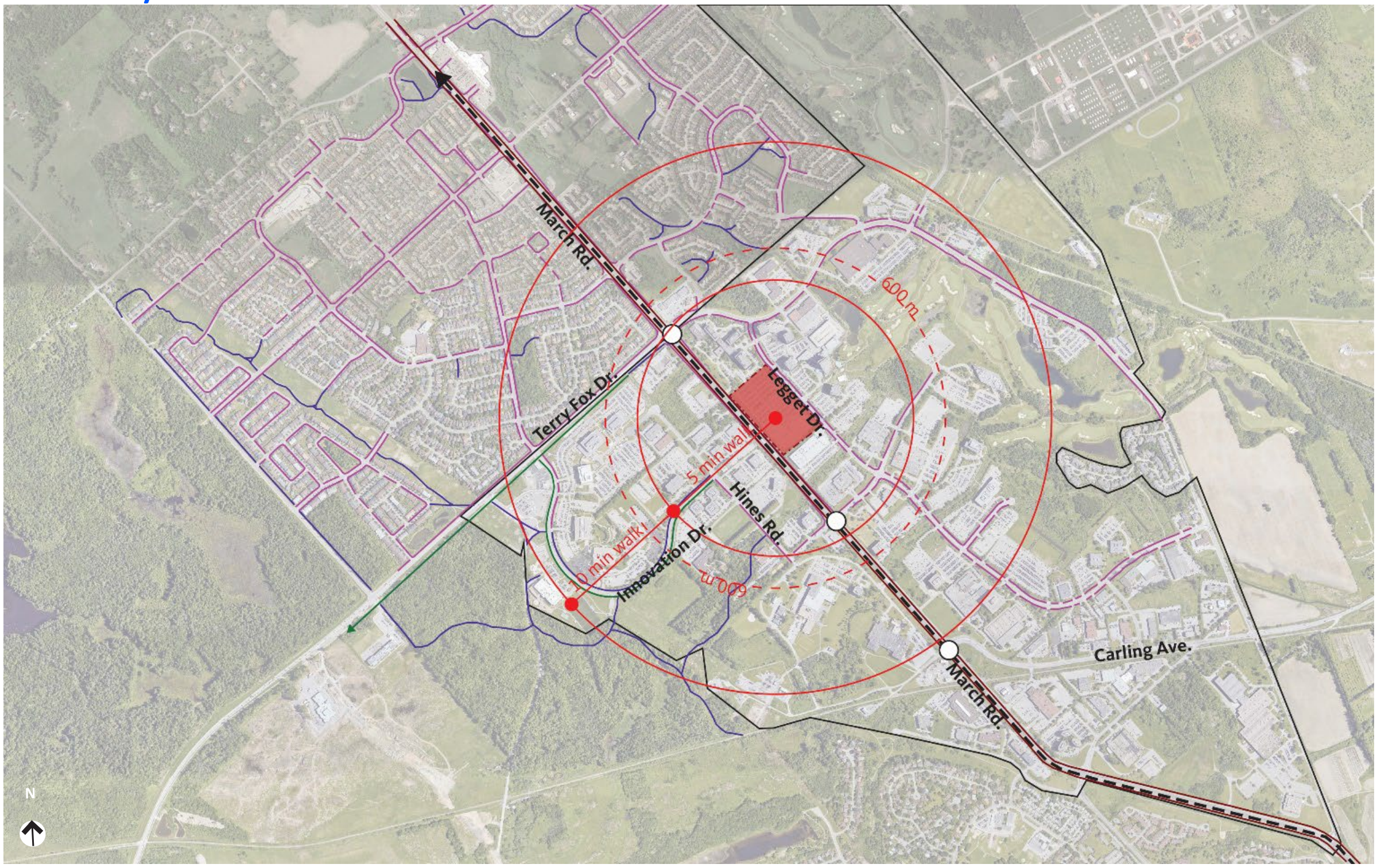
Existing Conditions

Proposed Cross Section



Gensler NOKIA

Mobility Networks



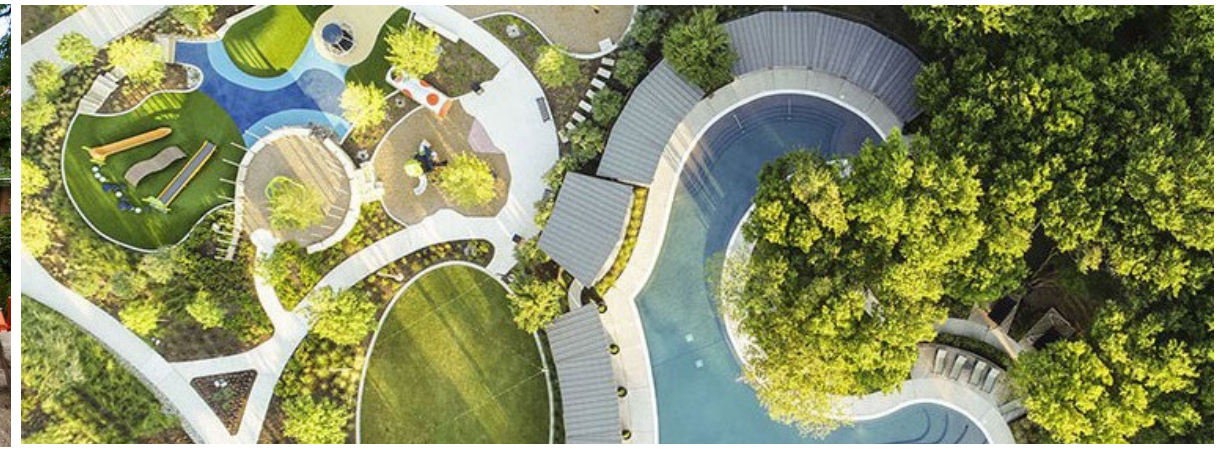
Future Cycle Track
Multi-Use Path
Pathways
Sidewalk
Kanata North Economic District
Future BRT Route
Future BRT Stop
Site

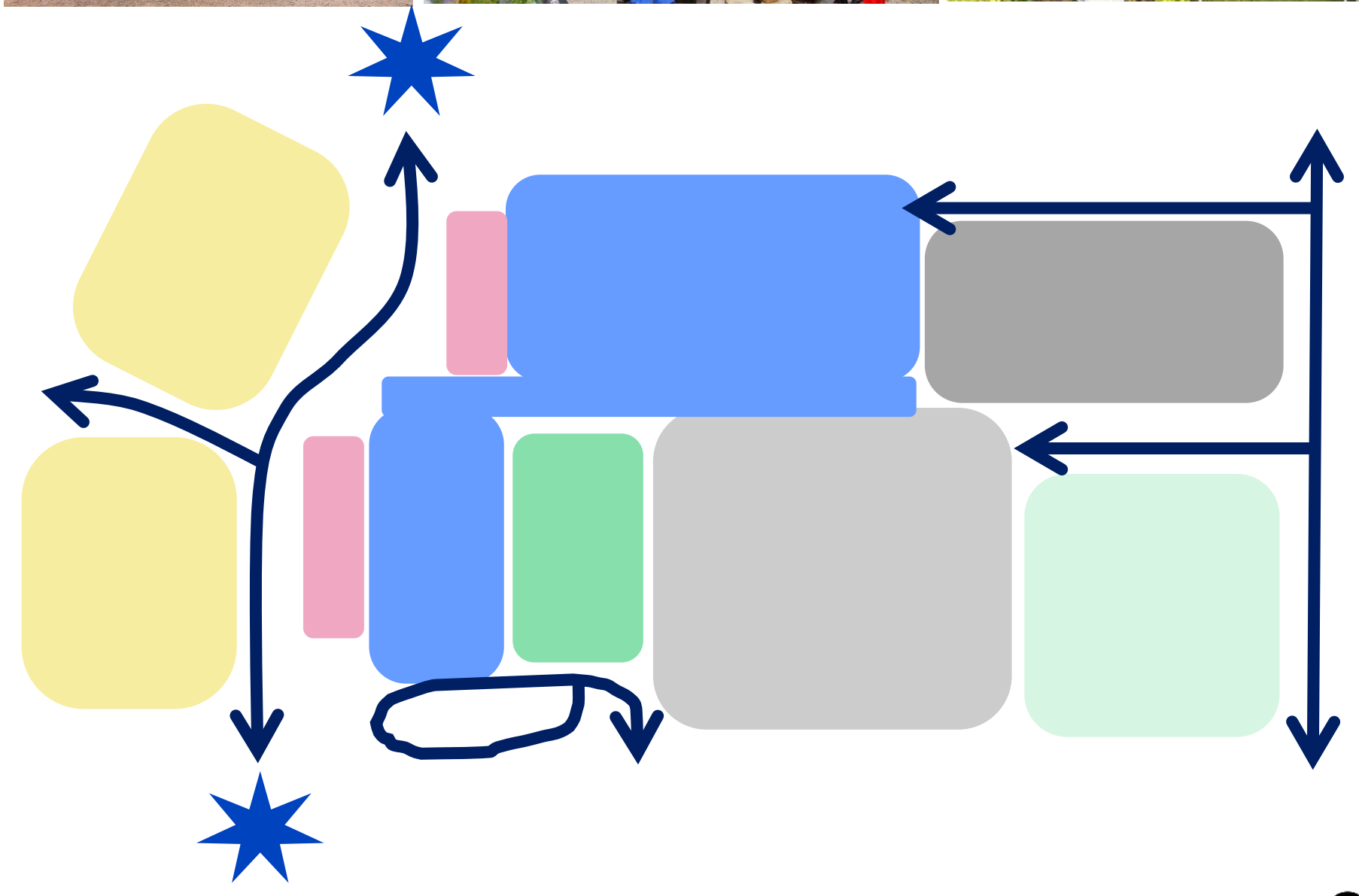
Gensler NOKIA

3. Design Research

- Parti Diagrams/Sketches/Precedent Images
- Design Evolution
- Massing in Planned Context
- Block Plan
- Transition Between Proposed Development and Surrounding Area
- Abutting Public Realm Conditions
- Street Renderings and Cross Sections
- Sustainable Design
- Bird-Safe Design

Parti Diagrams/Sketches/Precedent Images





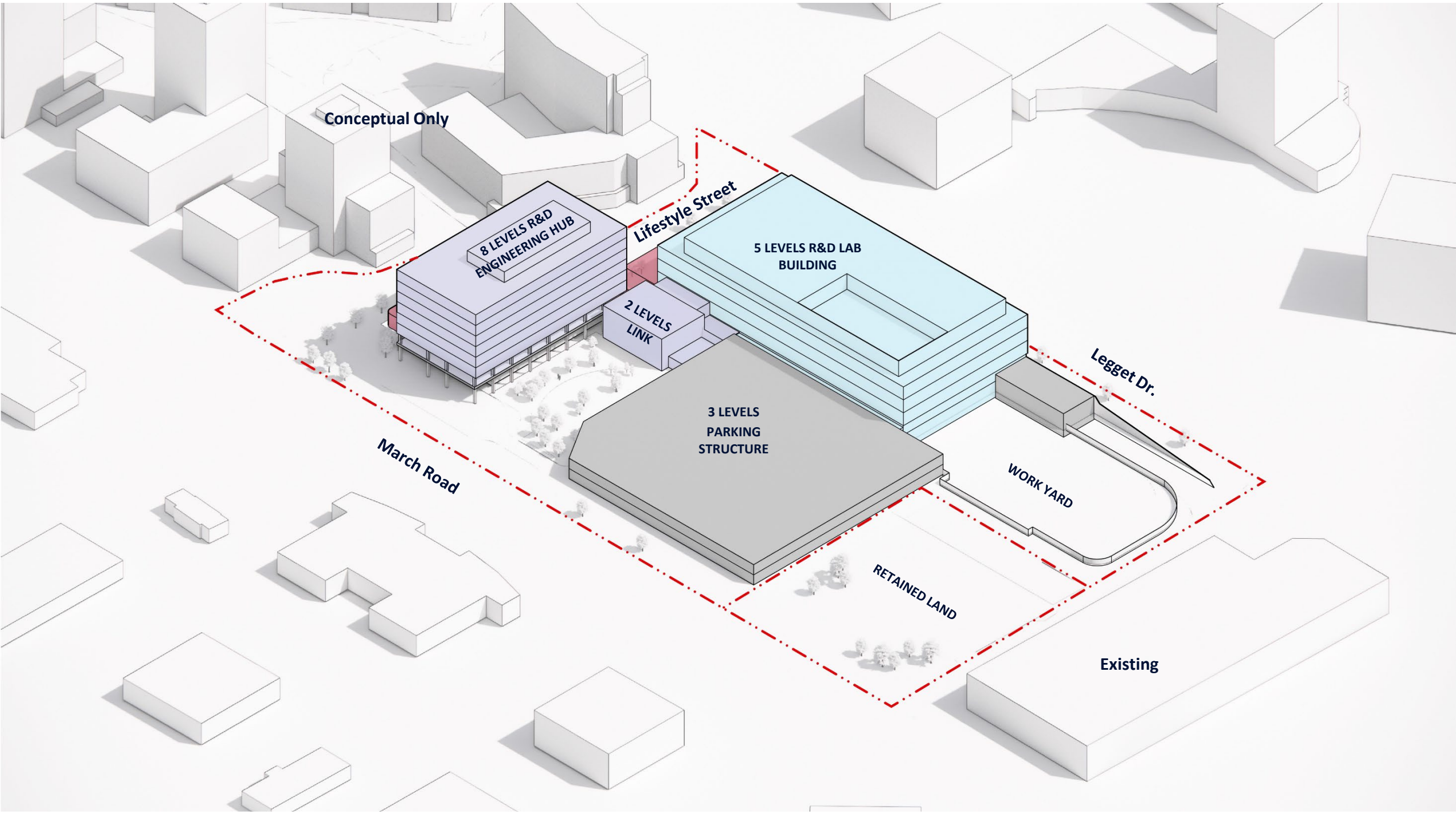
Gensler NOKIA

Design Evolution

The evolution of the proposed development as gone through many iterations with several considerations leading to the final proposed layout. Initiated as an interior renovation project, the Gensler team proposed a potential option to maximize the land to create a dynamic live-work-play development. As a phasing strategy to maintain day-to-day business for Nokia, the existing facilities is proposed to remain while new facilities are developed. After the new Nokia facilities are constructed, the north side of the property can be redeveloped into a mixed-use high-rise residential district. The future Nokia campus plan has morphed over several options to meet Nokia's space utilization and programming needs. As the space and programming needs were refined over various versions of the master plan, the lifestyle street shifted back and forth to meet those needs. The final placement of the lifestyle street provides wide sidewalks for pedestrians while connecting the proposed development on the west side of March Road and the existing curb cut for the existing development on the east side of Legget Drive. The R&D Engineering Hub is located on March Road to provide visual presence for motorists passing by and a structured parking garage is located to the south of the R&D Engineering Hub to serve the employees. The final location of the service drive to the south of the structured parking garage has been shifted slightly north from previous versions of the plans to preserve heritage trees. Finally, the architecture of the R&D Lab building along Legget Drive has been refined over many iterations to provide glazing and visual interest to meet the City's desire to make this street a pedestrian-oriented street.

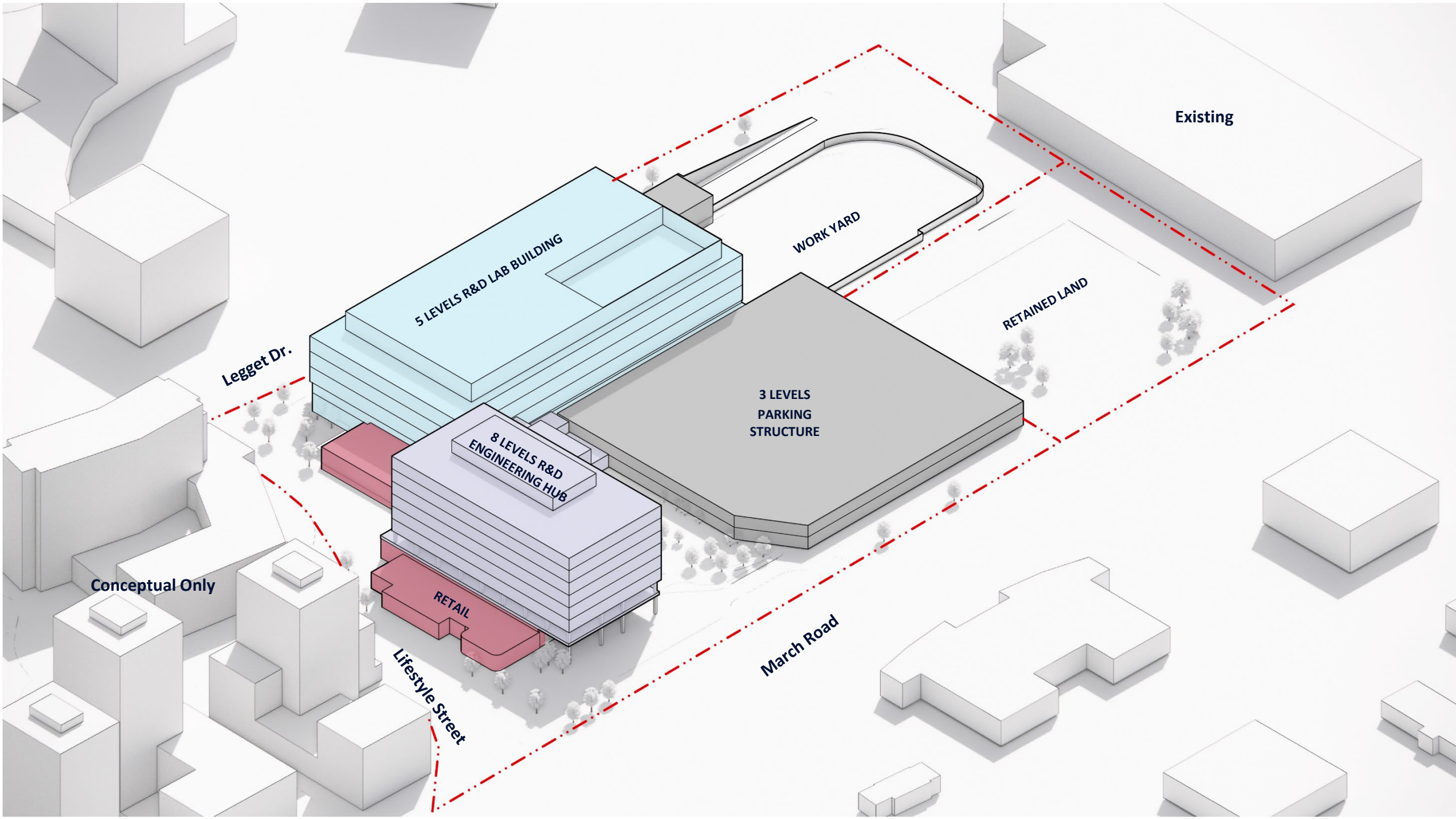
Massing in Planned Context

North Massing



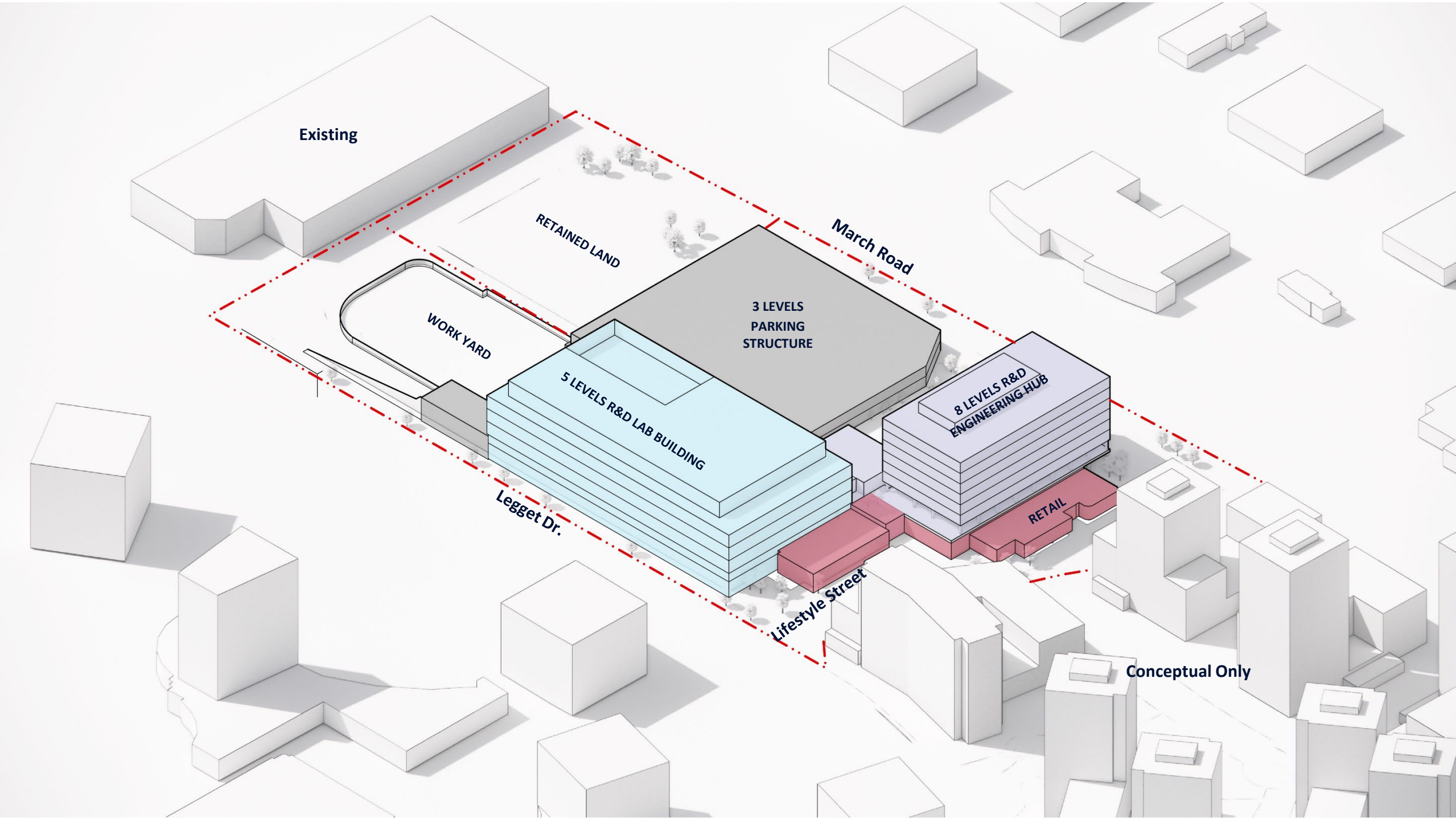
Massing in Planned Context

South Massing



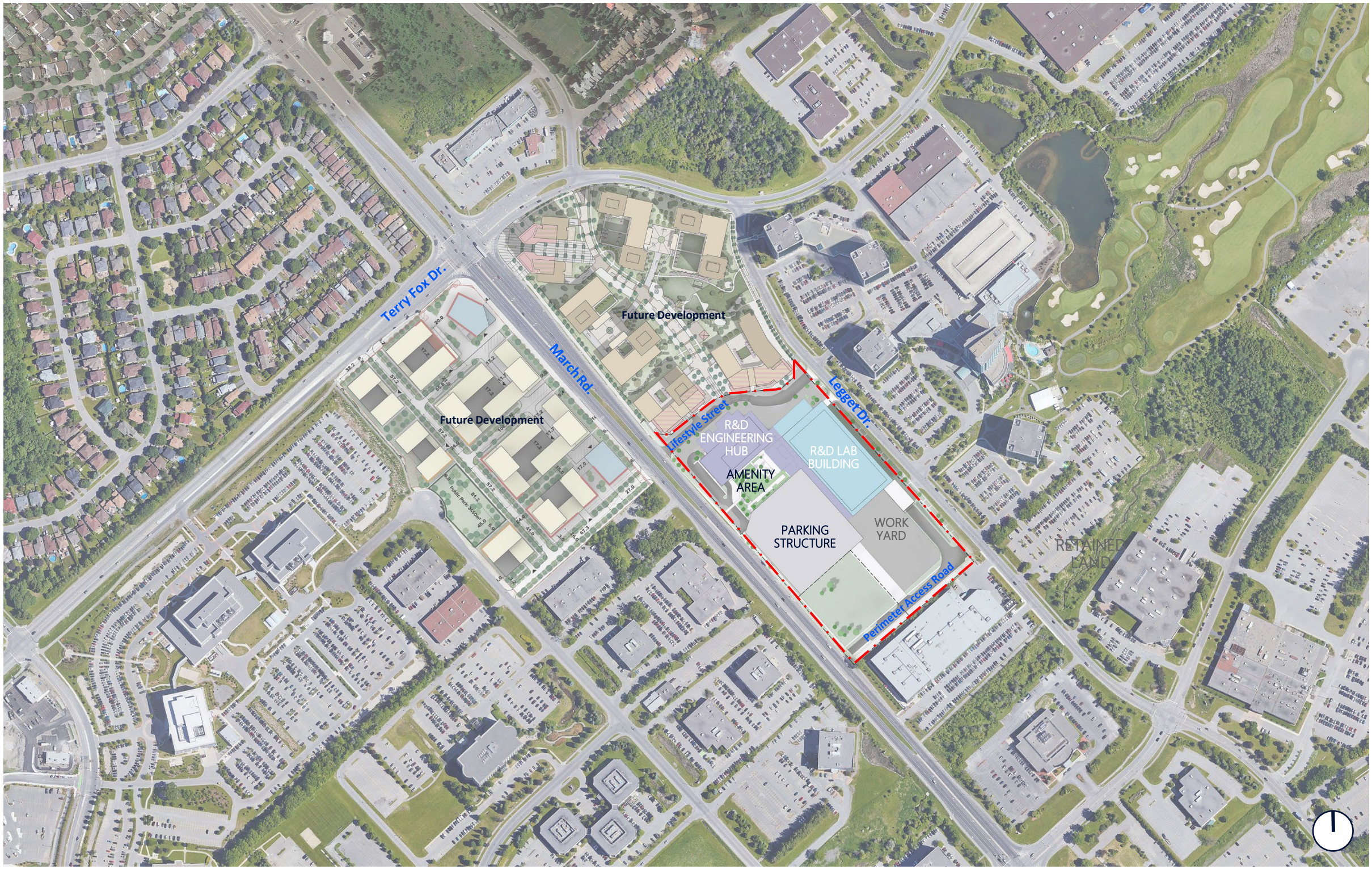
Massing in Planned Context

South Massing



Gensler NOKIA

Block Plan

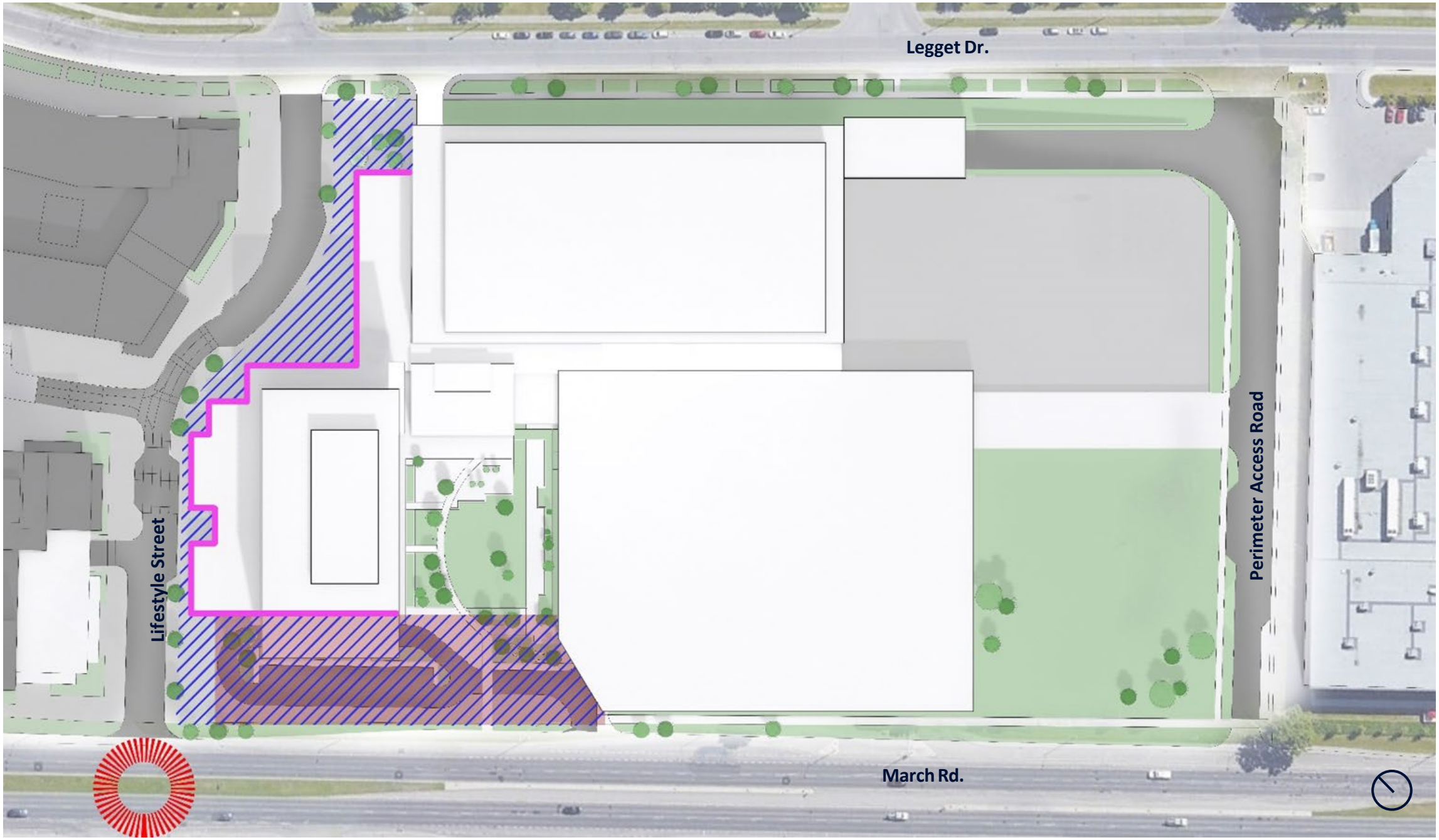


Gensler NOKIA

Transition Between Proposed Development and Surrounding Area

Gensler NOKIA

Abutting Public Realm Conditions



Active Edges
Lifestyle Plaza
Nokia Arrival Plaza
New Signalized Intersection

Combined Plaza Area: 5,550 m2

Site Dedicated to Public Realm: 12.35%

Gensler NOKIA

Lifestyle Street Rendering

Gensler NOKIA

Lifestyle Street Rendering

Gensler NOKIA

Lifestyle Street Rendering

Gensler NOKIA

Lifestyle Street Rendering

Lifestyle Street Rendering

Lifestyle Street Rendering

Gensler NOKIA

Lifestyle Street Rendering

Gensler NOKIA

Lifestyle Street Rendering

Lifestyle Street Rendering

Gensler NOKIA

Lifestyle Street Rendering

Lifestyle Street Rendering

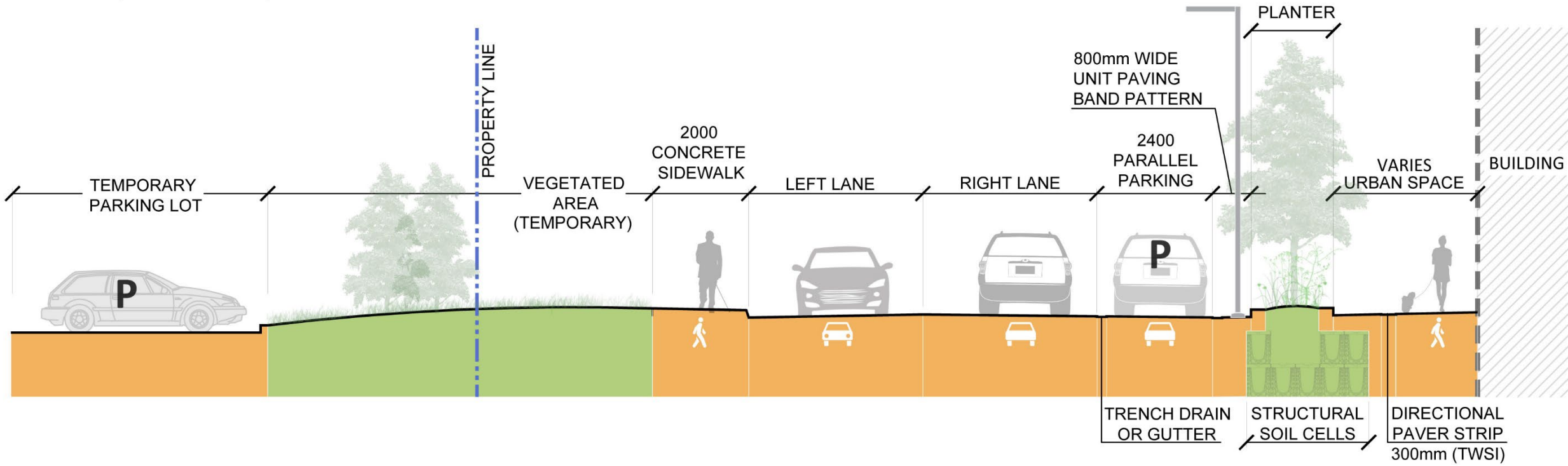
Gensler NOKIA

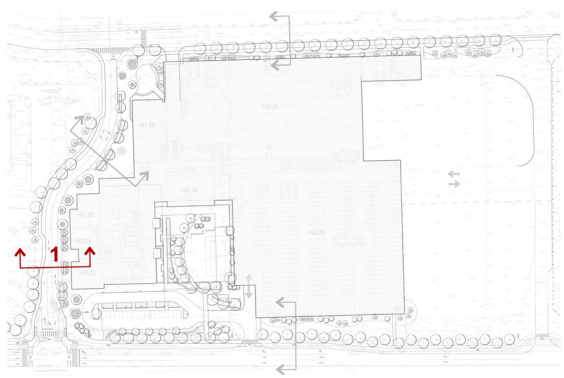
Lifestyle Street Rendering

Gensler NOKIA

Street Cross Section: Lifestyle Street

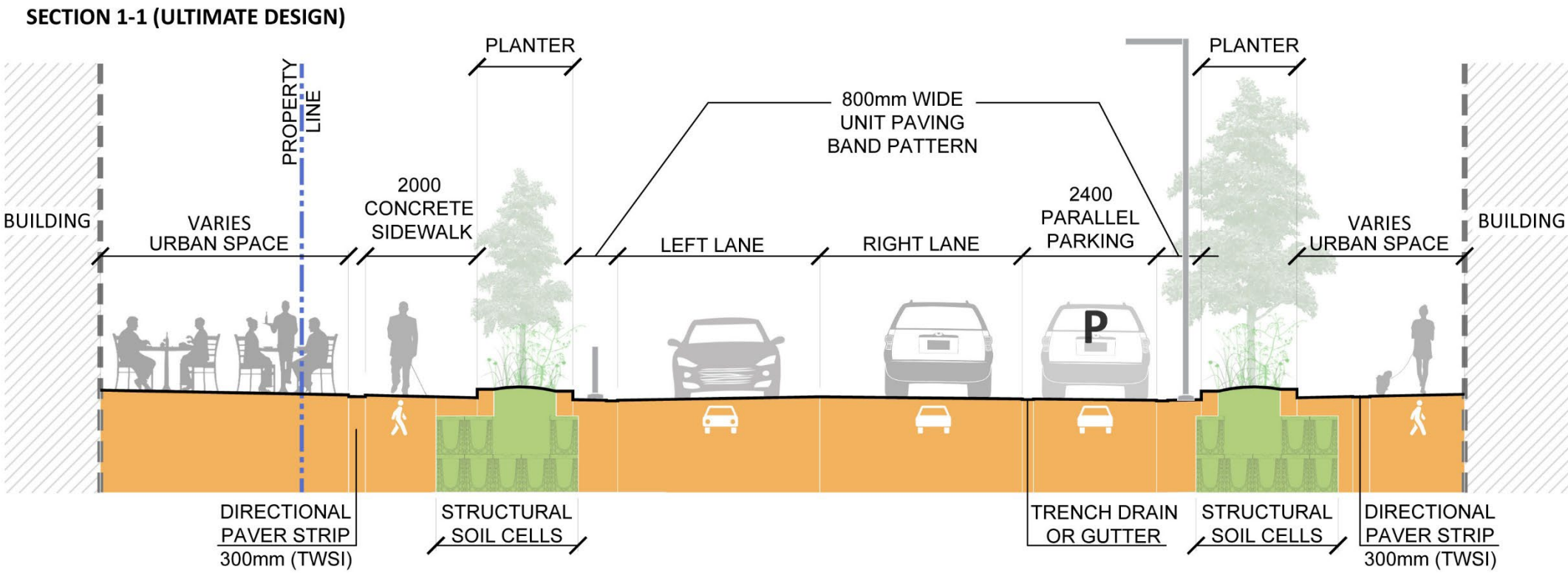
SECTION 1-1 (INTERIM DESIGN)

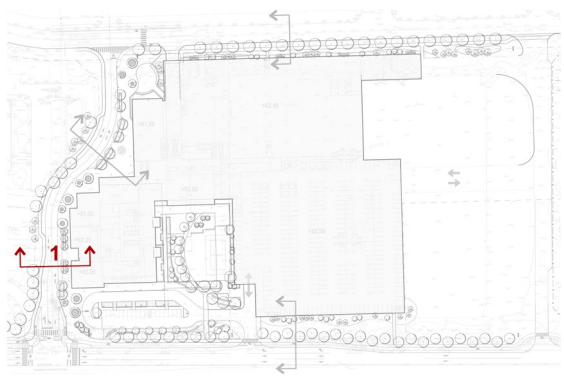




Gensler NOKIA

Street Cross Section: Lifestyle Street

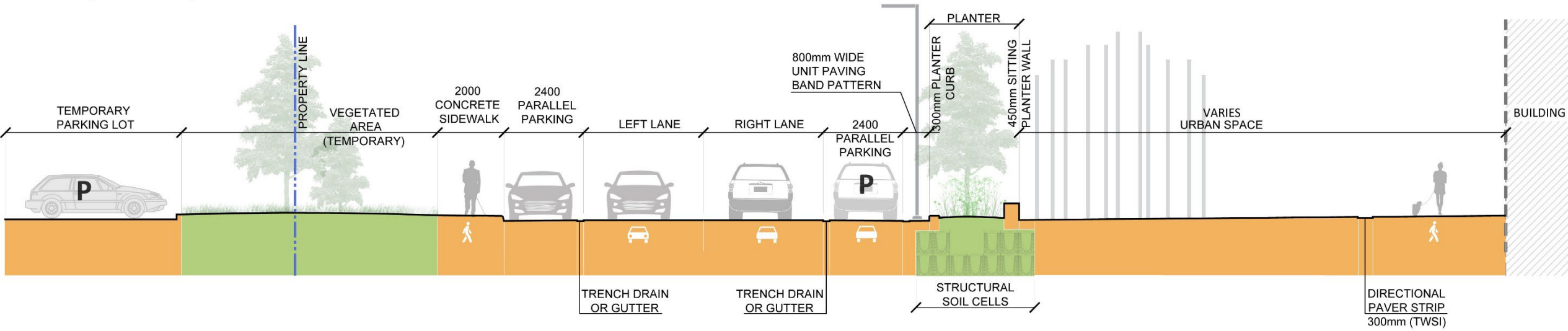


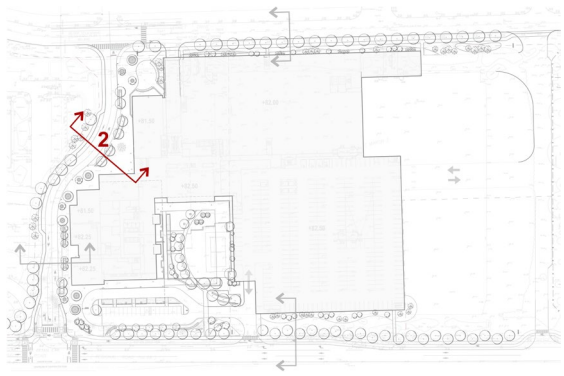


Gensler NOKIA

Street Cross Section: Lifestyle Street

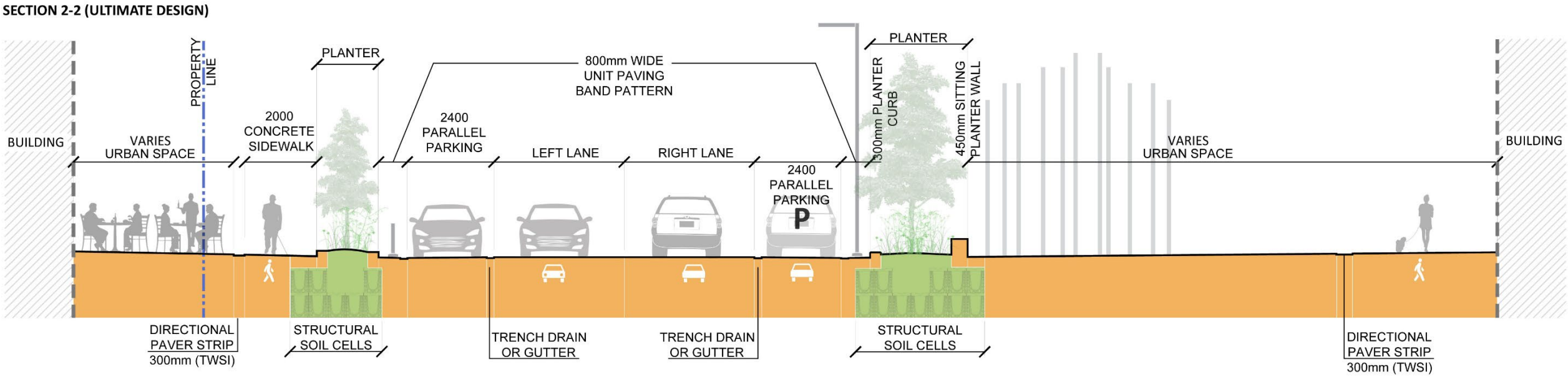
SECTION 2-2 (INTERIM DESIGN)

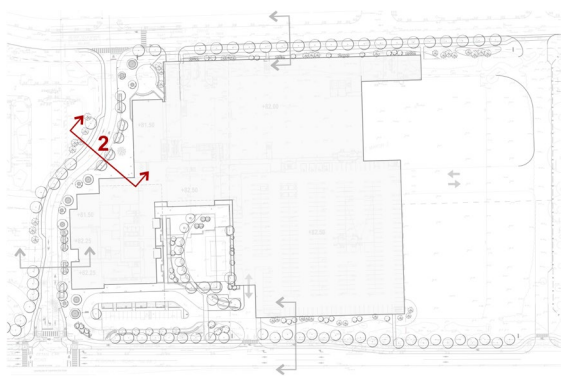




Gensler NOKIA

Street Cross Section: Lifestyle Street





Gensler NOKIA

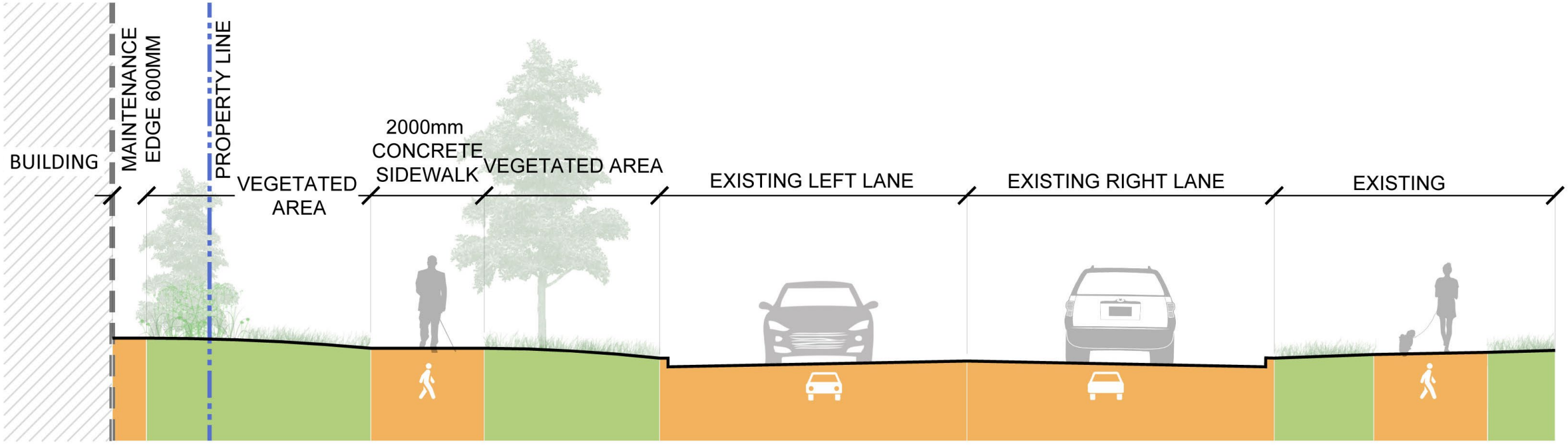
Legget Drive Rendering

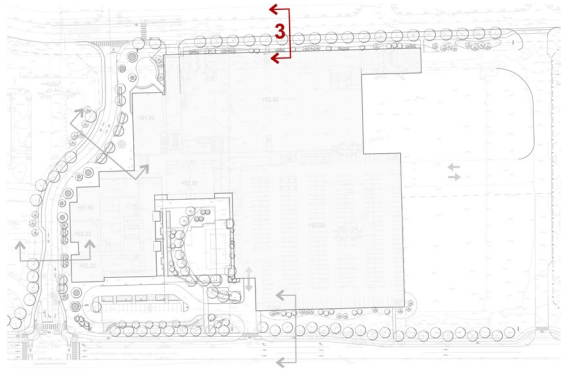
Gensler NOKIA

Legget Drive Rendering

Gensler NOKIA

Street Cross Section: Legget Drive

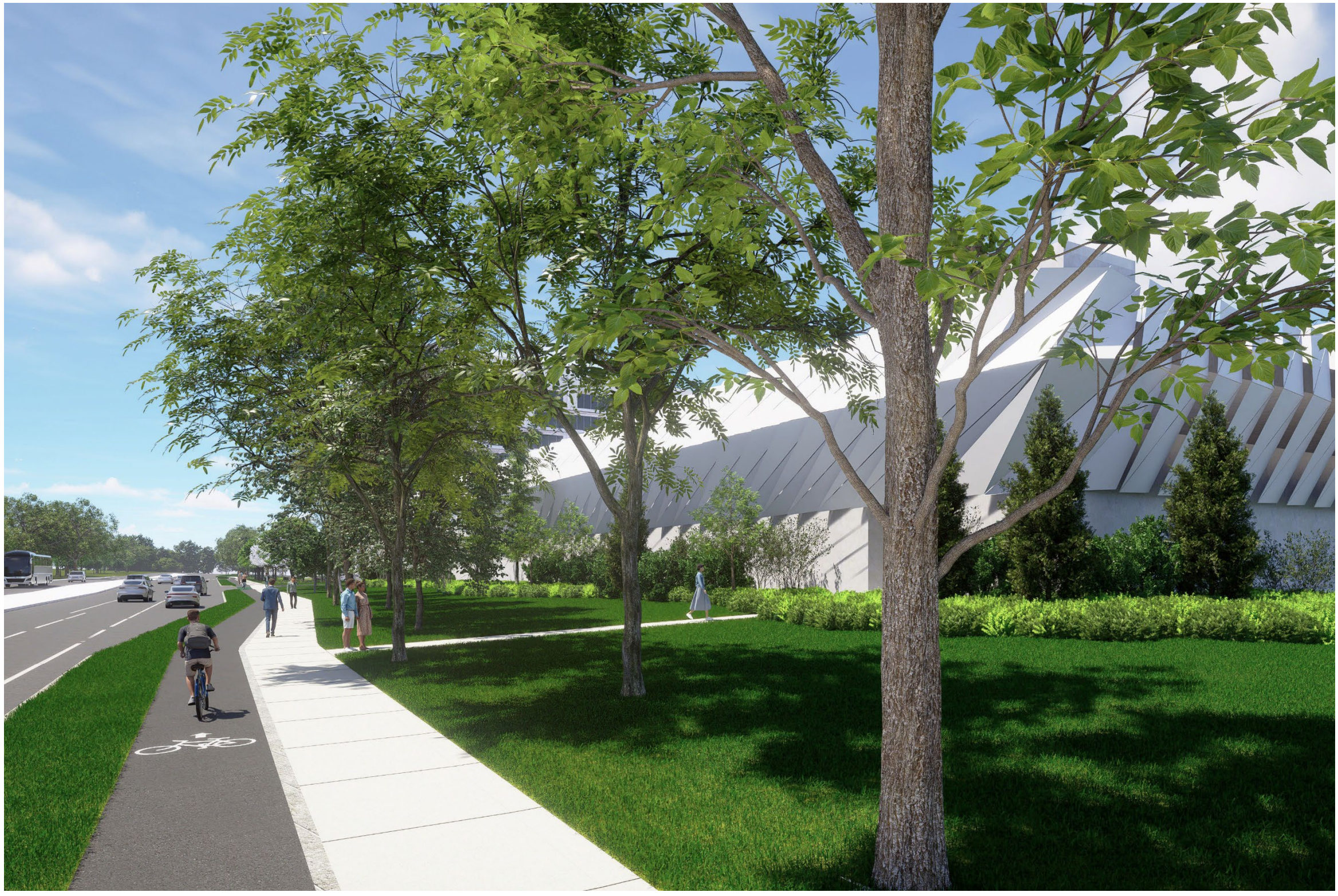




Gensler NOKIA

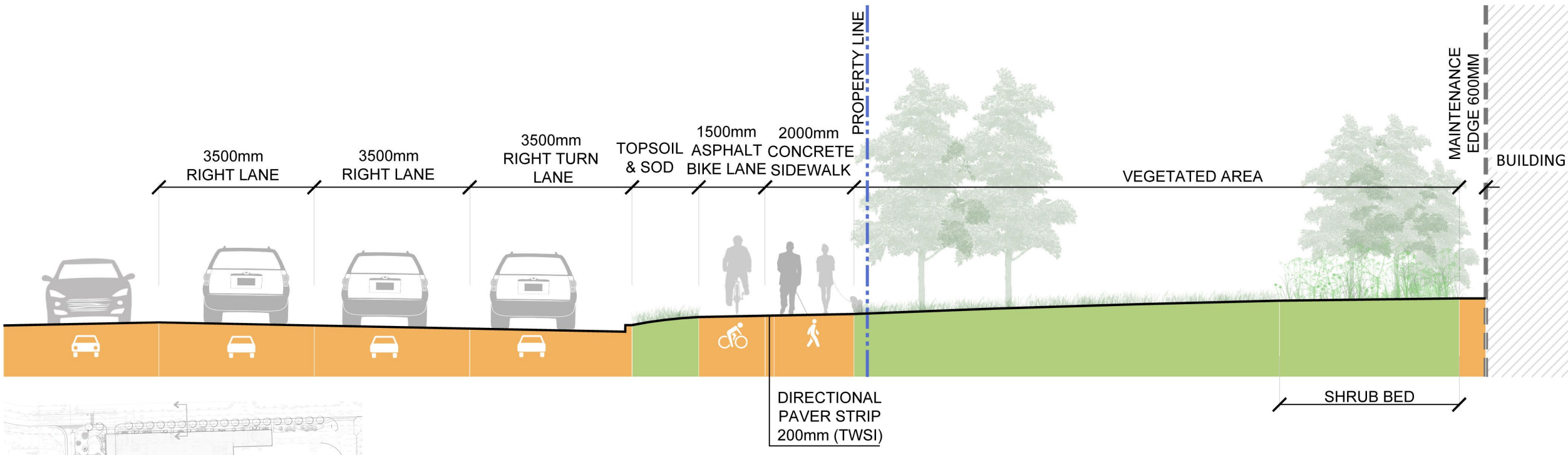
March Road Rendering

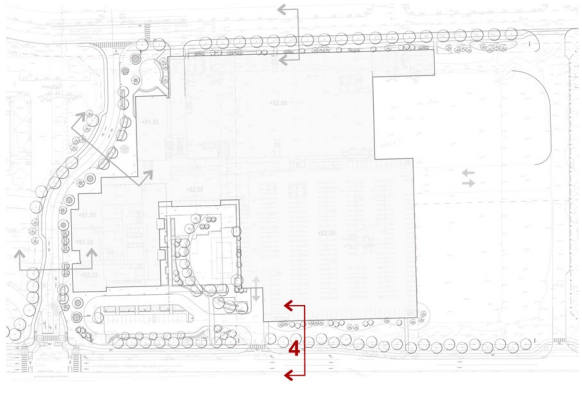
March Road Rendering



Gensler NOKIA

Street Cross Section: March Road





Gensler NOKIA

Sustainable Design

Sustainability Goals

In 2021, Nokia identified the following sustainability goals:

Current Goals

- Climate: Combatting climate change through mitigation and adaptation solutions will grow in importance
- Integrity: Emphasizing the importance of respect for ethical behaviour, security and privacy
- Culture: Ensuring our ability to attract the best talent and creating high performance inclusive teams that make things happen

Future Goals

- 2025: Joined RE100 initiative in 2021, use 100% renewable electricity in Nokia facilities by 2025.
- 2030: Reduce GHG emissions across value chain (Scope 1, 2 and 3) by 50% between 2019 and 2030, and reach net zero by 2050.
- 2030: Final assembly suppliers reach net zero emissions by 2030
- 2030: Suppliers reduce GHG emissions by 50% by 2030

A variety of frameworks were reviewed for their potential to add value to the Ottawa Nokia Campus design and for their alignment with Nokia's Sustainability focus areas of Climate, Integrity, and Culture. The framework Nokia will be pursuing for this development is as follows:

– LEED Gold Certification: Internationally recognized certification program for excellence in sustainable buildings and provides the greatest brand recognition in the industry. Touches on all aspects of sustainability, including building design and construction, operations, and indoor air quality. Provides a balanced approach addressing all three of Nokia's Sustainability Focus Areas of Climate, Integrity, and Culture and aligns with Nokia's future sustainability targets for carbon reduction.

Other frameworks that could be achieved if Nokia desires to pursue them include:

– WELL Silver (or higher) Certification: Internationally recognized certification program for whole-person health. Focuses on indoor air quality and occupant well-being, aiding in Nokia's ability to attract the best talent and create high performance teams. WELL and LEED certification complement each other in the optimization of healthy and high-performance environments.

– Zero Carbon Building (ZCB) Design Certification: Nationally recognized certification program raising the bar on carbon reductions. Focuses on operational and embodied carbon combatting climate change and aligns with Nokia's future sustainability targets for carbon reduction. Potential to achieve ZCB-Performance certification as well.

Sustainable Design

Landscape Approach

- Prioritize use of drought tolerant, native plant material for water efficient landscaping.
- Incorporate storm water management strategy.
- Vegetated bioswales and rain garden to capture, store and treat run-off.
- Focus on biodiversity as well as plant palette for all 4 seasons.
- Low maintenance, locally sourced materials.
- Use of materials with recycled content.
- All wood products to meet FSC certification.
- Paving materials with high SRI values (Solar Reflectance Index) to reduce heat island effect.
- Enhance community connectivity with improved access to active transportation networks and rapid transit facilities.










Gensler NOKIA

Bird-Safe Design

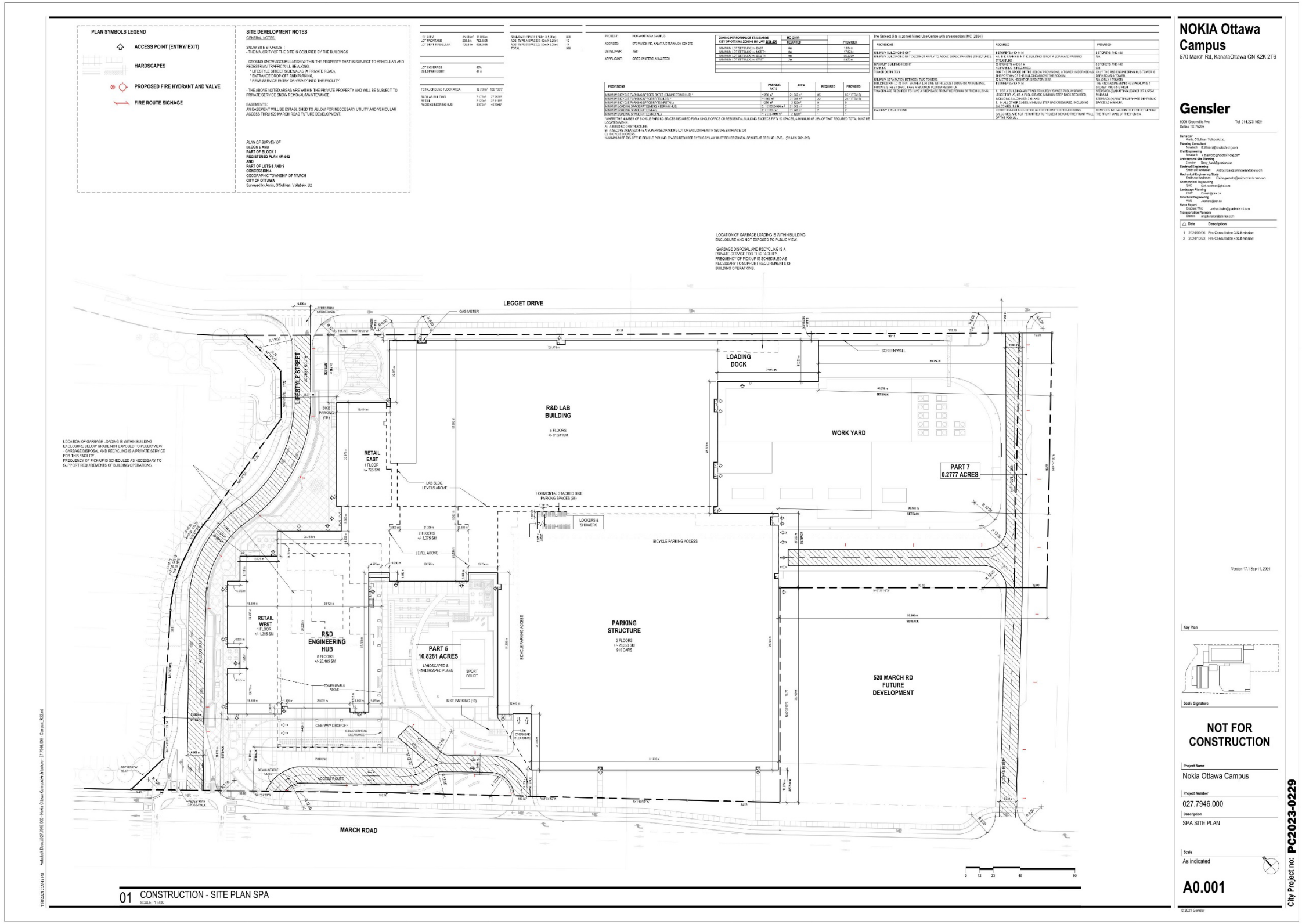
The following will be applied for bird-safe design:

- Incorporate visual interest or differentiation of material, texture, colour, opacity, or other features to fragment reflections.
- All glazing that could create a fly-through, mirror maze or black hole effect should use bird-safe glass or integrated protection measures.
- Glass railings, parapets, and similar clear barriers should use bird-safe glass.
- Design landscape plantings to minimize reflections of trees and shrubs in nearby buildings. In cases where landscape planting near a glazed building façade or other reflective surface is desirable for shading or other purposes, minimizing transparency and reflectivity of glazing will be applied to obscure habitat reflections in some locations.
- Avoid or minimize the number of linear landscape features leading directly into glass façades or doors. Where such features cannot be avoided, minimizing transparency and reflectivity of glazing will be applied.
- Avoid using plant species known to attract birds (e.g., those with abundant fruit or seed crops, or with flowers attractive to hummingbirds) in locations that could result in harmful collisions.
- Minimize the reflection of rooftop landscapes in adjacent building features or surrounding properties.
- Avoid locating ornamental fountains, ponds, stormwater retention basins, wetlands, swales or related infrastructure near glass façades or windows.
- Avoid up-lighting
- Specify Dark Sky compliant, full-cutoff exterior fixtures to reduce light trespass.
- Use motion detectors and other automatic lighting controls to reduce or extinguish non-essential lighting between 11 pm and 6 am.
- Use minimum wattage fixtures to achieve appropriate lighting levels.
- Minimize amount and visual impact of perimeter lighting.
- Avoid use of floodlighting.
- Use motion detectors and/or other automatic lighting controls to extinguish lights from unoccupied spaces in non-residential buildings after business hours.
- Install light dimmers in lobbies, atria and perimeter corridors for nighttime use.

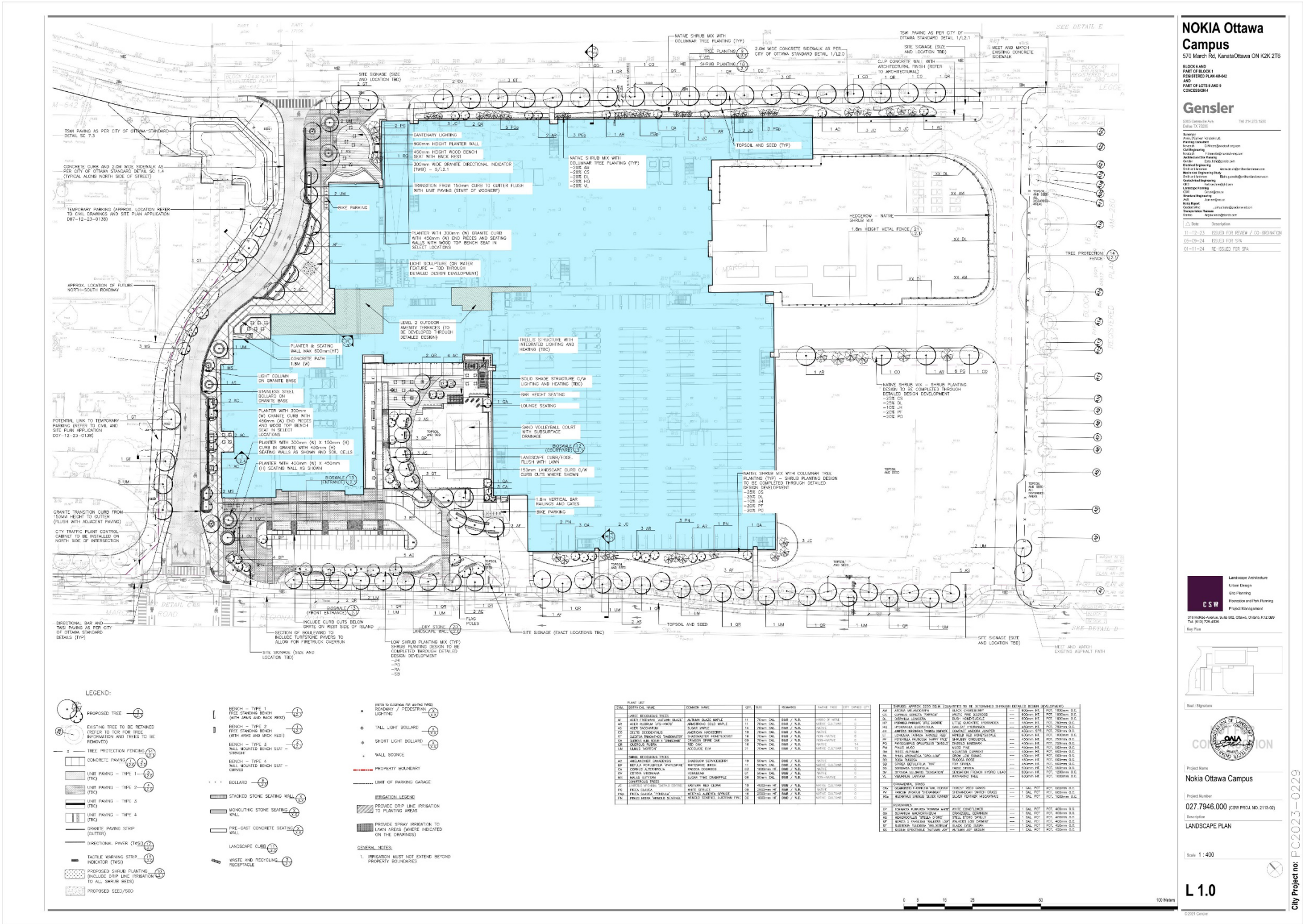
Additional Materials - Appendix

- Site Plan
- Landscape Plan
- Grading and Drainage Plan
- Site Servicing Plan
- Building Elevations
- Building Sections
- Floor Plans
- Shadow Analysis

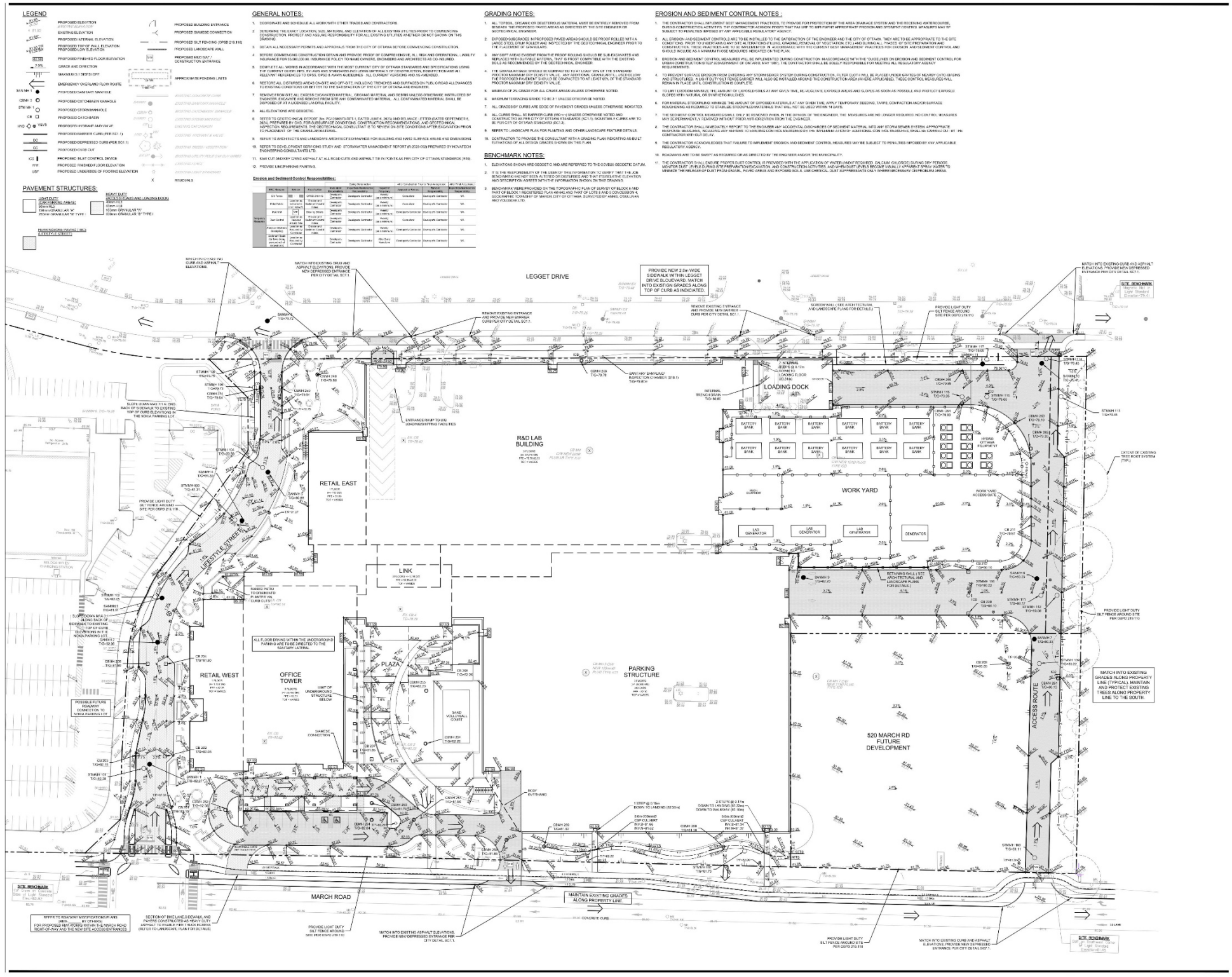
Site Plan



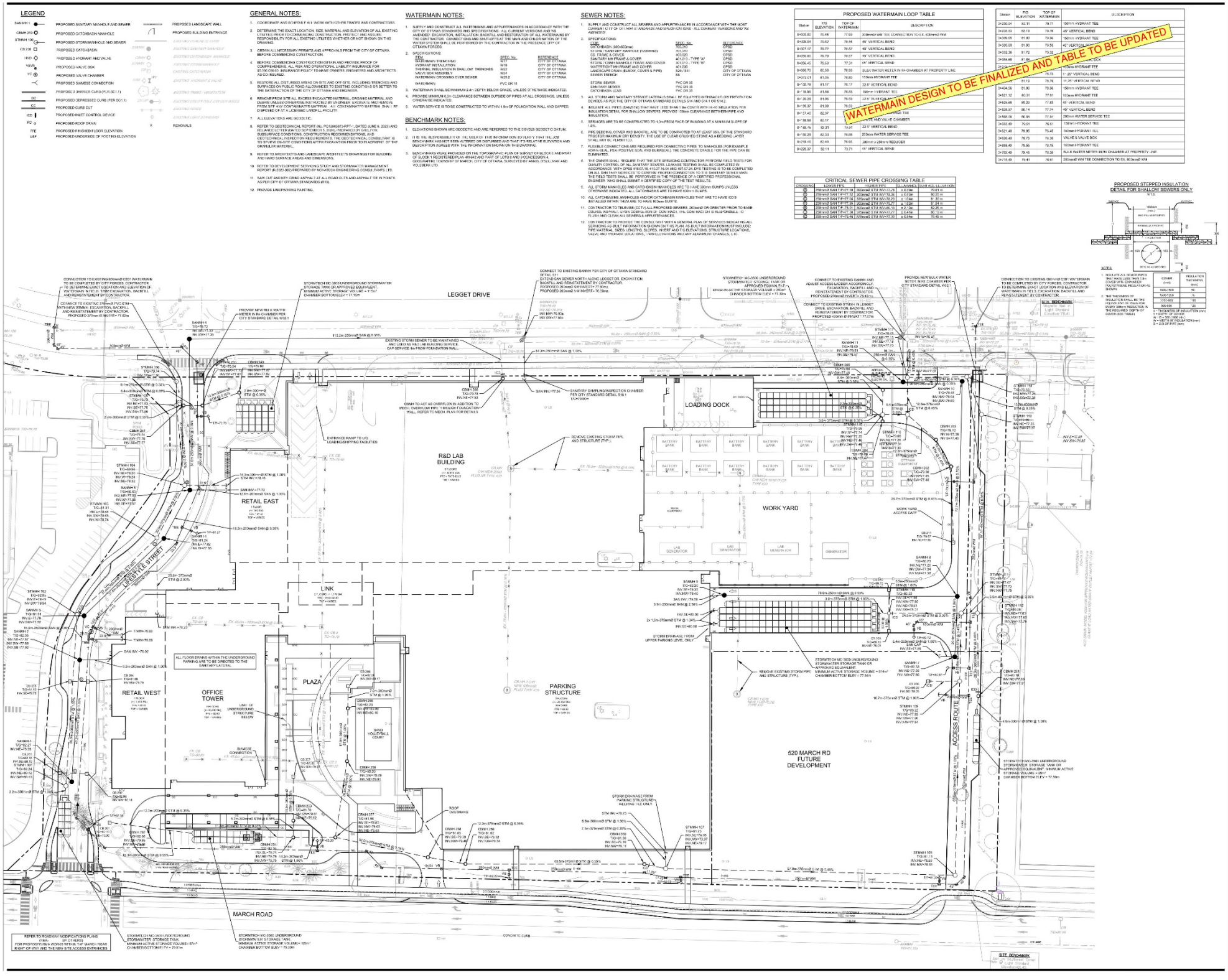
Landscape Plan



Grading and Drainage Plan

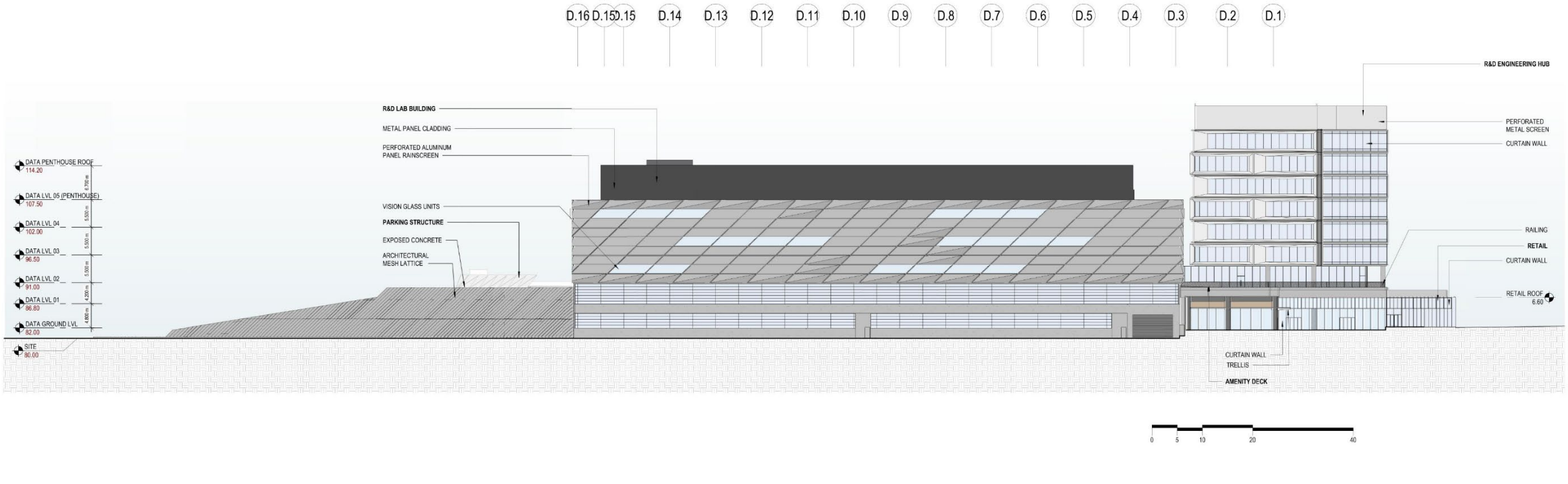


Site Servicing Plan



Building Elevations

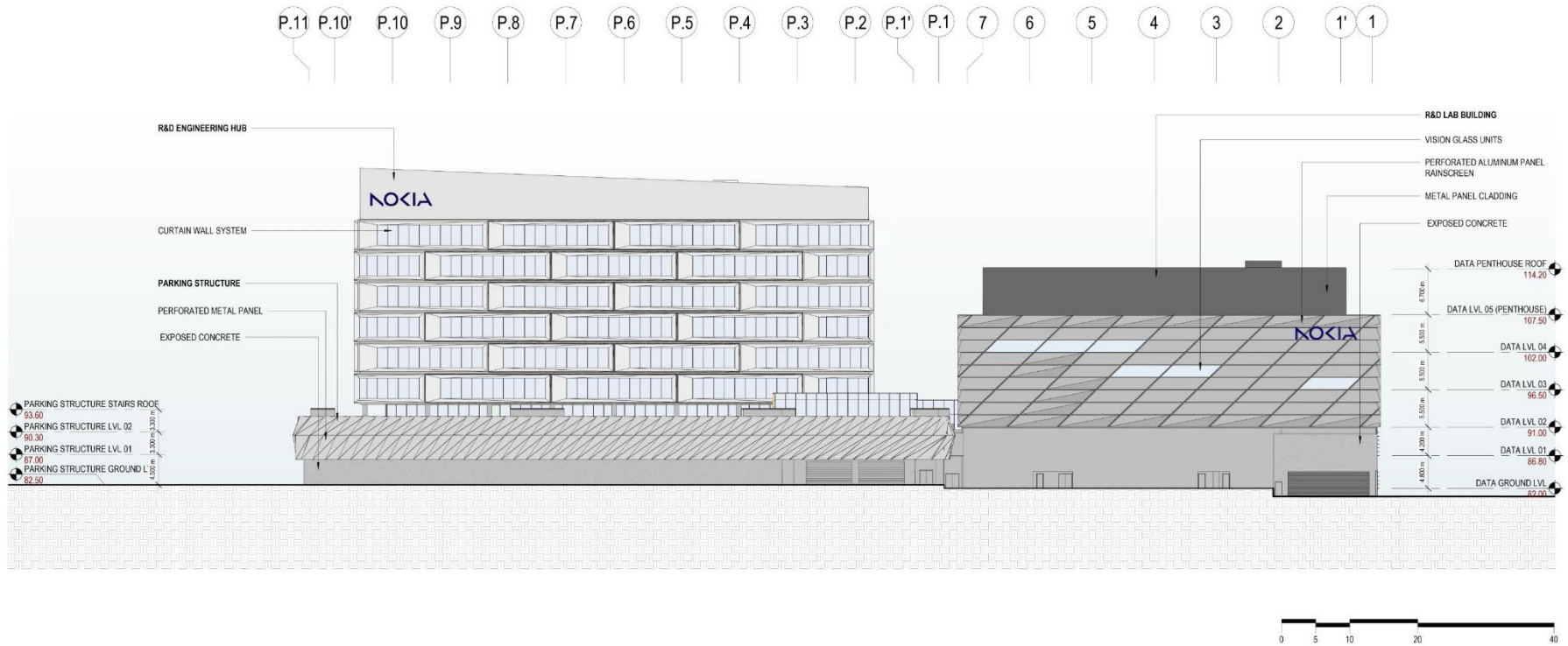
North Elevation



Gensler NOKIA

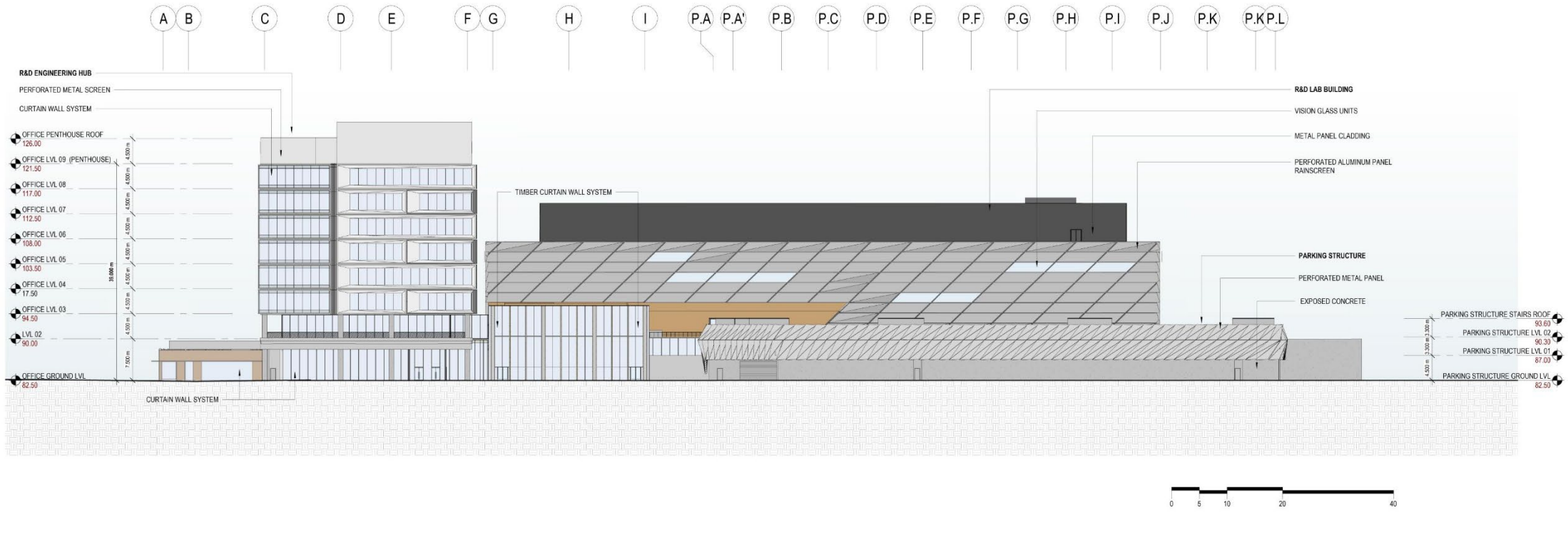
Building Elevations

East Elevation



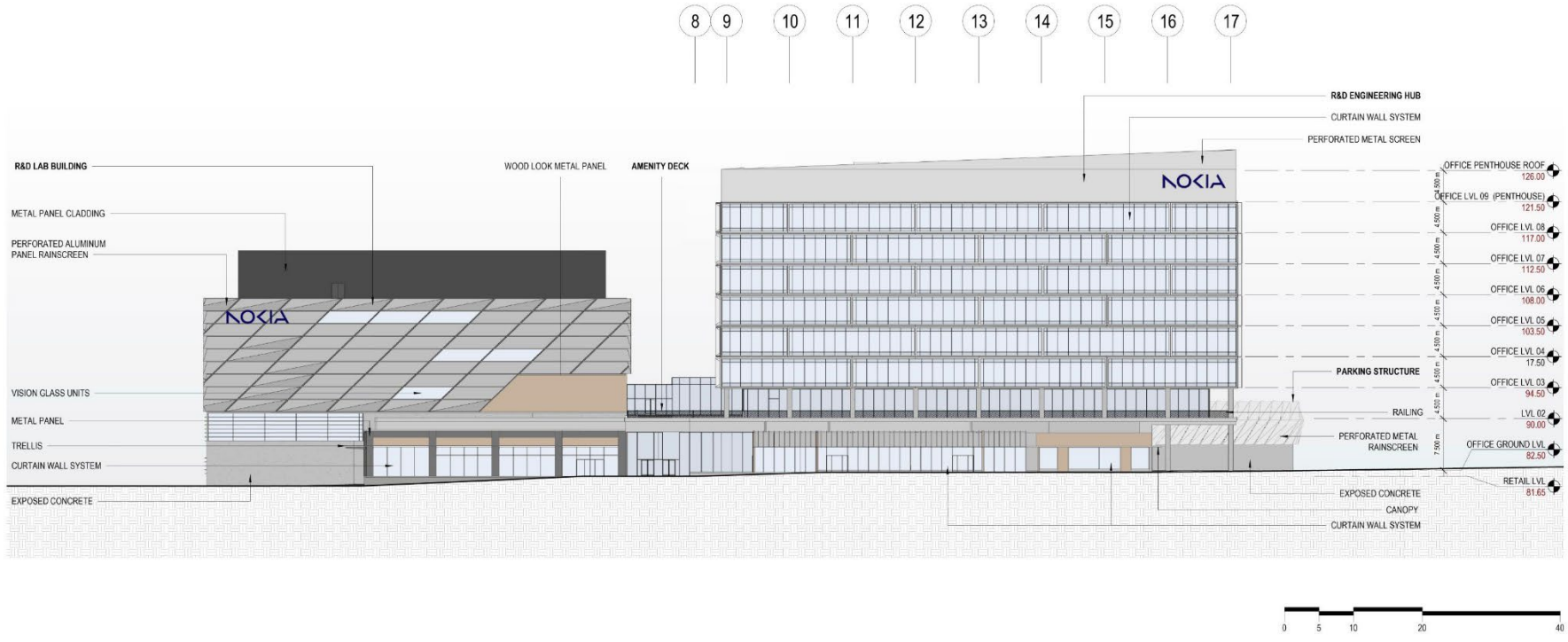
Building Elevations

South Elevation



Building Elevations

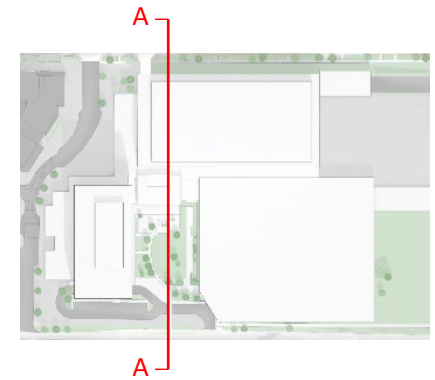
West Elevation

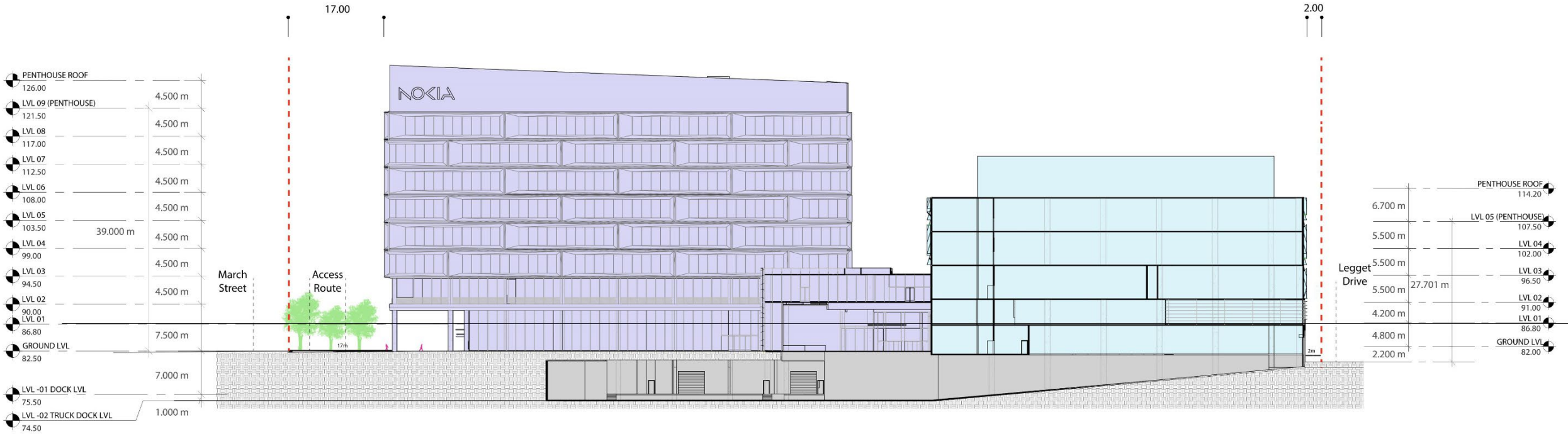


Building Sections

Section A

R&D Engineering Hub
R&D Lab Building
BOH



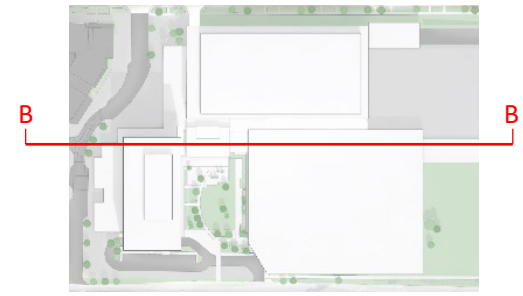


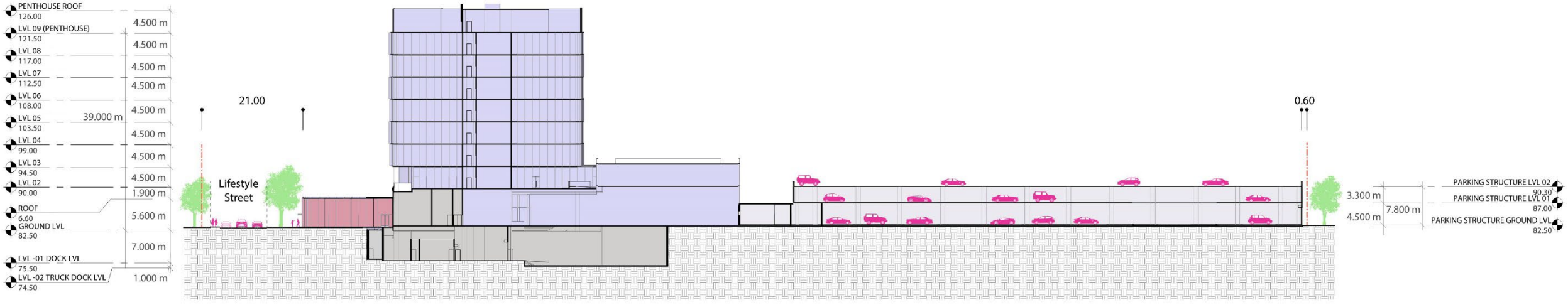
Gensler NOKIA

Building Sections

Section B

- Retail
- R&D Engineering Hub
- BOH
- Parking

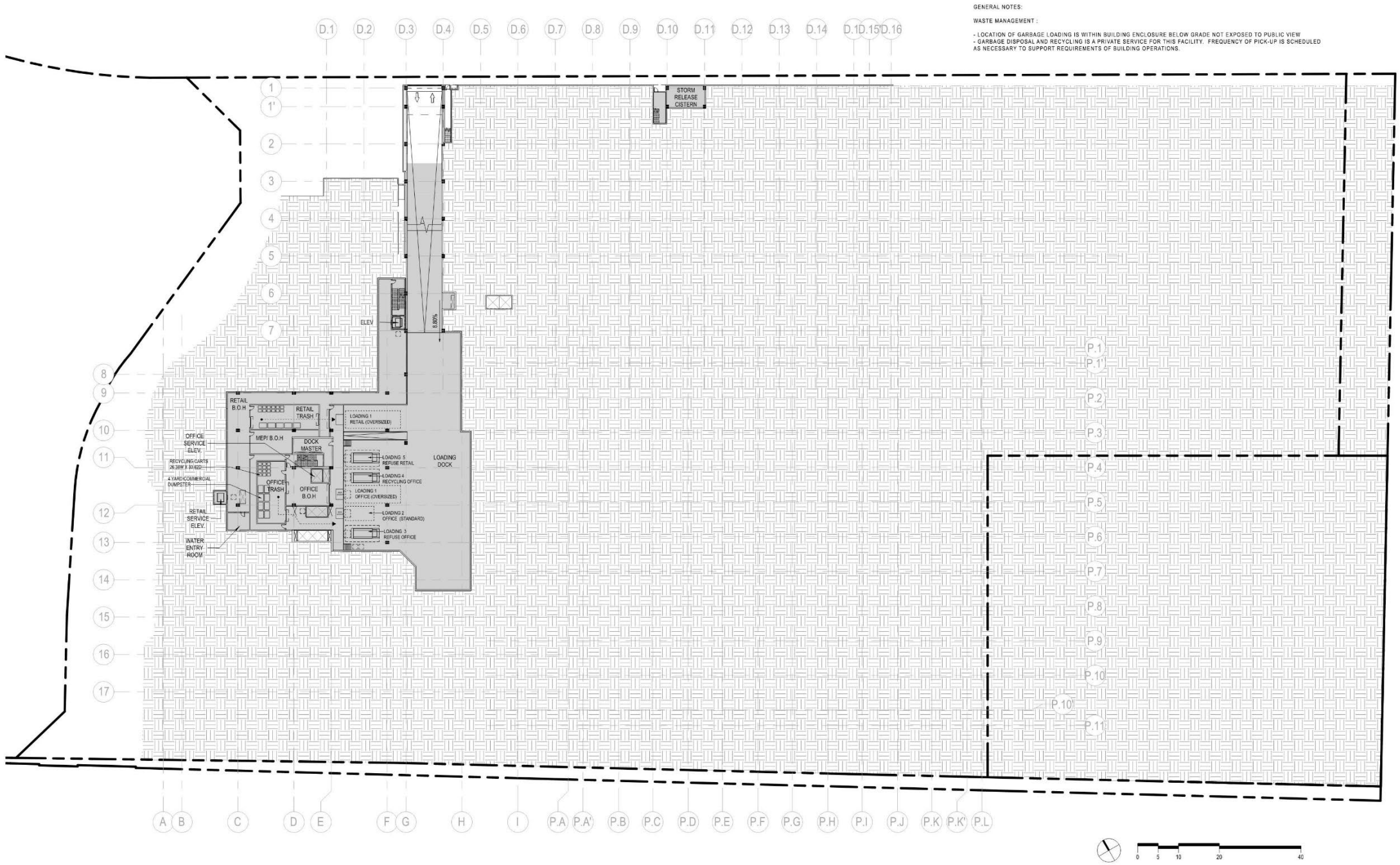




Gensler NOKIA

Floor Plans

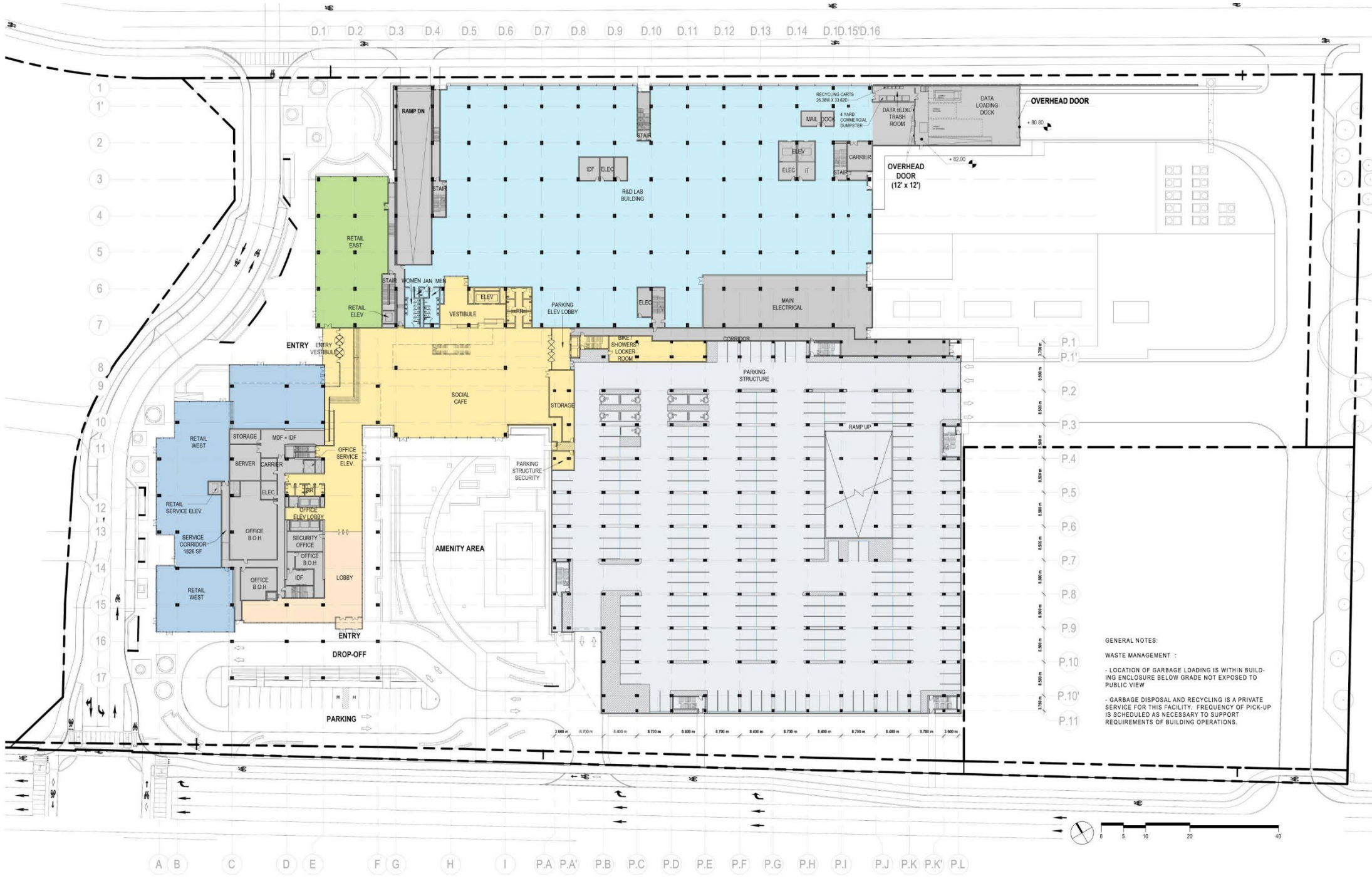
Level -01



Gensler NOKIA

Floor Plans

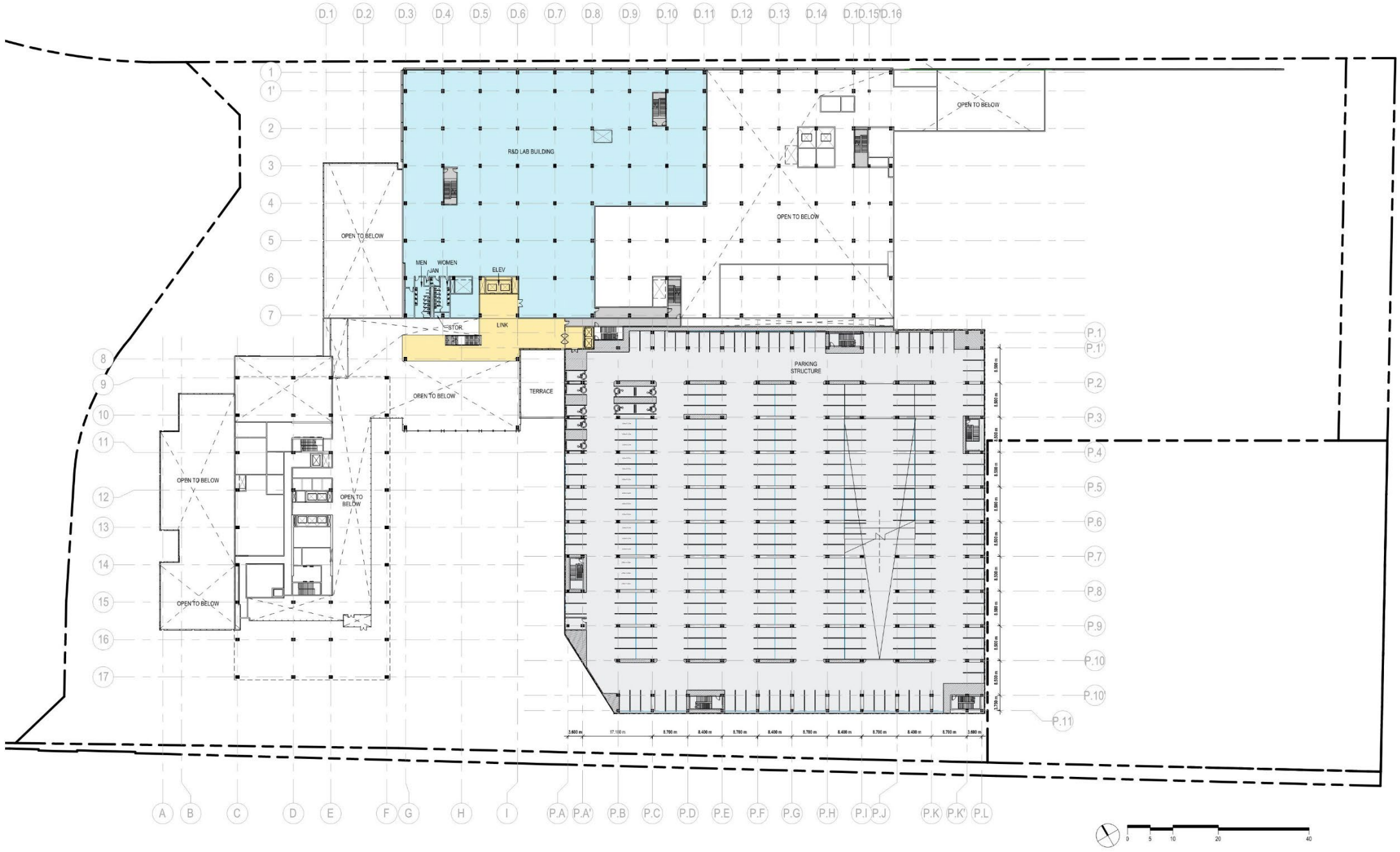
Level 00 Ground Level



Gensler NOKIA

Floor Plans

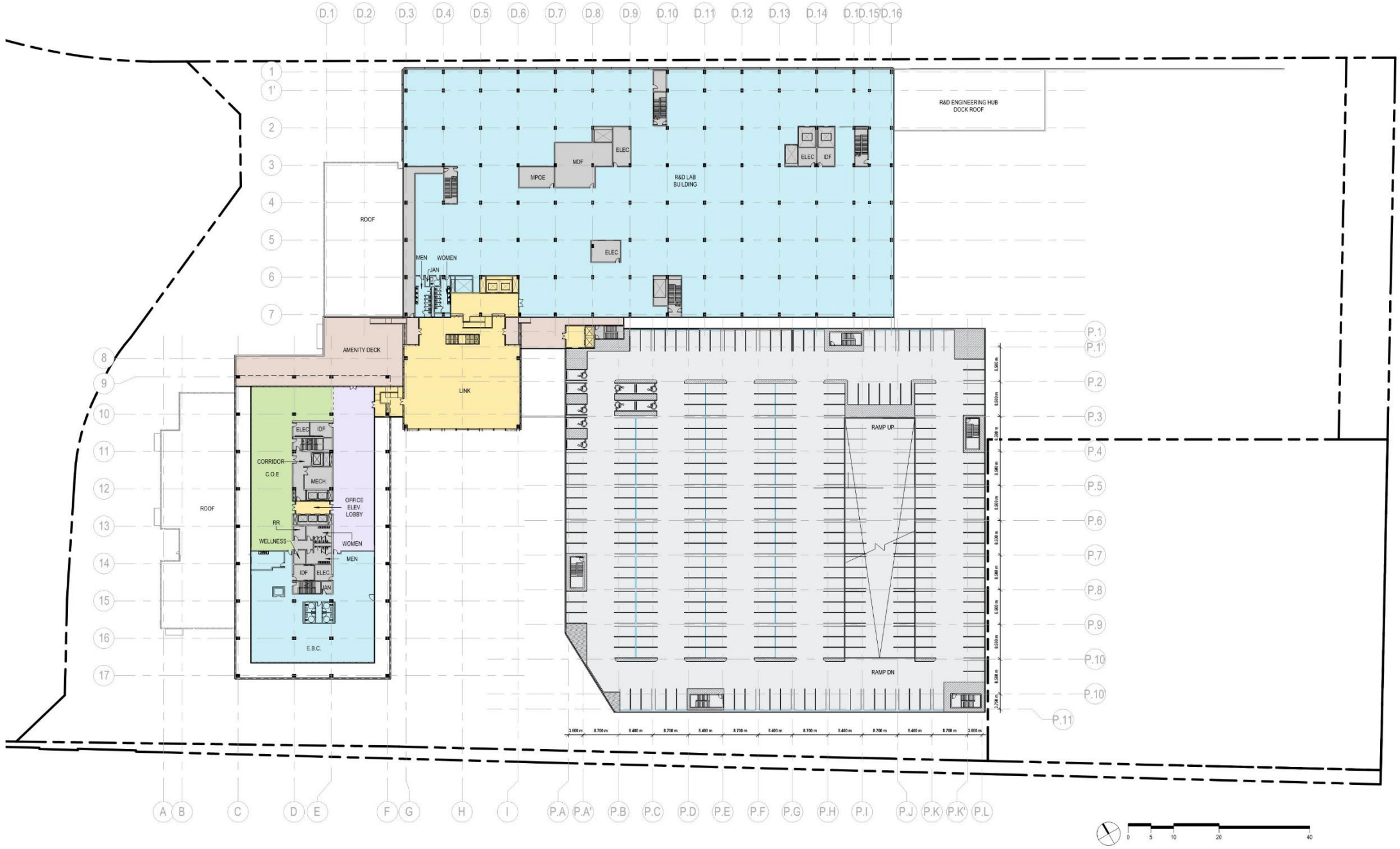
Level 01



Gensler NOKIA

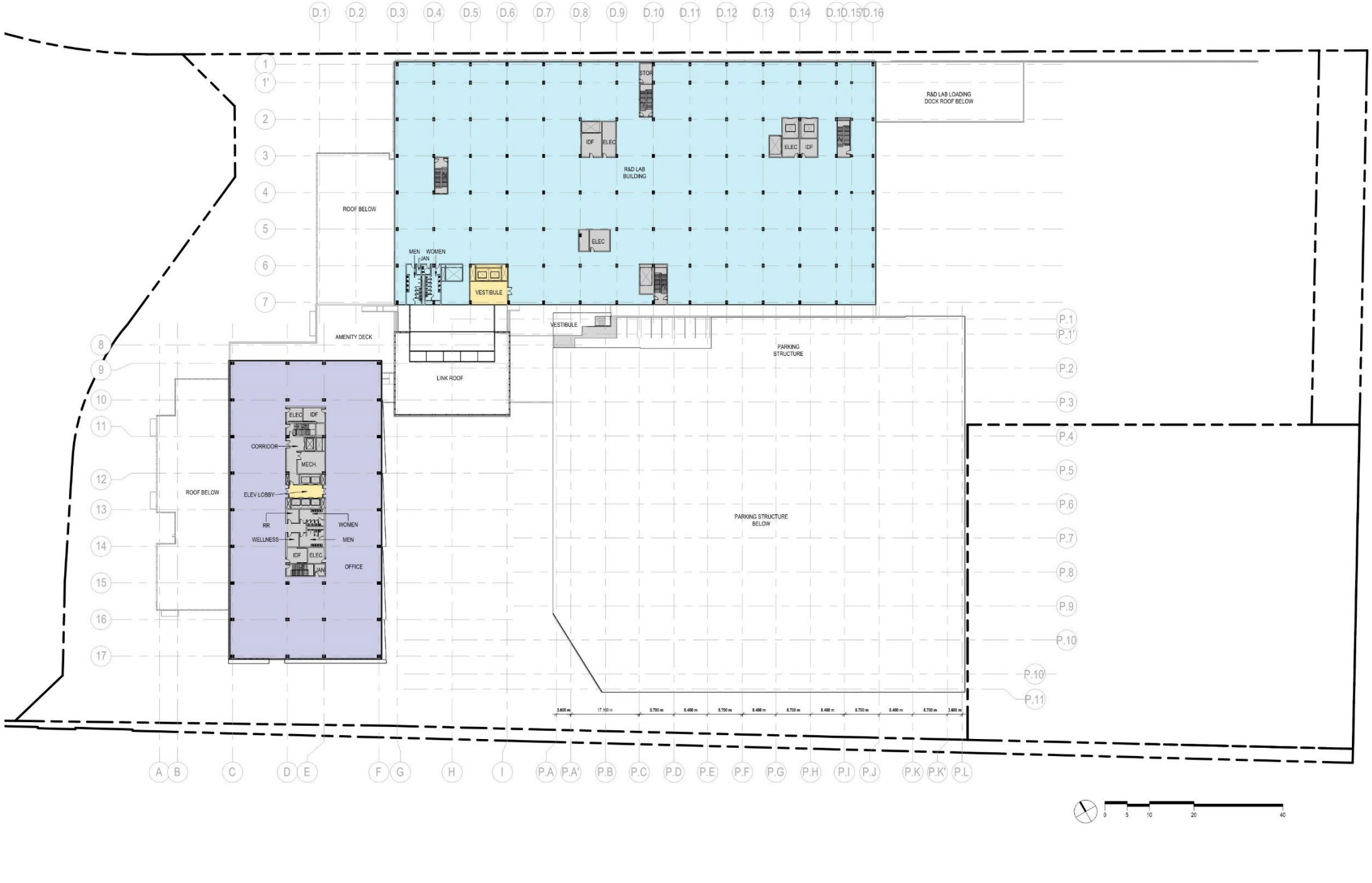
Floor Plans

Level 02



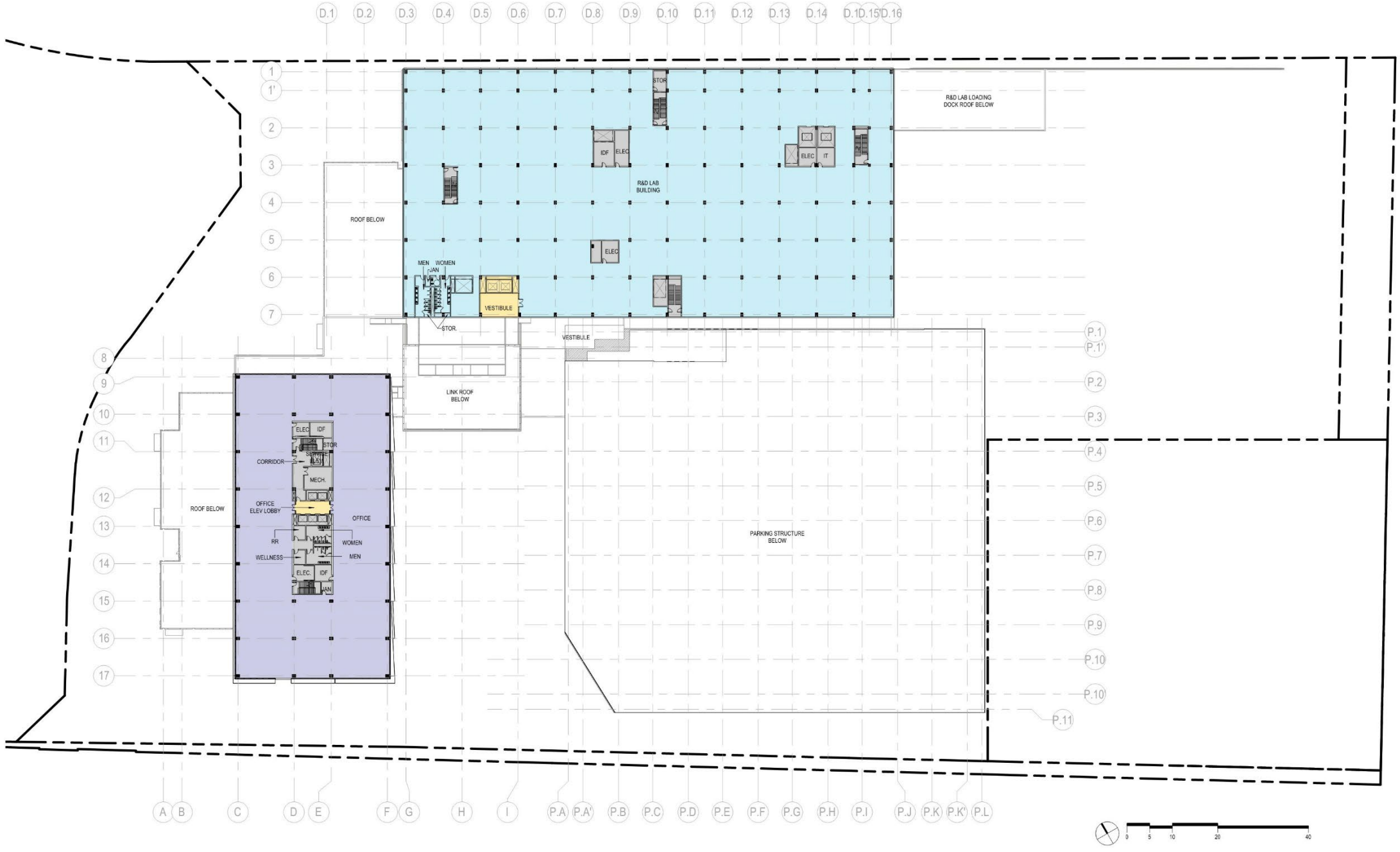
Floor Plans

Level 03



Floor Plans

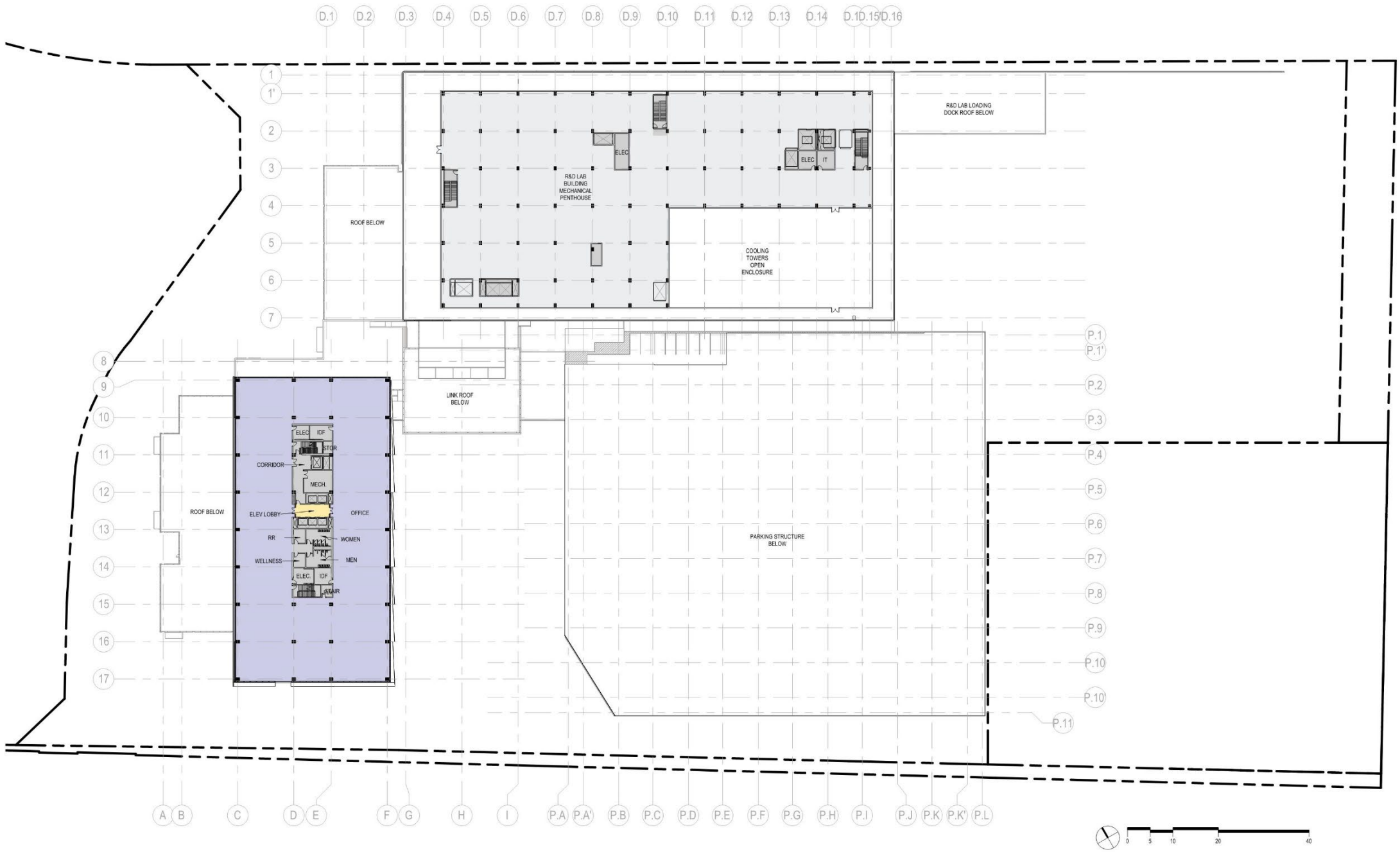
Level 04



Gensler NOKIA

Floor Plans

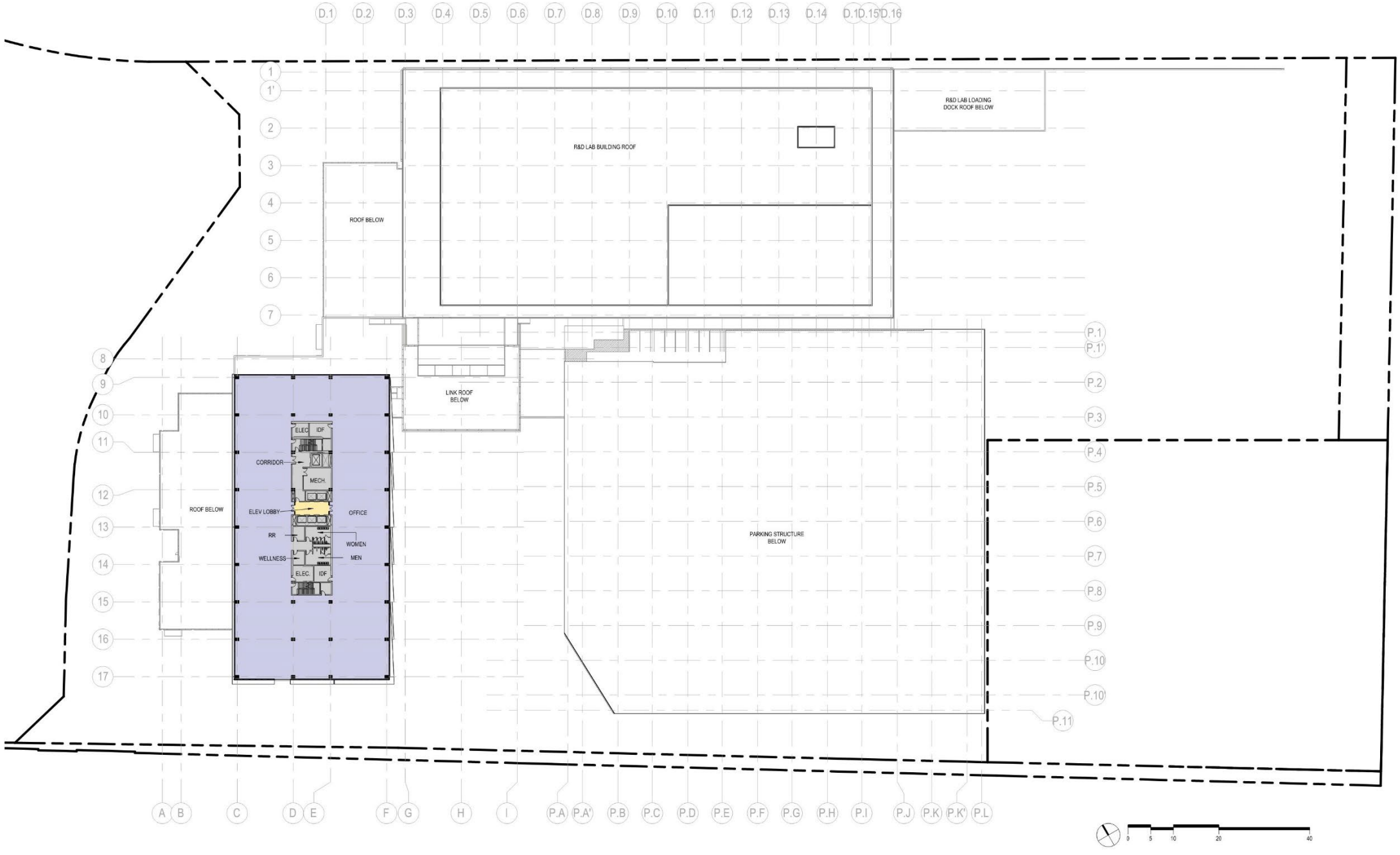
Level 05



Gensler NOKIA

Floor Plans

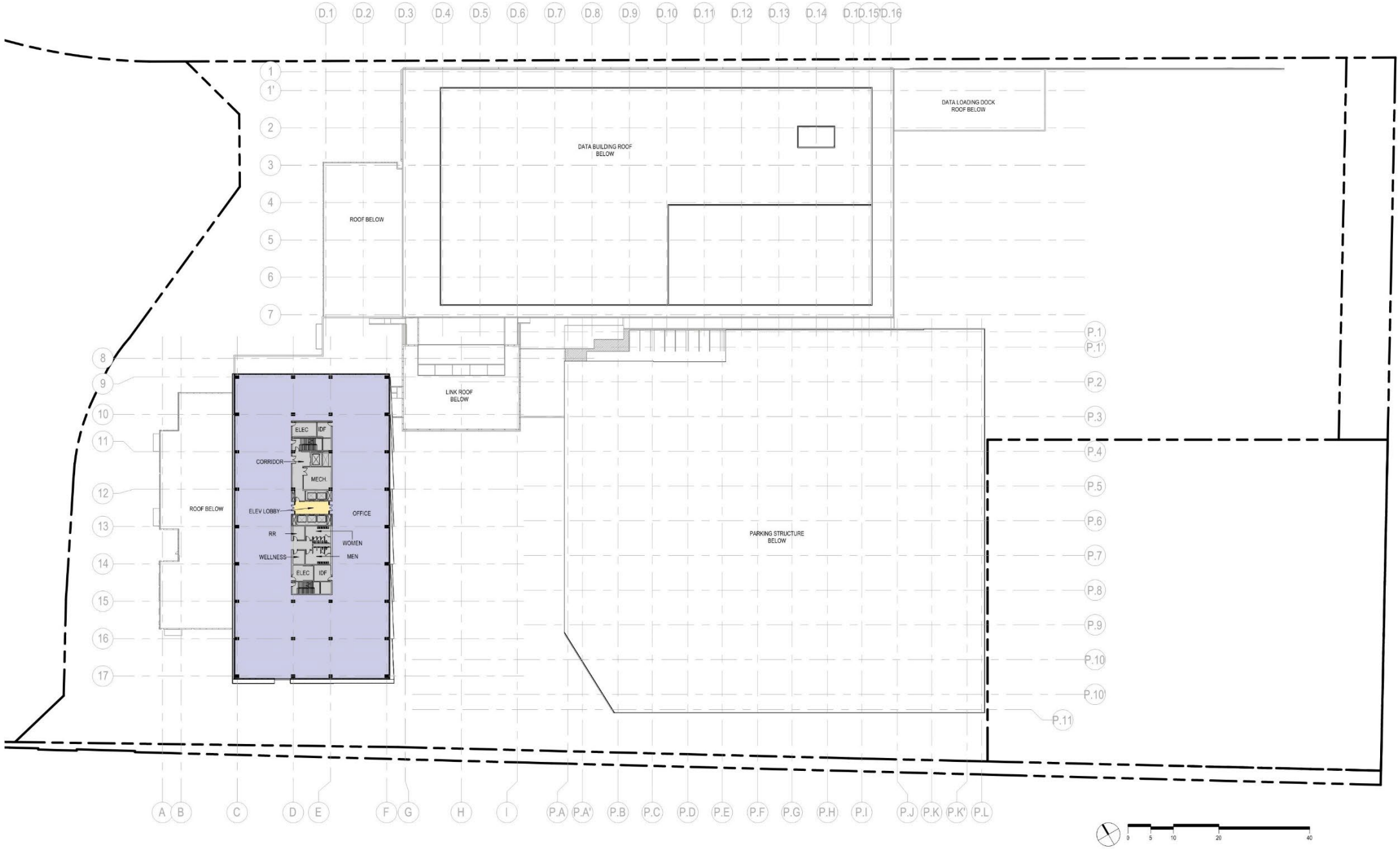
Level 06



Gensler NOKIA

Floor Plans

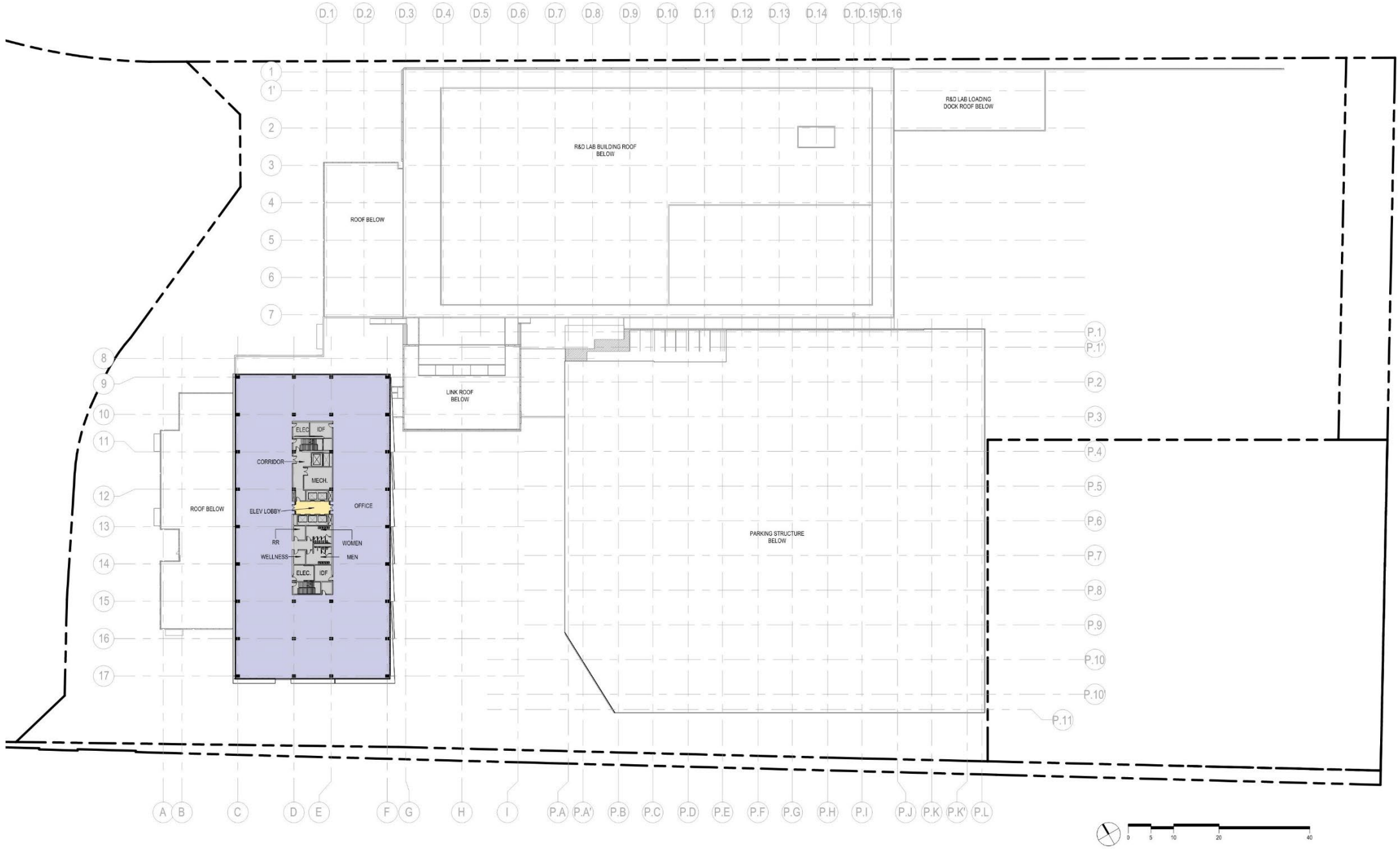
Level 07



Gensler NOKIA

Floor Plans

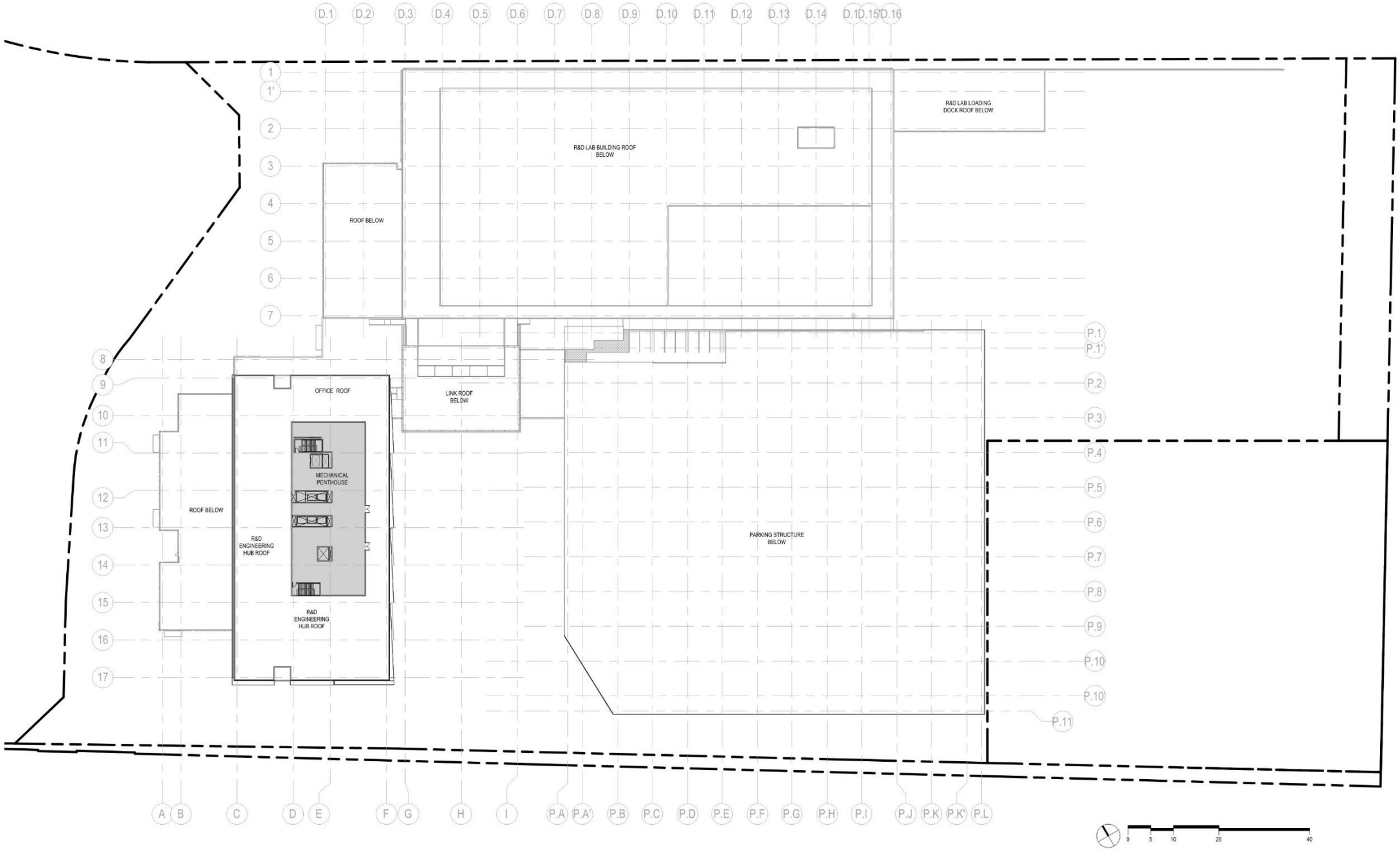
Level 08



Gensler NOKIA

Floor Plans

Level 09



Gensler NOKIA

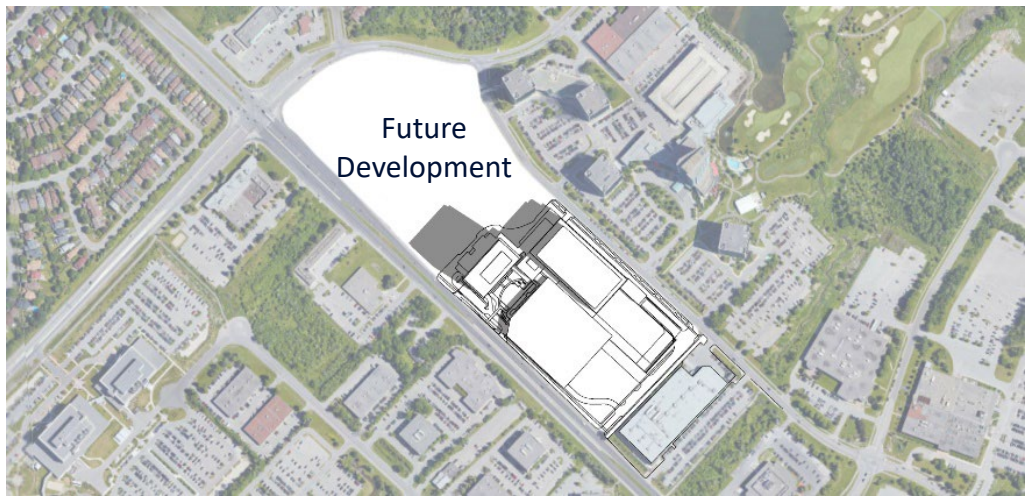
Floor Plans

Level 10

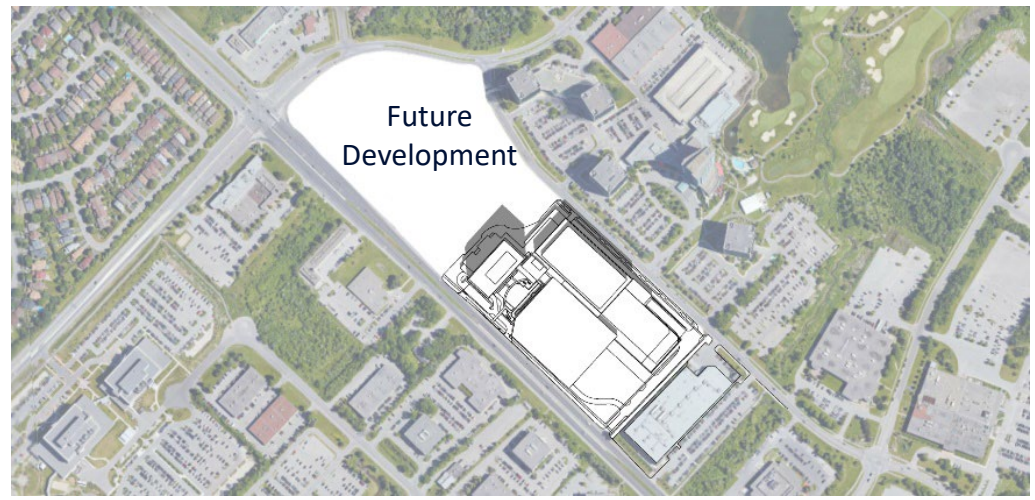
Gensler NOKIA

Shadow Analysis

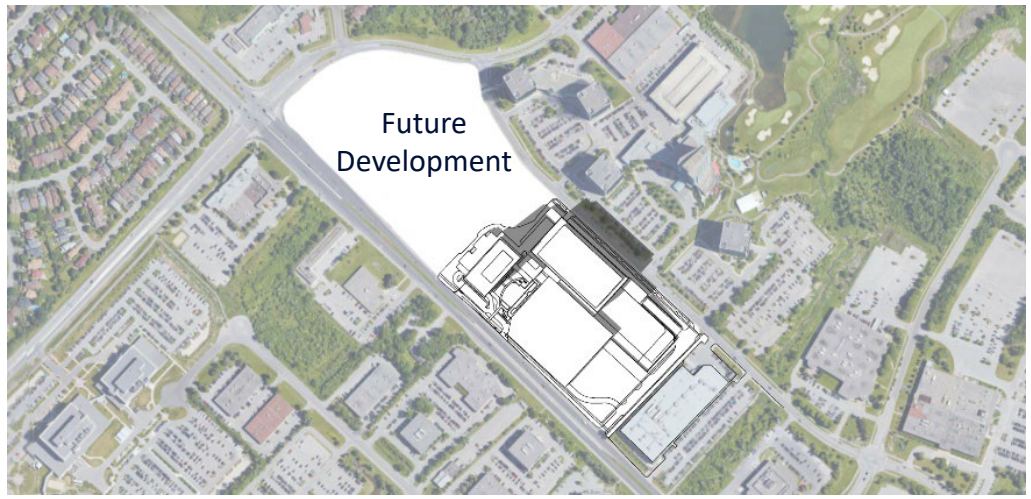
March 21st



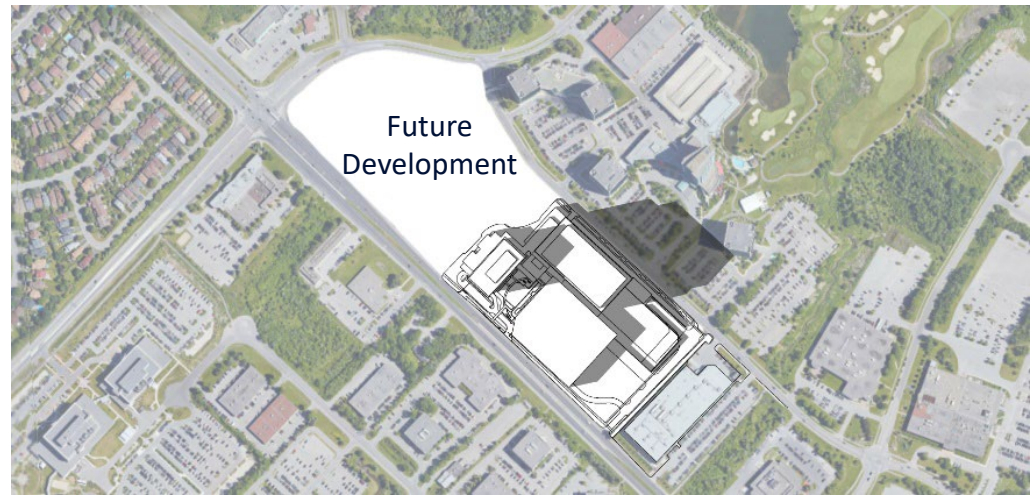
9:00 AM



NOON



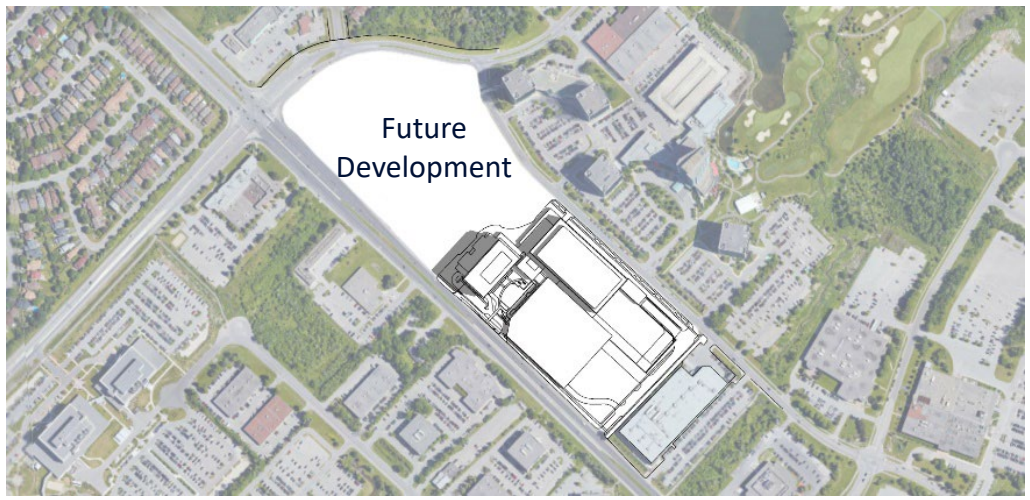
3:00 PM



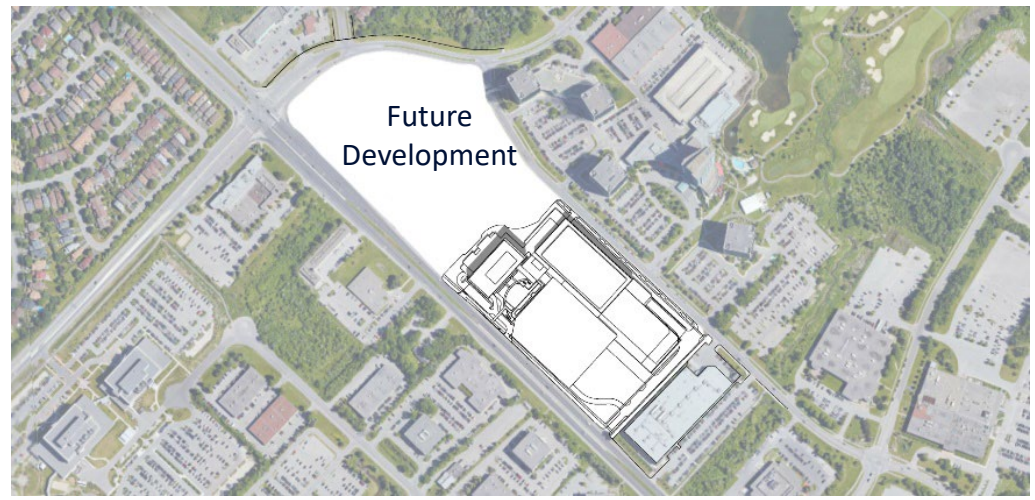
5:00 PM

Shadow Analysis

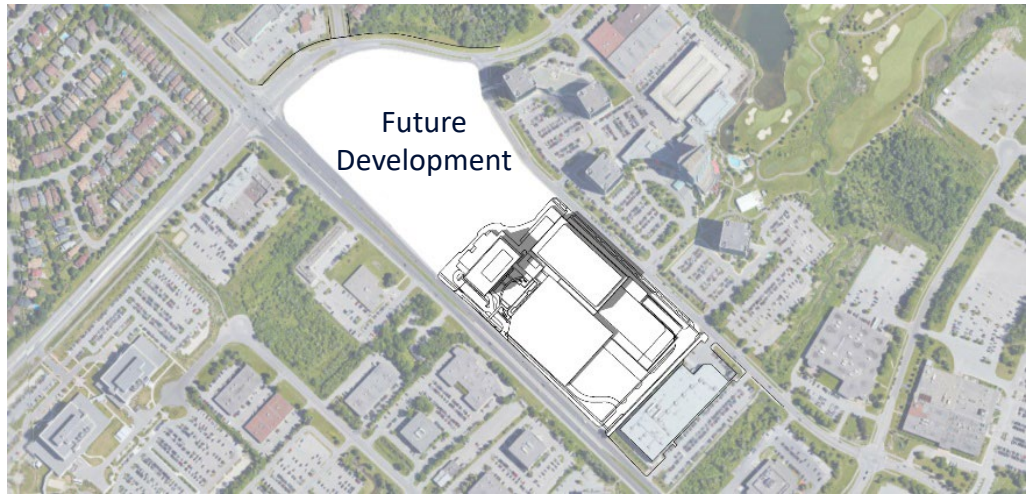
June 21st



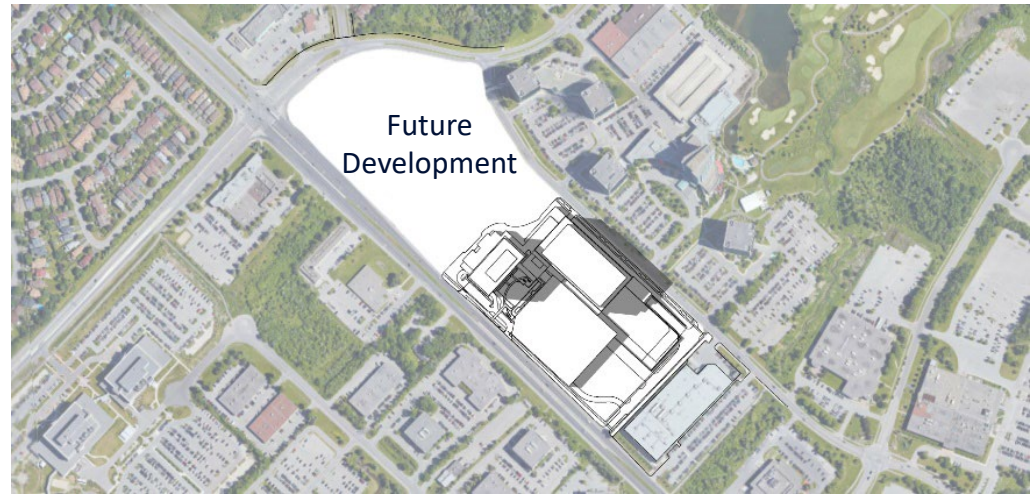
9:00 AM



NOON



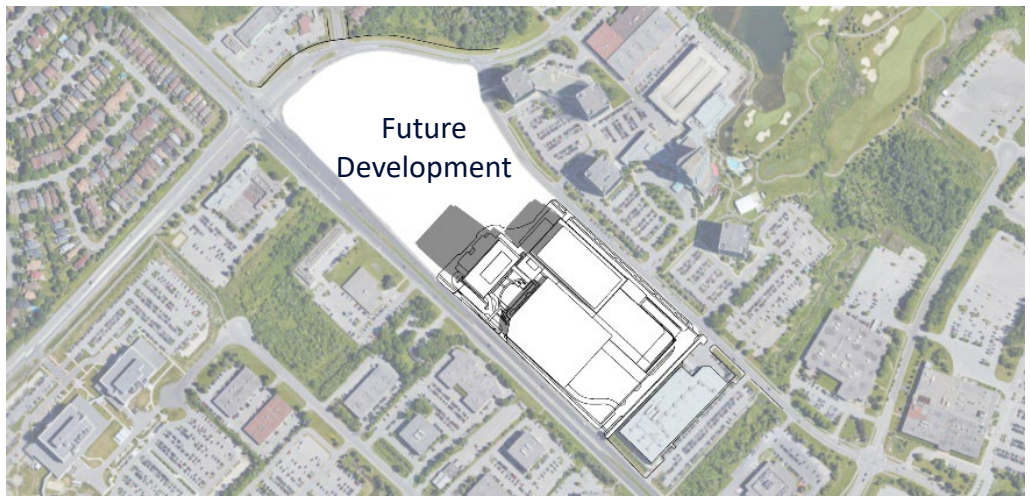
3:00 PM



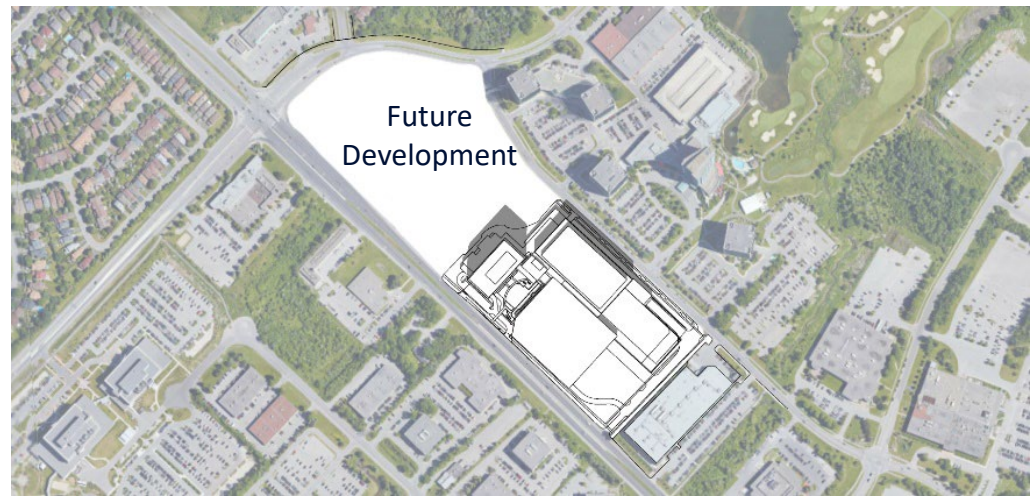
5:00 PM

Shadow Analysis

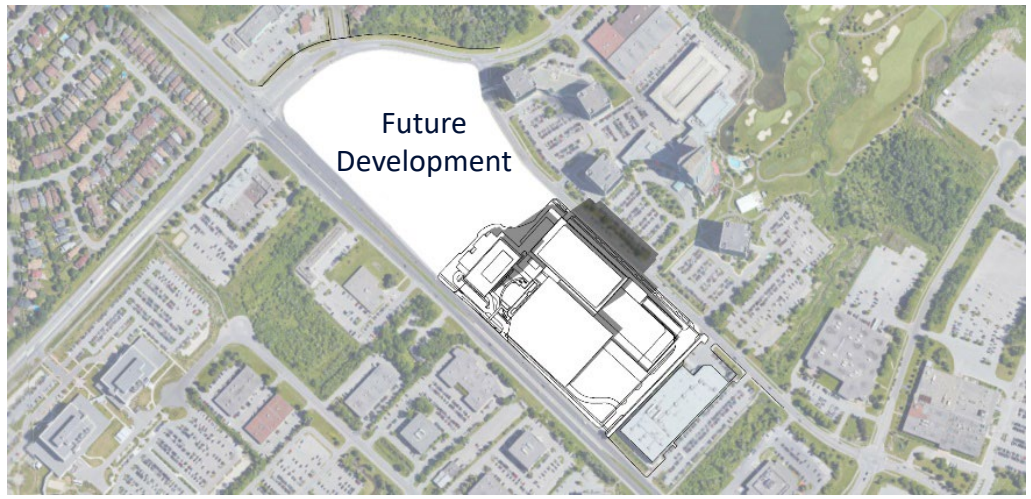
September 21st



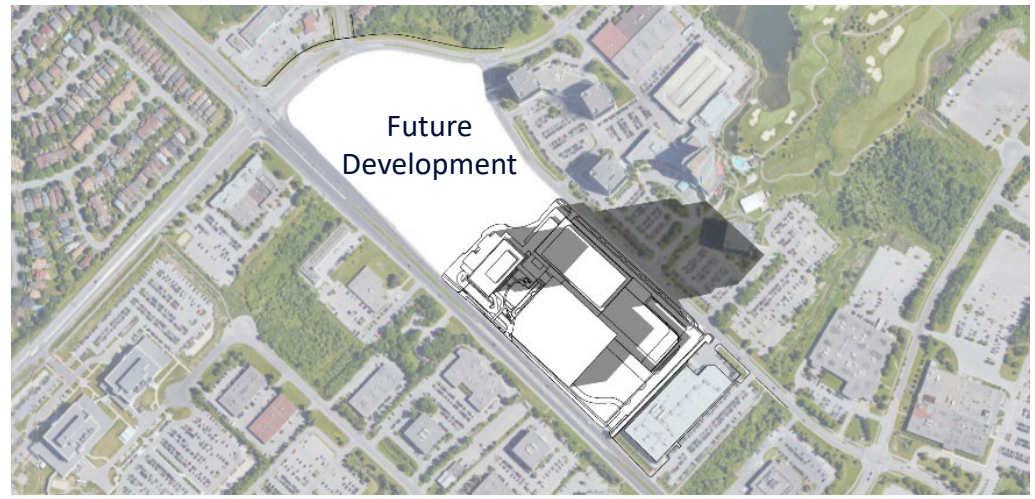
9:00 AM



NOON



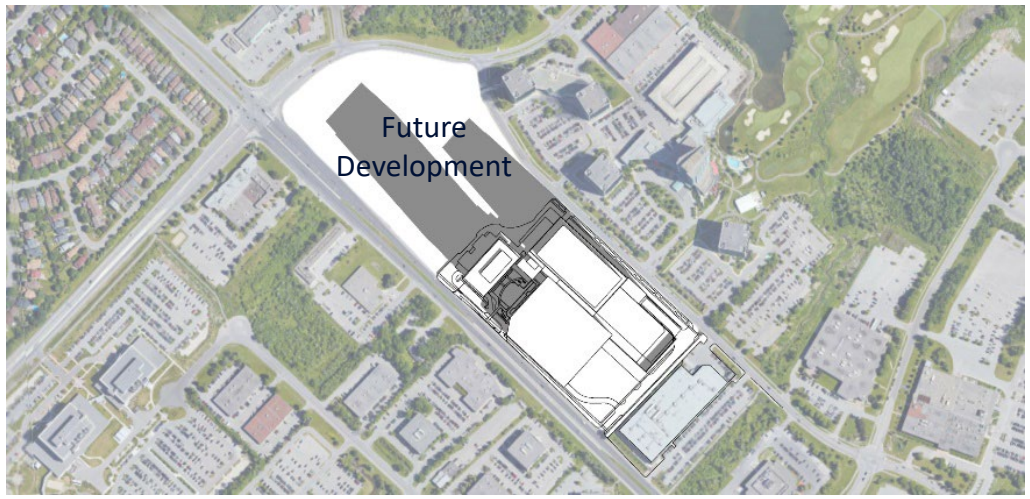
3:00 PM



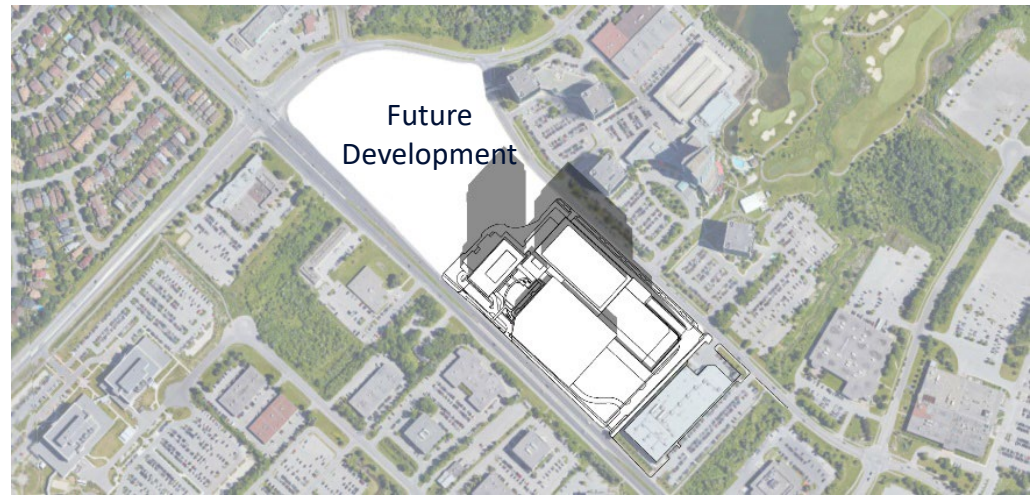
5:00 PM

Shadow Analysis

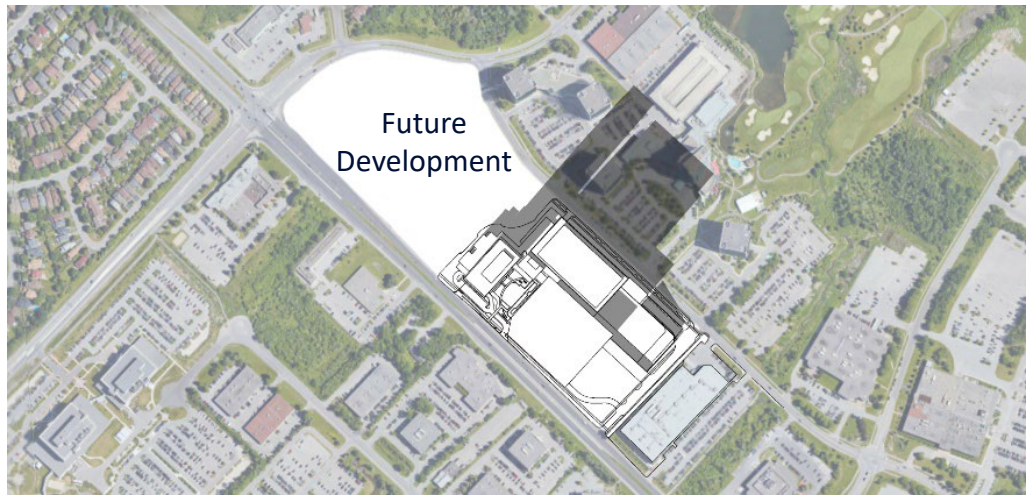
December 21st



9:00 AM



NOON



3:00 PM

Gensler NOKIA

NOKIA