

Embassy of the Kingdom of the Netherlands Parking Structure Replacement Project



Existing Parking Garage - Deterioration and the Case for Replacement

The existing parking garage for the staff of the Embassy of the Kingdom of the Netherlands is situated on the sloping, wooded site to the south of Chancery building and is partially embedded into the hillside. It is a three-level, tiered, reinforced concrete structure with the two lower parking levels partially below the level above.

Originally constructed in 1963, the reinforced concrete structure was modified in a 1994 rehabilitation project to address deteriorating conditions. The project scope included providing expansion joints, replacing steel angles, re-building masonry walls, and repairing areas of roofing/waterproofing. Subsequent to the 1994 repairs, the garage continued to deteriorate and temporary shoring & bracing were installed in 2017 to protect against structural failure. The current condition of the parking garage shows extensive, advanced deterioration of multiple materials and building components, including exterior brick cladding failures, buckling & cracking of structural masonry walls, deteriorated structural steel lintels, cracked and spalling of concrete columns and decking with exposed re-bar. The types and extent of the damanged areas make repairs or refurbishment no longer practical or economical.

Additionally, the geometry and slope of the existing driveway serving each parking level exceeds the recommended maximum slope of 7% and contains awkward warped transitions from sloped driveway to flat parking decks that are difficult to navigate and potentially dangerous for cars, especially in inclement weather. There is no protected pedestrian path along the steep entry drive which is used both for regular access the Chancery from the upper parking levels and for emergency egress.

Finally, management of storm water from the existing structure is inadequate according to current standards. Filtration of the "first flush" is limited and there is limited on-site retention leading to high discharge loads into Rock Creek. .

Proposed Parking Garage - Opportunities for Improvement

The proposed replacement parking structure will be situated in the same sloping, woody site behind the Chancery and will occupy a similar footprint. The structure will incorporate sloped and flat parking levels to maxmize efficiency while maintaining code required maximum slopes and proper clerances. A dedicated pedestrian core will provide access from all parking levels and will be separated and protected from vehicle traffic.

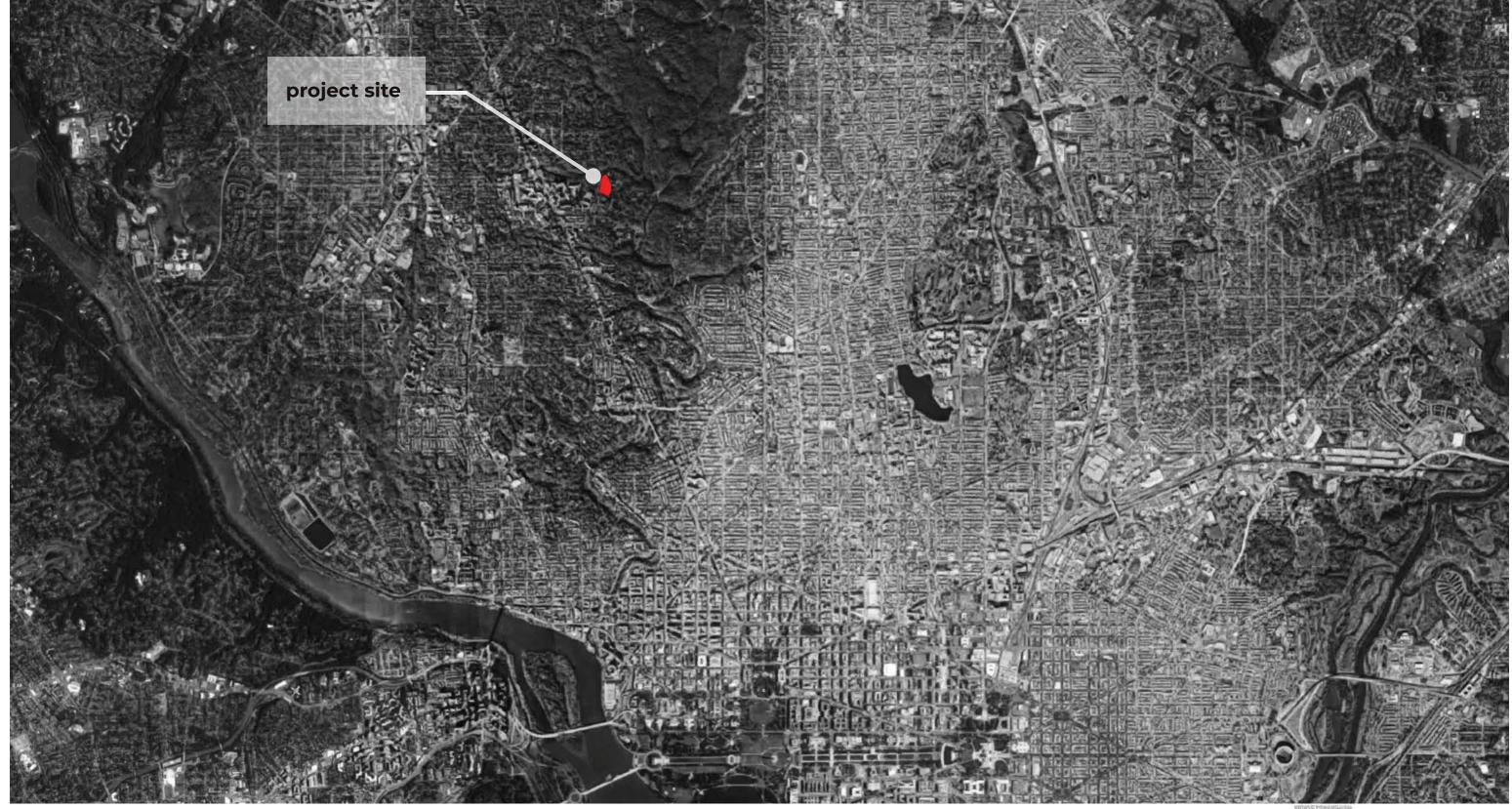
Many of the parking spaces will be under cover, including on the upper level where two sloping roof sructures will provide large areas of extensive vegetated roofing and an integrated photovoltaic panel array. The green roof areas are a significant component of the stormwater management system and are combined with areas of at-grade bioretention to both filter and store rainwater during storm events, thereby greatly reducing the impact on the nearby Rock Creek.

Architecturally, the structure's sloping florms are complimented by the use of a simple material pallet with exposed wood for both roof structural elements and as a ballustrade along the upper level deck edge.

Lighting will be kept to minimum and designed to minimize glare and spill-over beyond the footprint of the structure.

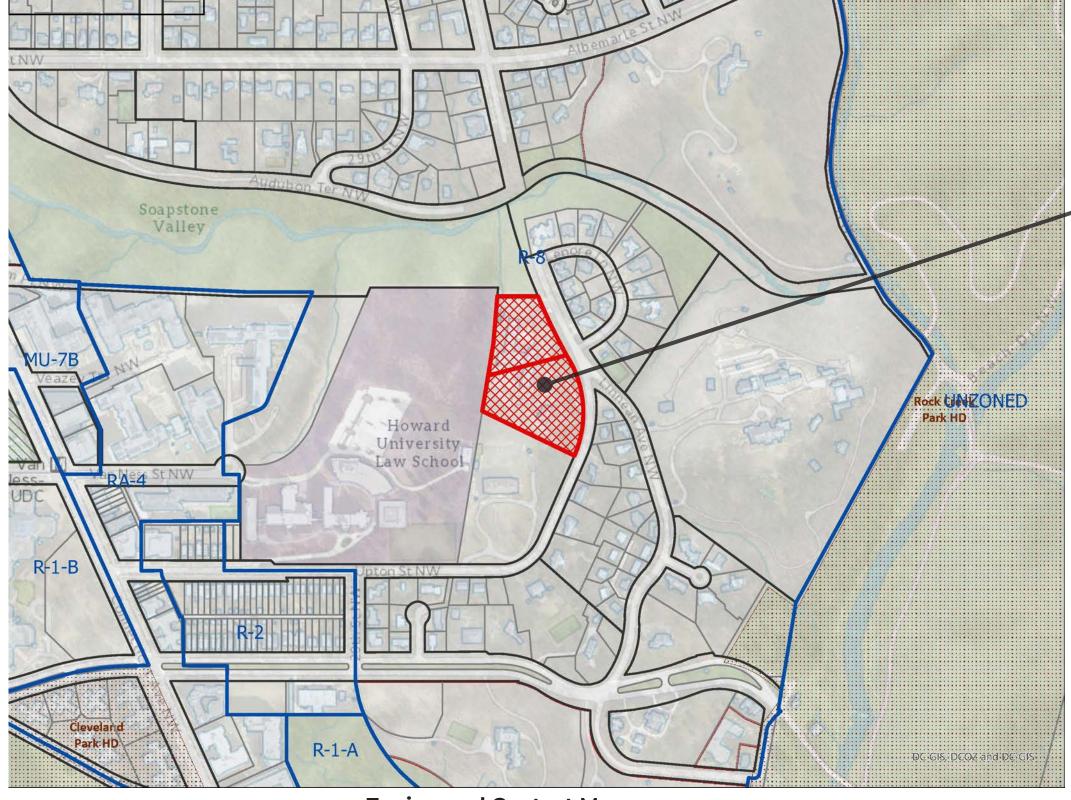
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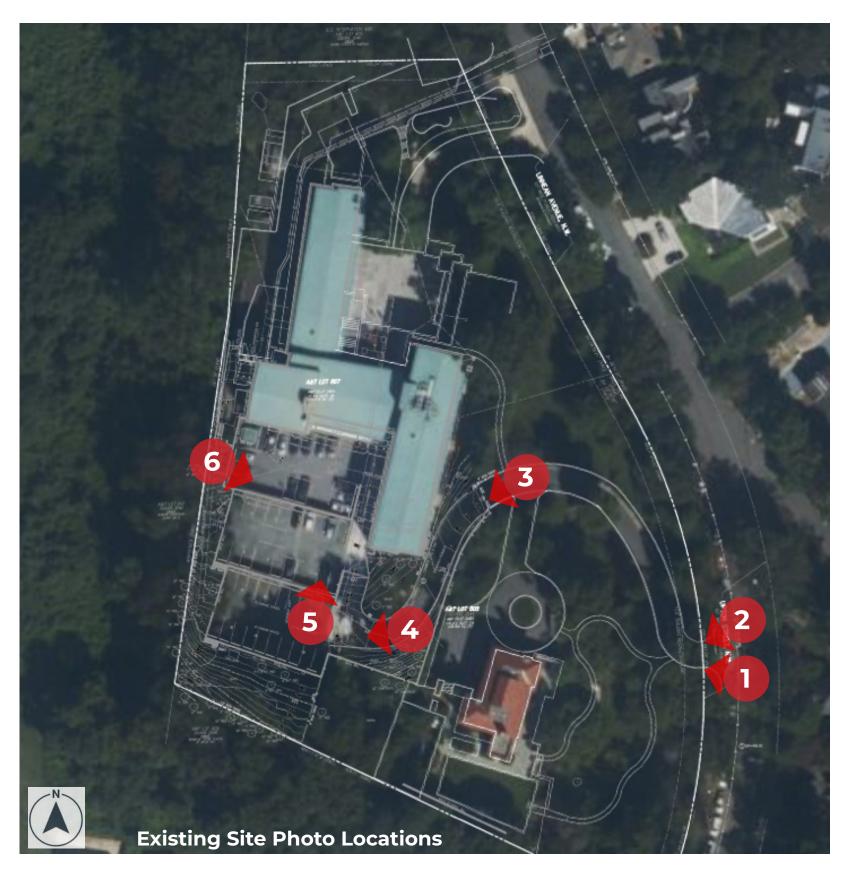
Zoning and Context Map

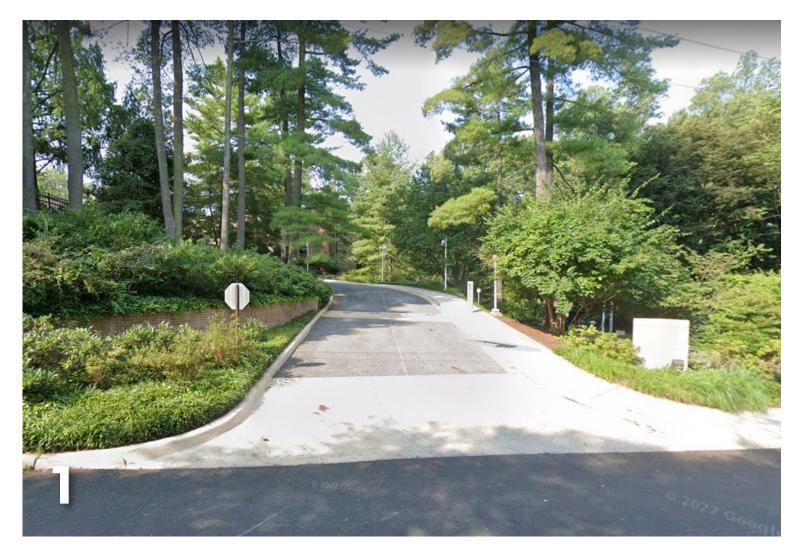
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Site: Zone R-8





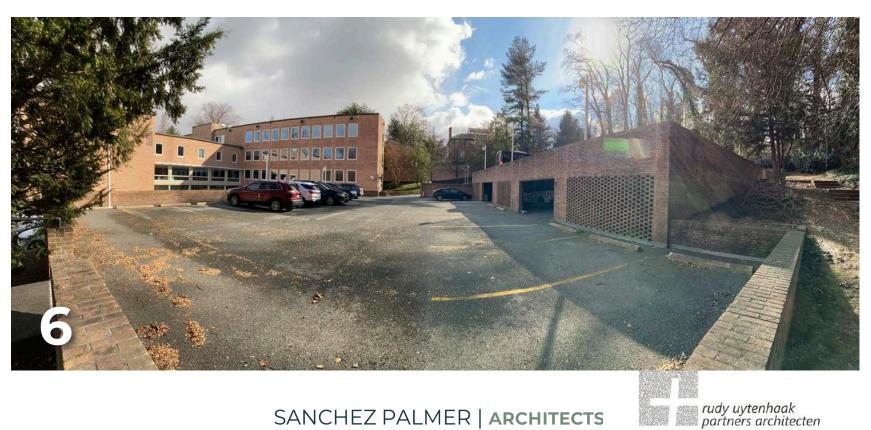






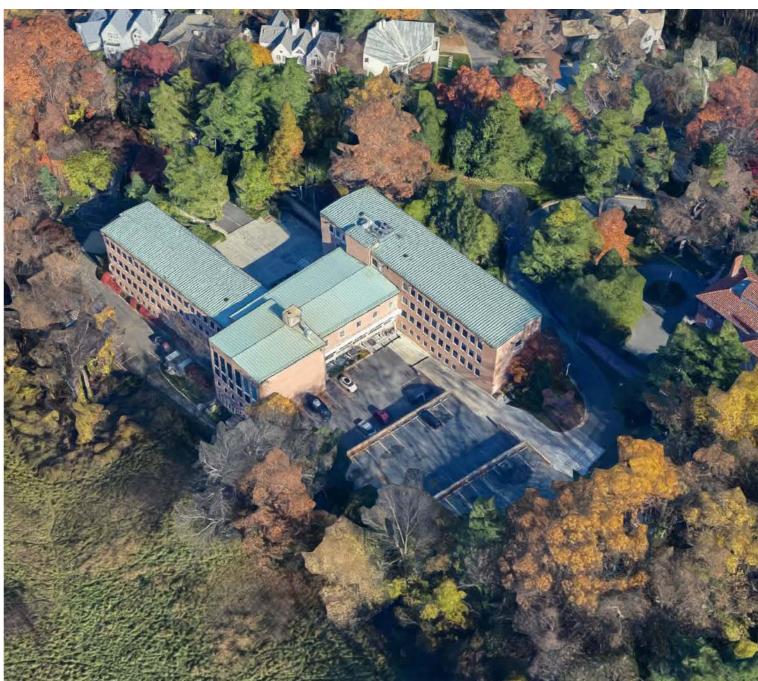




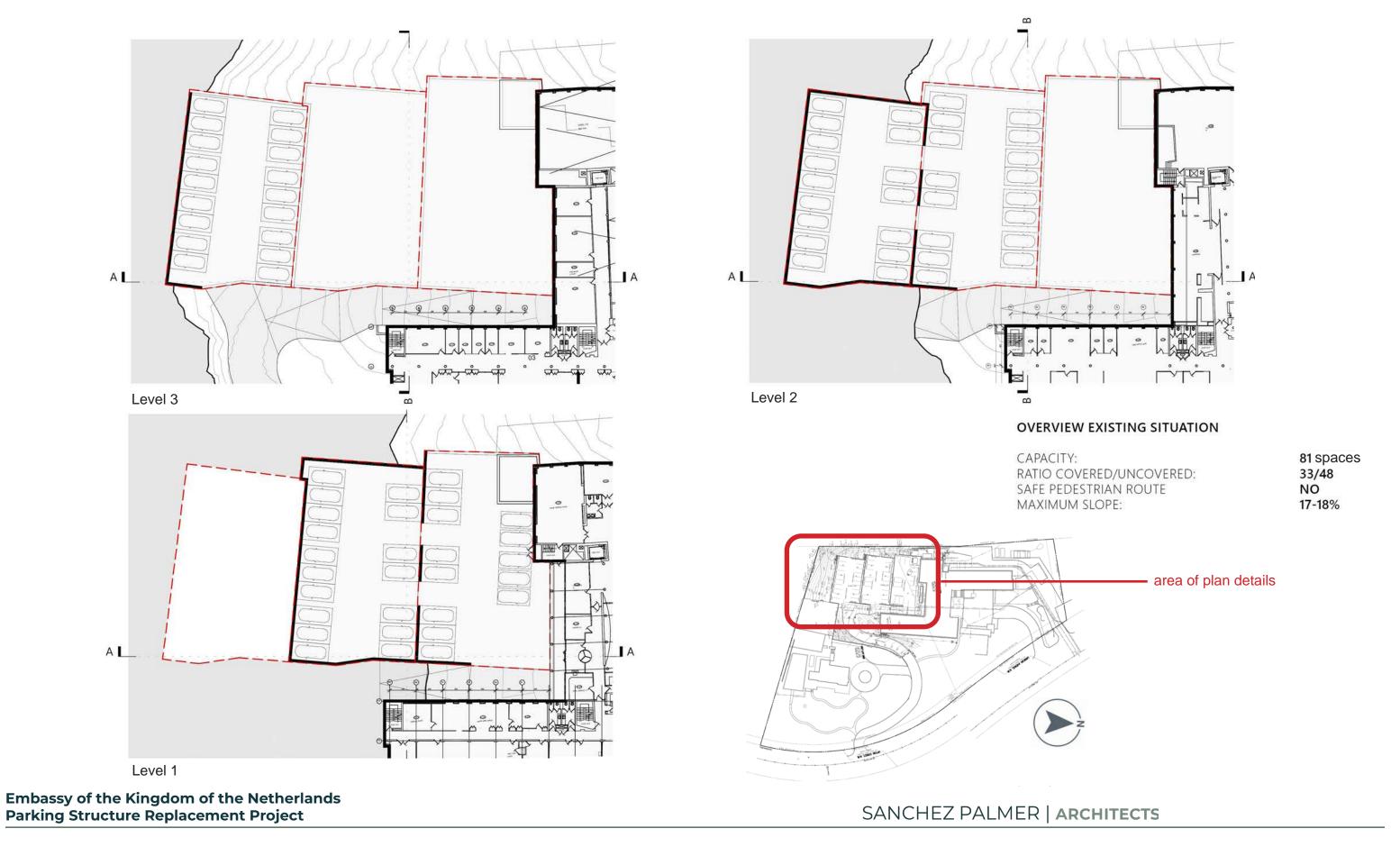


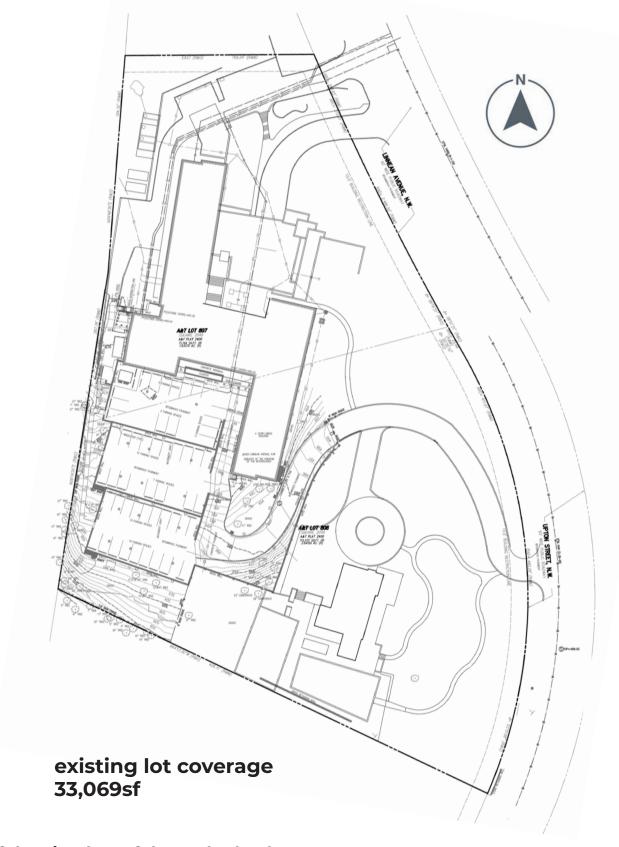
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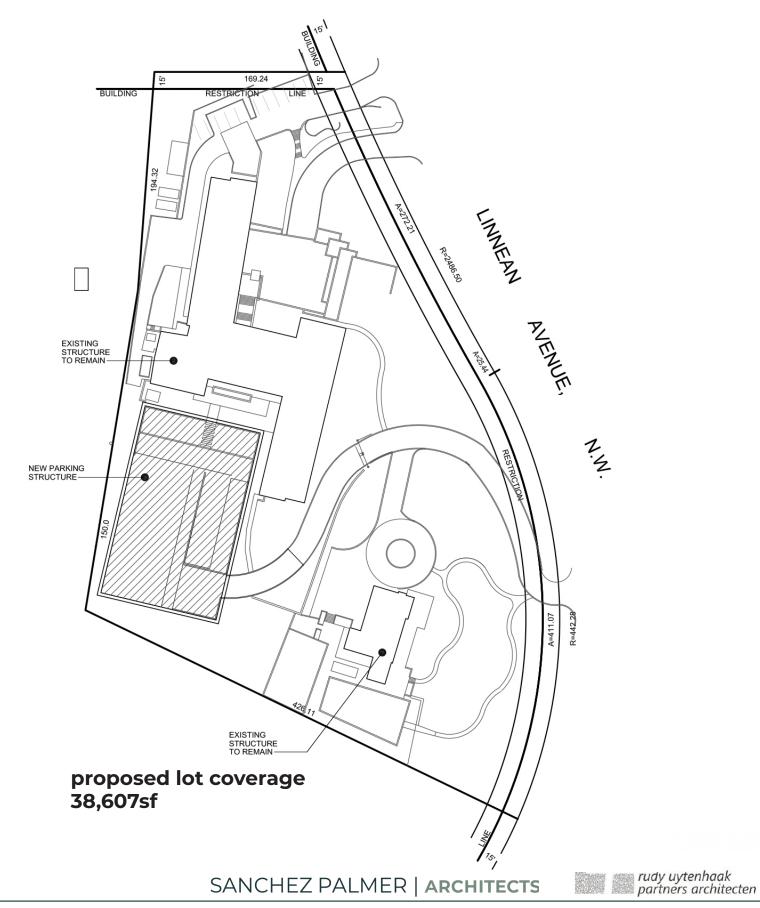


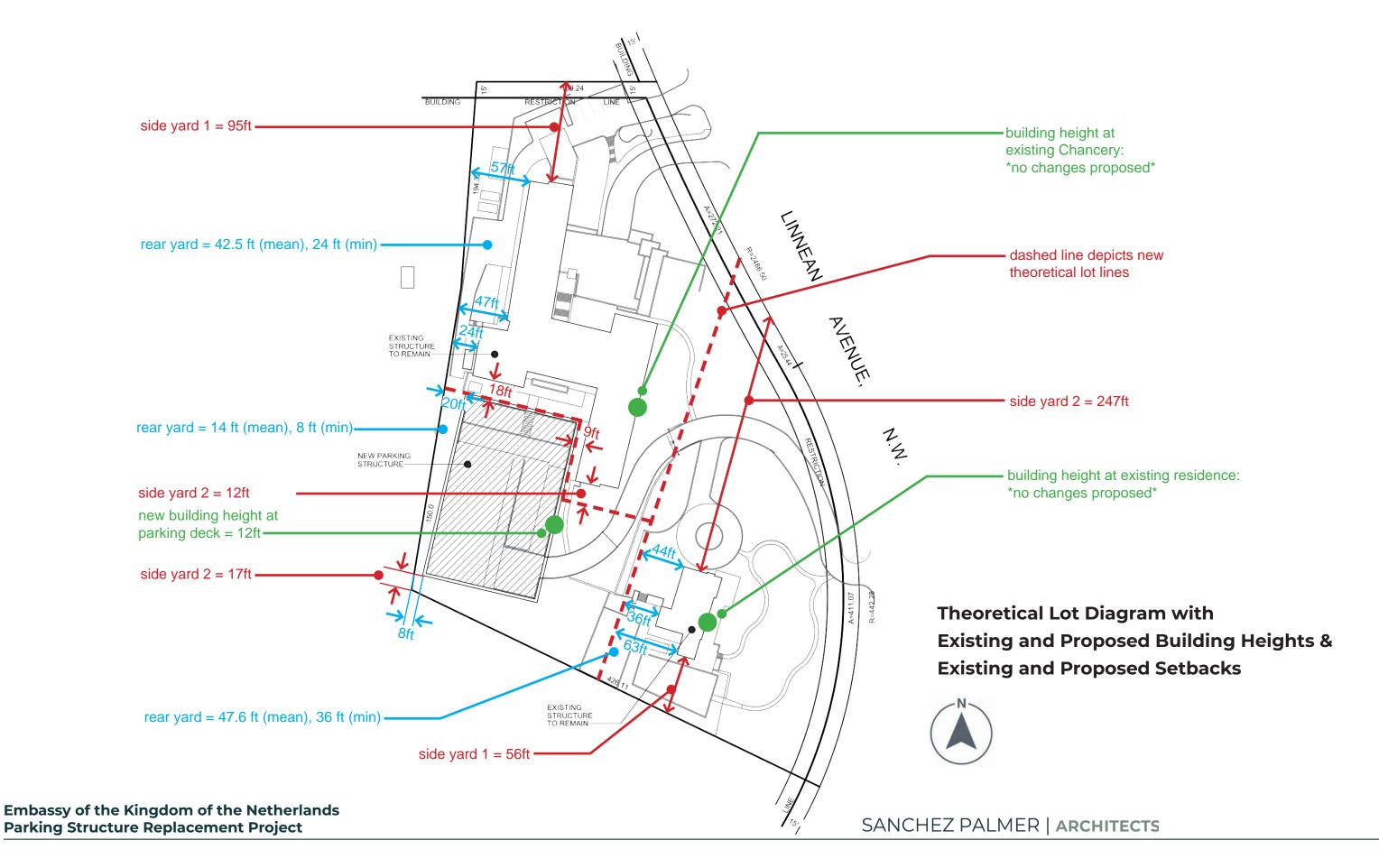


Aerial Views of Existing Condition









Zoning Data Summary 4200 Linnean Avenue, NW Zone: R-8

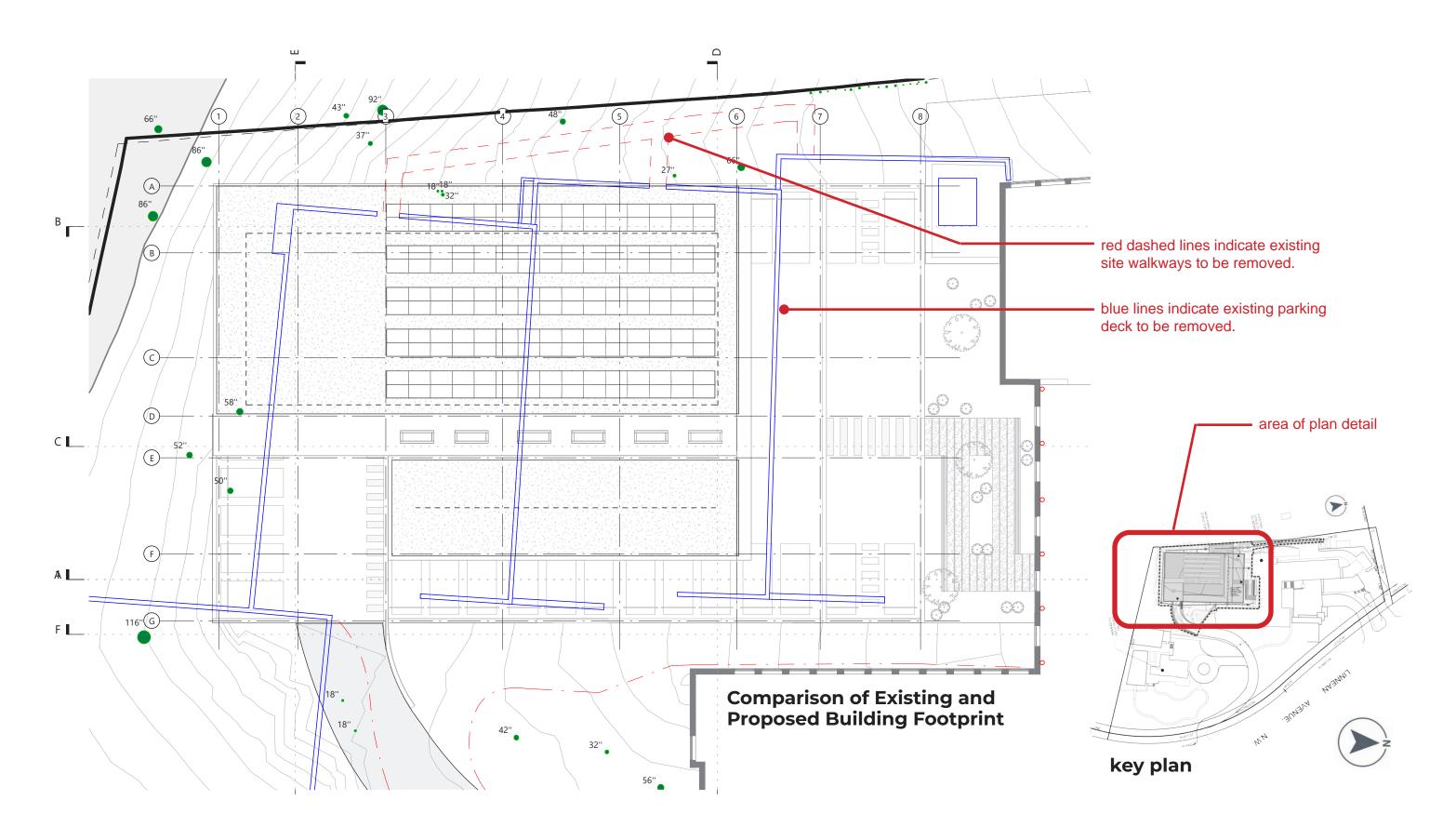
	<u></u>		Zone: R-8			
Development Standard	Zoning Reference / Section	Allowed / Required	Existing and Proposed (Sitewide)	Existing Residence (theoretical buidling site #1)	Existing Chancery (theoretical buidling site #2)	Proposed Parking Structure (theoretical buidling site #3)
Areas						
Lot Width	D-502.1	75 ft.	669.11 ft			
Lot Area	D-502.1	9,500 sq. ft.	186,236 sf			
Gross Floor Area (GFA)	N/A	N/A	N/A			
Floor Area Ratio (FAR)	N/A	N/A	N/A			
Building Area	N/A	N/A	39,110 sf			
Lot Occupancy	D-504.1	30%	21%	7		
Pervious Surface	D-508.1	50%	54.50%	7		
Tree and Slope Protection	C-401 Applicable to trees with a circumference of 12 inches or greater at a height of 4 ft. 6 in. above ground, not including dead or unbhealthy trees or trees that create unsafe conditions.	Circumference (75 in. or more): Removal not permitted. Circumference (38 in. or more): No more than 3 may be removed, but not within 25 ft. of a building restriction line or lot line abutting a public street.	See attached Advanced Tree Preservation Plan	See Sitewide Parameters		
	unsare conditions.	The total circumference of all trees removed may not exceed 25% of the total circumference of all trees on the lot having a circumference greater than 12 in.				
Setbacks and Building Height						
Number of Stories	D-503.1	3 stories		2*	3*	3
Building Height	D-207.4, D-503.1	40 ft. 90 ft. if removed from all lot lines for a distance equal to building height.				
				40 ft*	20 ft*	12 ft
Side Yard	D-507.1			56 ft*	95 ft*	0 ft
Side Ya	Yard 1 D-507.2	24 ft. (aggregate), 8 ft. min. (each individual side yard)	See Individual Theoretical Building Site Parameters	2011.	95 11.	Oit
	Yard 2 D-507.3			247 ft*	12 ft*	17 ft
Agg	regate D-507.4			303 ft*	107 ft*	17 ft
Rear Yard	D-506.1	25 ft. (mean horizontal distance per B-318.2)		47 ft*	42.6 ft*	14 ft
Open Court - Width	D-203.1	2.5 in. per 1 ft. of building height, 6 ft. min.		N/A	N/A	N/A
Close Court - Width	D-203.1	2.5 in. per 1 ft. of building height, 12 ft. min.		N/A	N/A	N/A
Closed Court - Area	D-203.1	Twice the square of required width, 250 sq. ft. min.		N/A	N/A	N/A
Units, Parking, and Loading						
Vehicle Parking	C-701.5	0.5 per 1,000 sq. ft. in excess of 3,000 sq. ft., or as determined by the Foreign Missions Board of Zoning Adjustment.	Existing: 95 (81 parking structure, 14 surface lot) Proposed: 92 (78 parking structure, 14 surface lot)			
Bicycle Parking - Long Term	C-802.1	1 space for each 5,000 sq. ft.	11	1		
Bicycle Parking - Short Term	C-802.1	1 space for each 40,000 sq. ft.	0			
Loading Berth	C-901.1	(1) 12 ft. x 30 ft.	1	1		
Service Delivery Space	C-901.1	(1) 10 ft. x 20 ft.	1		See Sitewide Parameters	
	C-806.1	Showers: If greater than 25,000 sq. ft.: 2 showers plus 2 showers for each additional 50,000 sq. ft.				
Shower and Locker Facilities		Lockers: If greater than 25,000 sq. ft.: minimum of 0.6 times the minimum number of required long-term bicyce parking spaces.	N/A			
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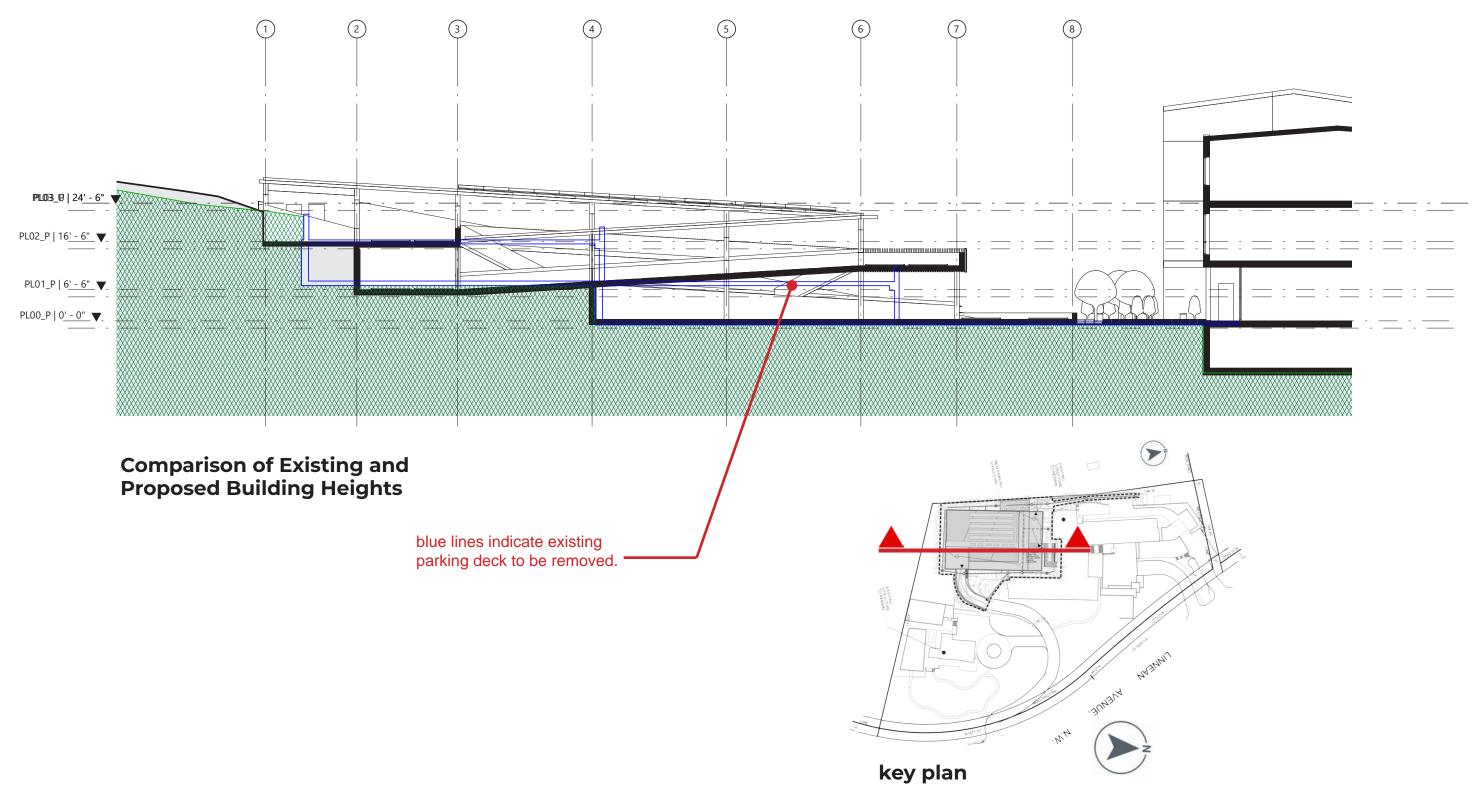
^{*} Estimated based upon available information. Existing condition, no changes proposed

Relief requested

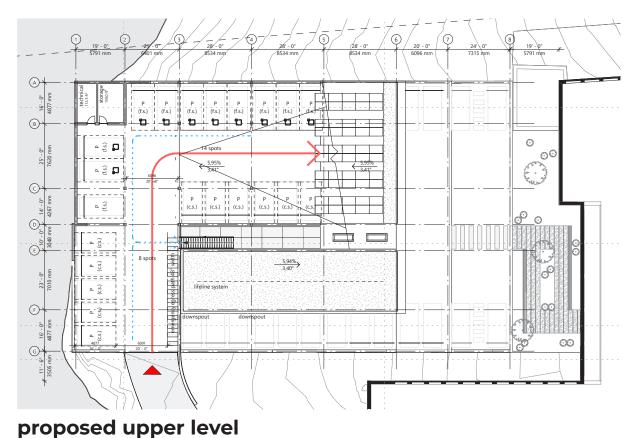
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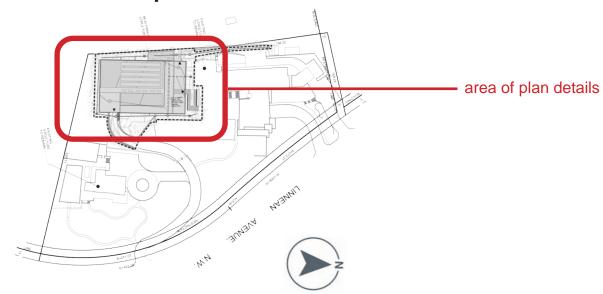


parking capcity: 78 spaces

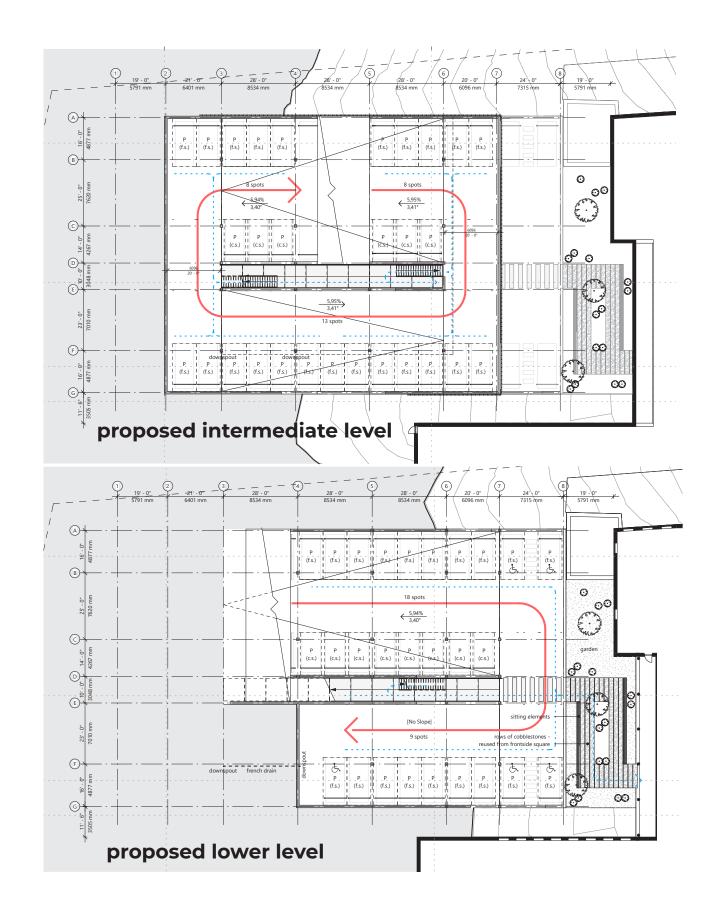
ratio of covered to uncovered: 57 / 21

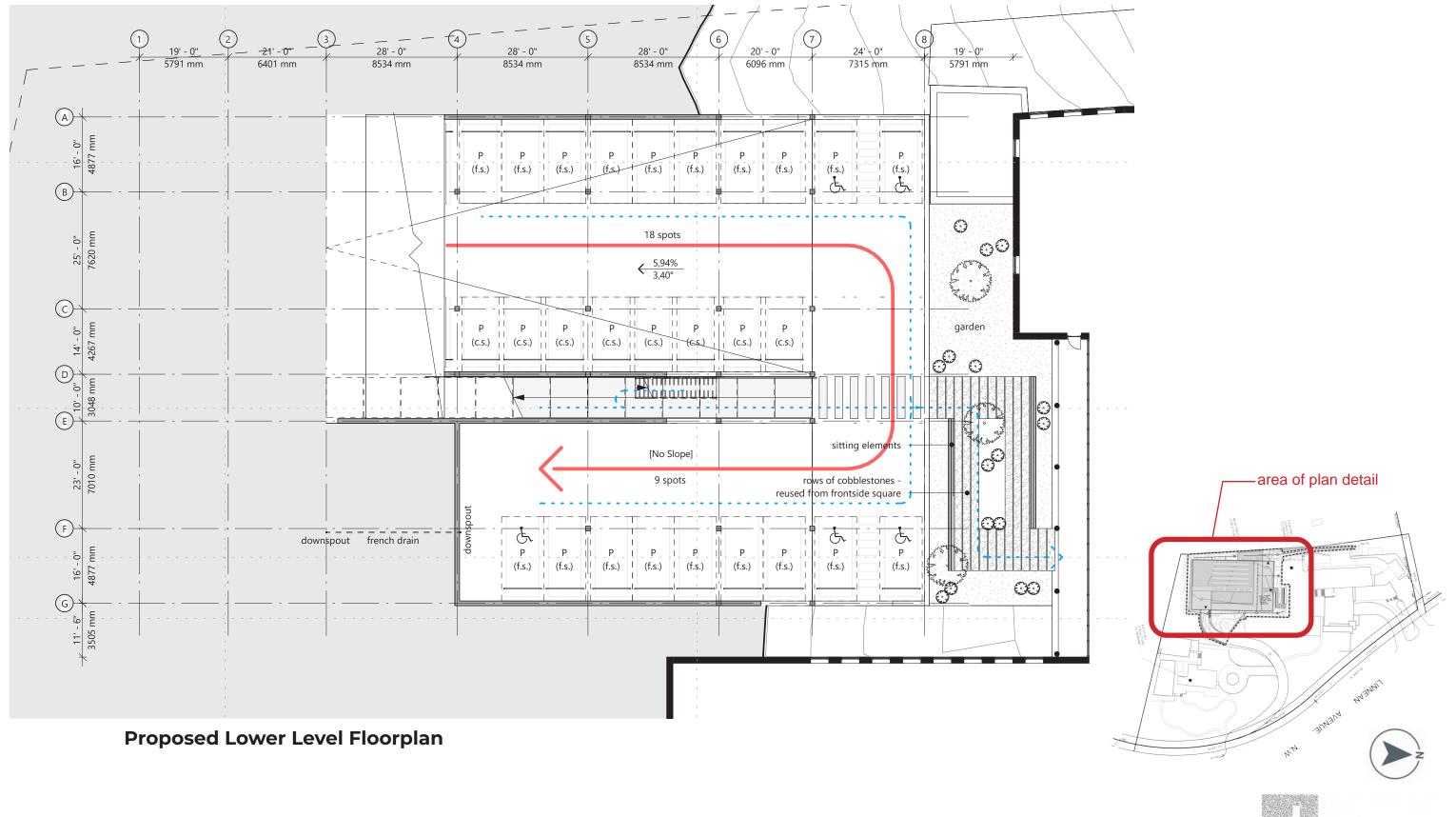
safe pedestrian route: yes

maximum slope: 7%

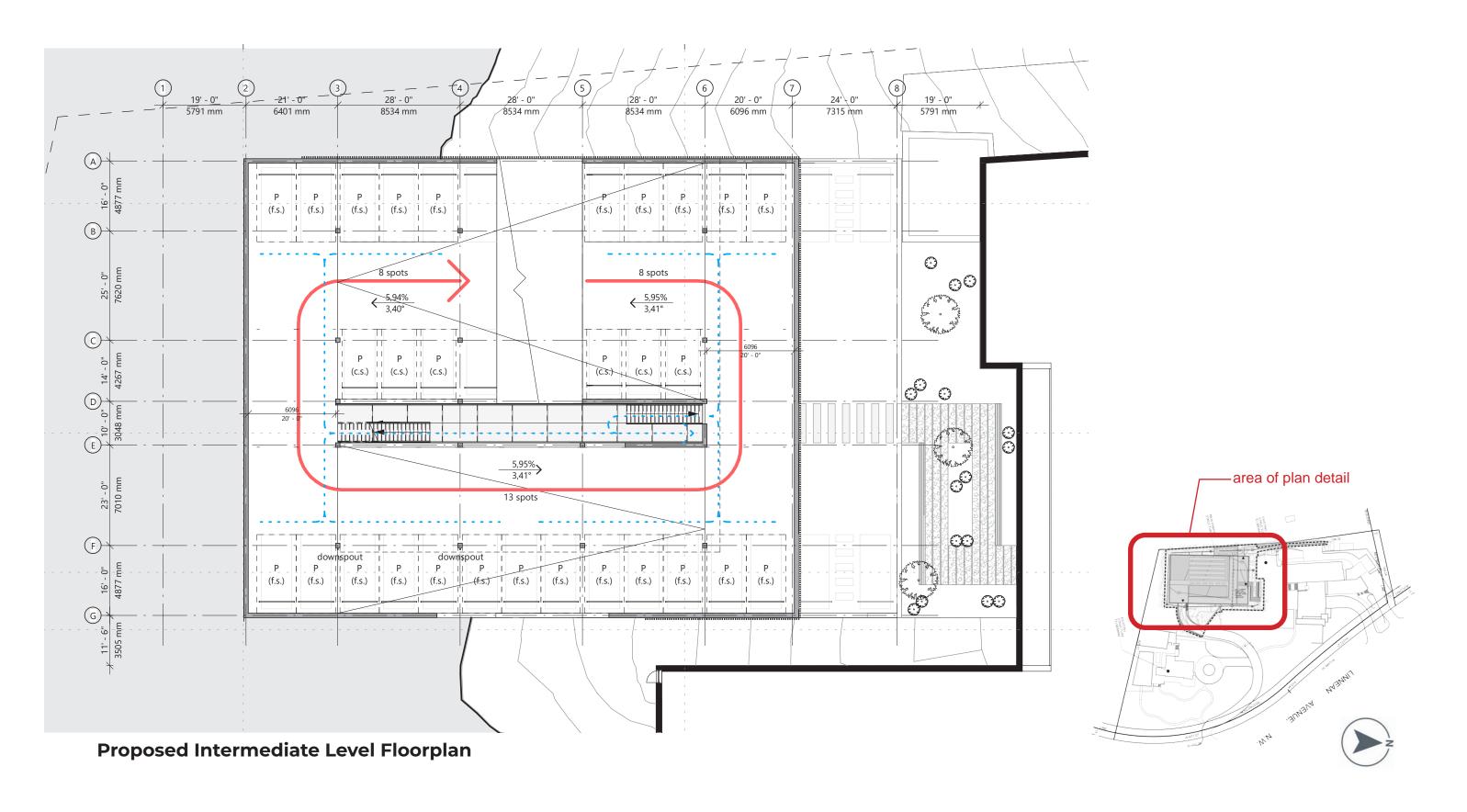


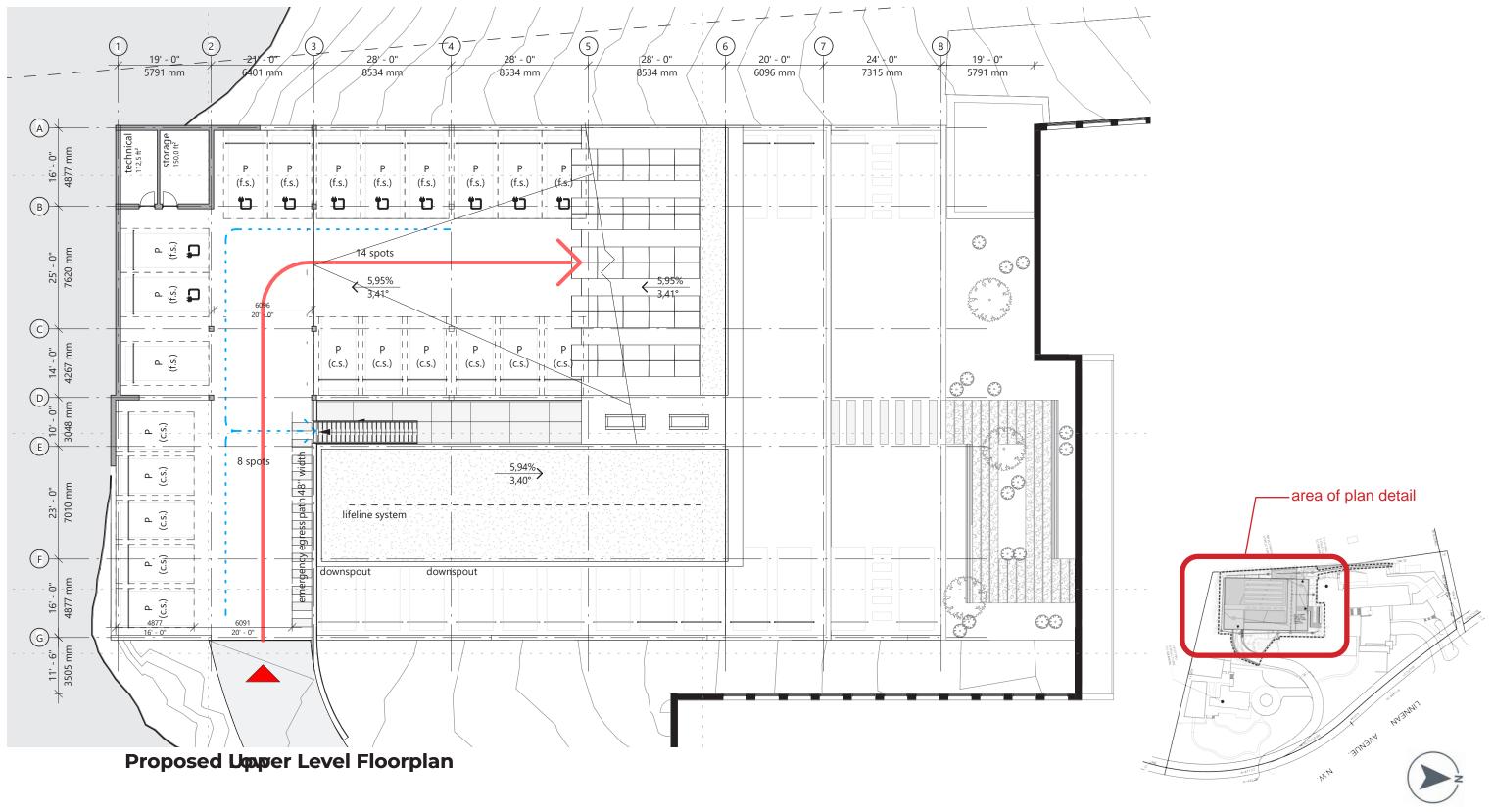
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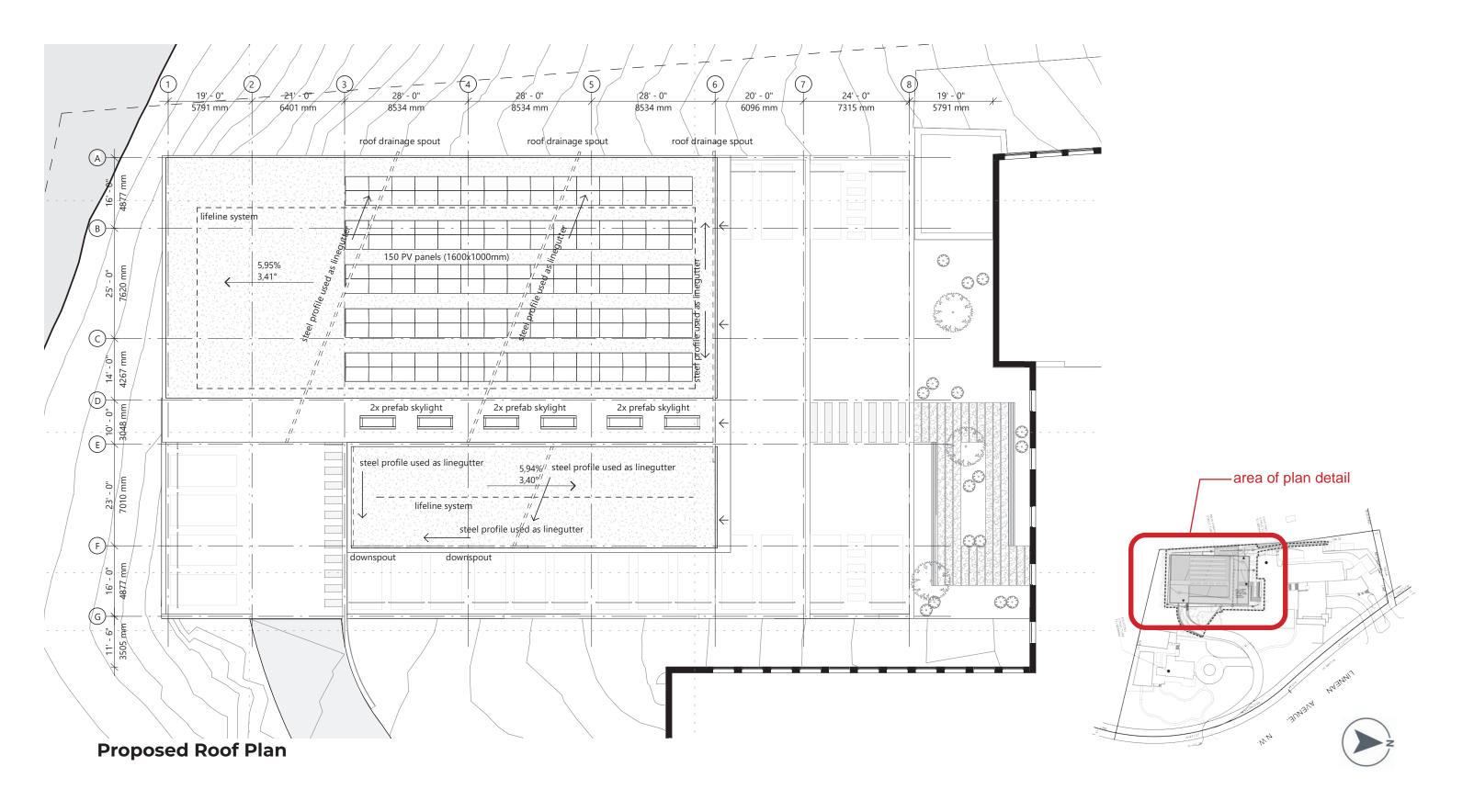


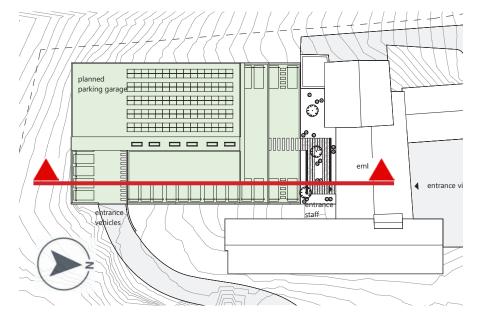




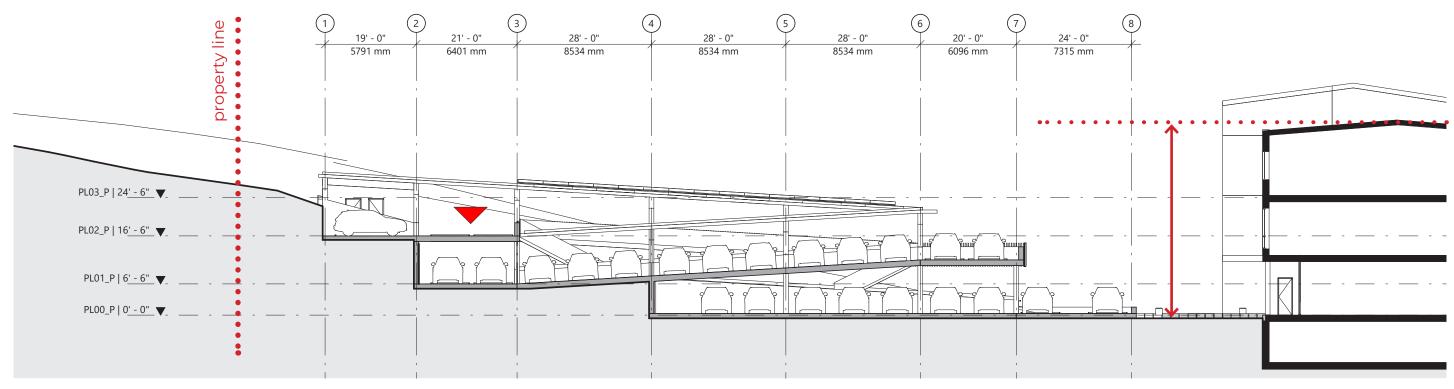








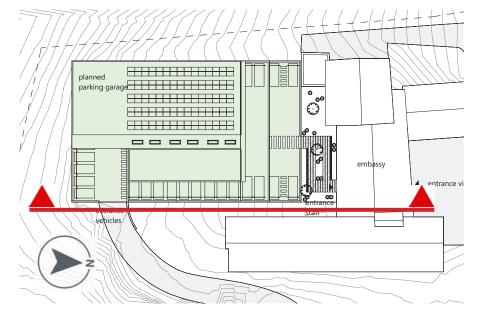
key plan



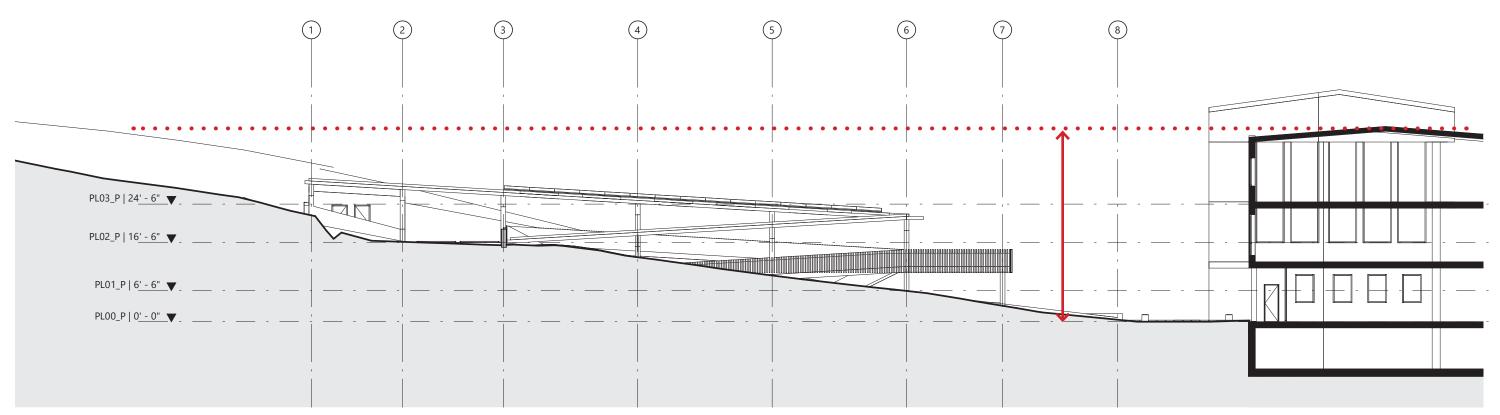
SECTION A

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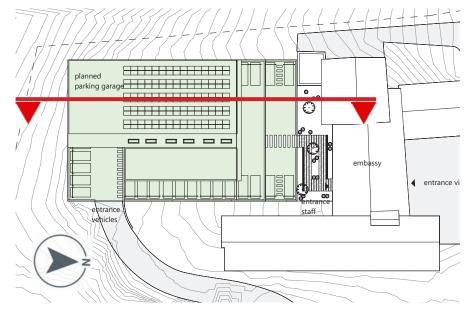




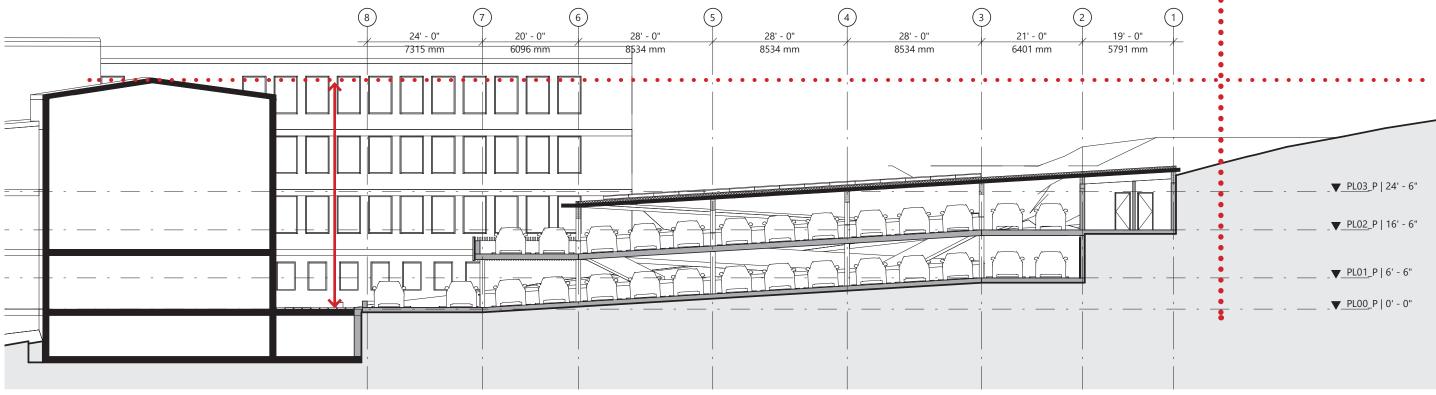
key plan



EAST ELEVATION



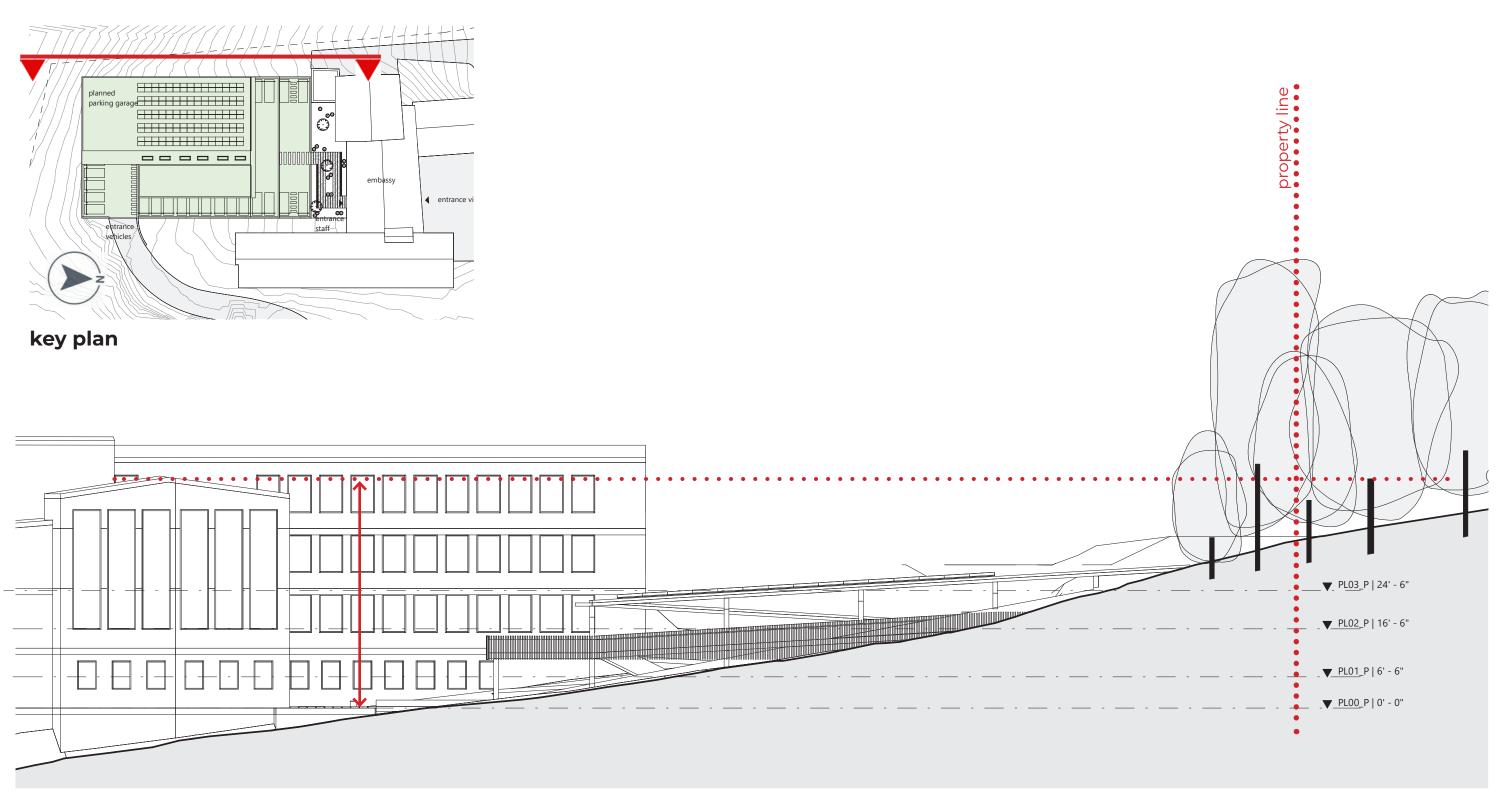
key plan



SECTION B

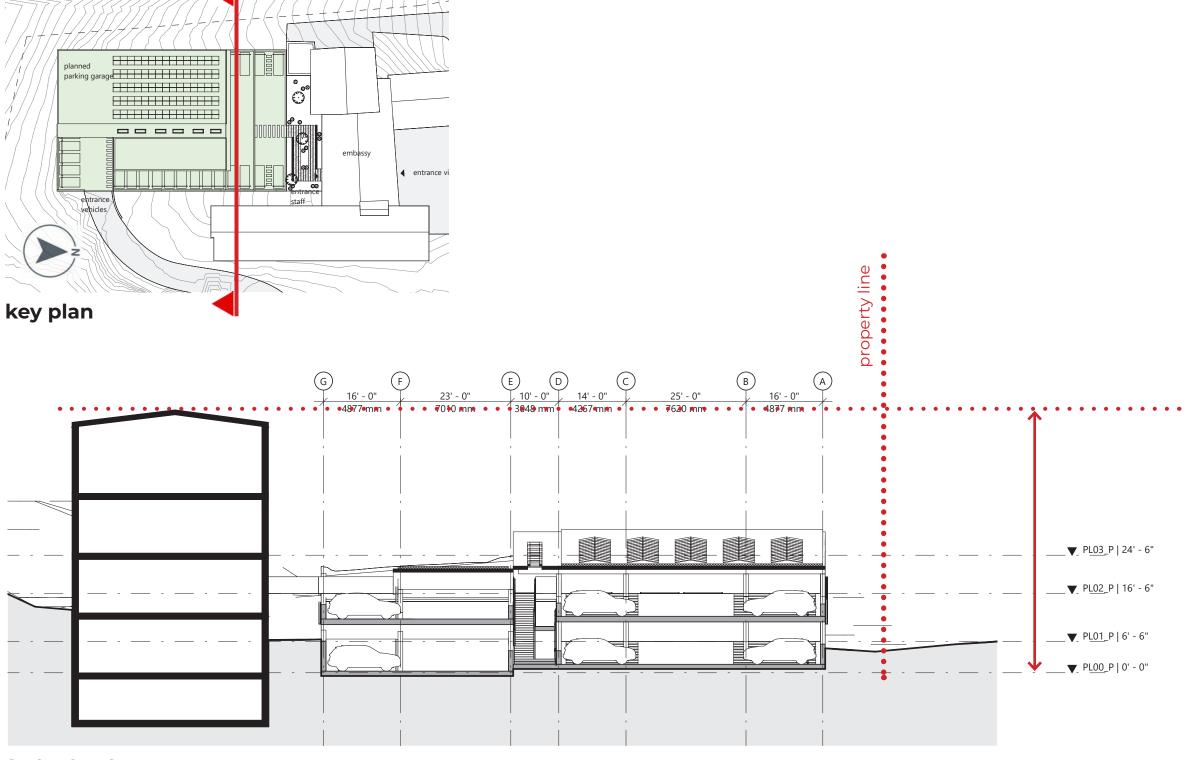
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WEST ELEVATION

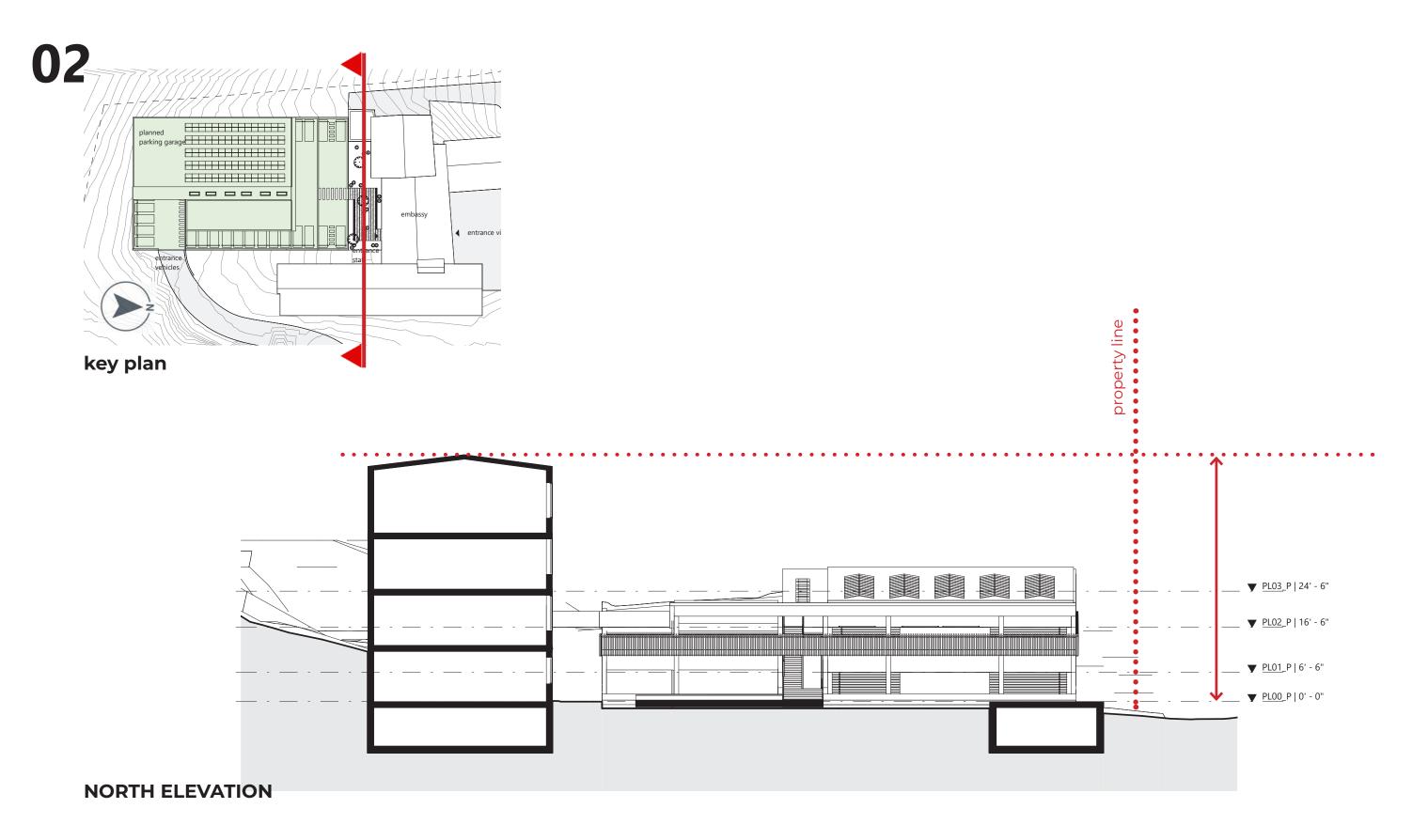
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SECTION C

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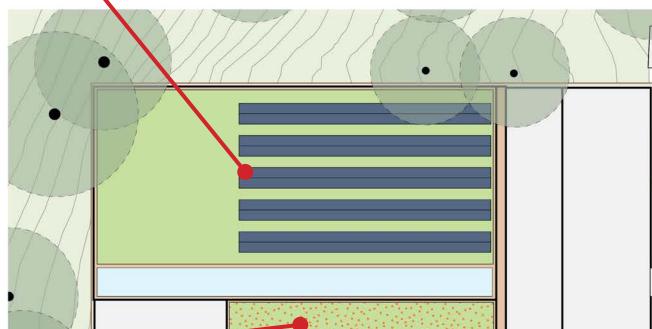
solar green roof on uppeer sloped roof

solar green roof section detail

bio-retention basin







gravel edge surrounding perimeter

led garden/pathway fixtures



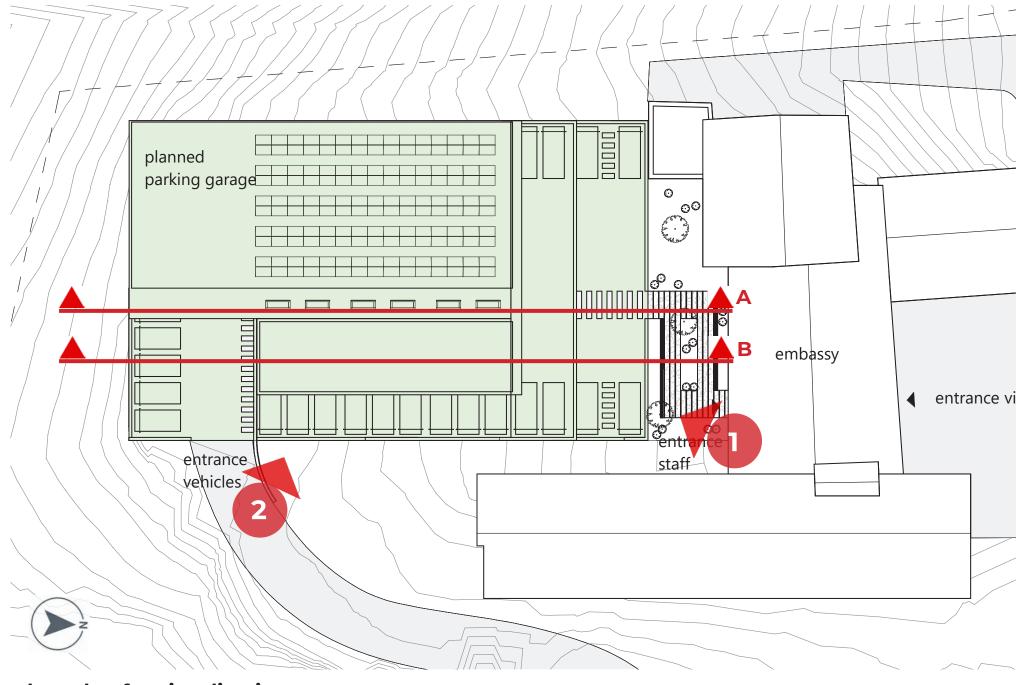


flowers in a gravel surface



flower garden on first roof **Green Roof and Site Design**





key plan for visualizations



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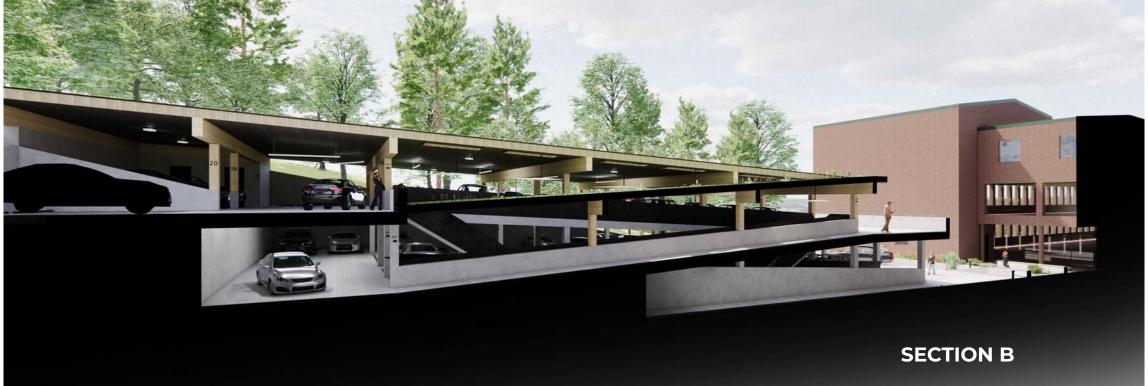
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rudy uytenhaak partners architecten















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photo legend

3: view of interior pedestrian stair

4: view of upper level parking level

5: view of lower level parking level