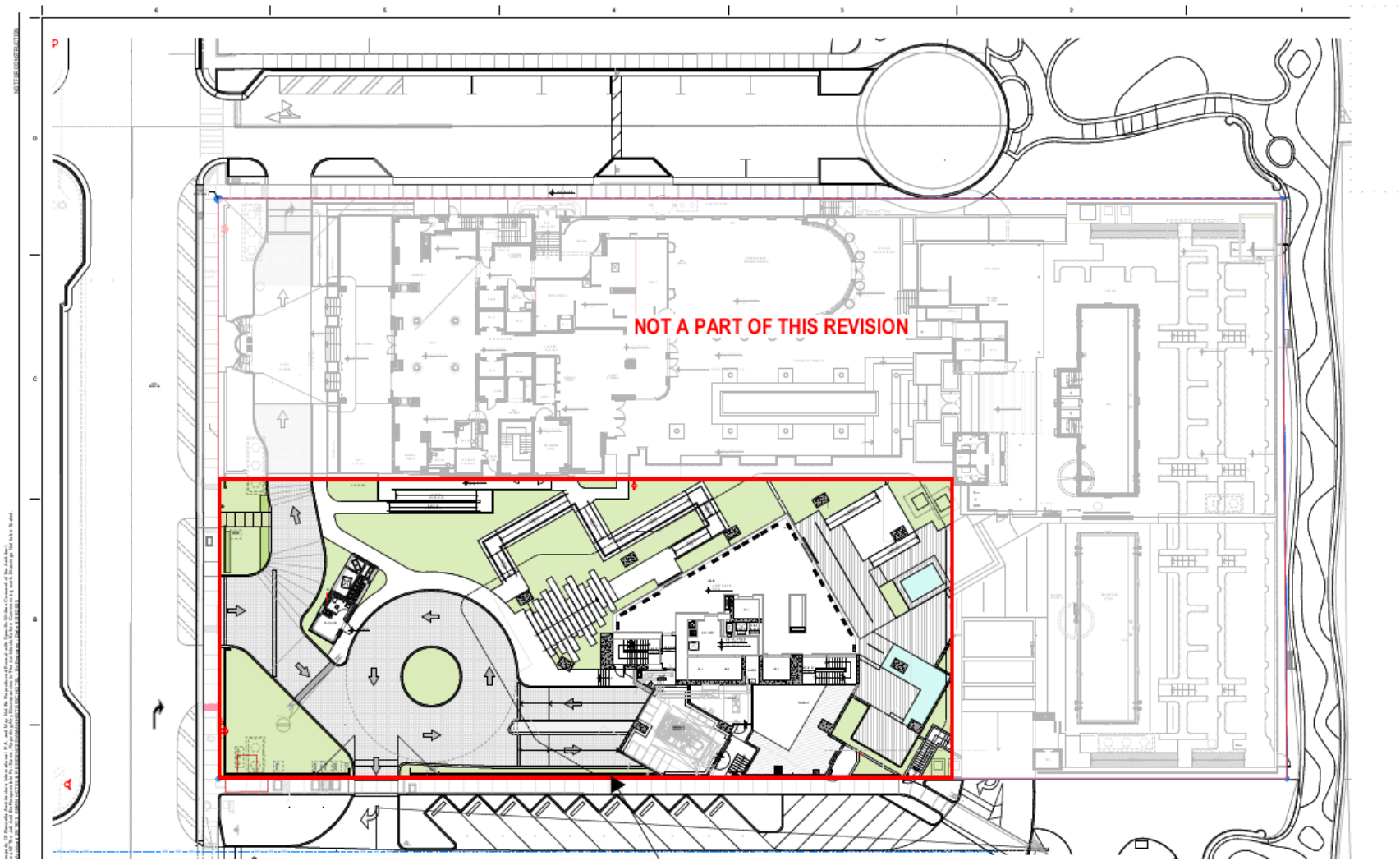
AMAN Hotel & Residences

3425 Collins Avenue, Miami Beach, Florida

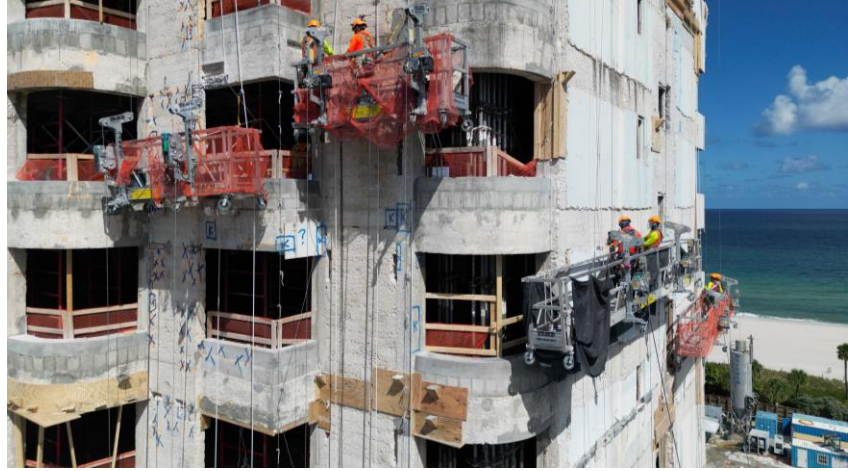
Historic Preservation Board, September 16, 2025

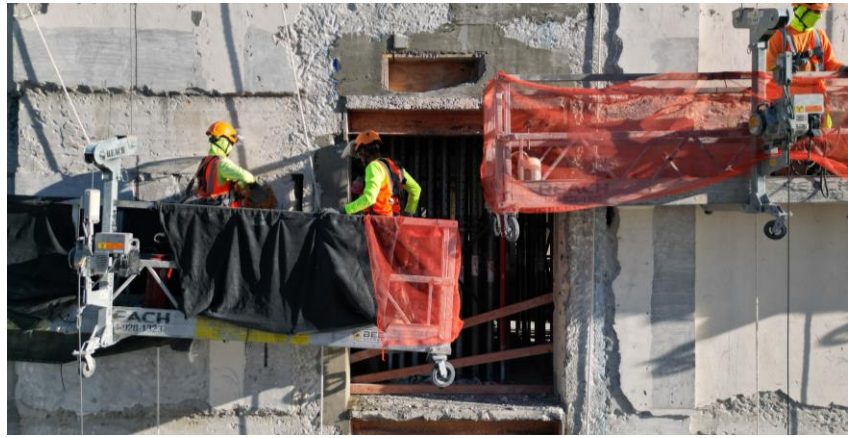
HPB25-0662

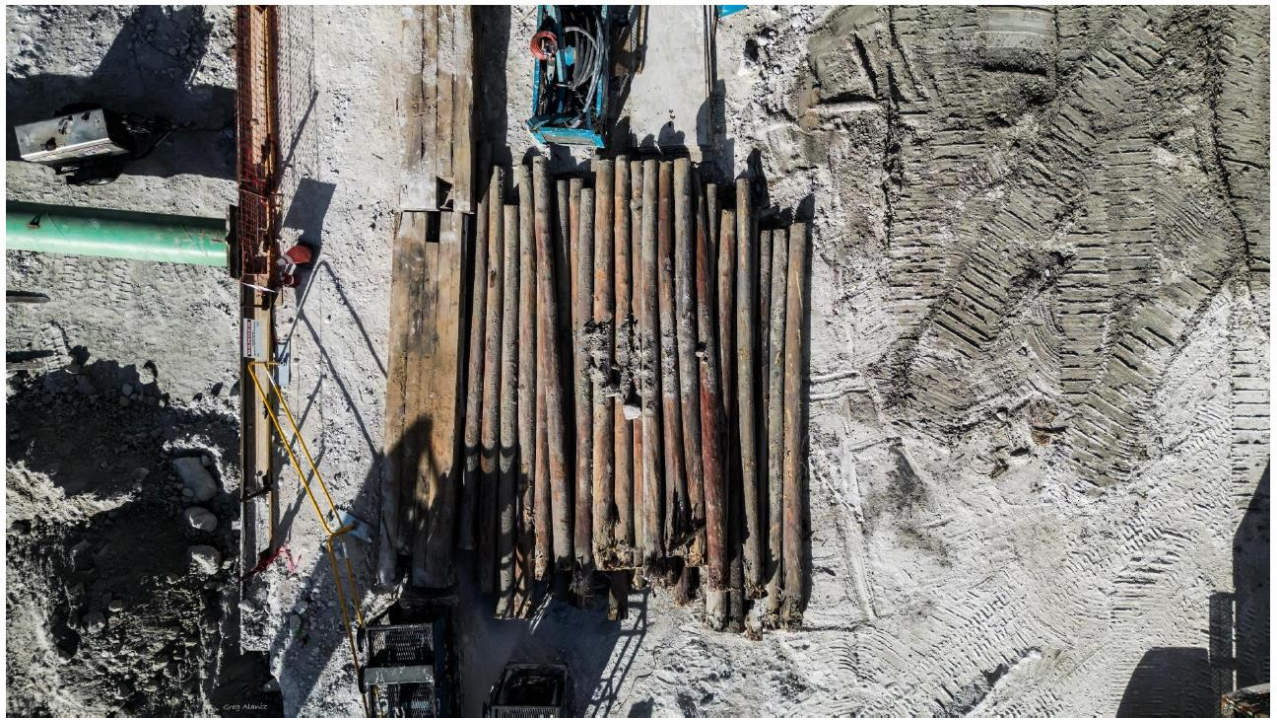
Scope of Work

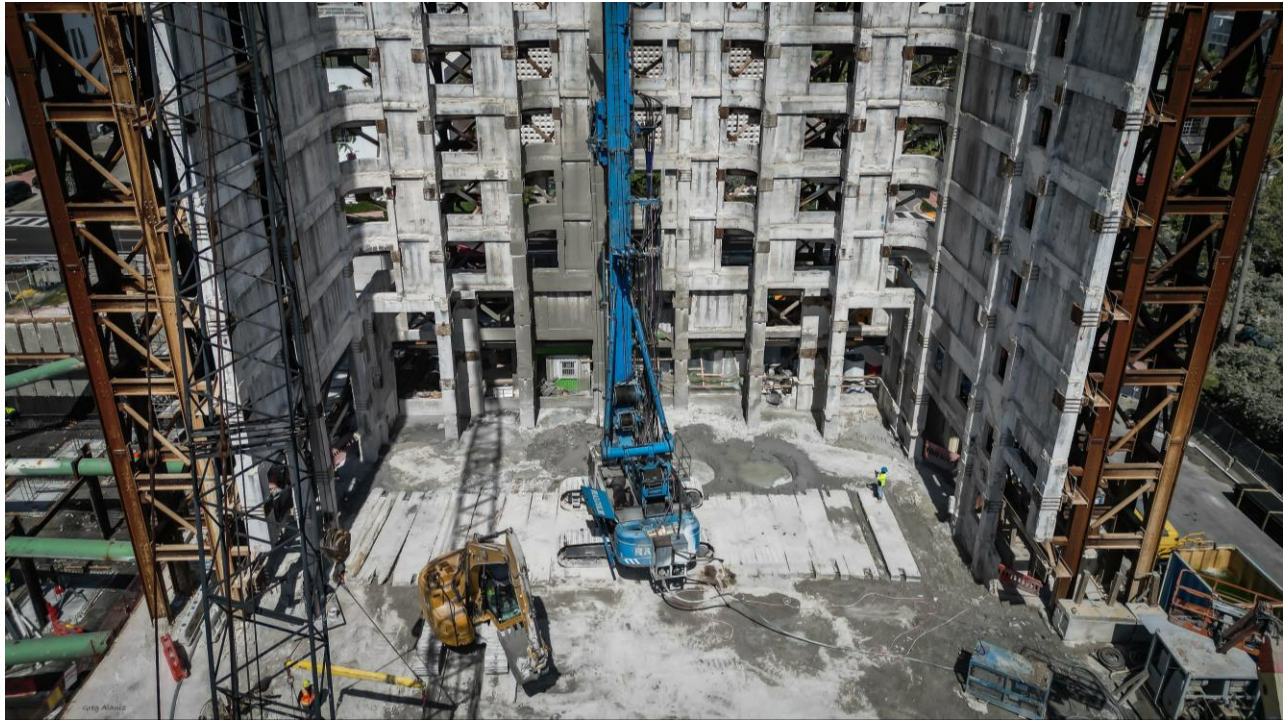


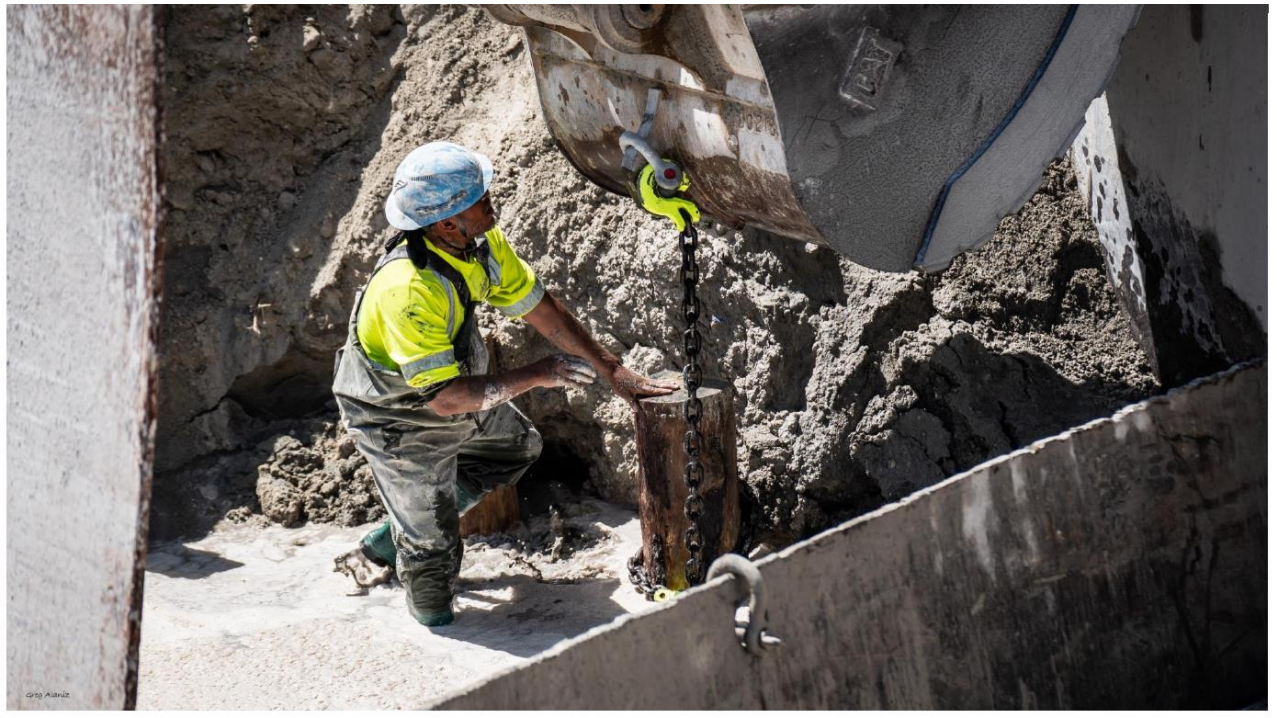
Construction Progress Update

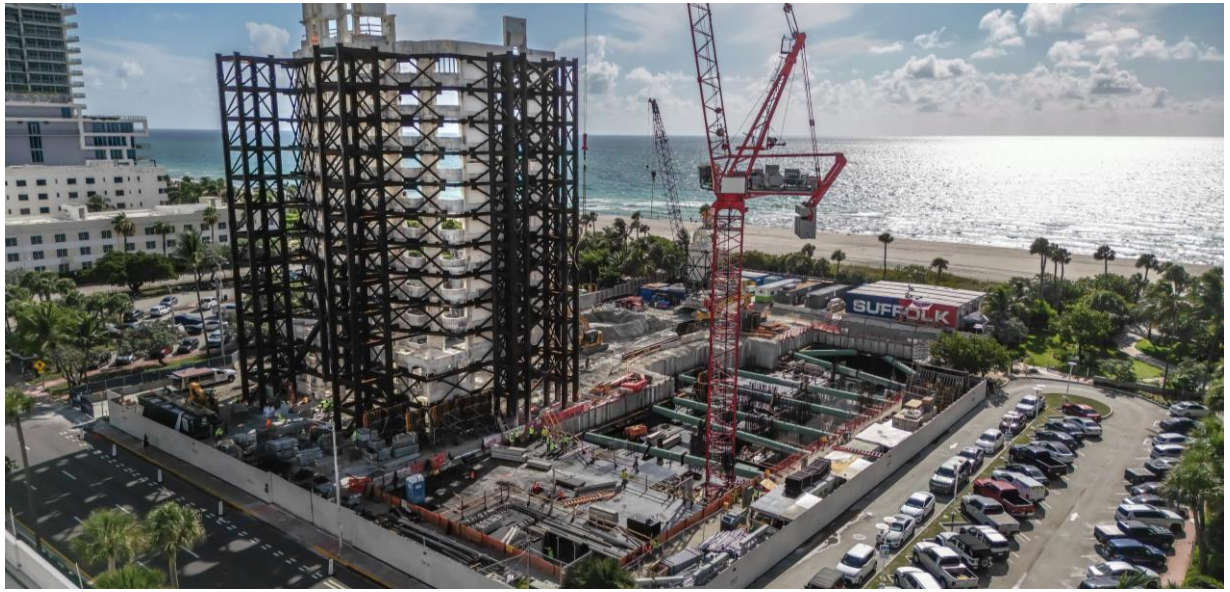


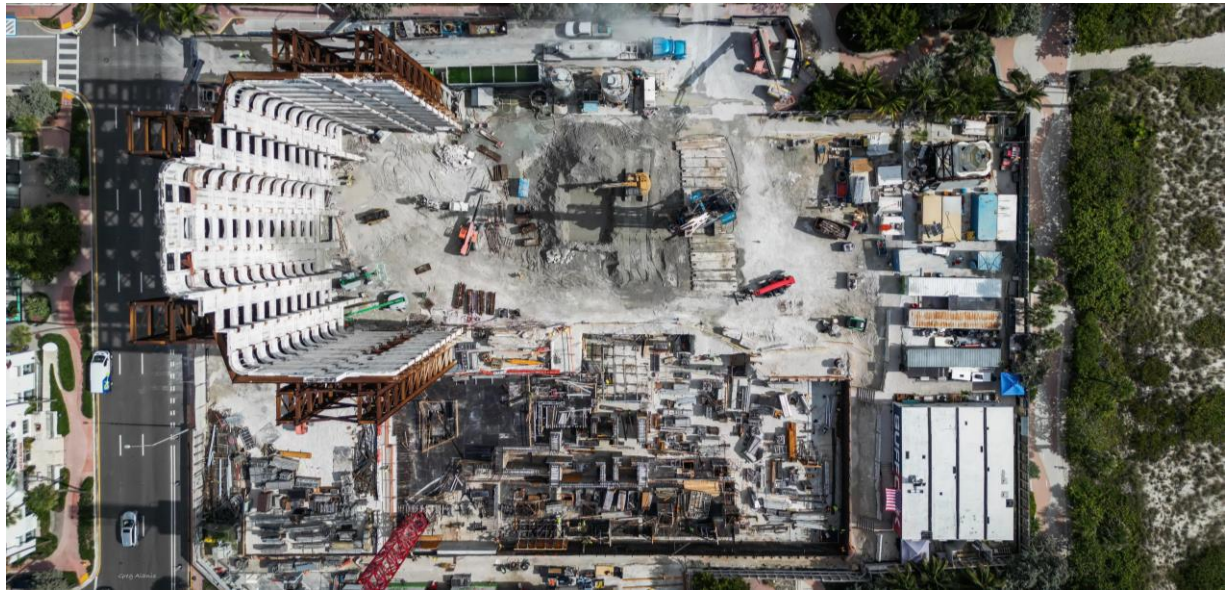









SUFFOLK



Guardhouse Modifications

Collins Avenue Comparative Views – Better Line of Site to Versailles

Remove Curbcut Remove Guardhouse

Collins Avenue <u>Current</u> Approval

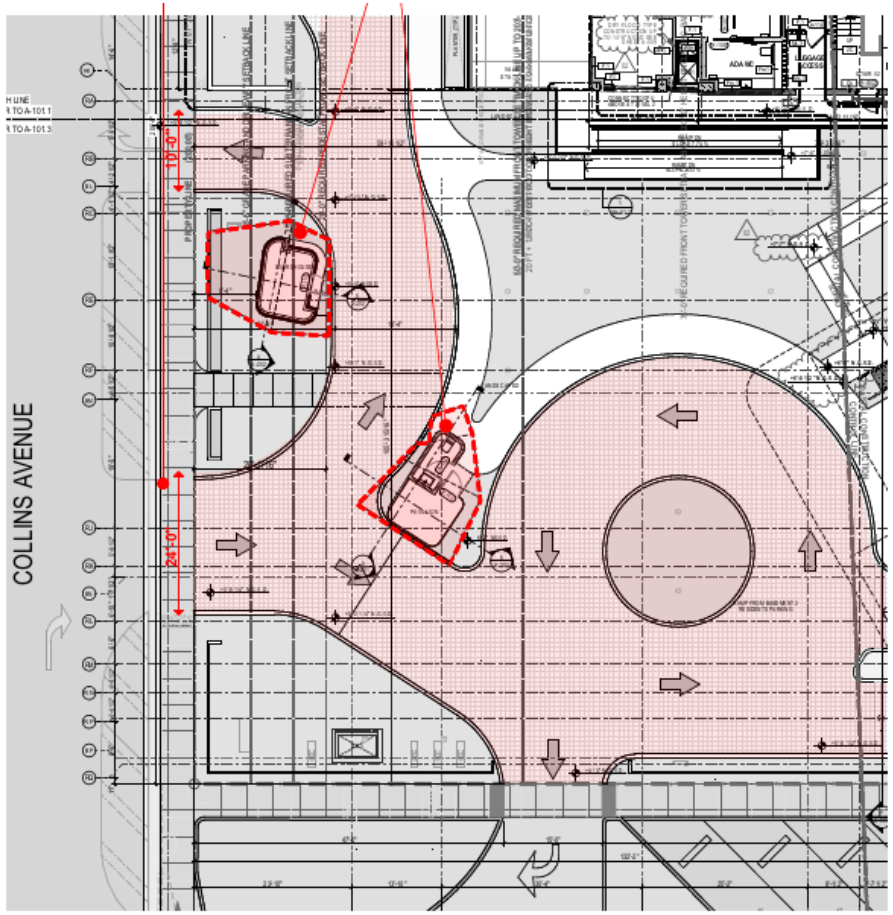
Guardhouse Single Structure

Improved Condition

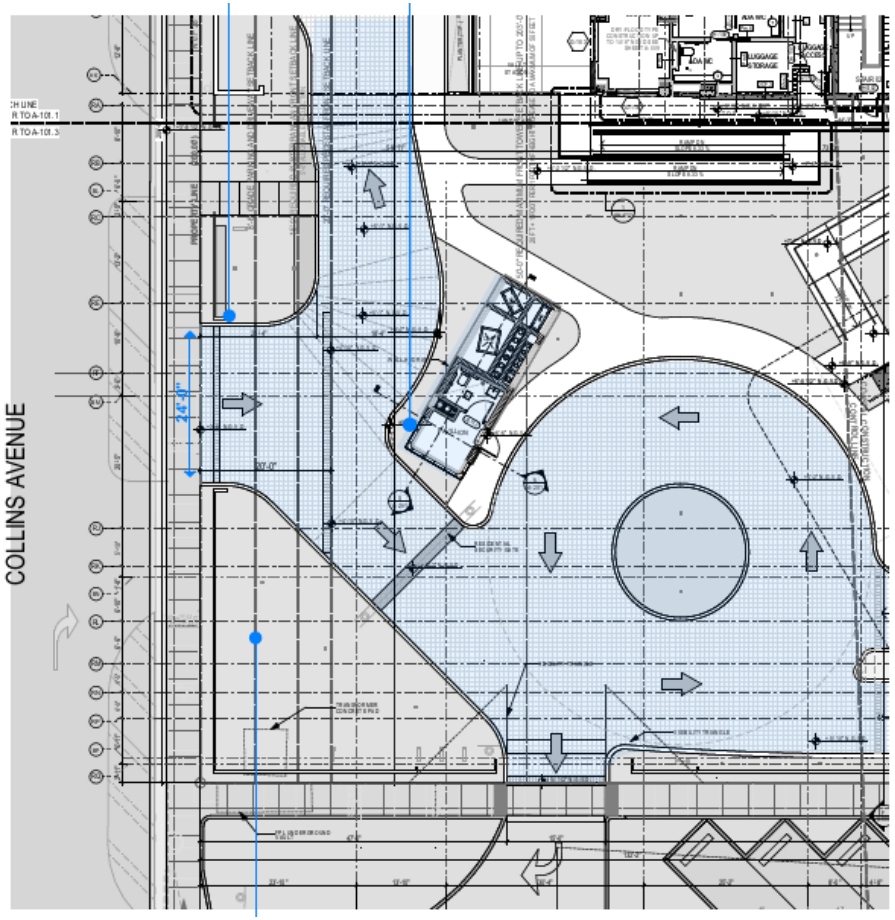
- Improved Pedestrian Experience
- Increased Openness at Restored Versailles
- Added Landscape at Collins Avenue

Collins Avenue <u>Proposed</u>

Two Curb Cuts Merged Into One Curb Cut



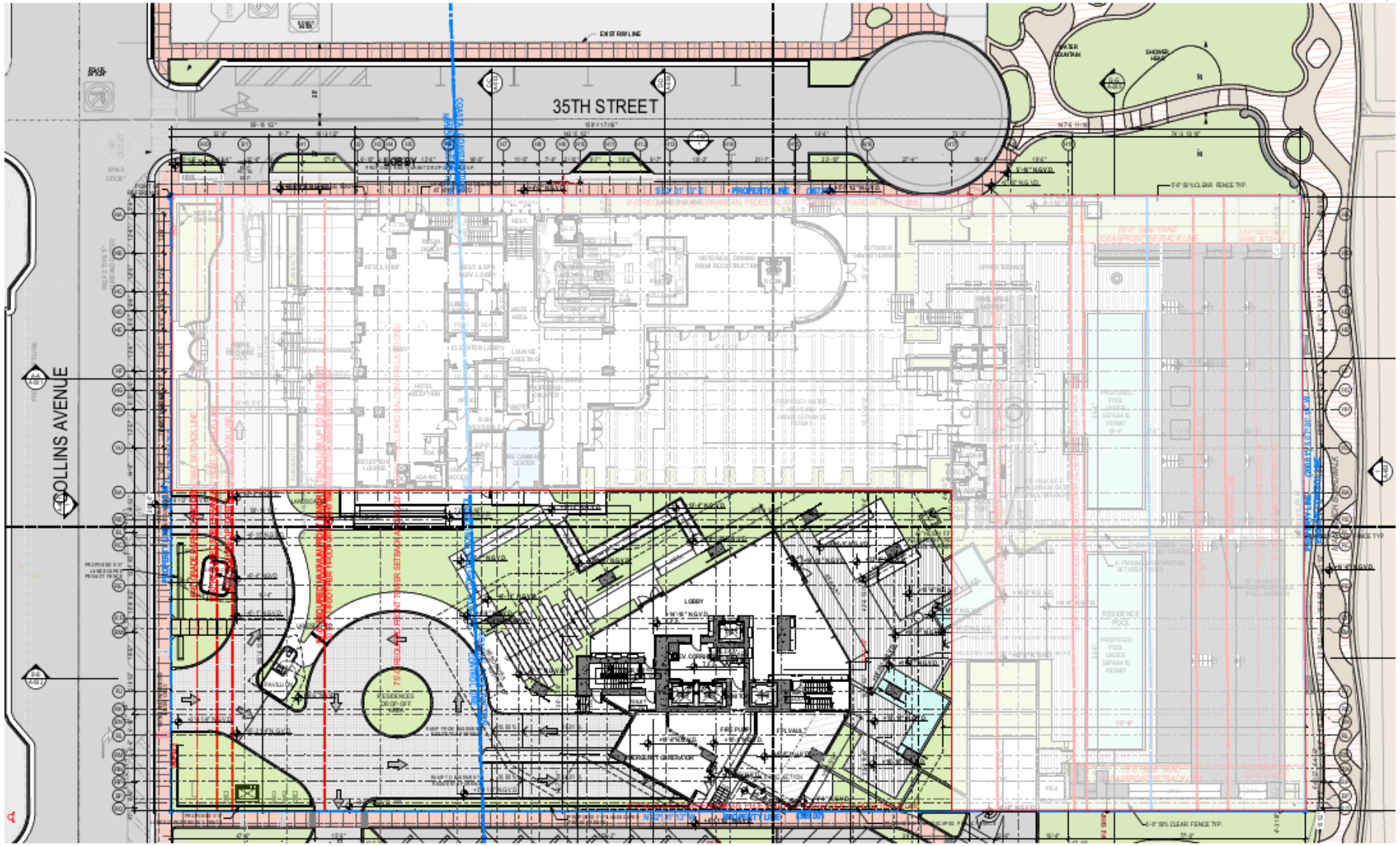
Current Approval



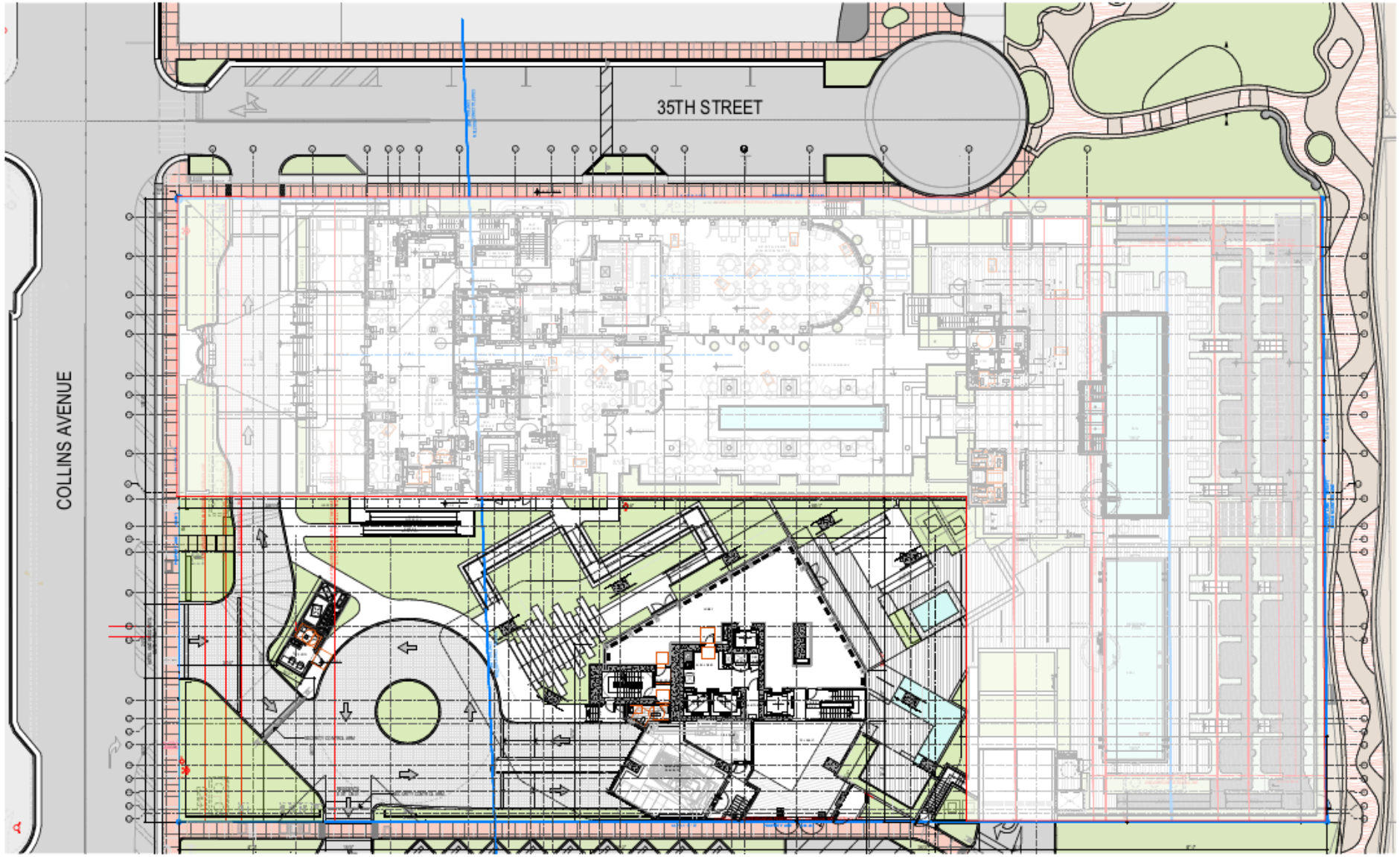
Increased Landscaping Buffer on Collins Avenue

Proposed

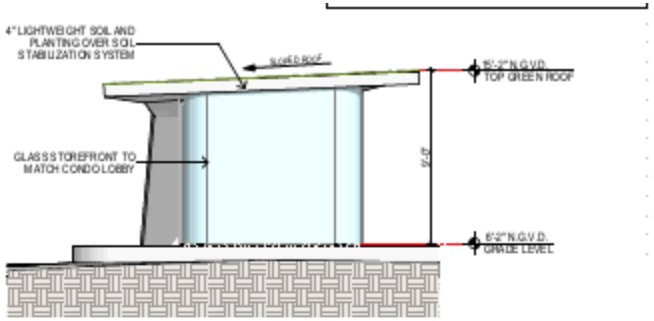
Current Approval - Ground Level Site Plan



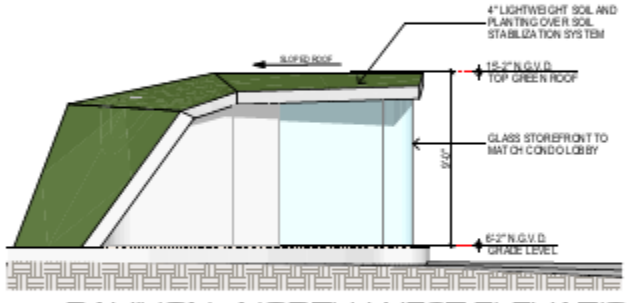
Proposed - Ground Level Site Plan



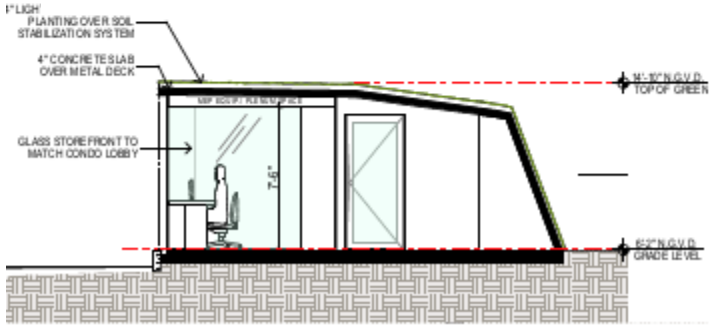
Current Approved Guard House Design



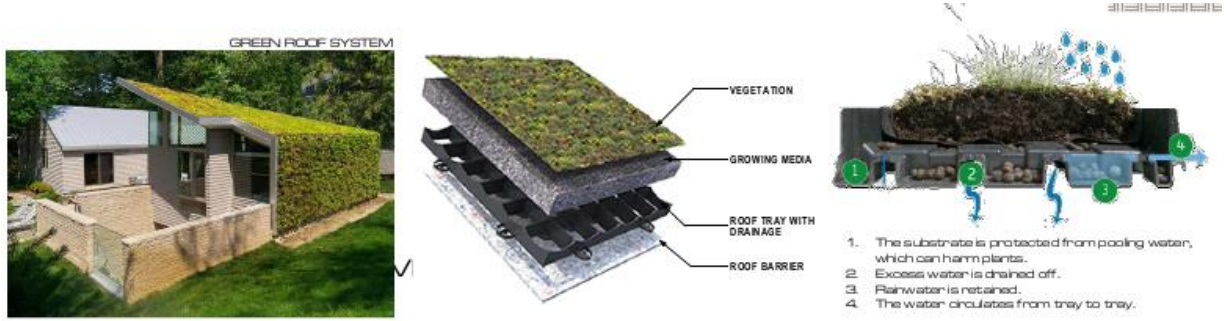
Pavilion – South-West Elevation

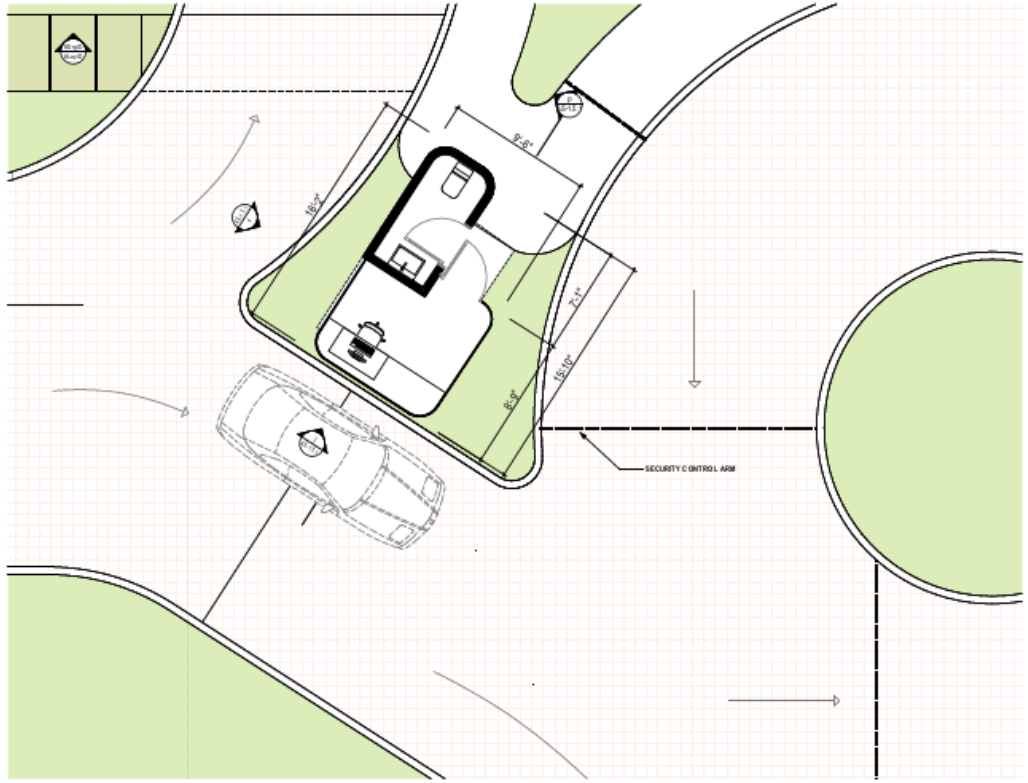


Pavilion – North-West Elevation



Pavilion Section



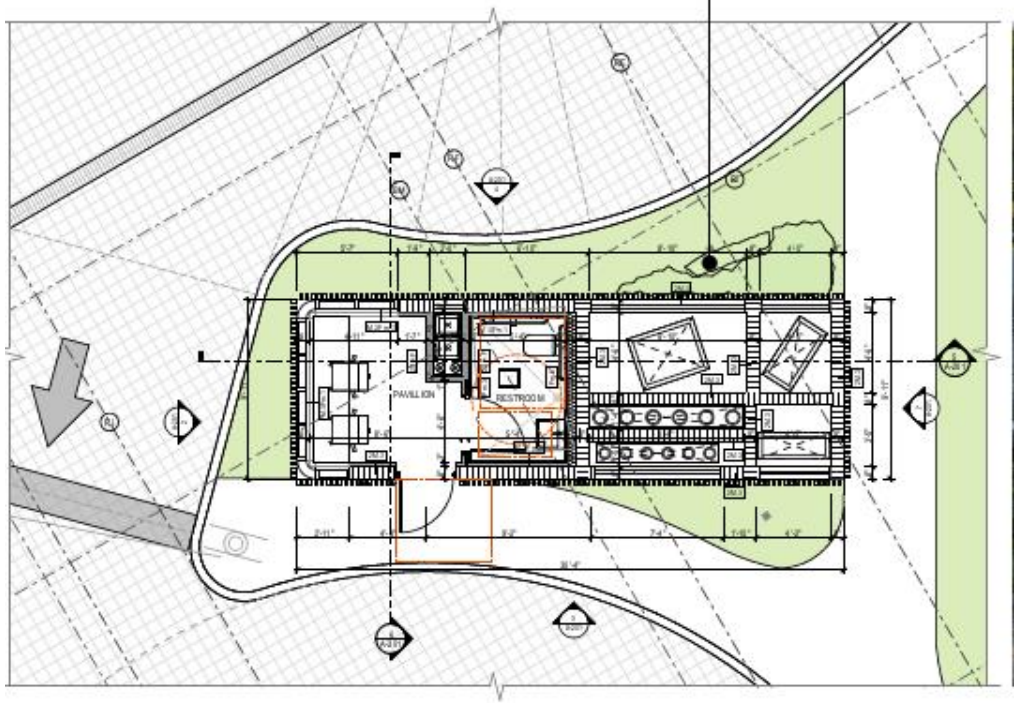


Pavilion Enlarged Floor Plan

Proposed Guard House Design

Monument View

SW View – Vignette From Entry Driveway



Plan View

Residences Elevation Modification - Vertical Lattice

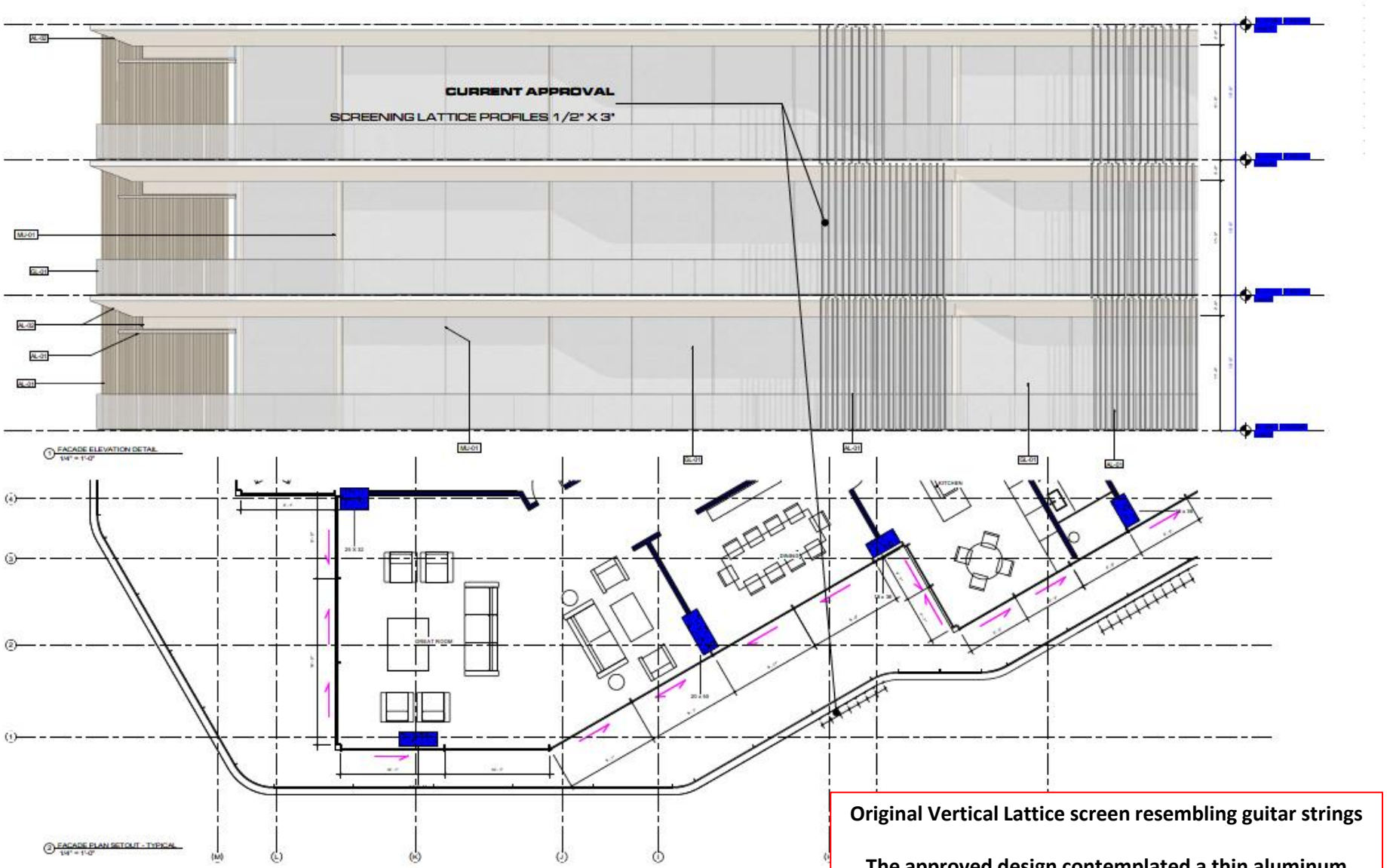
Residences Elevation Modification – Vertical Lattice Removal

Rationale For Proposed Removal

The design evolution of the Aman Residence, initially envisioned by Kengo Kuma & Associates (KKAA), prominently featured lattice profiles as a defining architectural element. However, as a result of thorough engineering and architectural analysis, "critical concerns necessitating their removal have arisen" as described in the report prepared by the Lindner Group, including:

1. **Approved Design Fails to Meet Structural Integrity Standards**
2. **Operational and Maintenance Impediments**
3. **Safety Concerns Regarding Façade Cleaning**
4. **Substantially Increased Obstruction of Views**

Current Approved Design



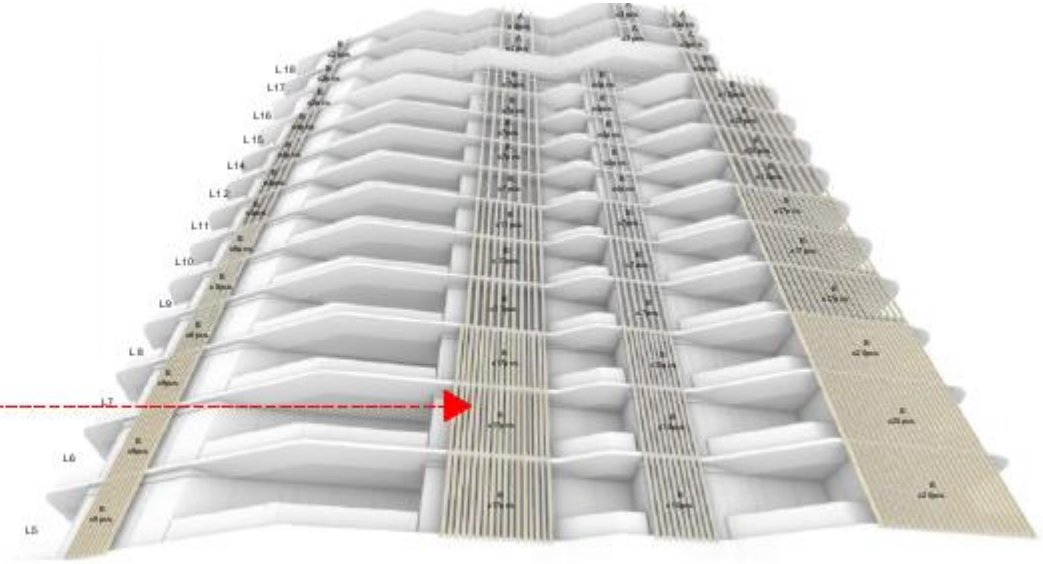
Original Vertical Lattice screen resembling guitar strings

The approved design contemplated a thin aluminum profile of 1/2” x 3”

1. Approved Design Fails to Meet Structural Integrity Standards

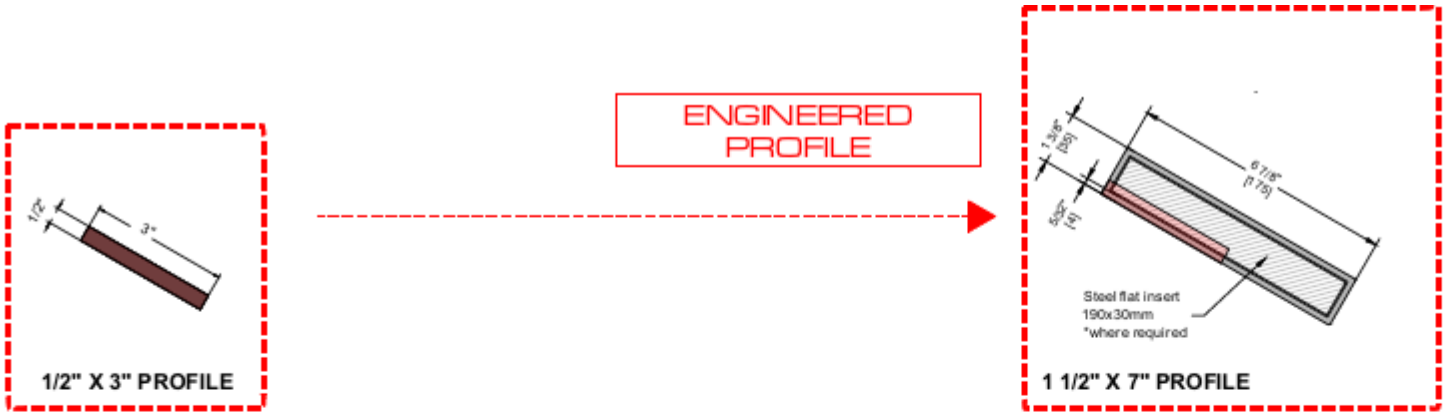
"The initial conceptualization featured thinner, more numerous lattice profiles intended to complement the building's aesthetic. However, engineering analyses revealed that these profiles, constructed from aluminum, presented significant structural challenges. **The slender design threatened to bend or even break under environmental stresses such as wind loads**. This deformation risk was heightened by the proximity of the lattice to the facade glass, posing potential contact and damage — scenarios unacceptable by structural integrity standards. **Additionally, compensatory design adjustments necessitated the profiles' thickening, deviating from the architectural intent and introducing further complications**." -Lindner Engineering Report

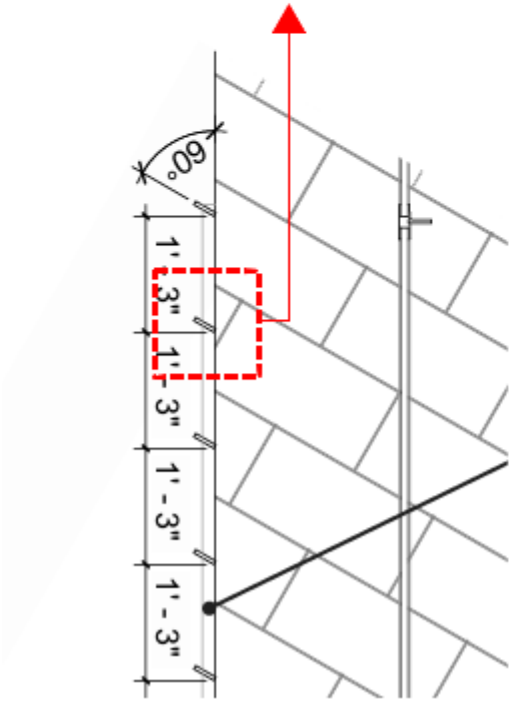
Approved

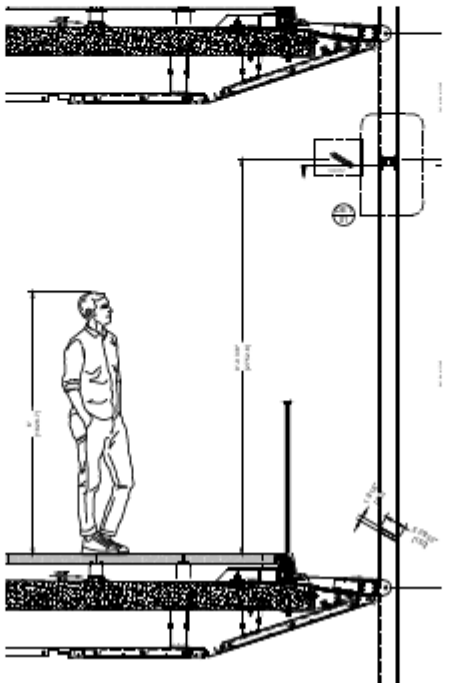


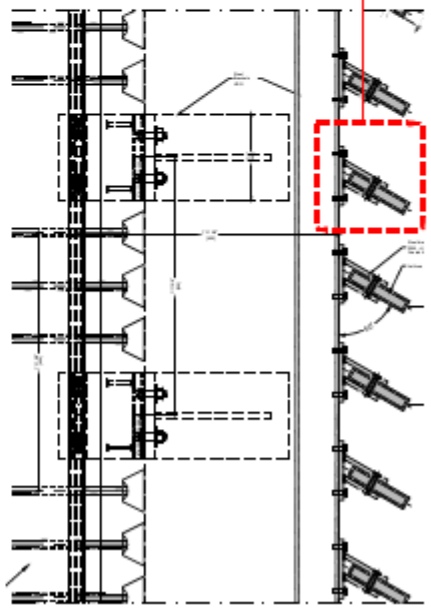
Engineered Design

1. Approved Design Fails to Meet Structural Integrity Standards





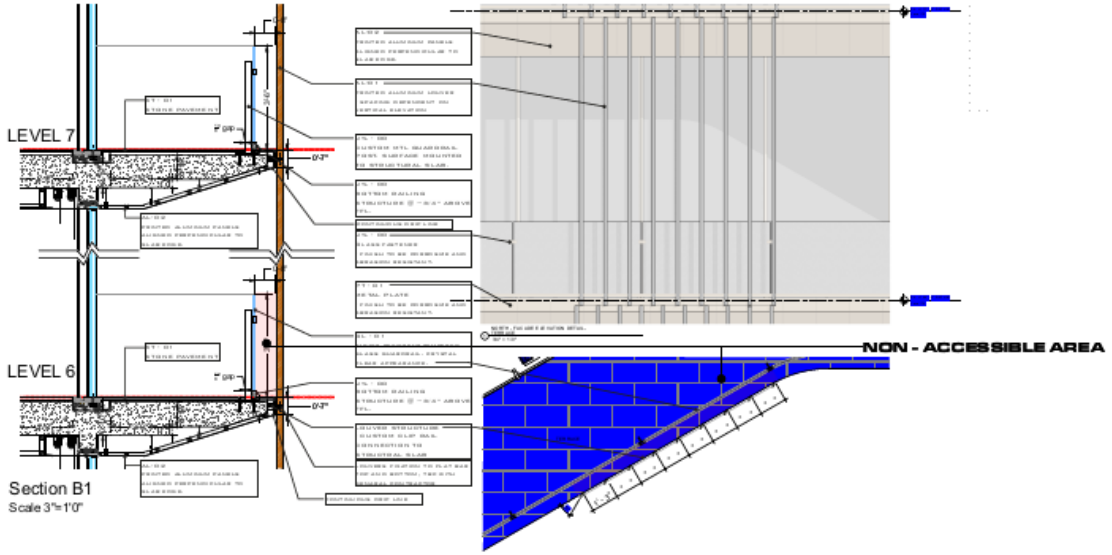


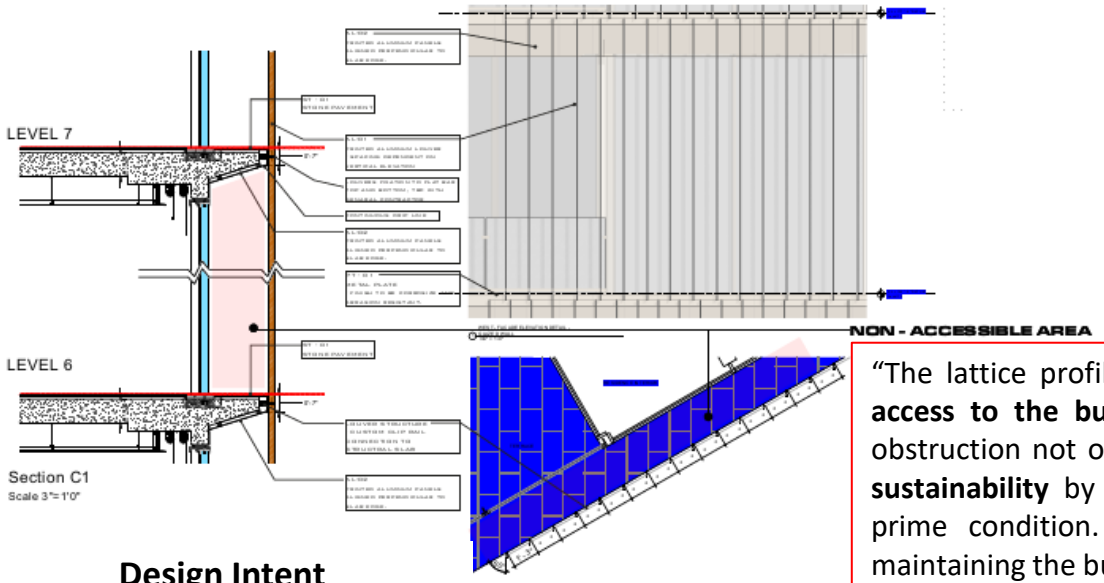


Design Intent

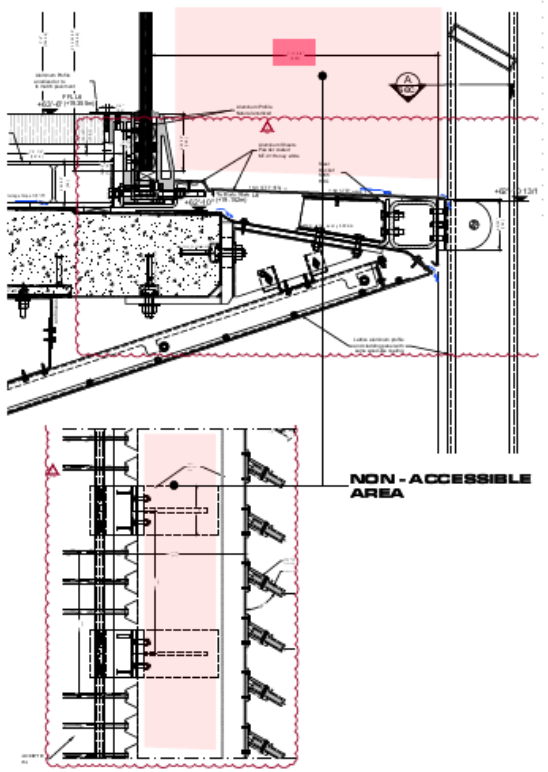
Engineered Design

2. Operational & Maintenance Impediments





Design Intent



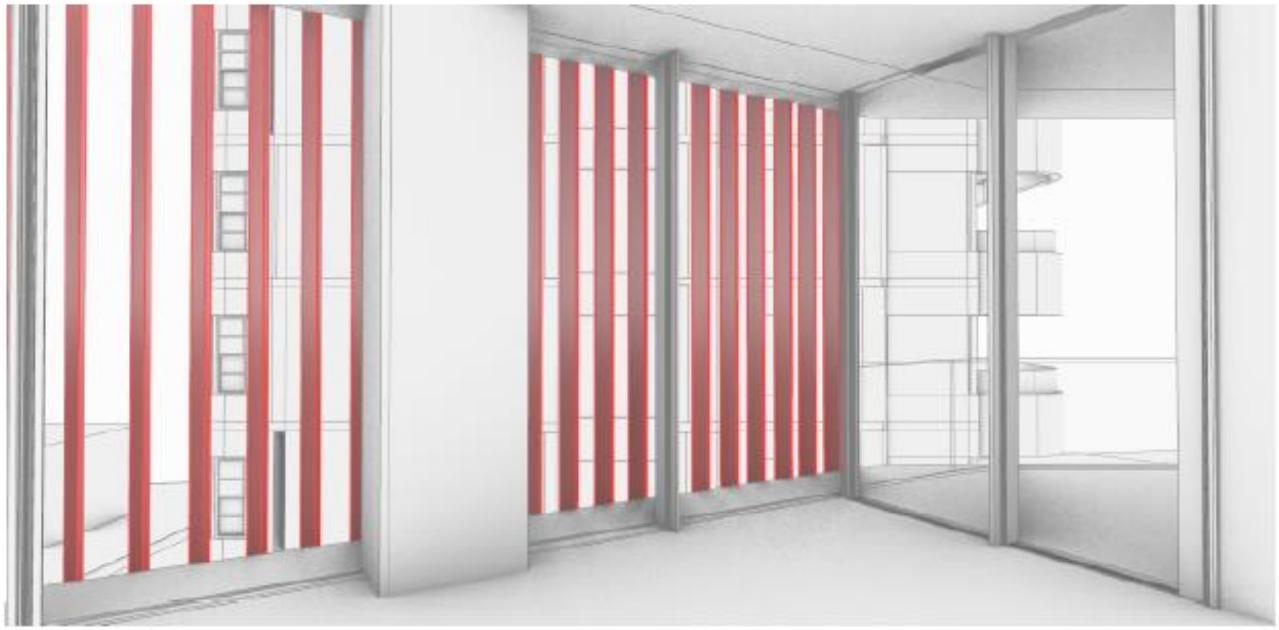
Engineered Design

"The lattice profiles, in their original and modified forms, **severely obstructed access to the building's glazing for routine cleaning and maintenance**. This obstruction not only raises operational costs but also **diminishes the building's sustainability** by increasing the difficulty of maintaining the glass surfaces in prime condition. The lattice thus emerges as a prohibitive factor against maintaining the building's aesthetic and functional longevity…."
- Lindner Engineering Report

3. Safety Concerns Regarding Façade Cleaning

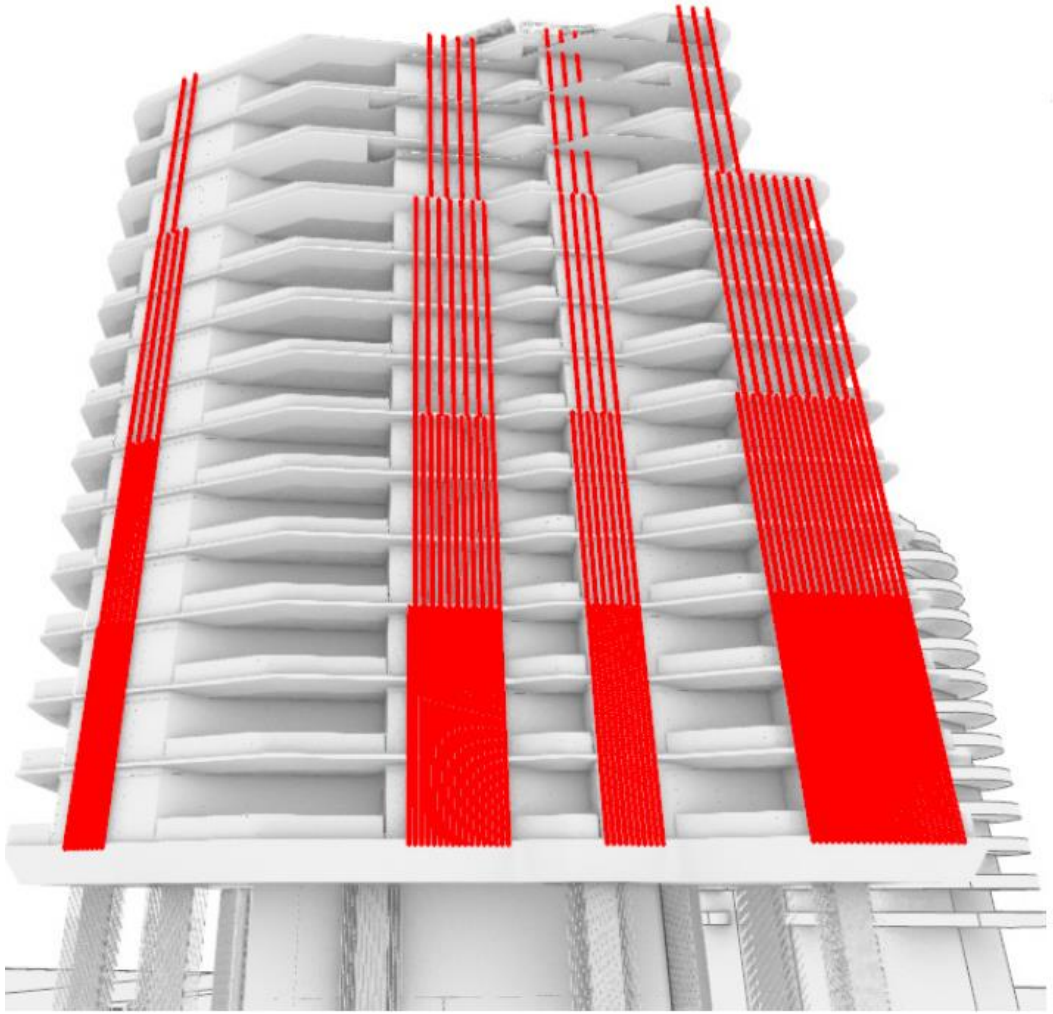
"Incorporating the lattice profiles induces **potential hazards** for maintenance personnel tasked with facade cleaning. The presence of these architectural elements introduces **collision risks** that could compromise safety during cleaning operations. Furthermore, any **accidental impact** with these profiles during maintenance activities could lead to **facade damage or personnel injury**, warranting significant concern and revision." - Lindner Engineering Report

4. Substantial Obstruction of Residents' Views



Interior View Study

"In addition, the increased dimension of the lattice (to meet wind load requirements), substantially increases **obstruction of residents' views**, and **fails to meet the original design intent**." - Lindner Engineering Report



Façade Lattice Engineering Viability Report & Recommendation

PROPOSAL TO REMOVE LATTICE

Conclusions & Recommendations

“Given the outlined challenges — structural unreliability, maintenance impracticality, safety risks, and resident dissatisfaction — the decision to remove the lattice profiles is both prudent and necessary.” – Lindner Engineering Report

Current Approval vs. Proposed – North View

Current Approval

Proposed

Current Approval vs. Proposed – South View

Current Approval

Proposed

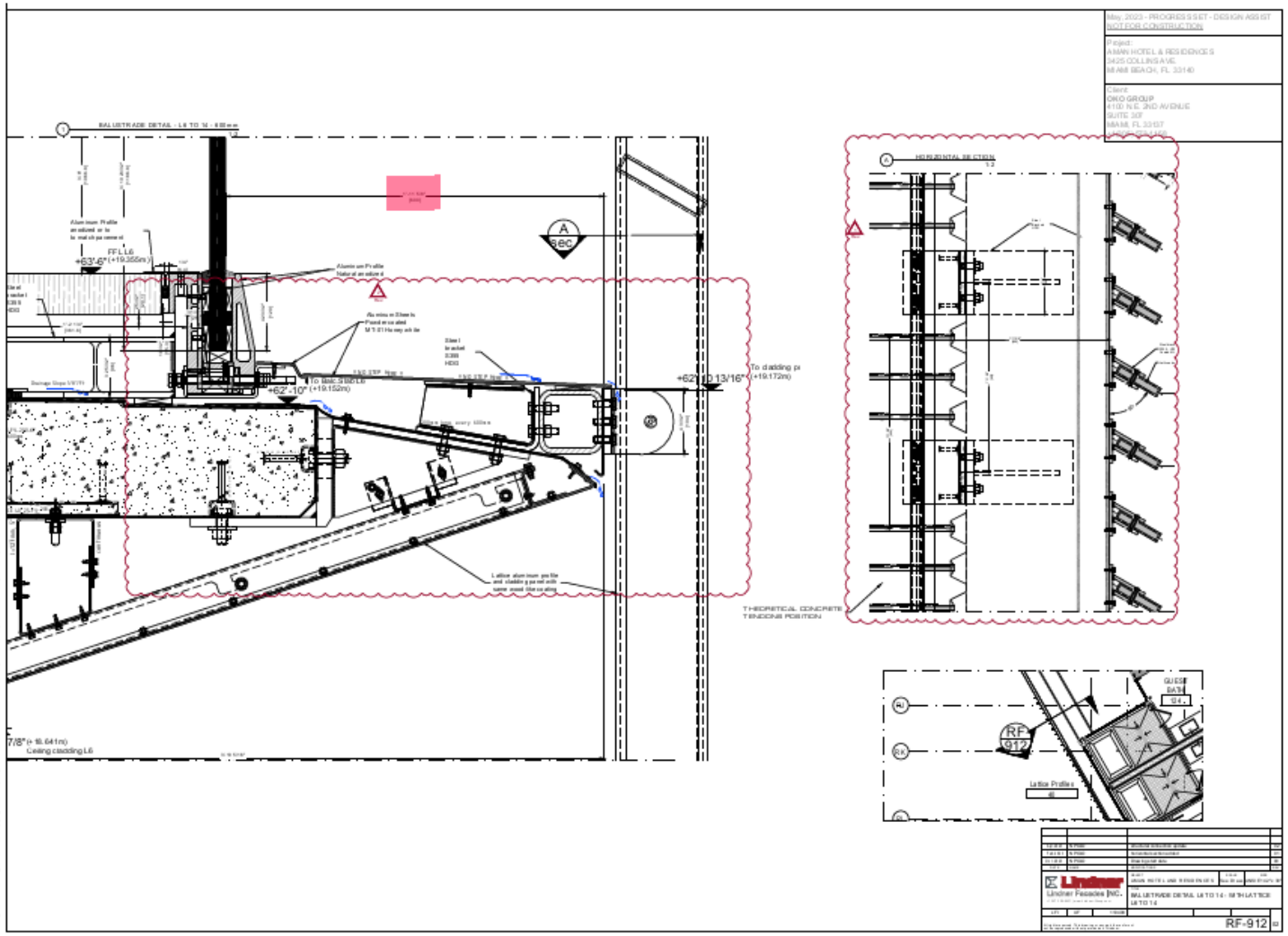
Current Approval vs. Proposed – West View

Current Approval

Proposed

Thank You!

1. Approved Design Fails to Meet Structural Integrity Standards



Engineered Design

Wind Load Issues with Current Approved Design

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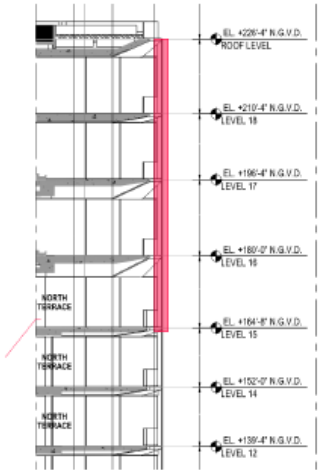
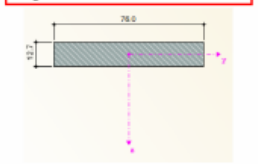
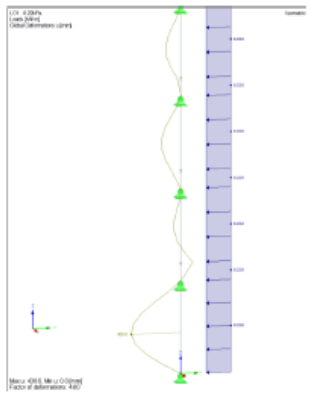


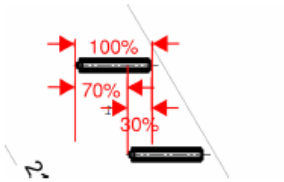
Original Lattice Profile: 3" x 1/2"





$h_1 := 226\ ft + 4\ in - 210\ ft - 4\ in = 4876.8\ mm$

$h_2 := 164\ ft + 8\ in - 152\ ft = 3860.8\ mm$



Base wind pressure $q_0 := 102\ psf = 4.88\ kPa$

form value $c_p := 1.4$

wind pressure 50 yr. $q_{50} := q_0 \cdot 0.6 = 2.93\ kPa$

windload $w := q_{50} \cdot c_p \cdot 0.7 \cdot 3\ in = 0.22\ \frac{kN}{m}$

as a single span for the regular floor

$MoE := 70000\ \frac{N}{mm^2}$

$t := 0.5\ in \qquad b := 3\ in$

$I_y := \frac{t^3 \cdot b}{12} = 1.3\ cm^4$

$f_x := \frac{5}{384} \cdot \frac{w \cdot h_2^4}{MoE \cdot I_y} = 695.2709\ mm$

$\sigma_1 := \frac{48 \cdot MoE \cdot f_x \cdot \frac{t}{2}}{5 \cdot h_2^2} = 199.04\ \frac{N}{mm^2}$

Deformation of the original lattice profile

considering continious beam (hinged beam)

$f_{x.cont.1} := 436.6\ mm$ ~17"

$f_{x.cont.mid} := 170.1\ mm$

for upper (larger span)

$f_{x.cont.long.1} := 886.1\ mm$ ~35"

$f_{x.cont.long.mid} := 372.4\ mm$

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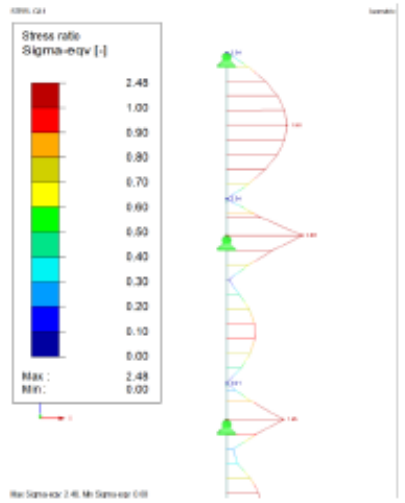
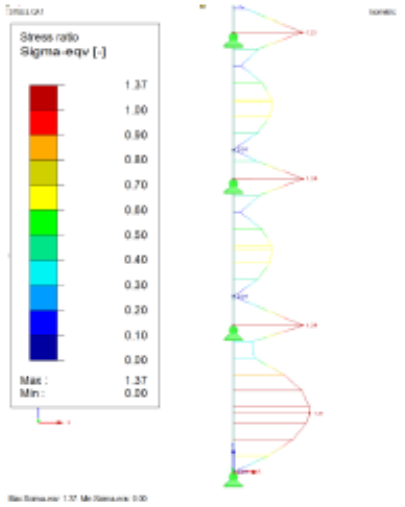
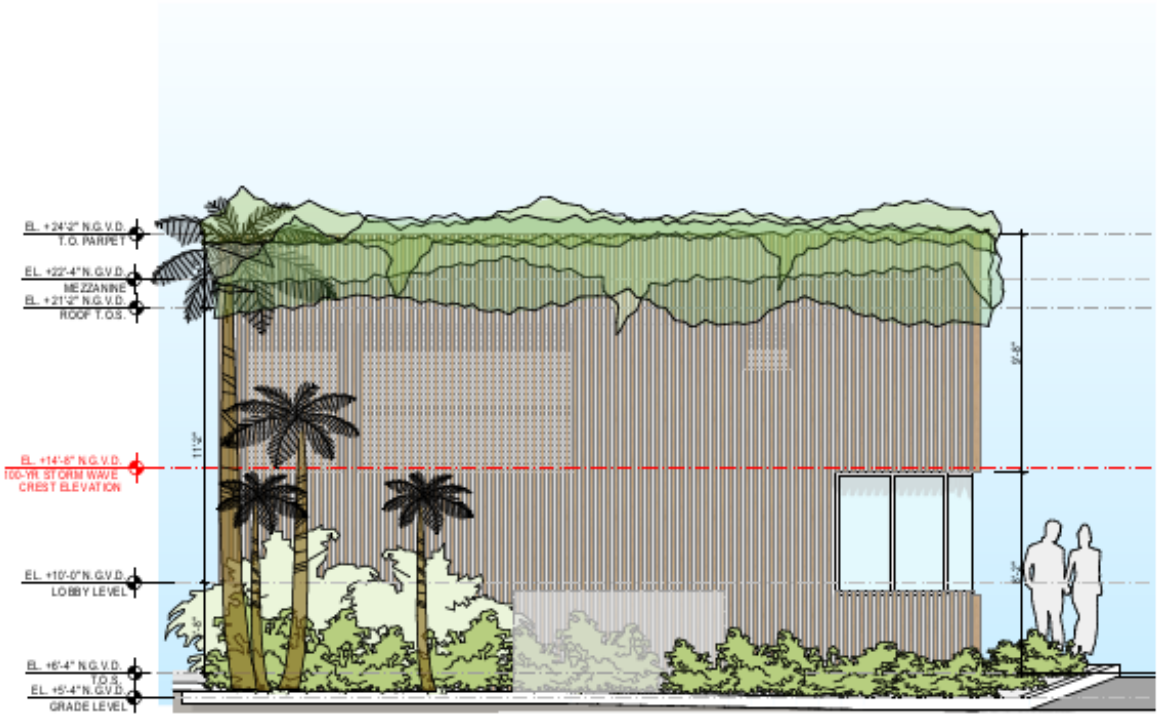


looking at stress levels, thesection si largely over-stressed in the upper (longer span) part utilization rations are up to 2 48 %

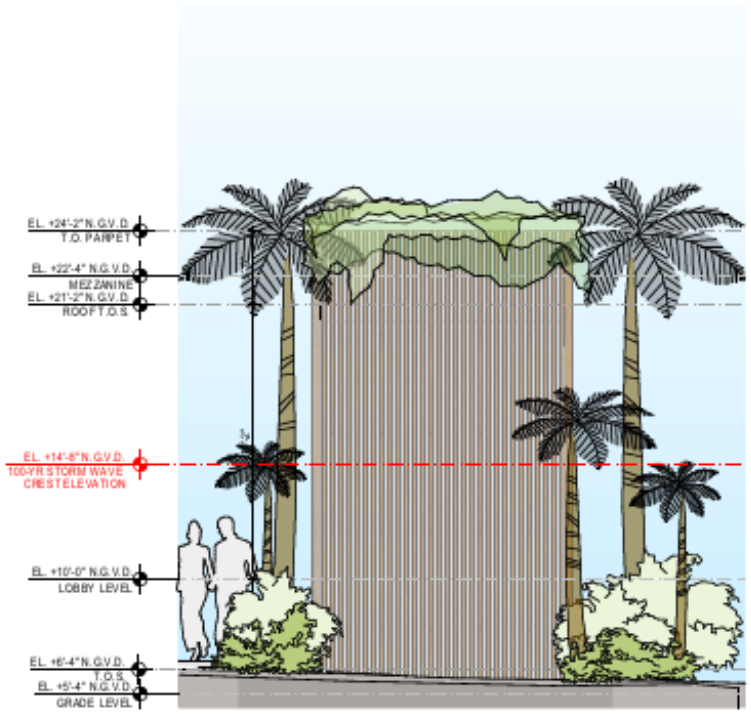


in the typical (shorter span) part utilization ratipos are 124%, while they raise up to 137% in the first span.

Proposed Guard House Elevations – West & North

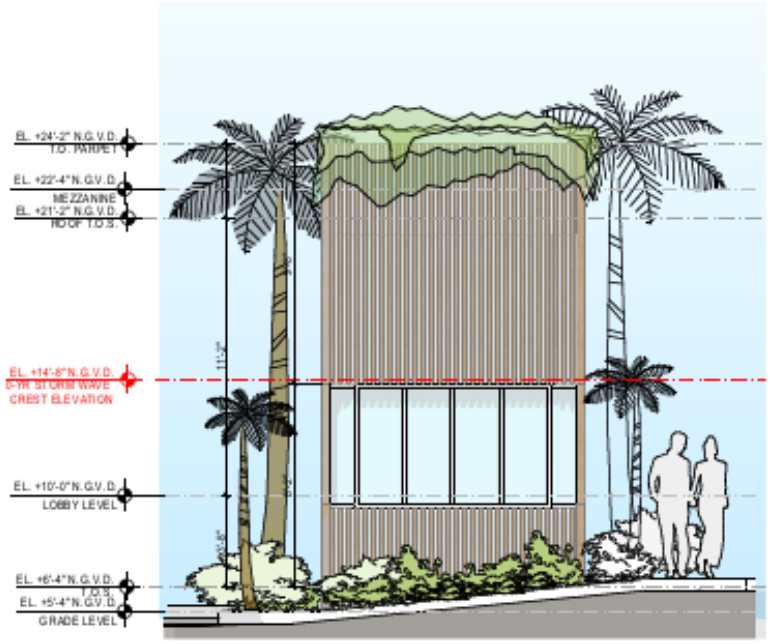


West Elevation

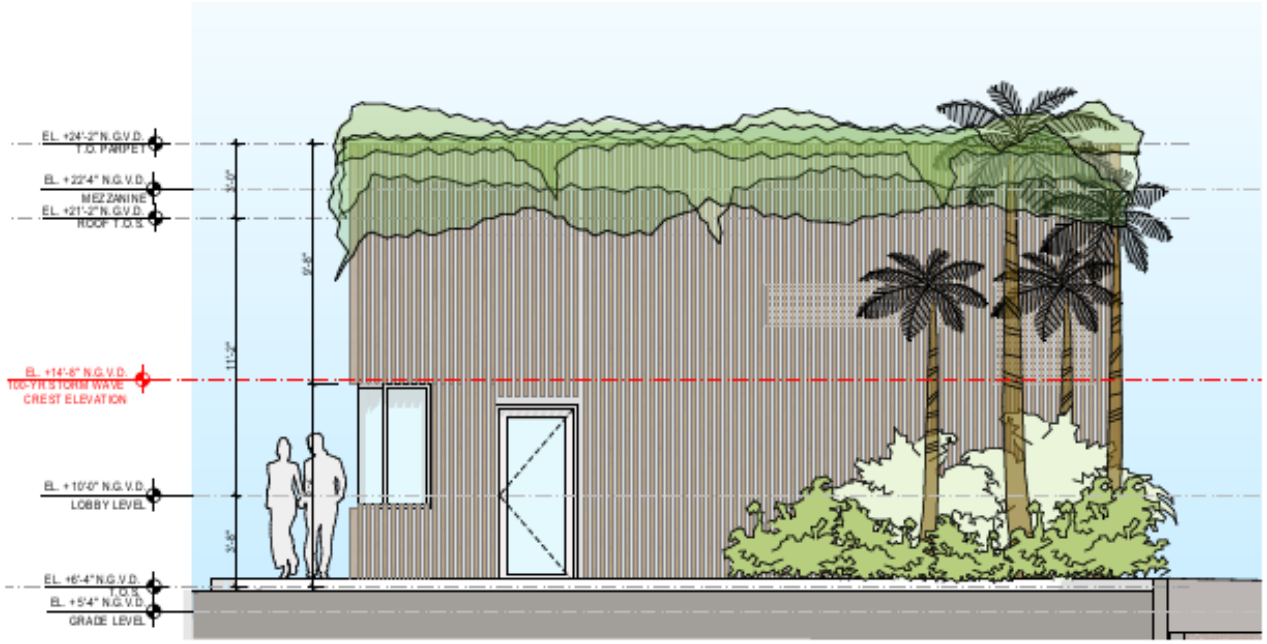


North Elevation

Proposed Guard House Elevations – South & East



South Elevation



East Elevation