



Thornton Tomasetti

301 Ocean Drive
Miami Beach, FL
HPB22-0502



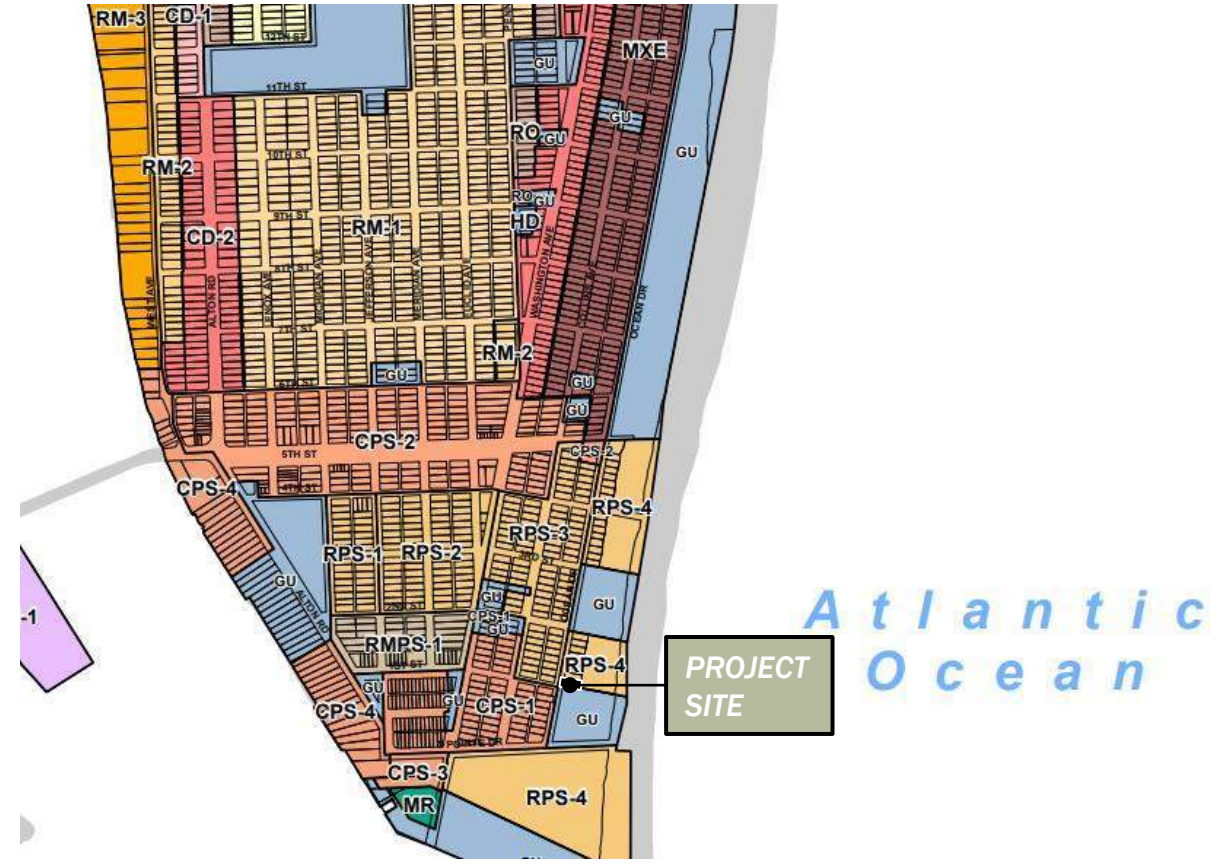
June 14, 2022

Location Map



Background/Zoning

- The building was originally constructed circa 1967.
- The architectural design was completed by Melvin Grossman, A.I.A.
- The structural design was completed by Bliss and Nyitray Consulting Engineers



ZONING DISTRICTS			
RS-1 Single family residential	CD-3 Commercial, high intensity	WD-2 Waterway district	CPS-4 Commercial performance standard, intensive phased bayside
RS-2 Single family residential	I-1 Urban light industrial	RO Residential office	RMPS-1 Residential mixed use performance standard
RS-3 Single family residential	MXE Mixed use entertainment	GC Golf course	SPE Special public facilities educational district
RS-4 Single family residential	HD Hospital district	RPS-1 Residential performance standard, medium-low density	TC-1 North Beach Town Center core
TH Townhome residential	MR Marine recreational	RPS-2 Residential performance standard, medium density	TC-2 North Beach Town Center mixed use
RM-1 Residential multifamily, low intensity	GU Civic and government use	RPS-3 Residential performance standard, medium-high density	TC-3 North Beach Town Center residential/office
RM-2 Residential multifamily, medium intensity	CCC Convention center district	RPS-4 Residential performance standard, high density	TC-3(c) North Beach Town Center residential/office with conditional neighborhood commercial
RM-3 Residential multifamily, high intensity	RM-PRD Multifamily, planned residential development district	CPS-1 Commercial performance standard, limited mixed use	
CD-1 Commercial, low intensity	RM-PRD-2 Multifamily, planned residential development district	CPS-2 Commercial performance standard, general mixed use	
CD-2 Commercial, medium intensity	WD-1 Waterway district	CPS-3 Commercial performance standard, intensive mixed use	

**FOR AN OFFICIAL ZONING DETERMINATION
PLEASE CONTACT THE PLANNING DEPARTMENT.**

Scope and Purpose of Request

Request No. 1

- COA for removal and replacement of the existing precast concrete balcony and catwalk guardrails with a lighter aluminum system that mimics these elements.

Purpose

- Throughout the current restoration project, Thornton Tomasetti has observed damage at the balcony and catwalk guardrails.
- In addition, Thornton Tomasetti has observed damage and deterioration at the existing slabs, as well as differences between the as-built condition and the original structural design.
- The as-built load carrying capacity, combined with the current state of the existing guardrails, structurally warrants replacement of the guardrails with a well-connected lighter aluminum system.

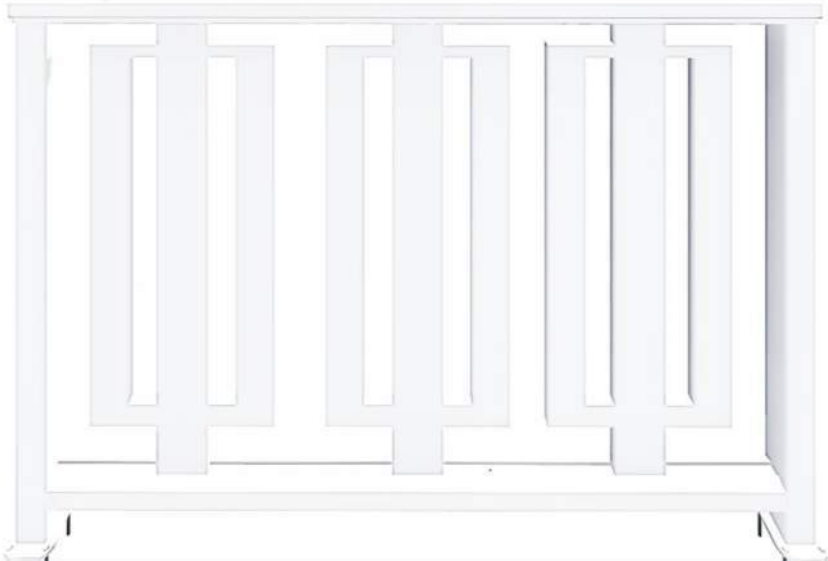
Design Considerations

- **Material:** Lighter assembly in keeping with code/load requirements for handrails.
 - Cast in place and precast concrete infeasible due to ACI code requirements for coverage, anchorage, and the like.
 - Aluminum is the standard and most feasible option.
- **Style:** Match existing style of the building.
 - **Motif 1: Existing Solid Concrete Guardrails**
 - Having a lighter assembly requires **openings** to reduce the wind load considerations on the assembly, so completely solid panels were infeasible.
 - **Motif 2: Decorative Precast Concrete Railings**
 - Existing assemblies do not have code-compliant spacing, so the spacing needed to be modified to comply with current codes.
- **Color:** Match existing color at the building using high-performance coatings.
- **Durability and accessibility for repairs.**

Design Approach



Motif 1: Existing Solid Guardrails

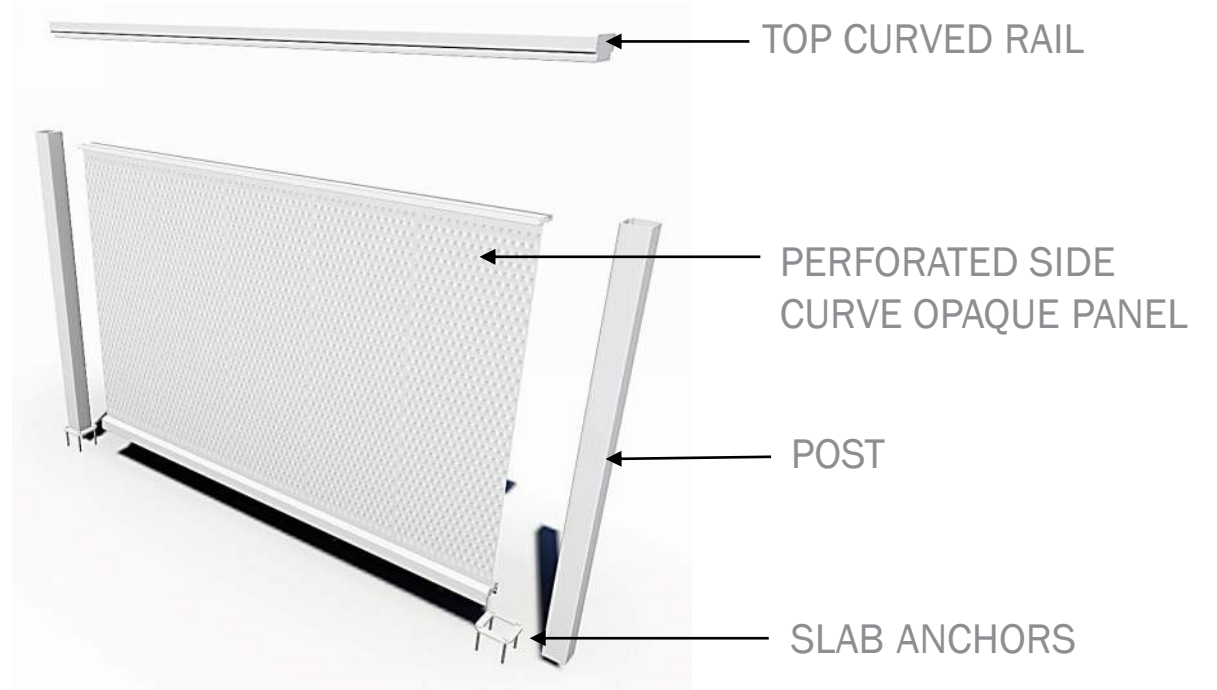


Motif 2: Decorative Precast Concrete Railings

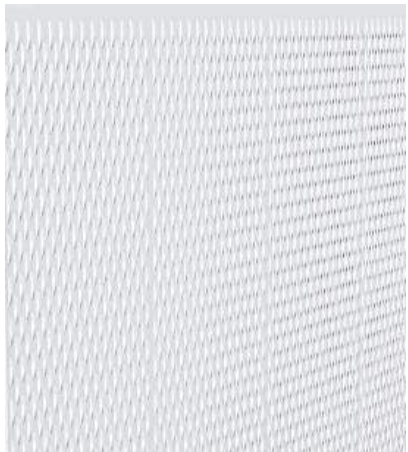
Proposed Opaque Panel



OVERALL ASSEMBLY



EXPLODED ISOMETRIC



PANEL OPENING
SIDE VIEW



PANEL OPENING
FRONT VIEW

Existing North Catwalk Guardrail Condition



Existing catwalk prior to restoration



Distressed concrete and exposed / corroded reinforcement



Unbonded concrete and corroded reinforcement



Unbonded concrete and corroded reinforcement

Existing North Catwalk Guardrail Design



Partial North Catwalk Elevation

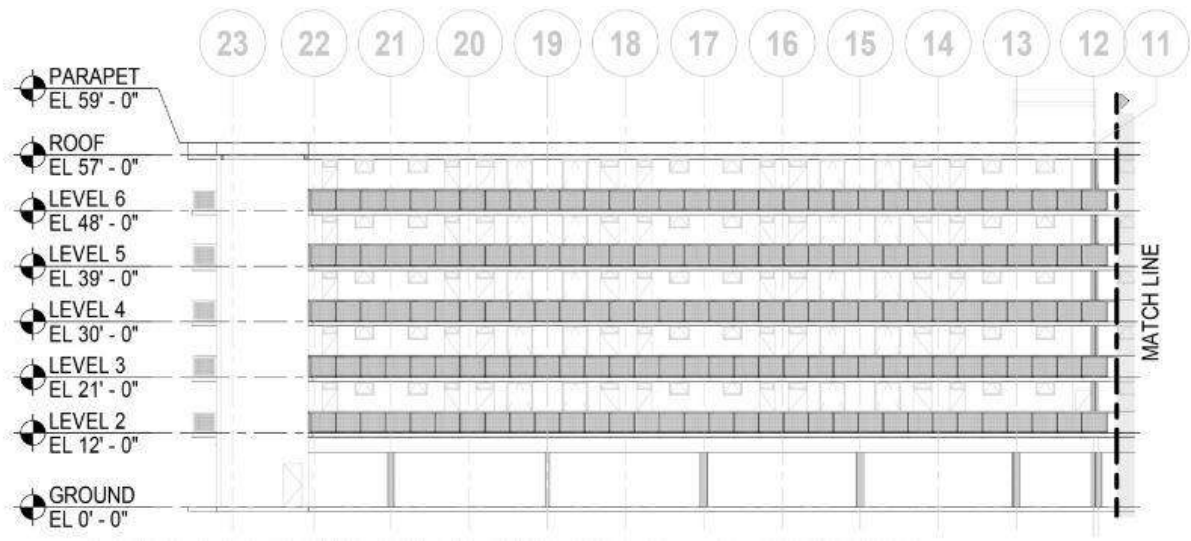


Partial North Catwalk Elevation

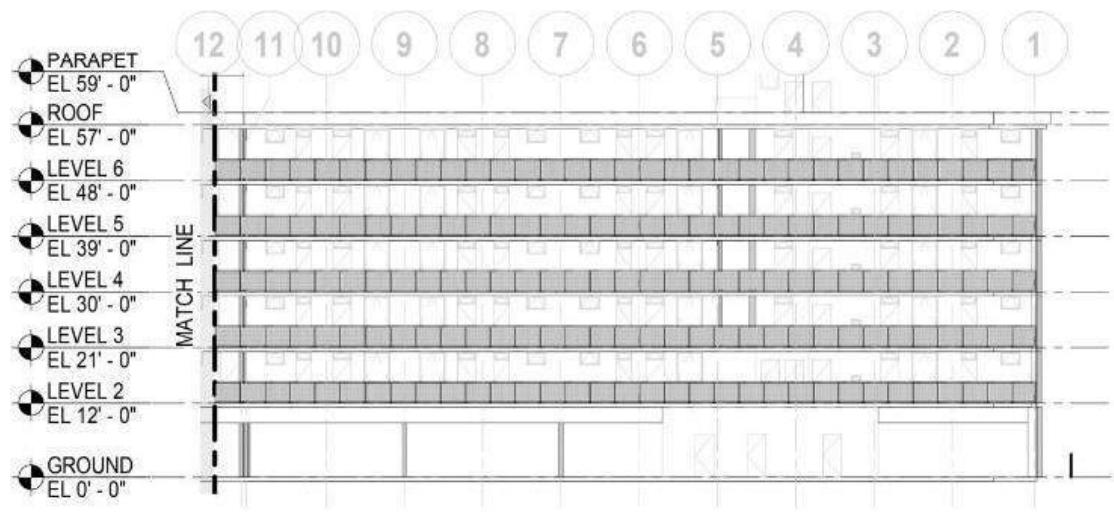


Existing Catwalk Guardrails

Proposed North Catwalk Guardrail Design



Partial North Catwalk Elevation



Partial North Catwalk Elevation



North Catwalk Rendering

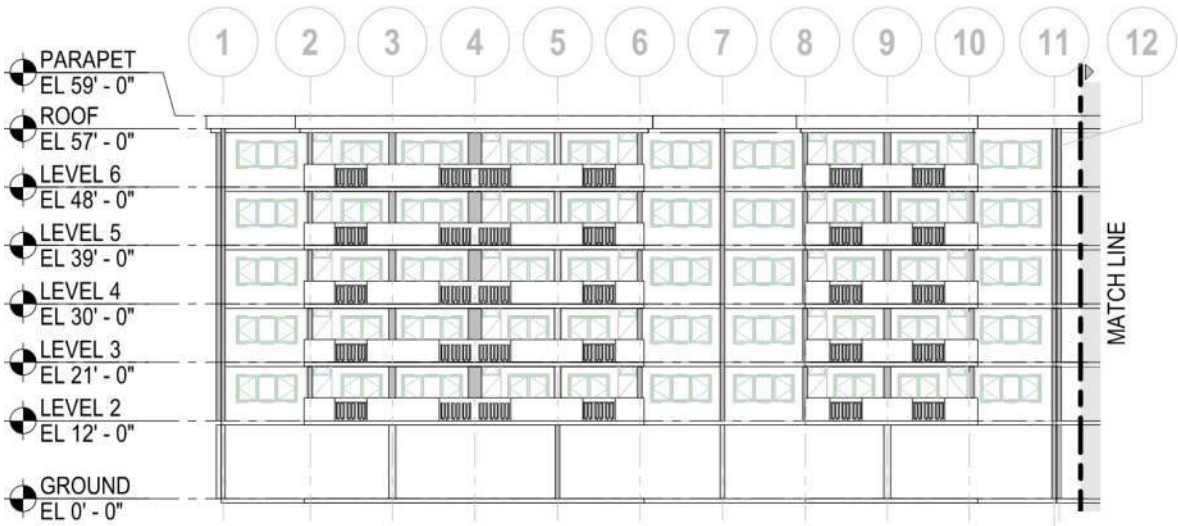
Proposed North Catwalk Guardrail Design



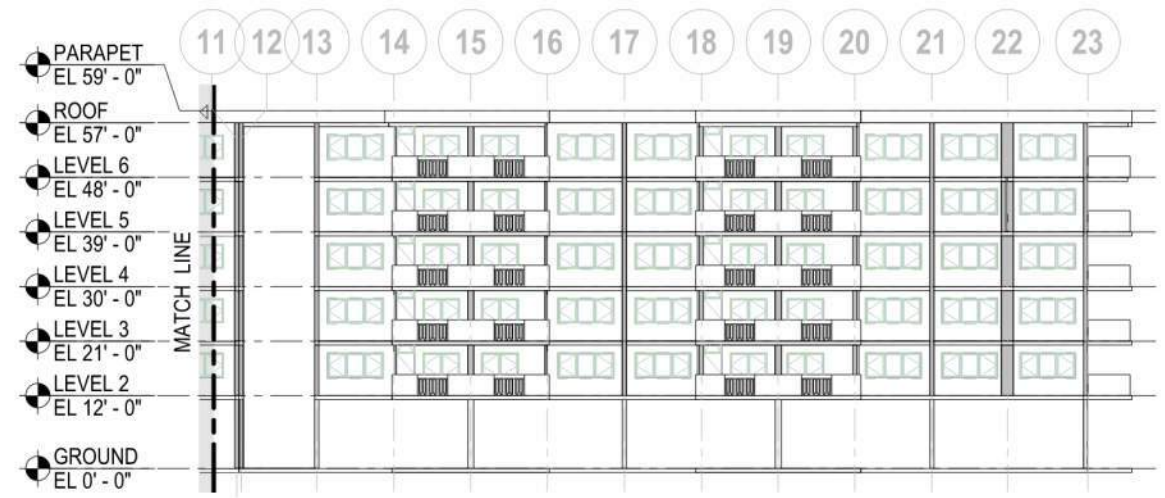
Proposed North Catwalk Guardrail Design



Existing South Balcony Guardrail Design



Partial South Elevation

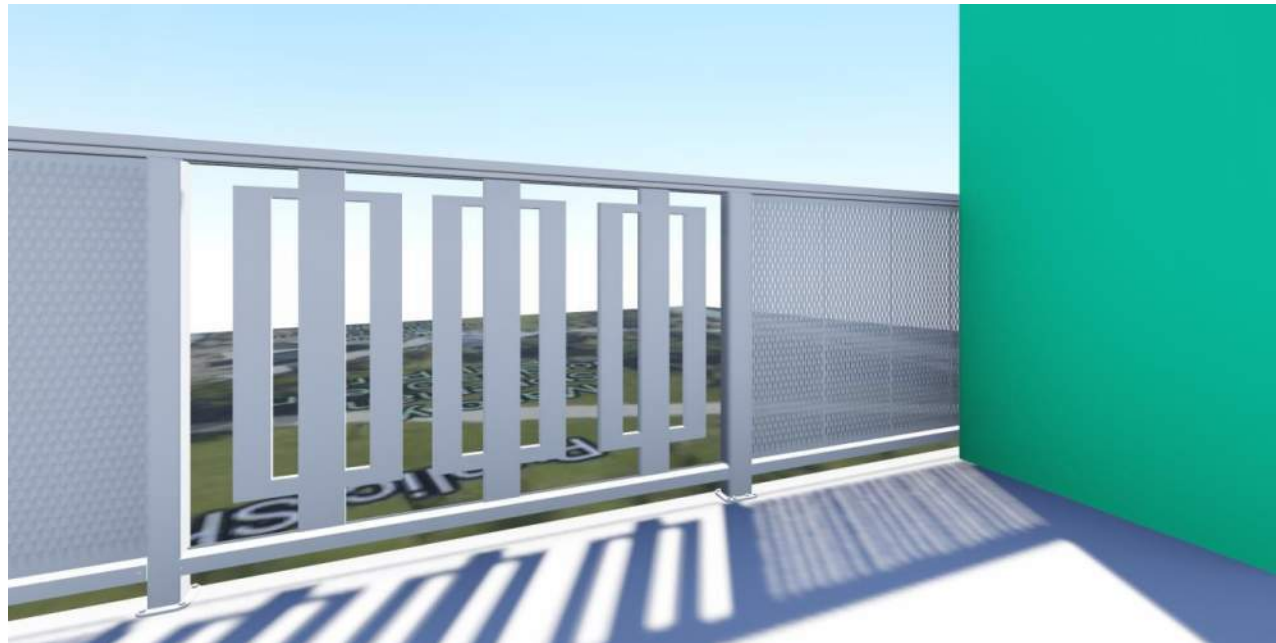


Partial South Elevation

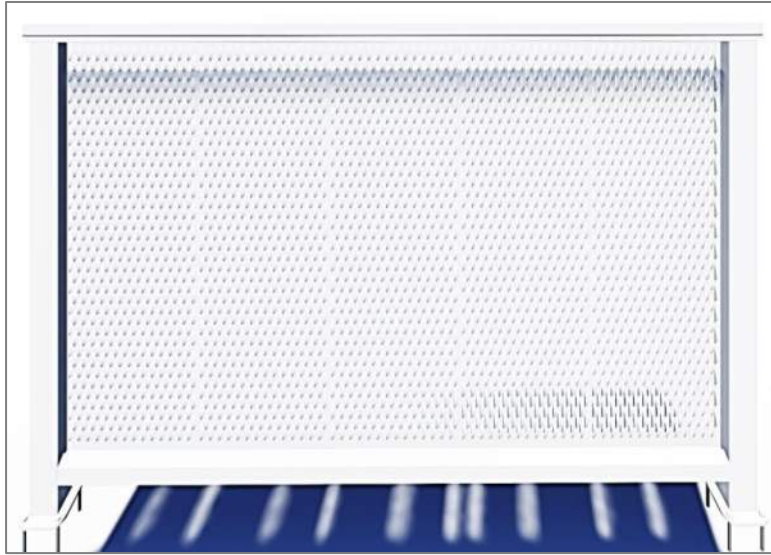


Existing Balcony Guardrails

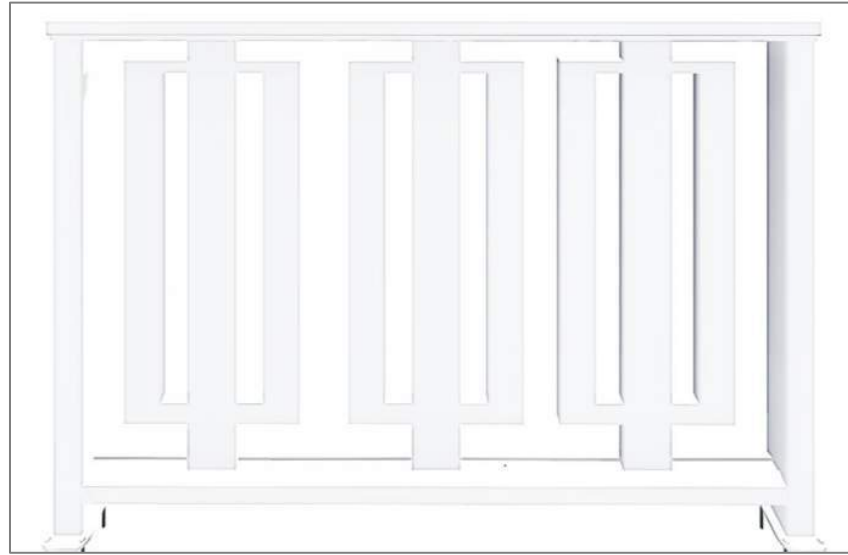
Proposed Balcony Combination Panels



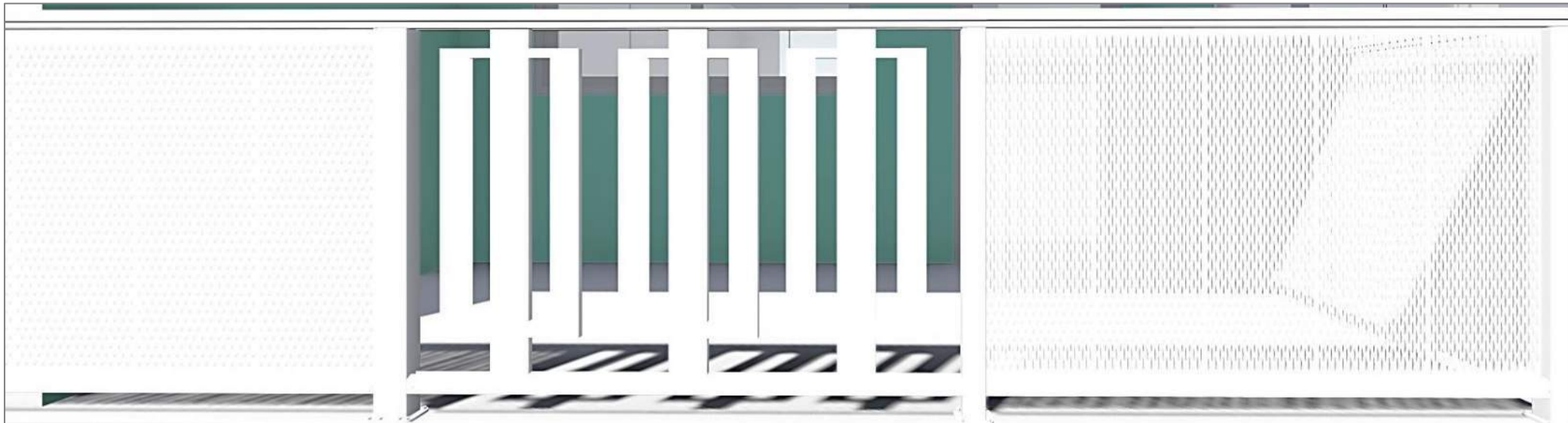
Proposed Balcony Combination Panels



OPAQUE PANEL



EXISTING DESIGN PANEL



NOTE COLOR OF RAILS TO BE WHITE

Proposed South Balcony Guardrail Design



Partial South Elevation



South Elevation Rendering



Partial South Elevation

Proposed South Balcony Guardrail Design

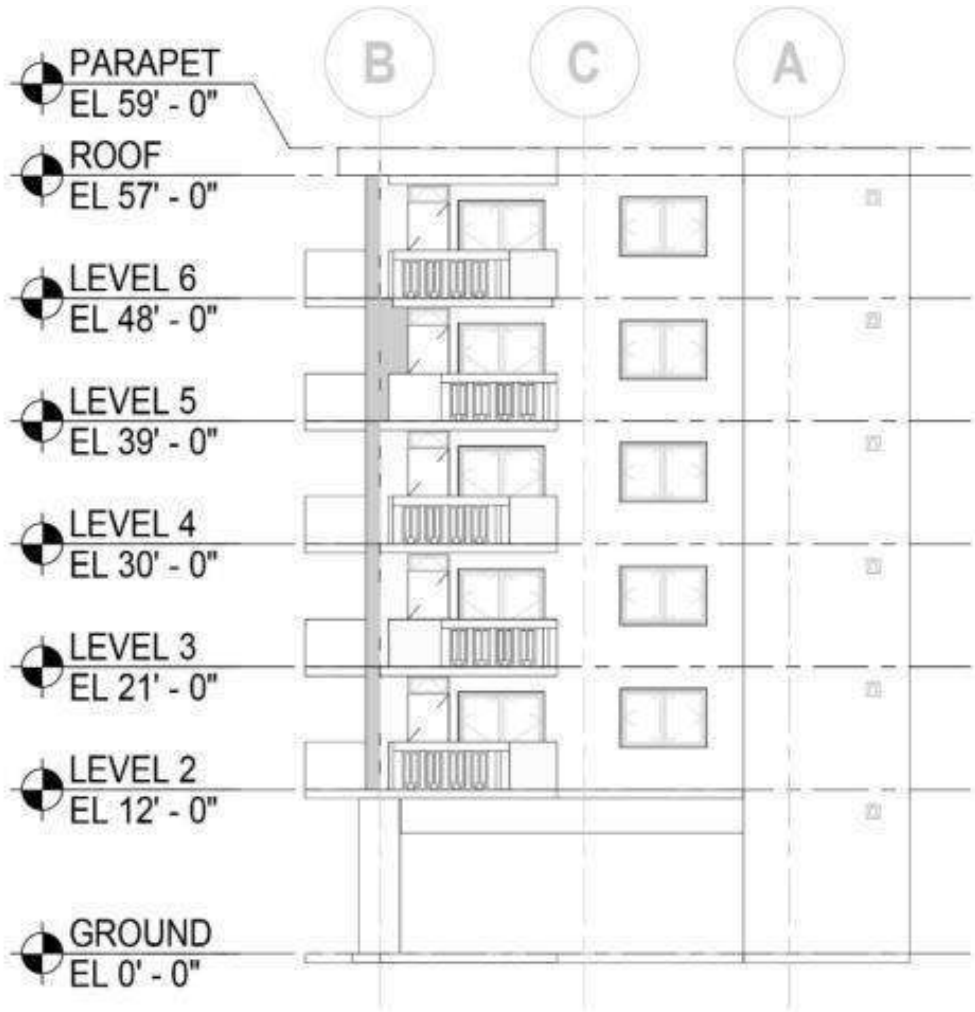


Partial South Elevation

Proposed South Balcony Design



Existing East Balcony Guardrail Design

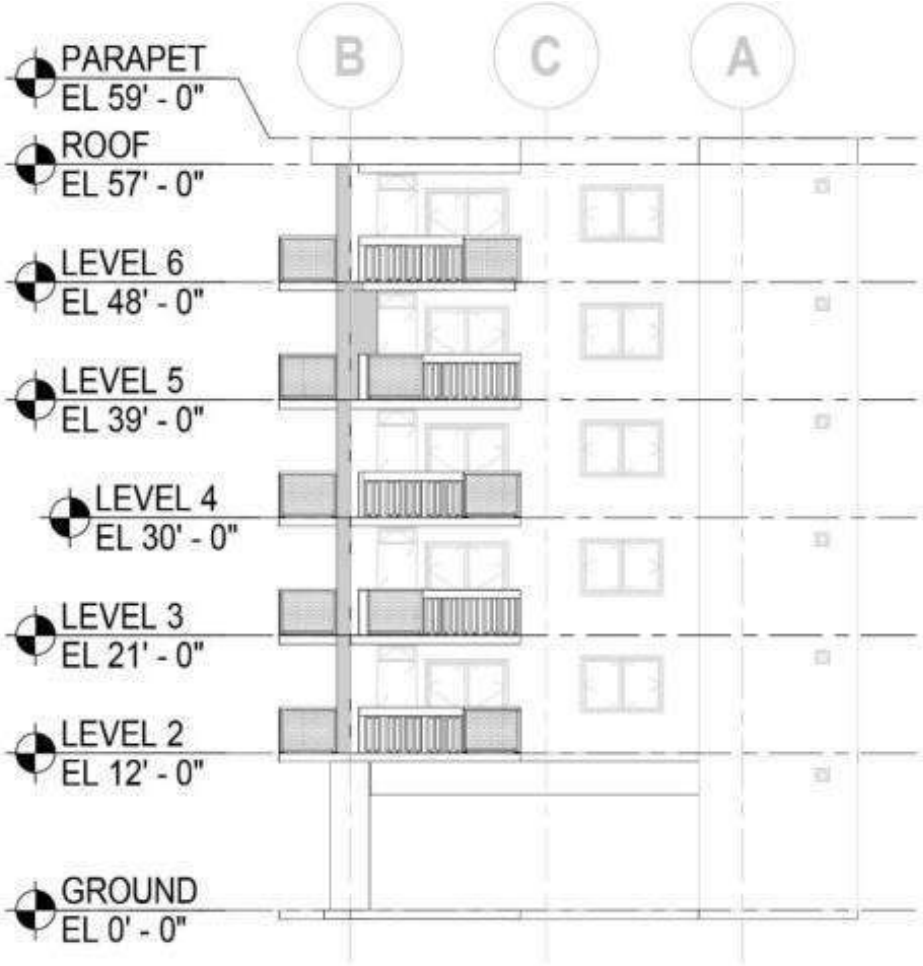


Existing East Elevation



Existing Balcony Guardrails

Proposed East Balcony Guardrail Design



Proposed East Elevation

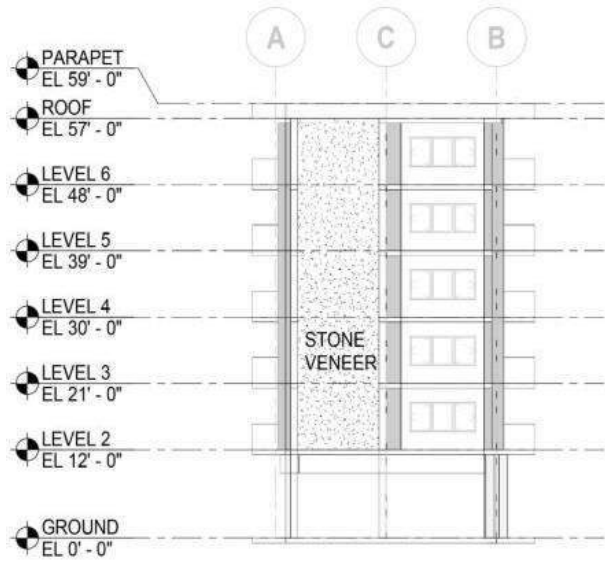


Proposed Balcony Guardrails

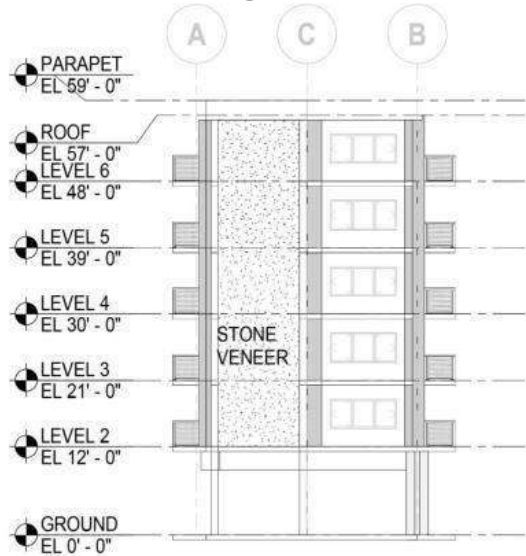
Proposed East Balcony Design



Existing & Proposed View at West Elevation



Existing West Elevation

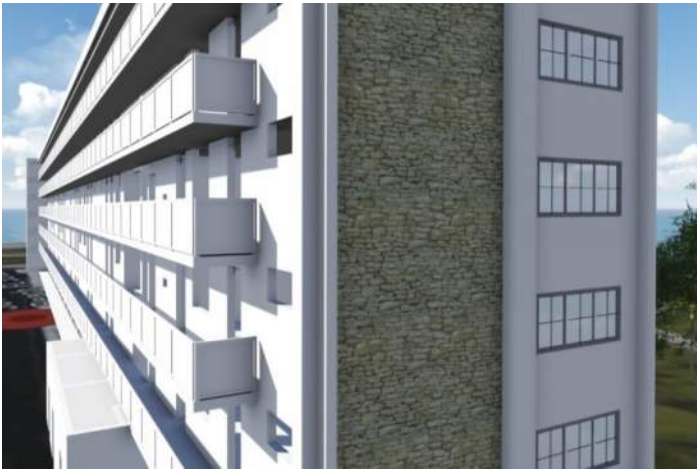


Proposed West Elevation



West Elevation Rendering

Proposed Overall Design



Reference Buildings

401 OCEAN DRIVE



1357 COLLINS AVENUE



Thornton Tomasetti

www.ThorntonTomasetti.com