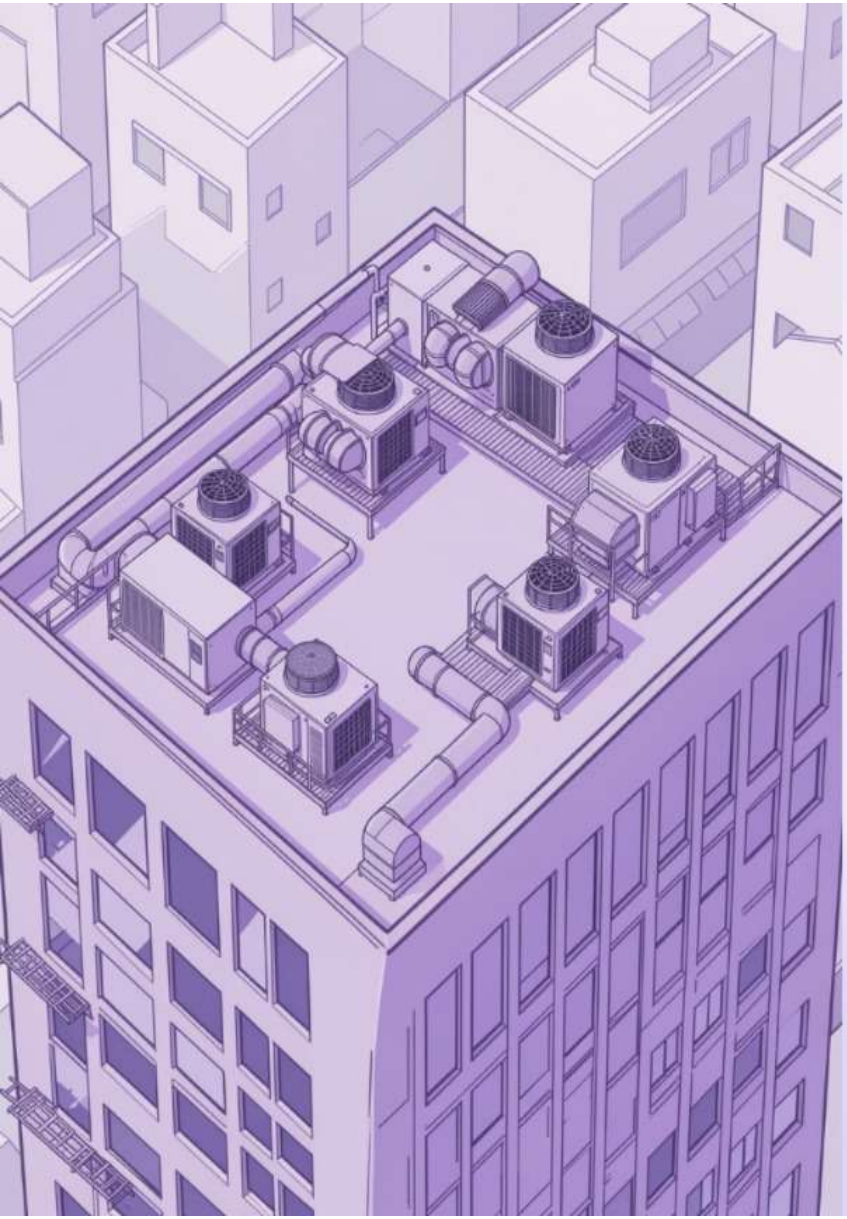
Summit Brickell — MEP Systems Design

A 60-story mixed-use tower in Miami's Brickell district, developed for Drury Hotels. This presentation outlines the mechanical, HVAC, piping, fire protection, and 3D coordination strategies engineered for one of South Florida's most complex vertical structures.

CORWIL ARCHITECTS · 2027 COMPLETION



High-Rise Mechanical & HVAC Design

Vertical Distribution

High-efficiency HVAC systems spanning 45+ floors of residential and hospitality units — Studios through 3-Bedroom Penthouses — with zoned distribution across a 60-story stack.

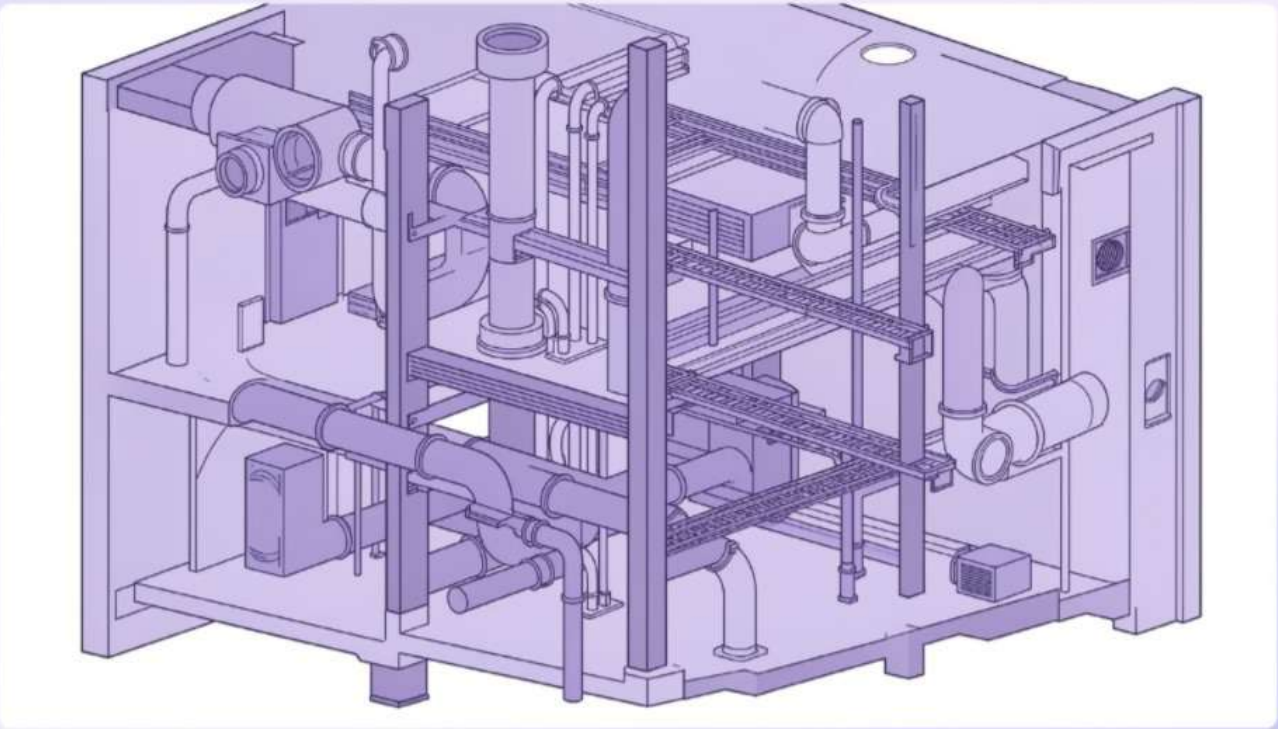
Specialized Zoning

Engineered dedicated mechanical solutions for the **13th-floor amenity deck** and **60th-floor rooftop** lounge and pool areas, each with unique thermal load profiles.

Facade Integration

Coordinated mechanical intake and exhaust routing to align seamlessly with perforated aluminum garage panels and decorative metal cladding per Corwil Architects' design intent.

3D Systems Design & BIM Coordination



Complete MEPFP Modeling

Led full 3D design of all building systems — mechanical, electrical, plumbing, fire protection — within the tight spatial constraints of a 58-floor vertical stack and 10-story integrated parking structure.

Clash Detection

Coordinated MEP runs around sculpted concrete walls, impact-resistant sliding glass systems, and aluminum sunshades — resolving conflicts before field installation.

Garage & Breezeway Systems

Developed 3D layouts for the **11-floor parking garage (Floors 2–12)**, integrating ventilation and lighting within specialized breezeway and perforated panel assemblies.

Piping & Fire Protection

640-Foot Vertical Rise

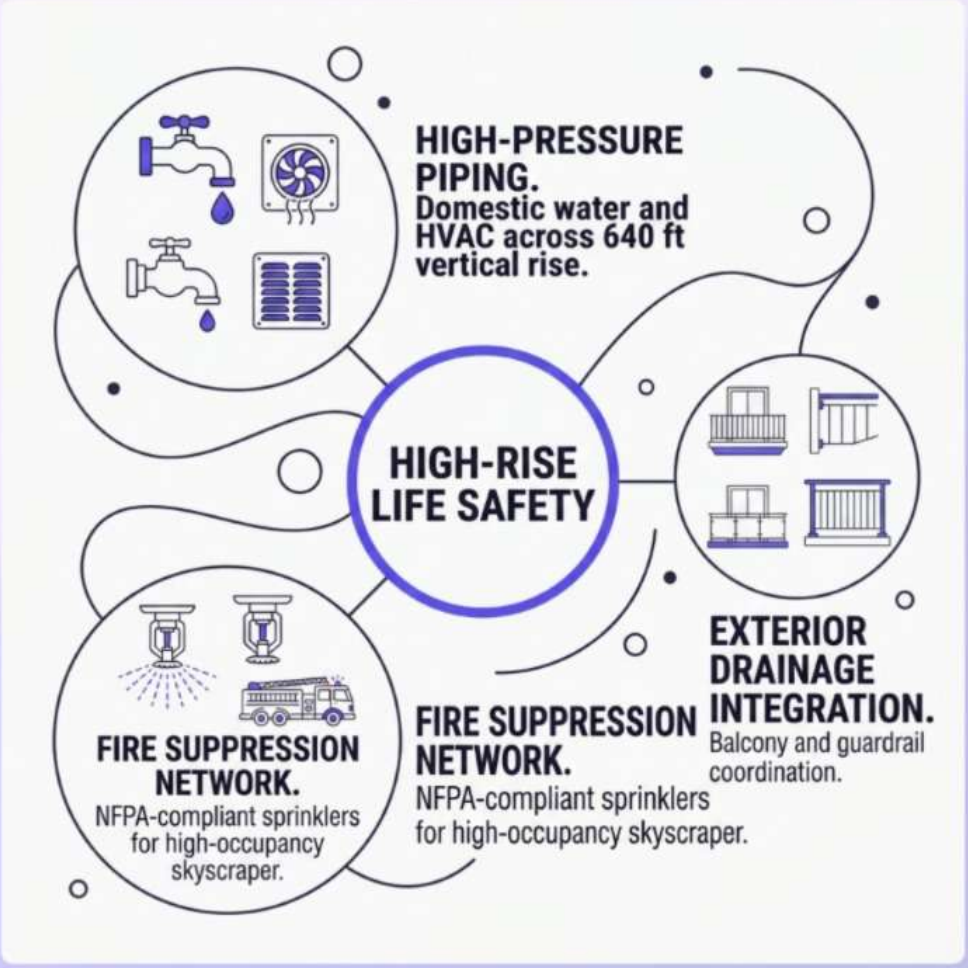
Engineered domestic water and HVAC piping systems to maintain consistent pressure and performance across the full building height — a critical challenge in any high-rise structure exceeding 20 stories.

Life Safety Compliance

Designed a comprehensive fire suppression and sprinkler network tailored for high-occupancy skyscraper occupancy classifications, with strict adherence to NFPA and local high-rise life safety codes.

Balcony & Exterior Integration

Coordinated piping and drainage solutions to integrate flush with clear safety glass guardrails and high-performance balcony assemblies, preserving the tower's clean architectural profile.



Project Strategy & Future-Proofing

Material-Board Synchronization

MEP fixture selections and exterior terminations were aligned with the project's material palette — fine sand stucco, textured finishes, and aluminum cladding — preserving Corwil Architects' design language at every system interface.

Post-Pandemic Luxury Standards

Systems are designed for **2027 delivery**, targeting modern hospitality benchmarks: enhanced indoor air quality, energy efficiency, and occupant comfort standards aligned with today's luxury guest expectations.

Long-Term Performance

Infrastructure was sized and specified to support operational flexibility, allowing the mixed-use tower to adapt hotel and residential programming without requiring major mechanical retrofits over its service life.