

The Cellars At Pearl





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OVERVIEW

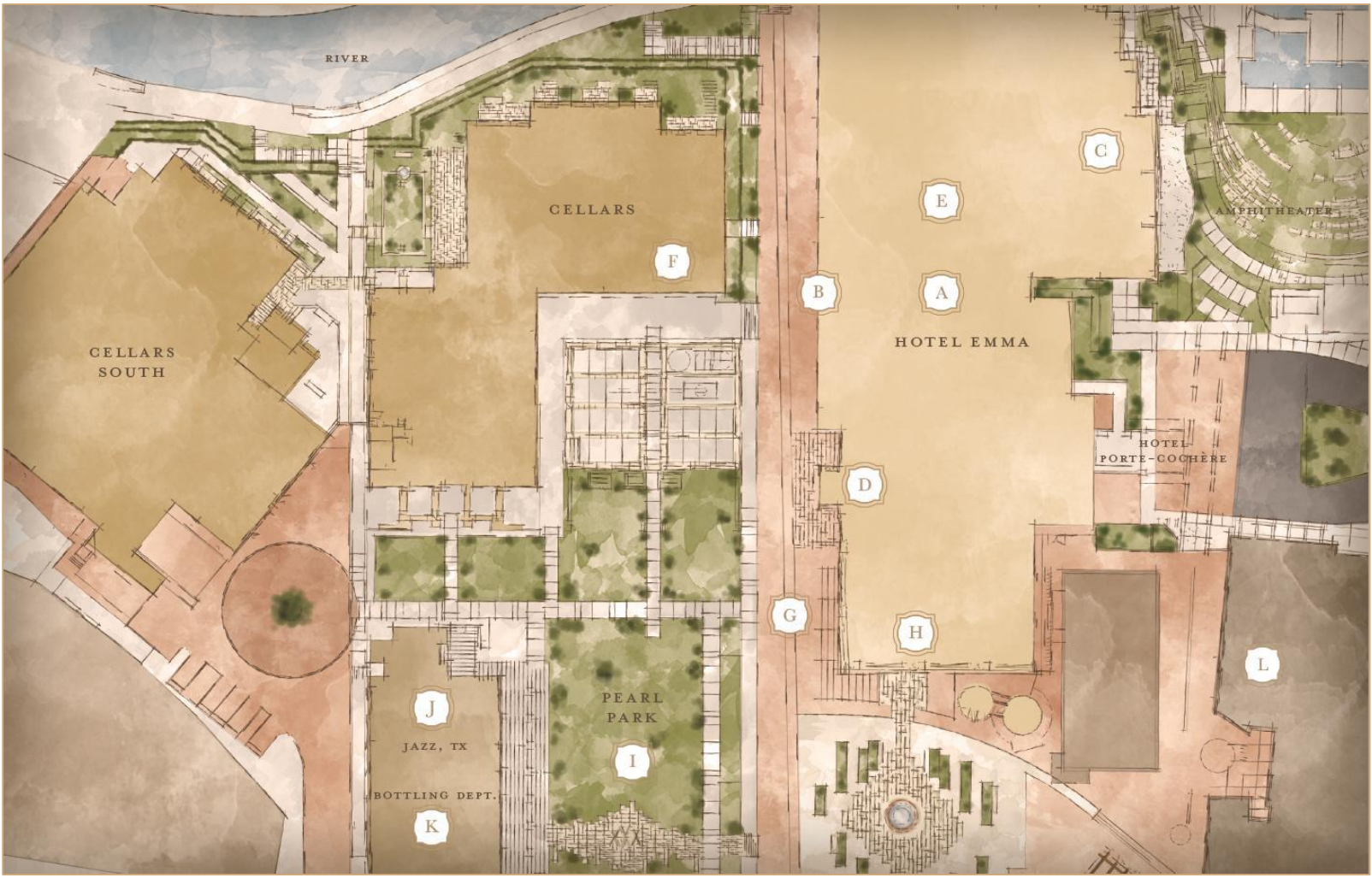


The cellars at Pearl is one of the newest attractions to San Antonio's historic downtown dwellers, offering a great variety of family activities, cultural celebrations, historical appreciation, and artful innovation. This takes the form of a revitalized brewery and bottling factory, catalyzing the metamorphosis of mundane site cast concrete skeletons through tasteful applications of historically accurate architecture, nostalgic finishes, and structural transparency.

General components of interest to us focus on the reuse of existing concrete structure and the ordering of the architectural forms by expressing the concrete bones on the new building's facades.

LEGEND

- A. Hotel Emma
- B. Larder
- C. Supper
- D. Sternewirth
- E. Curio
- F. Hiatus Spa
- G. Brewmeister's Alley
- H. Southerleigh
- I. Pearl Farmers' Market
- J. Jazz, TX
- K. Bottling Dept.
- L. Culinary Institute of America



HISTORY

A historical hotel, authentic and welcoming, Hotel Emma was once a 19th century Brewhouse. Now it's an extraordinary 146-room riverfront hotel and the flagship for Pearl's culinary and cultural community on the northern edge of downtown San Antonio.

Adjacent to this historic landmark is the new attraction for those seeking a somewhat more permanent stay in the chic arts district and rustic Texas romanticism.

Cellars fits easily into Pearl's vibrant milieu of hospitality and culinary excellence. Extraordinary living spaces, concierge-curated services and an array of uncommon amenities set a new, elevated standard for urban living in San Antonio.



ARCHITECT

The talented staff of architects – based in Dallas, Texas – specializes in providing creative design solutions while remaining sensitive to budgetary and scheduling issues. Their innovation and inspiration is buoyed by strong, lasting, personal relationships with clients and consultants. From conceptual design to project completion, three : living architecture establishes these enduring relationships by presenting premier service at every level – the right skills at the right time. Principal involvement from start to finish is a hallmark of the firm's reputation.

Our mission is to transform lives, through design that lifts the human spirit – the lives of both our development partners and guests alike. Discerning clients are drawn to three : living architecture because of our shared commitment to design excellence, a strong and tested process and over thirty years of experience.



DESIGN INTENT

The Cellars luxury apartments are the result of collaboration between San Antonio-based architect Doc McDonald and Dallas-based Three: Living Architecture firm. Their design is an appreciation of South Texas aesthetic. McDonald's interior design evokes a South Texas/Spanish "refined ranch" aesthetic. The ground floor community spaces include native stone, mission tile, reclaimed brick, and hardwood longleaf pine floors salvaged in Indianola. The Cellars 122 apartments range in size from intimate one-bedrooms to loft spaces to spacious penthouses. Apartment sizes start at 650 square feet for a one-bedroom and go all the way to 3,986 square feet for a penthouse.



DESIGN INTENT cont.



From a structural standpoint, Cellars' support system needed to provide unimpeded surfaces from inside to out, allowing for expansive (and expensive) windows, along with shallow plenum spaces.

Performing this system with concrete allowed the designers to supply rigid frame resistance to moment forces without cumbersome diagonal bracing and shear walls, freeing up the floor plans for a variety of spaces and accessibility for all utilities.

The end product results in a modern structure emulating classical load-bearing masonry.

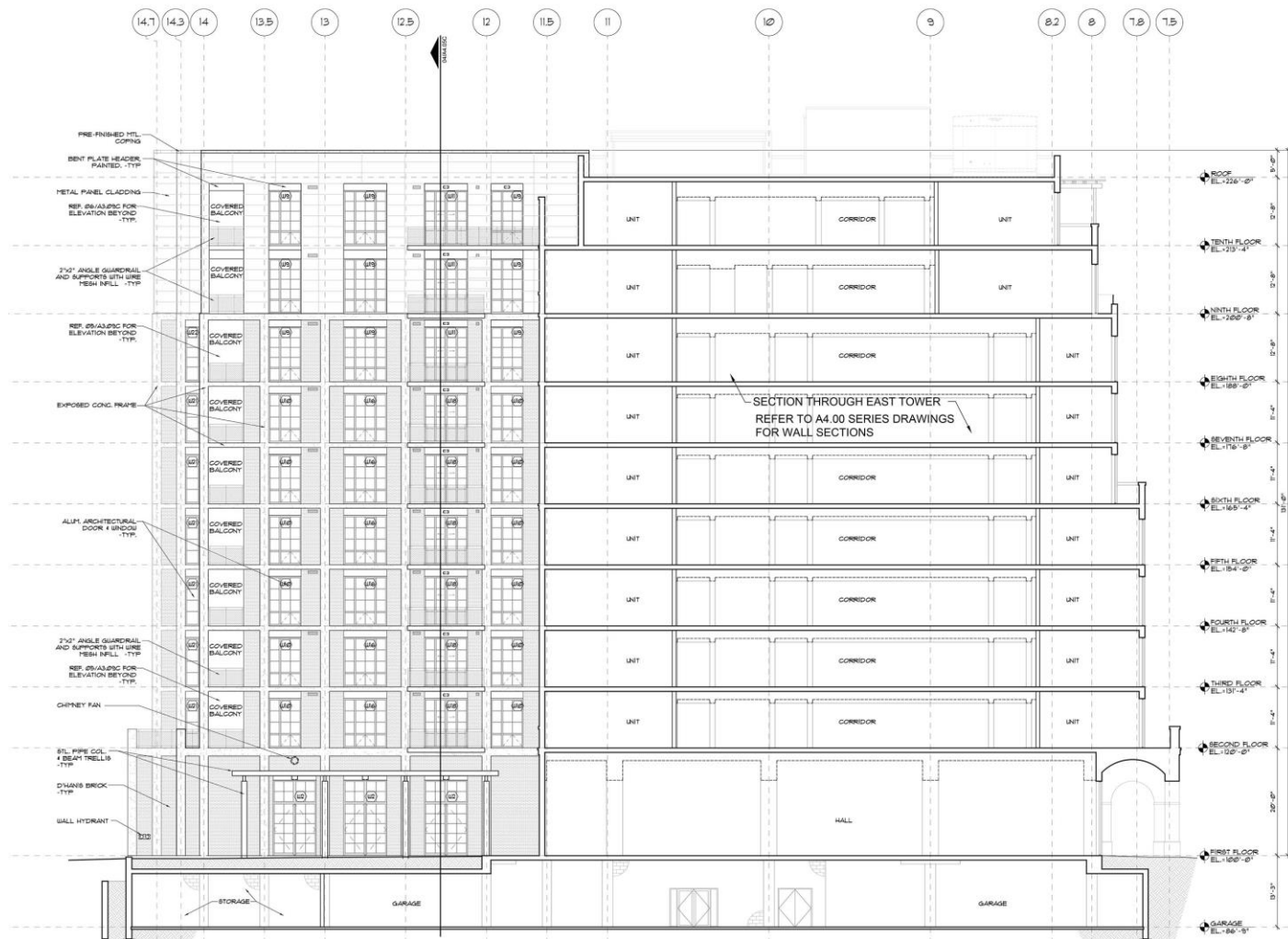
PLANS

GROUND FLOOR LAYOUT

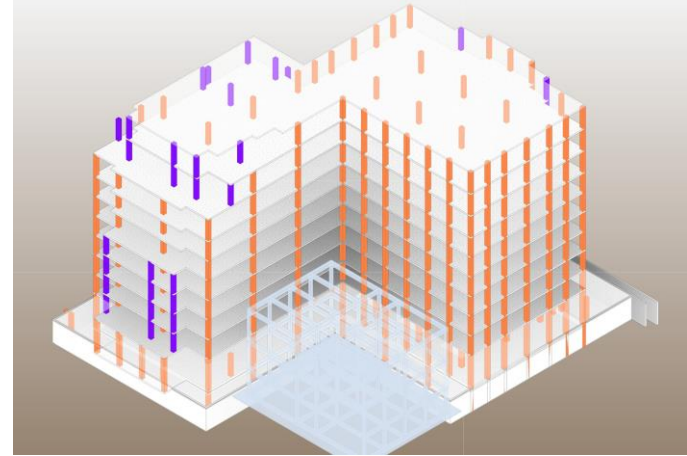
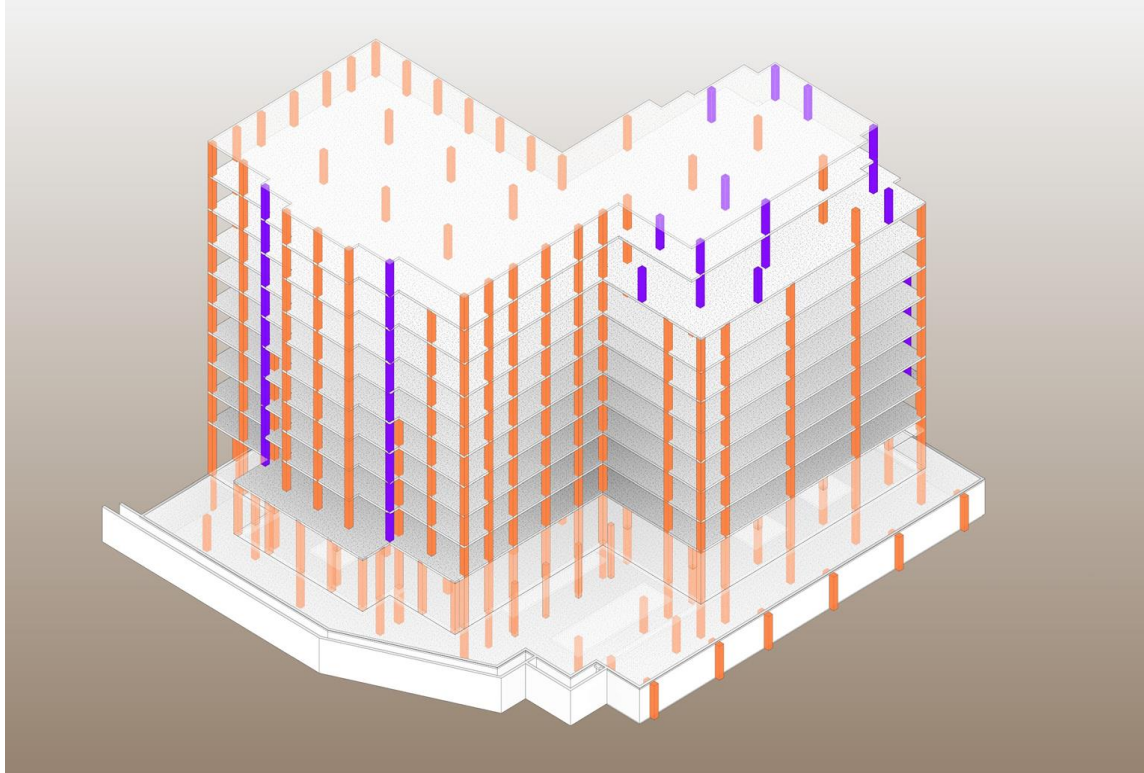
- A. Living Area
- B. Dining Area/ Kitchen
- C. Vestibule
- D. Library
- E. Conference Room
- F. Fitness Center
- G. Multipurpose area
- H. Loft Units

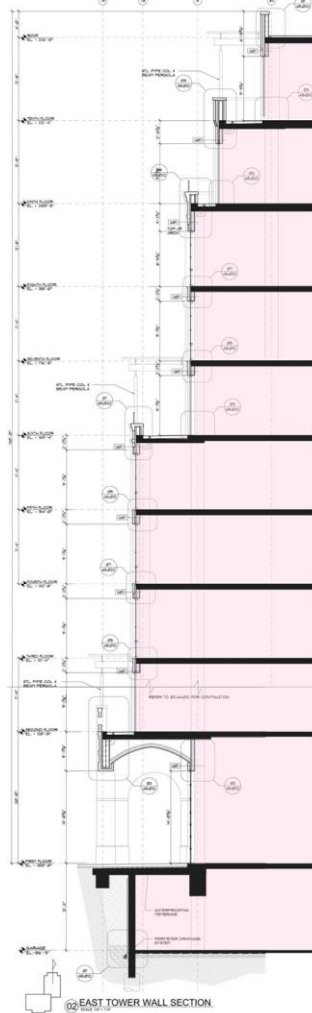
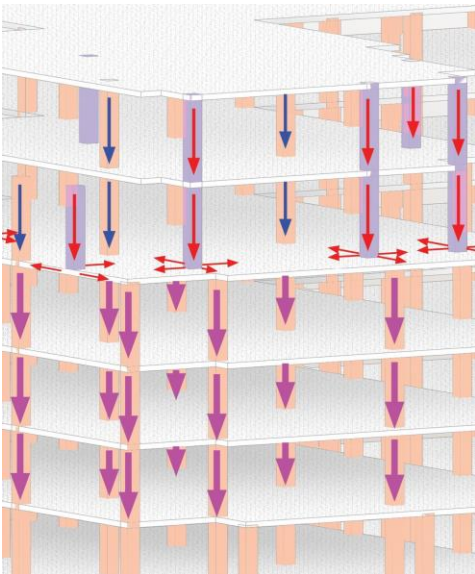


BUILDING SECTION

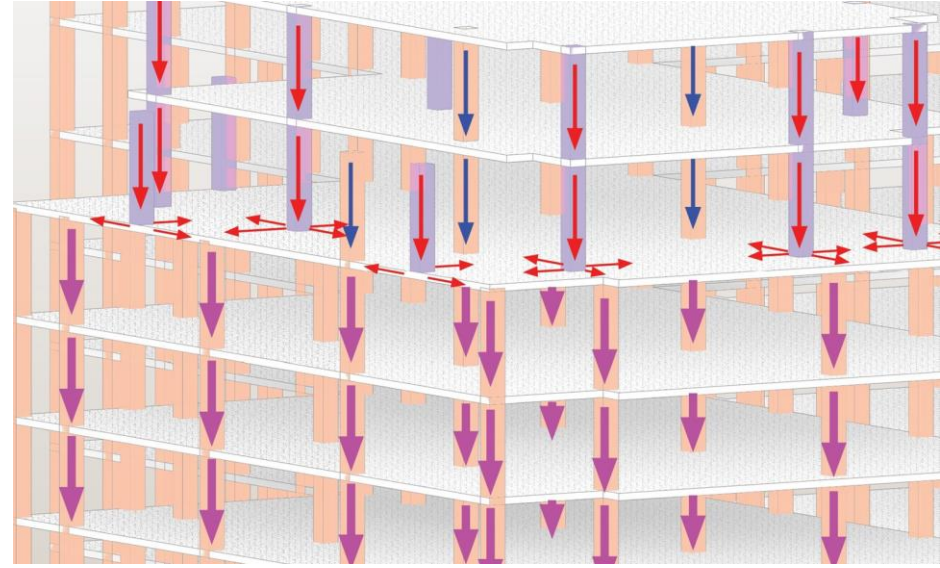
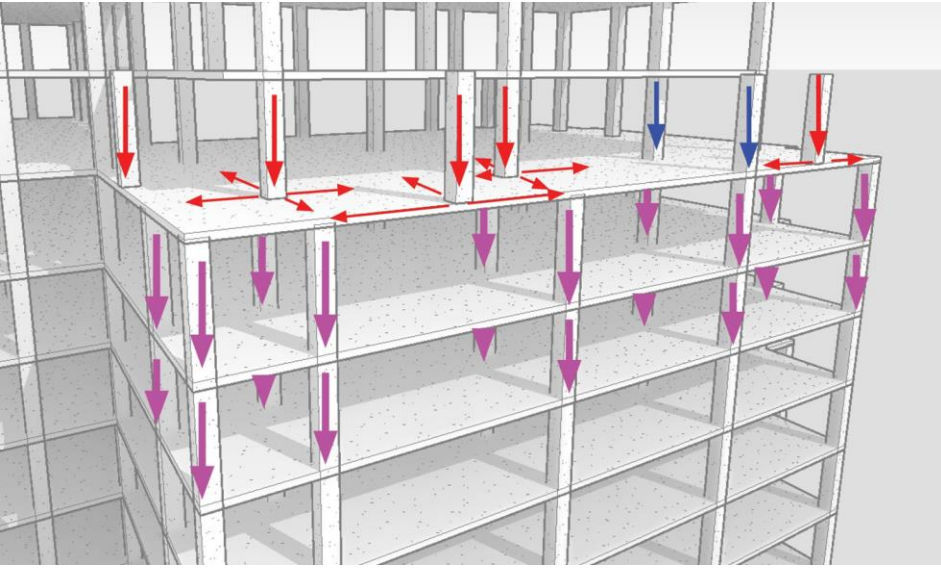


MAIN STRUCTURE





LOAD TRANSFER



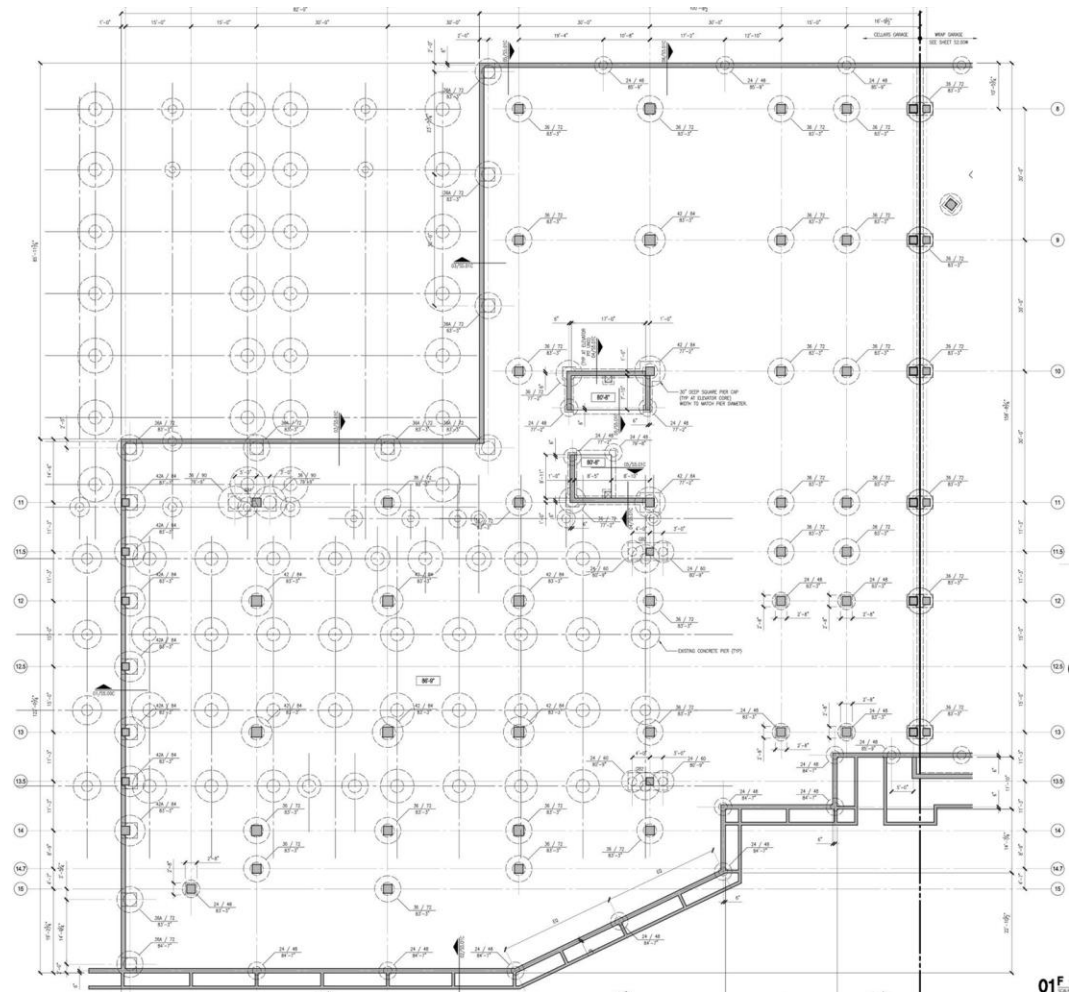
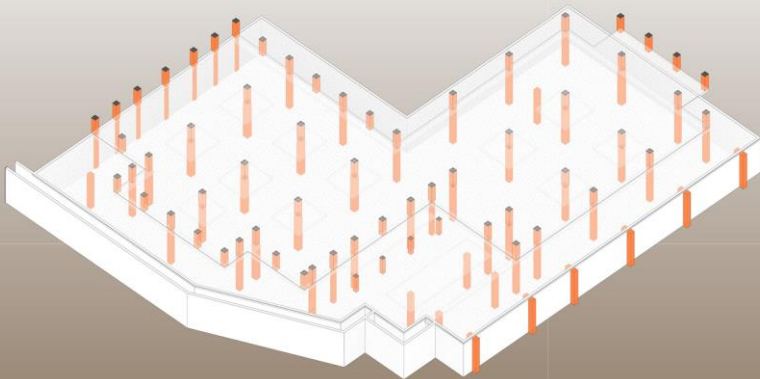
SOIL INFORMATION

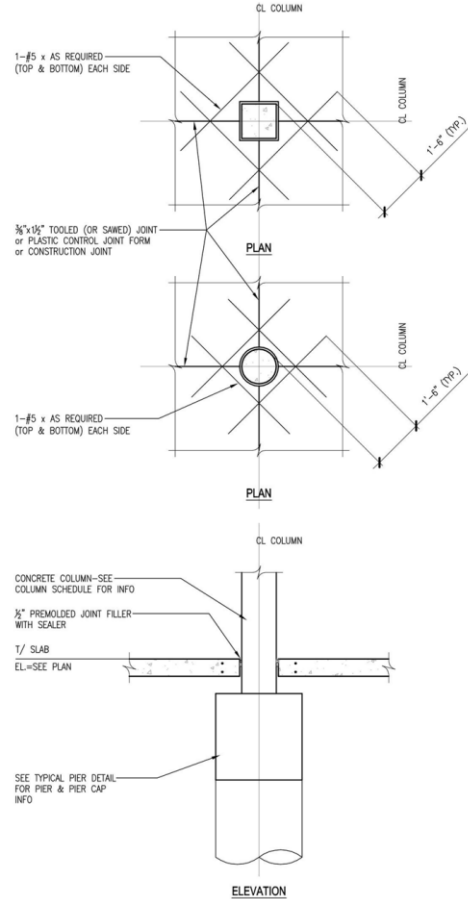
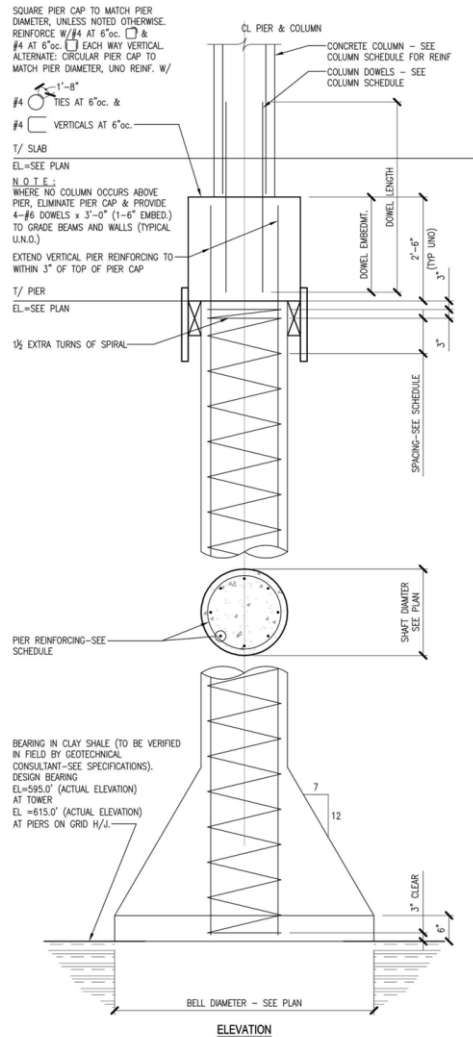
Located on the banks of the San Antonio River, there is a high silt content though the soil is categorized by the USDA and NRCS as **“Houston Black-Heiden-Wilson”** which is a part of the larger Texas Blackland Prairie. This means there is a high content of organic clay as well. Fortunately, the water table is presumably consistent with the river and maintains a wetter condition for the soils, preventing them from behaving as plasticly as if they would when in a very dry climate, meaning a much wider range of expanding and contracting. This is clearly the reason for the water barrier and flood prevention measures taken in the basement parking structure. Nonetheless, deep foundations are required to extend beneath this active soil layer.



FOUNDATION

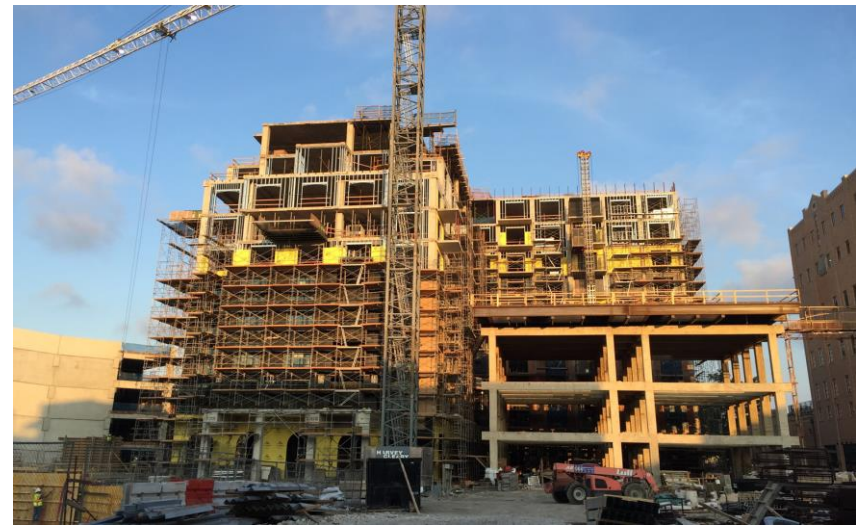
- Pier foundation
- Bearing in clay shale
- Grid of 30' * 30'. Piers at column centerline.
- Dual wall system : Basement wall and Landscape retaining wall with drainage and water barrier in the center.





MATERIALS

- Reinforced concrete frame structure
- Brick walls (Infill), exposed in the inside.
- Steel lintels and balcony supports
- Aluminum framed glass windows and doors.



COMPONENTS

CONCRETE COLUMN STRENGTH

Basement - 7,000 PSI

First and Second floor - 7,000 PSI

Third floor - 6,000 PSI

Fourth to Tenth floors - 5,000 PSI

Concrete column members:

Basement - 24" x 24"

First to seventh floor - 20" x 20"

Eighth to tenth floors - 14" x 14"

- Column and Flat plate system.
- Varying Slab thickness from 8 inches to 15 inches.



CONNECTIONS

- Flat plate
- Drop panel
- Transfer beam
- Frame structure
- Dual Beam





- Transfer beams on the facade columns to support the varying elevations of the facade.

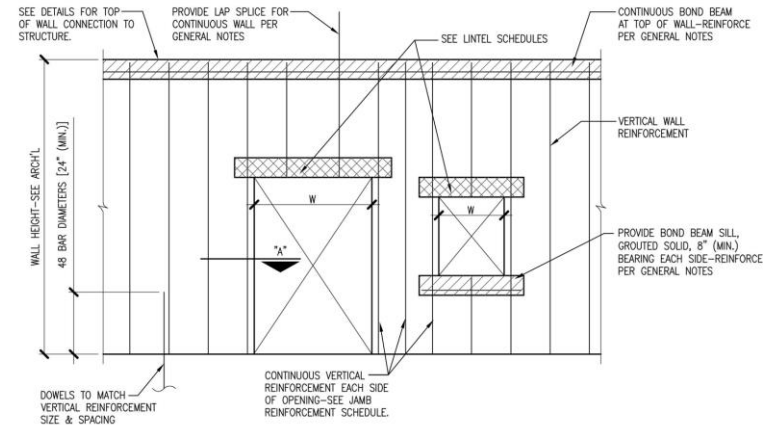
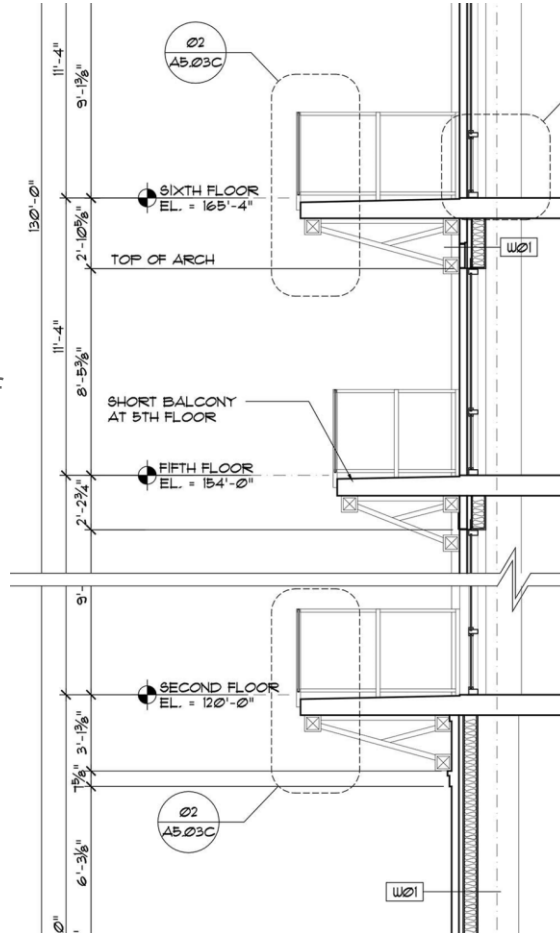
REFER TO @1/A4.6/C FOR CONTINUATION



DETAILS

Typical structural elements used for enhancing the façade complementing the architectural elements of Hotel Emma.

- Steel Lintels
- Steel bracing for balconies

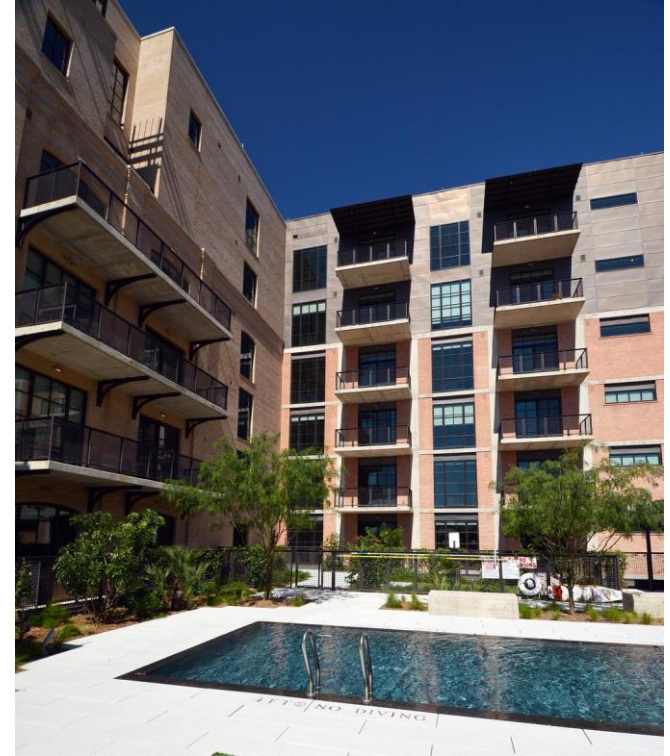


SWIMMING POOL

- Metal frame structure cantilevering on the existing concrete frame
- Steel decking filled with concrete



SWIMMING POOL



GRAVITY and LATERAL LOADS

Dead Load - Self weight of the structure

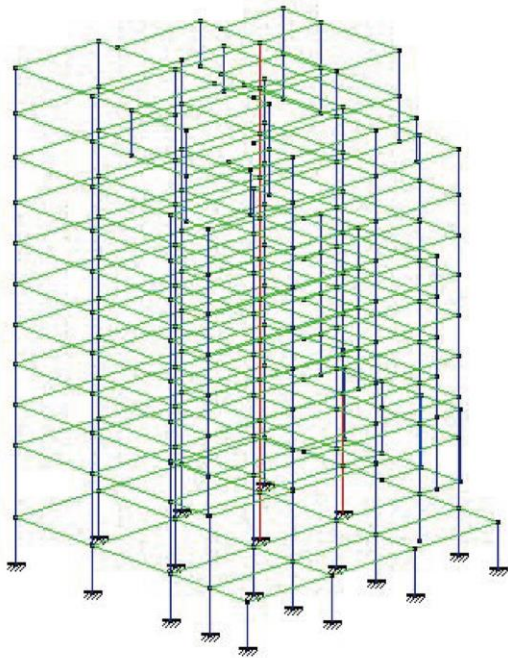
- Reinforced concrete columns and beams
- Steel lintels and connections
- CMU walls

Live load - Residential apartment - 40 psi (Table -)

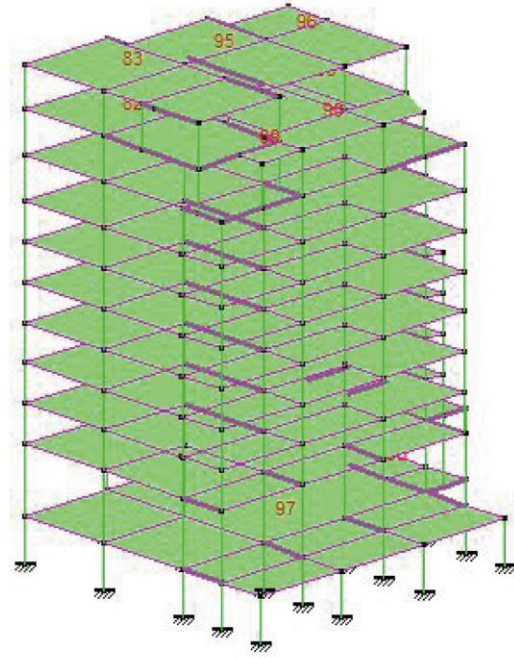
The structure is a rigid frame structure creating a moment frame that resists the lateral load.

MULTIFRAME

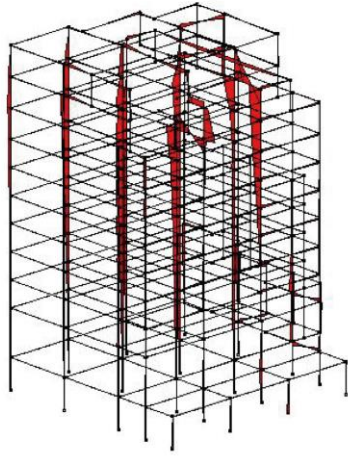
Frame



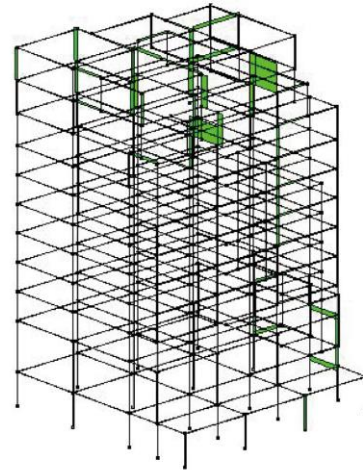
Load Panel



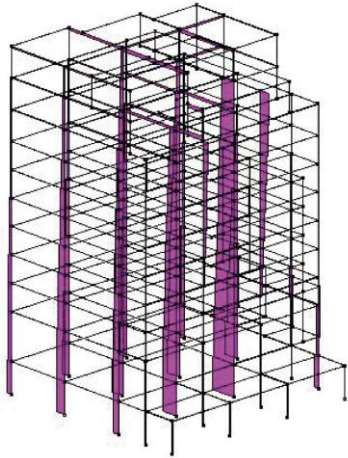
MOMENT



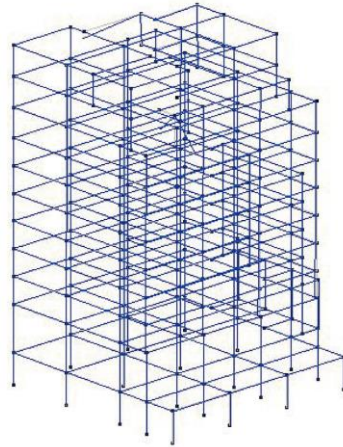
SHEAR



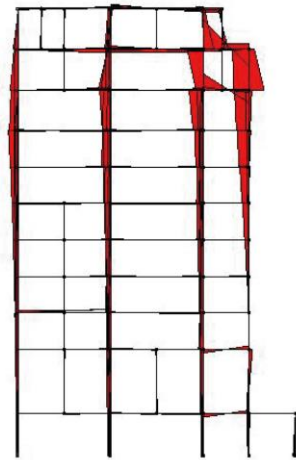
AXIAL FORCE



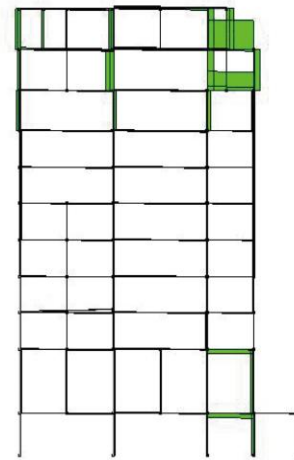
DEFLECTION.



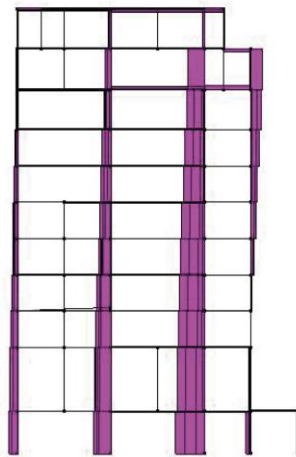
MOMENT



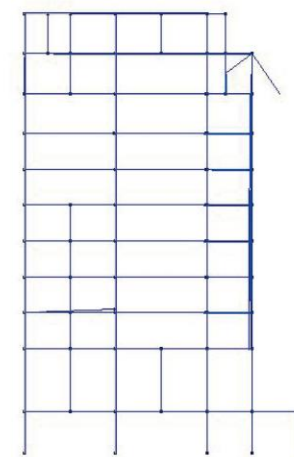
SHEAR



AXIAL FORCE



DEFLECTION



REFERENCES

Construction Photography by Ray Hereros

Architectural Construction Documentation by three: Living Architecture

Structural Construction Documents by CASE Consultants

Narratives from Hotel Emma, The Cellars at Pearl, three: Living architecture, CODAworX Art web sites, respectively.