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Chicago River Village: Celebrating Communities, Enriching Lives

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Abstract As Part of the "Tall Buildings" seminar at the Yale School of Architecture with Professor Kyoung Sun Moon, this paper reflects on the author's proposal for a linked tower complex along Lake Shore Drive in Chicago. In reaction to the city's fragmentation by the Lake Shore highway, the project reimagines high-rise dwelling as an expansion of the public realm. The podium and base levels are reimagined as an intimate "village", weaving a public fabric of gardens, retail, and public space, flowing up into the office and residential programs, forming a contiguous, activated environment that promotes interaction, accessibility, and a renewed connection to the city's waterfront and surrounding neighborhoods. Future development of the project includes employing a hybrid timber-concrete structural system, which attempts to integrate sustainable methods with urban connectivity. This paper therefore attempts to examine the site's history and the architectural discourse on how towers engage with the ground plane in an effort to encourage an alternate approach to the design of tall buildings. Furthermore, the paper evaluates environmental and social benefits of integrated mixed-use developments with a focus on the podium as an activated pedestrian village that feeds into the vertical space of the towers.

Keywords High-Rise Dwelling, Podium, Village, Public Realm, Neighborhood, Urban Connection

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1. Introduction

Chicago is synonymous with the history of tall buildings, having pioneered skyscraper typology in the late 19th century. Following the Great Chicago Fire of 1871, the city reconstructed itself at a frenetic rate, leading to the building of the first partially steel-framed skyscraper, the Home Insurance Building (1885), designed by William Le Baron Jenney. The Chicago School, which included the works of Louis Sullivan and Daniel Burnham,



Figure 1. The John Hancock Center, c. 1970. Photo: Chicago History Museum, Hedrich-Blessing collection.



Figure 2. Chicago Lake Shore Drive. Photo: https://www.youtube.com/watch?v=IC3sHkmtxpk

embraced novel structure, great verticality, large windows, and minimalist decoration—concepts whose heritage lives on in tower construction. Later, Chicago's high-rise appearance evolved further by International Style movement promoted by Mies van der Rohe, complete with glass curtain walls and floor plans that open up, exemplified in developments like the Lake Shore Drive Apartments (1951). Moreover, Structural Expressionism of the 1960's and 70's, such as in the supertall John Hancock Center (1969) shown in Fig. 1, and Sears Tower (now called Willis Tower, 1974) further reshaped the skyline of the city.

This project envisions an alternative approach to tall building design—a trio of connected towers that provide not only residential and commercial space but also serve as a conduit linking the city to its waterfront and surrounding neighborhoods. Urban highways, while necessary for travel, have a way of divorcing neighborhoods from public realms. Chicago's Lake Shore Drive, shown in Fig. 2, is a case in point, severing connections between inner neighborhoods and the city's famous waterfront. Chicago's Lake Shore Drive has experienced tremendous changes since its development in the 19th century. Initially conceived as a privileged scenic boulevard for the city's upper class, the drive was subsequently developed into a major arterial road, serving north-south traffic but at the same time cutting off pedestrian links between the city and its waterfront.

As the Chicago cityscape evolved, so did debate over how to reclaim the lakefront for public use, with various proposals attempting to mitigate the isolation engendered by the highway. High-rise development on a large scale along Lake Shore Drive has, nonetheless, been inwardly oriented, tending toward private residential or commercial use rather than public interaction. This project thus addresses this challenge directly by creating a seamless, pedestrian-oriented urban village that dissolves the line between city and lakefront. Through embracing mixed-use, sculpted terrain, the design subverts typical definitions of vertical urbanism and the way towers interact with the public realm.

2. The Podium as a Gateway to the Vertical Realm

One of the principal drivers for the project is the podium itself, which is now both a physical and social connection between the surrounding city and the towers themselves. Unlike typical high-rise schemes where the base serves as a barrier, the podium here is designed as a sculpted, multi-purpose dynamic urban village that takes the public realm upwards, blurring with the tower. This is

mainly driven by the desire to reintegrate the surrounding neighborhood and reengage the site with the waterfront, as shown in Figures 3 & 4. By imagining stepped public spaces such as shopping, parks, plazas, and community spaces over (and under) the highway, the podium elevates the towers' base to a vibrant, people- focused public realm. This is attained through circulation strategies that facilitate interaction, movement, and access at each level, such as the sculpted sunken public spine that houses a public market and functions as an entrance to the hotel.

Public access is facilitated through wide, open staircases, vertical gardens, and sky bridges, all with visual and physical links between the street and the upper floors. The blend of semi-public terraces, recreational spaces, and commercial spaces further dissolves the distinction between private and public, creating a layered, active space that shifts as one ascends the building, as seen in Figure 5, 6, & 7. Several floors of the towers act as sky lobbies, dedicated to gardens, plazas, and green roof area. Besides providing residents and office tenants with access



Figure 3. Site Section.

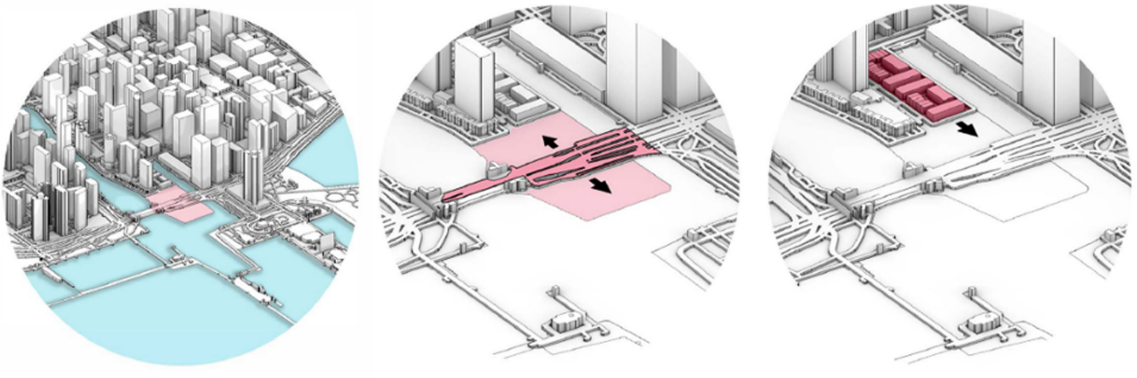


Figure 4. Site Diagrams.

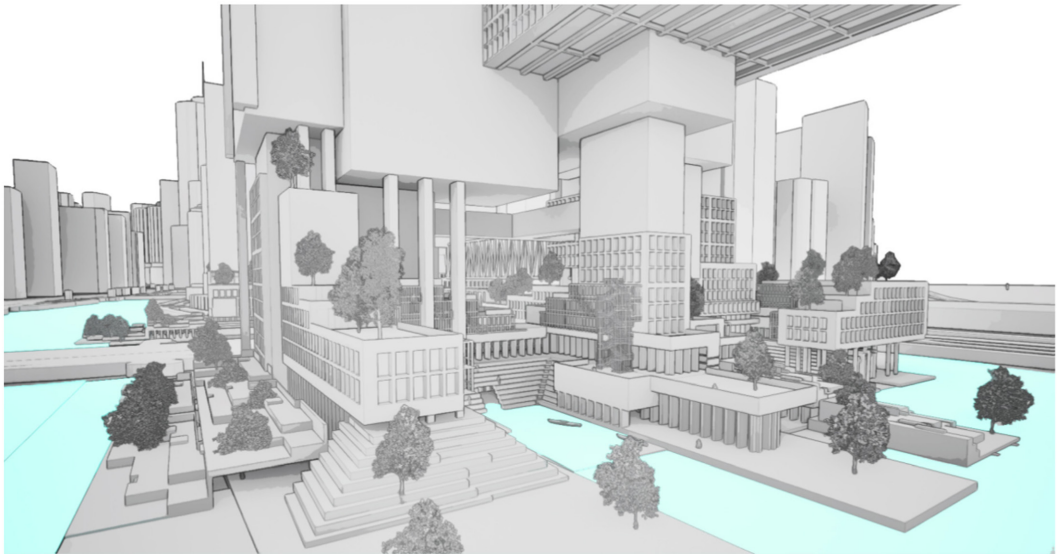


Figure 5. Podium Concept Development.



Figure 6. Podium Concept Render, Waterfront View.

to the outdoors, these areas serve as sites of public assembly. With the public moving vertically through the building, open-air promenades and terraces offer views of the city, lake, and surrounding neighborhoods, further testifying to the project's sense of place in relation to its waterfront site. Sky Bridges and Sky Lobbies create circulation between the tower's vertical zones and connect different sections of the complex horizontally and vertically. In spanning between towers, these structures have space for events, social gatherings, and markets, further extending the public realm upwards. The act of traversing these open areas encourages interaction, recreation, and engagement, creating a sense of community at different levels in the tower.

3. Comparative Design Analysis with other Projects

Positioning the project against other global references is crucial here. One Za'abeel in Dubai, for instance, has been recently recognized for its engineering feat—a skybridge, known as “The Link,” connecting two towers and accommodating a combination of luxury hospitality, restaurants, and entertainment spaces. The development



Figure 7. Podium Concept Render, Streetfront View



Figure 8. Tower Conceptual Render, Waterfront View.

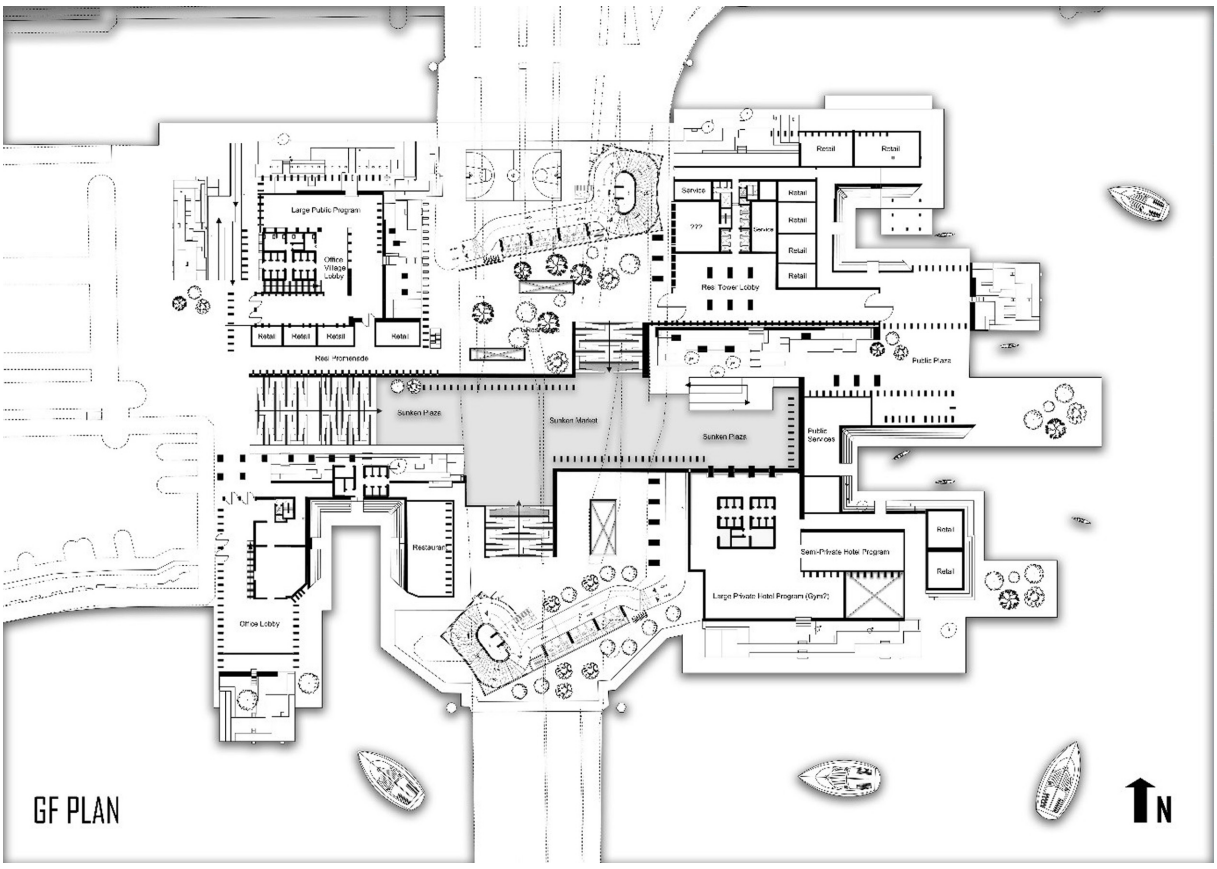


Figure 9. Ground Floor Plan.

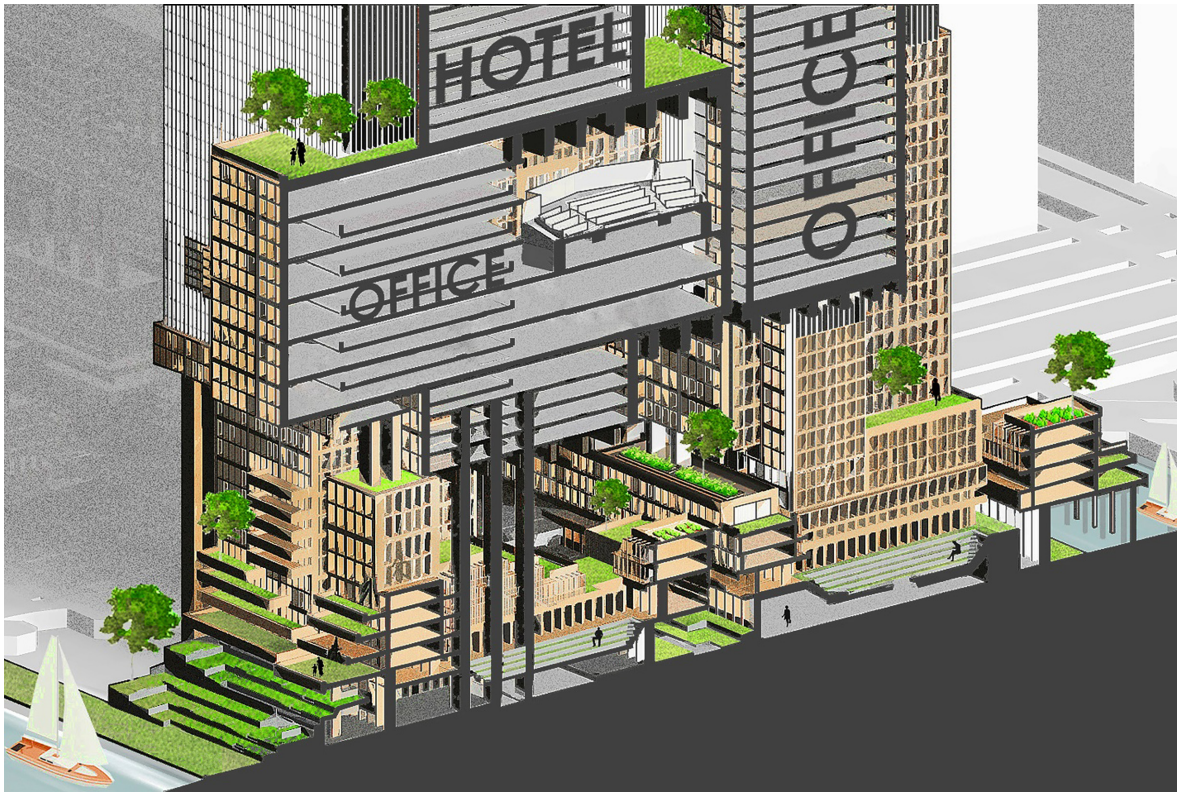


Figure 10. Sections, Connection to Waterfront, Public Podium, and Office Spaces.



Figure 11. WTC Market, Abu Dhabi. Photo: Mahmoud Aboelwafa https://www.behance.net/gallery/60490361/Abu-Dhabi-Central-Market-The-Mall.

presents itself as a vertical city center, but the design makes the public experience something elevated beyond street level, focusing on elitism rather than inclusiveness. While the skybridge is an exhilarating architectural gesture, it removes activity from pedestrian space, keeping social interaction concentrated at upper levels rather than scattering it throughout the urban fabric. The luxury-oriented programming of the project, such as upscale restaurants and private club areas, restricts access to a broader demographics, promoting an atmosphere of exclusivity over creating an actual open public space. Another instance is the WTC Market in Abu Dhabi by Foster + Partners, seen in Figure 11, which was supposed to reinterpret the historic souk in a modern, high-rise setting.

This project is particularly interesting as the author resided in the city for the past 25 years and witnessed the site's transformation after the old historical souk that existed on the site burned down in a fire. Positively, the project well balances shops, offices, and leisure space, but in the process serves commerce over social mix. Even though the development creates a commercial heart with a pedestrian focus, it does not provide permeability needed to connect nearby neighborhoods. The market is rather a terminal point and not an actual continuation of the city, reinforcing commercial barriers rather than dissolving them. The rigorous zoning between retail, office, and residential use fosters a disjunct vertical experience and not a contiguous mixed-use context facilitating organic contact. In the author's proposal, the podium's integration into the towers is reflected in its mixed-use stepped program, with open retail, cultural venues, coworking spaces, and dining options occupying the lower levels, which gradually shift upwards.

These spaces ensure that the building remains publicly accessible and vibrant, with active uses at the base and semi-public spaces as one moves upwards. While these spaces increase in elevation, they continue to serve to facilitate public interaction, though with greater levels of privacy, from active public space to less active residential and office space further up in the towers. Thus, the towers can maintain an interactive relationship with the city and still provide opportunities for public interaction. The outdoor underground market spine is especially important, providing a lively space for local retailers, food markets, and cultural activity. This space fosters neighborhood interaction, producing a sense of place where individuals from various neighborhoods come together. In addition, a sculpted waterfront landscape provides a series of terraces, parks, and pedestrian routes, shown in Figure 9 & 10, that

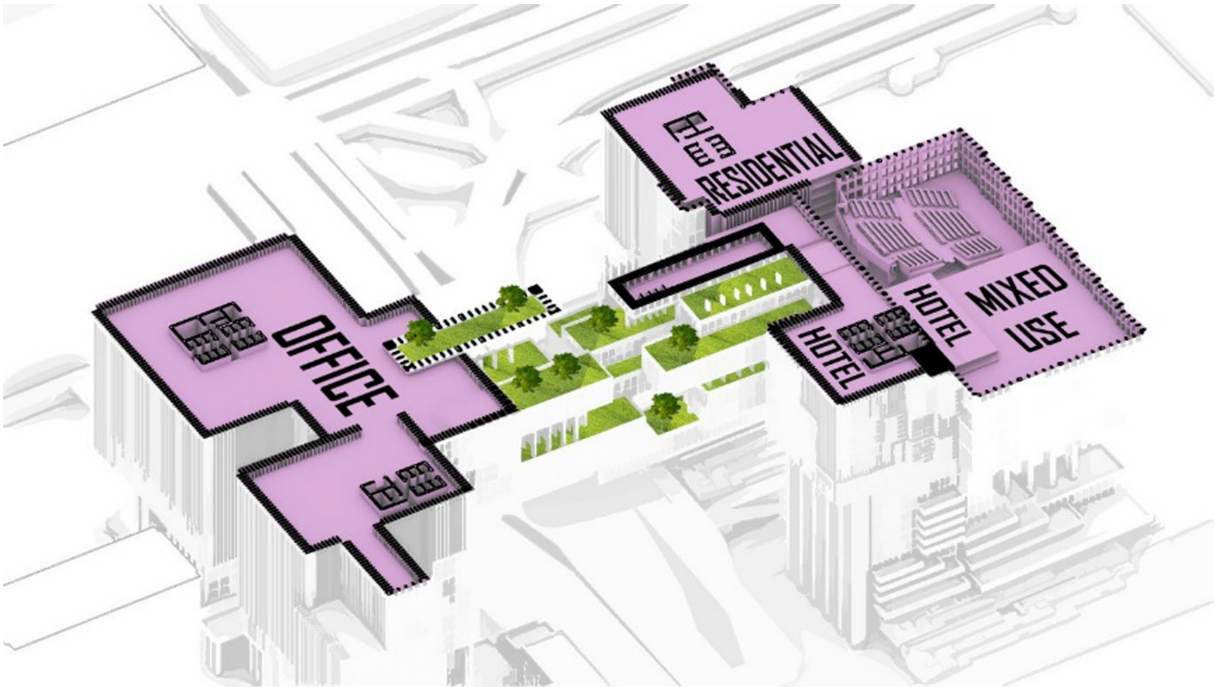


Figure 12. Towers Organization Axonometric.

invite public interaction with the water's edge. Such landscapes are both meant to be practical and aesthetic and include native plantings as well as public places to sit. The design of the landscape serves to facilitate a sense of interaction among the populace and an unobstructed transition from urban to waterfront life. Other than residential areas, the towers hold office space as well as a hotel.

The office spaces are designed with flexibility in mind to allow companies of varying sizes to occupy the open plan most appropriate for their needs. Shared Semi-public elevated connections link both the hotel and office spaces. Shared Semi-public elevated connections connect both the hotel and the office spaces. The gradual ascension of the podium lends itself well to the language of the towers, where the waterfront facing façade is kept minimal as to not disrupt the city's skyline, while the space between the towers above the highway is richly expressed with a dynamic vertical village that reveals itself gradually to the city-dweller.

4. Plan for Further Developments

Future potential development for the project includes implementing a hybrid structural system through the integration of cross-laminated timber (CLT) and reinforced concrete to achieve a balance between sustainability, strength in structure, and efficiency in construction. The reinforced concrete core and exterior mega-columns of each of the towers could supply the lateral stability necessary as well as house fundamental building systems like vertical circulation, mechanical shafts, and emergency egress. The internal columns, beams, and floor plates can all use mass timber, which maintains a building's low carbon footprint while structural integrity is sustained.

Mass timber construction offers a variety of basic advantages for the construction of high-rise buildings, such as:

- Carbon Sequestration: Timber naturally absorbs and stores carbon dioxide, significantly reducing the building's overall embodied carbon when compared to traditional steel and concrete structures.
- Prefabrication and Assembly Speed: CLT panels and glulam beams can be prefabricated off- site, allowing easier on-site assembly and quicker construction, reduced noise, and reduced waste.

Lower levels that carry the podium and heavy-use mixed-use spaces will consist of reinforced concrete alongside timber curtain walls supporting heavy commercial and public loads. As the towers rise, the structural scheme changes to a predominantly timber system, using CLT floor slabs and glulam column and beam support. This hybrid approach not only reduces the weight of the building but also makes the fullest possible use of the biophilic potential of the internal space, making the interior a more natural, warmer space for occupation and work. In addition to this system, the towers can also include Green Roofs and Sky Gardens, these become an integral part of the timber structure, reducing heat island effects and improving urban biodiversity.

The towers can be served by a multi-zone, high-speed elevator system designed for both residential and office

applications. Double-deck elevators can enhance vertical efficiency and reduce waiting time during peak hour. Moreover, Sky lobbies can reduce elevator travel distances and access to public facilities such as coworking spaces and shared balconies.

5. Conclusion

As cities become more crowded, the task of taking high-rise developments into public space remains the most significant one. This Lake Shore Drive proposal thus promotes vertical living by forming an integrated, sustainable, and pedestrian-friendly city landscape. By redesigning the relationship between towers and their context and reimagining the podium an urban village, this vision not only reclaims Chicago's lakefront for the city but also presents a compelling case for rethinking the role of the high-rise in the 21st century. Looking beyond the scope of this design, further developments of the project can reveal the potential of conscious use of hybrid wood-concrete structure, efficient vertical transport systems, and revitalized ground realm. Together, the project serves as a tower prototype that reconciles environmental and social sustainability.

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