

ISTANBUL TOWER

DESIGN BOOKLET
JANUARY 2015

SOM



INTRODUCTION

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Elements of the Icon

The Making of an Icon

For over 4,000 years, the world's tallest structure was the 480-foot-tall Great Pyramid at Giza. It was not until the Industrial Revolution brought profound change to how buildings could be erected differently than before. The Eiffel Tower (324 m, 1889) and also the Washington Monument (169 m, 1884) created landmarks that dominated the skylines of their respective cities and inspired future high-rise designs to emerge. As leaders of tall building design, SOM has been fortunate to design and construct five of the world's 10 tallest buildings. As architects and engineers we experiment with new styles and building methods, taller and more innovative structures yet we believe the elements that grant those buildings the icon status remain the same:

Height and scale

Through the balance of proper proportions of height, width and depth buildings achieve iconic standing and can instill admiration and reverence.

Context and urban positioning

A building's response to its context and its position amongst other structures is of prime importance in making it perceptible and establishing its presence in its city.

Timeless design

Enduring structures that outlive their designers possess the aesthetic, material and utilitarian qualities that make them appreciated by the public across many generations. Designs that hold the most basic geometric principles at their heart have the best chance of achieving immortality.

Cultural expression

Iconic buildings influence and are influenced by their cultural environment. The general public associate with structures that best reflect their identity, history and cultural heritage.

Distinctive skyline

Iconic Buildings achieve their status by having a recognizable silhouette that defines their shape against the sky.





CHRYSLER BUILDING
NEW YORK, 1930
+318.9m

EMPIRE STATE BUILDING
NEW YORK, 1931
+448.7m

JOHN HANCOCK CENTER
CHICAGO, 1969
+457.2m

SEARS TOWER
CHICAGO, 1973
+442m (527.3m)

JIN MAO TOWER
SHANGHAI, 1998
+420.5m

FREEDOM TOWER
NEW YORK, 2011
+541.3m

LOTTE SUPERTOWER
SEOUL
+555m

BURJ KHALIFA
DUBAI, 2009
+807M



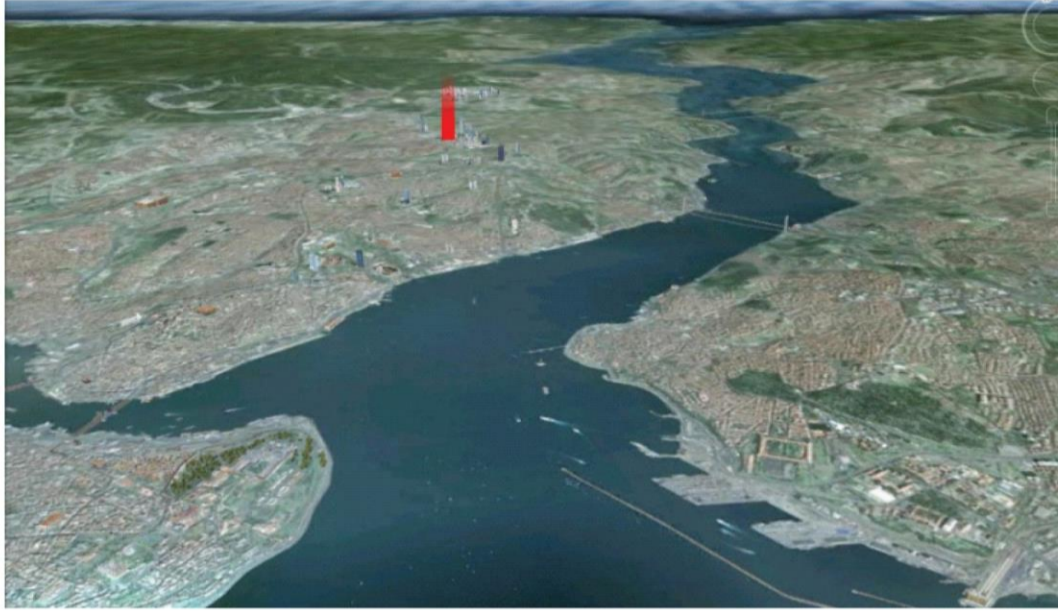
Site Analysis



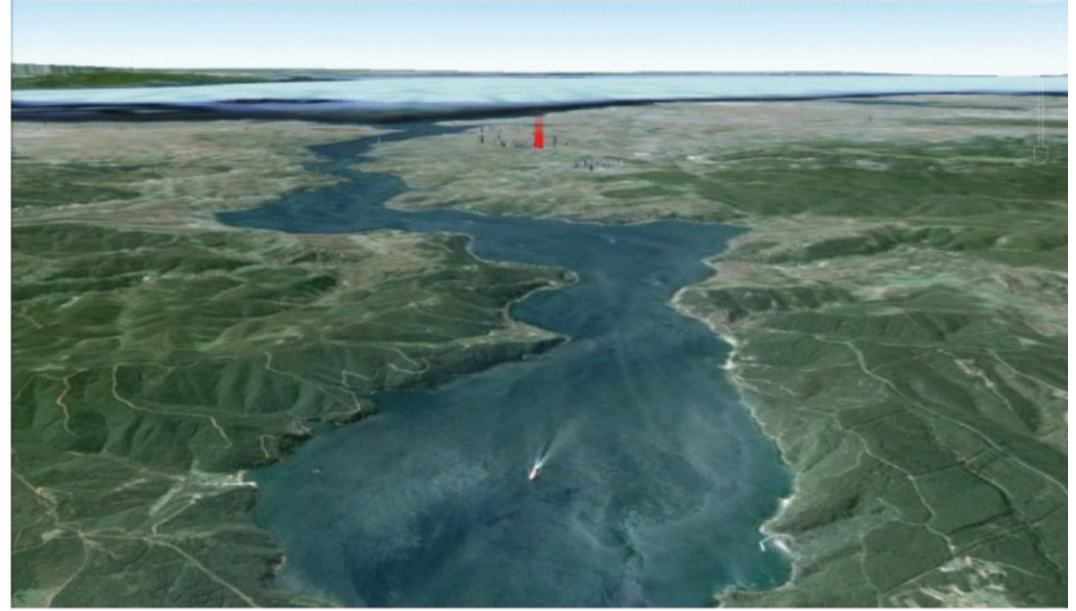
Site Analysis

Location and Vistas

Located on Buyukdere Caddesi, Istanbul Tower is located in the heart of the central business district. The site is characterized by a unique range of commercial office and residential buildings along Buyukdere Caddesi that can be seen prominently throughout the city. Given this strategic location, and the aspired height, the site will create an impressive presence in Istanbul's future skyline. The project will be dominant in the vistas from Fatih Sultan Mehmet Bridge, Bogazici Bridge, Cevre Yolu, TEM, as well as distant views from across the Golden Horn and Bosphorus.



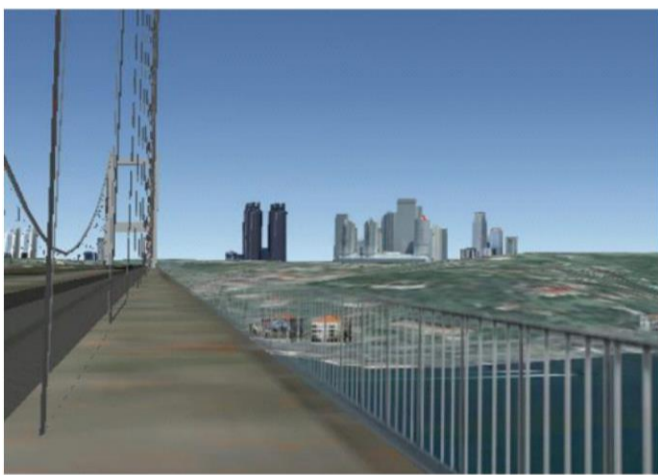
View above Marmara Sea



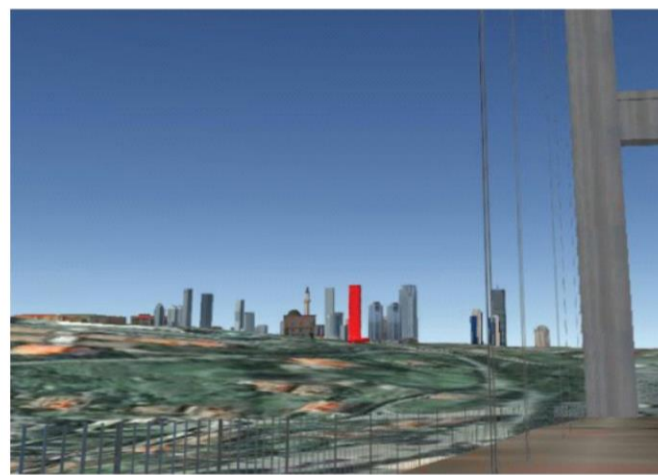
View above Black Sea



In addition to the distant views, Istanbul tower shapes the skyline in the local context on Buyukdere Street, experienced in both North and South directions. Given the visual impact on Istanbul's future skyline as well as the streetscape experience, Istanbul Tower has the potential of becoming a timeless landmark in the area.



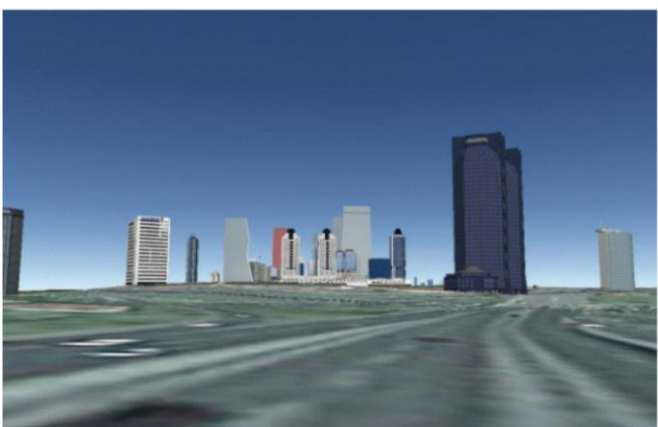
From Bogazici Bridge



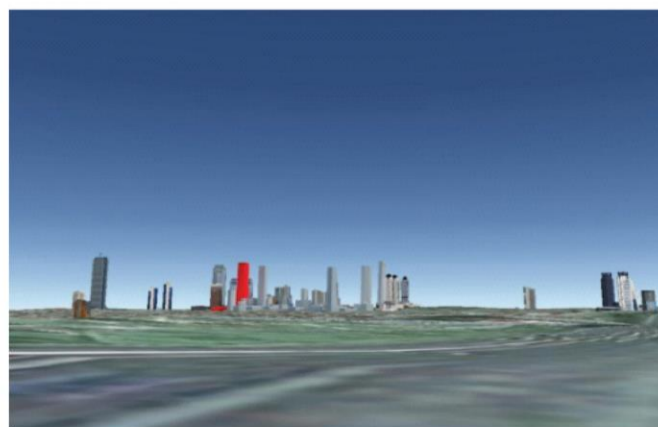
From Fatih Sultan Mehmet Bridge



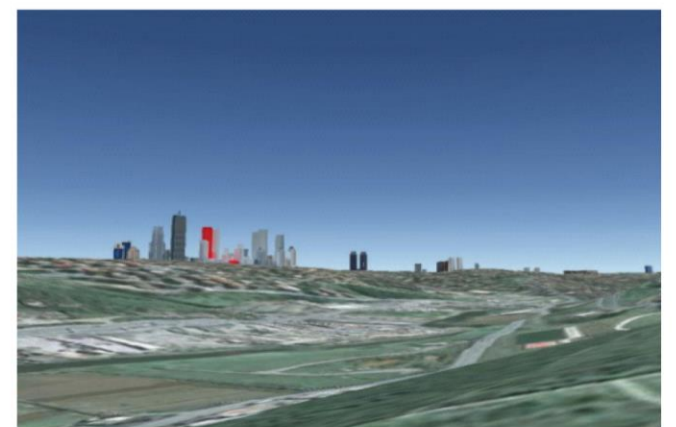
From Golden Horn



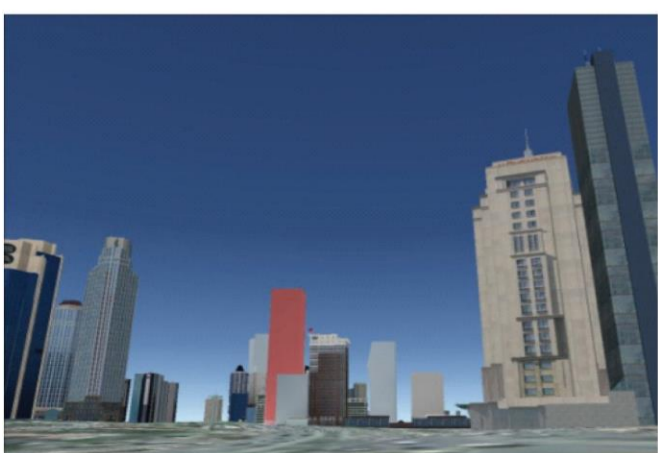
From Barbaros Blv



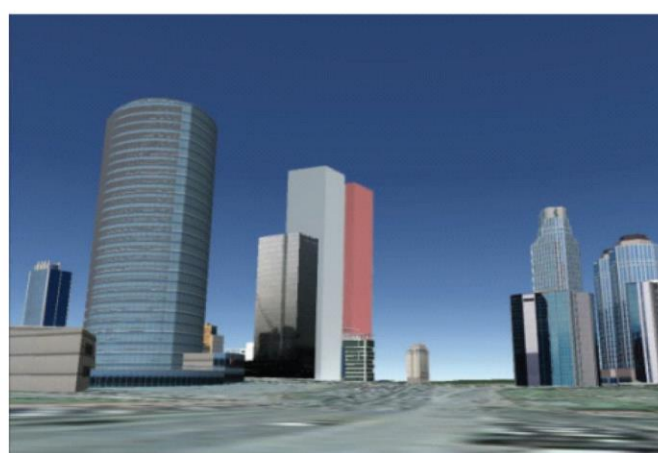
From 1st Cevre Yolu (From Airport)



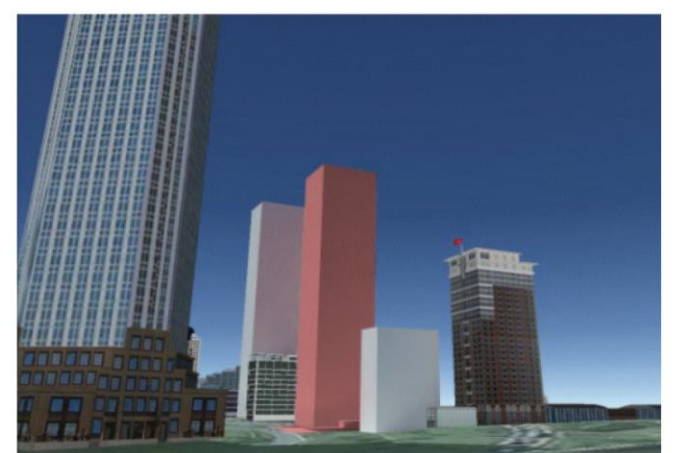
From TEM Road



From Buyukdere Street North



From Buyukdere Street South

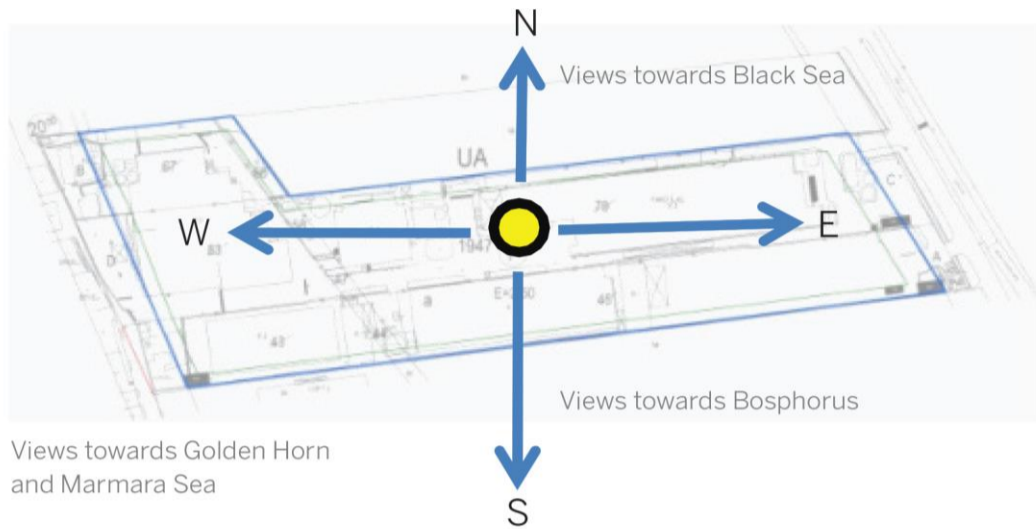


From East

Site Analysis

Location and Vistas

Istanbul tower rises 220 meters in the heart of the business district in Istanbul. The project rises above all of the immediate adjacent context, thus provides breath taking views towards the Black Sea to the North above 100 meters; views towards Golden Horn to the south above 50 meters; views towards the Bosphorus to the East above 100 meters in elevation. It provides breathtaking panoramic views of the whole city across the European and Asian peninsula. The project's location and massing is designed to optimise the views for the office floors. The elegant shift in geometry allows for mesmerising views of water in all four facades.

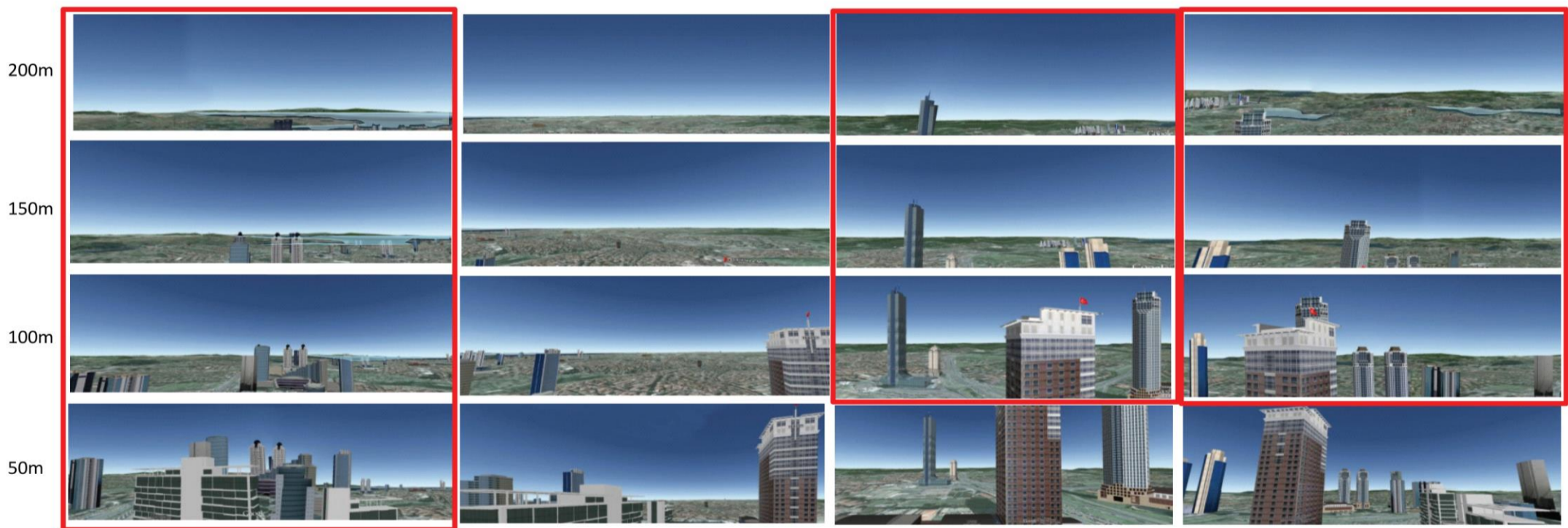


Views towards south at site elevated positions

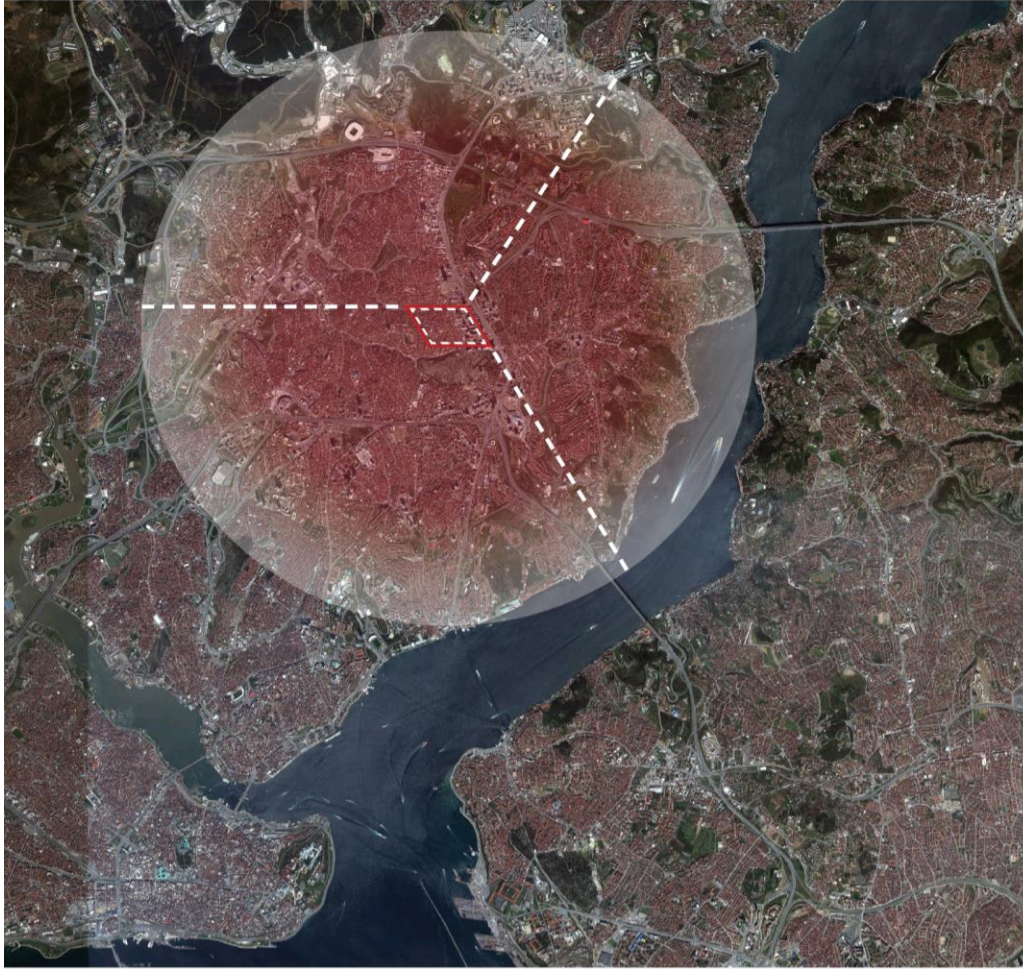
Views towards West at site elevated positions

Views towards North at site elevated positions

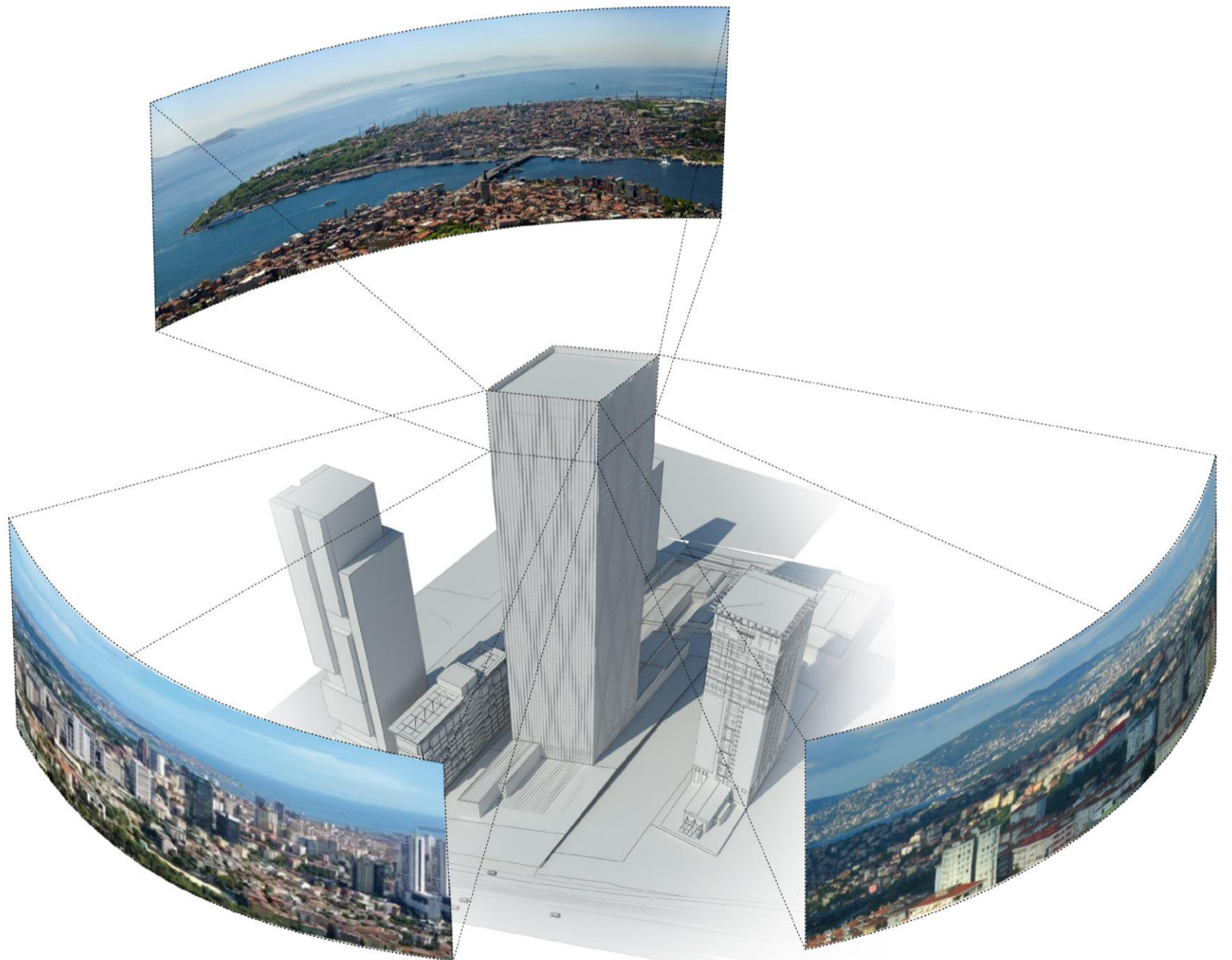
Views towards East at site elevated positions



Elevated views from the tower

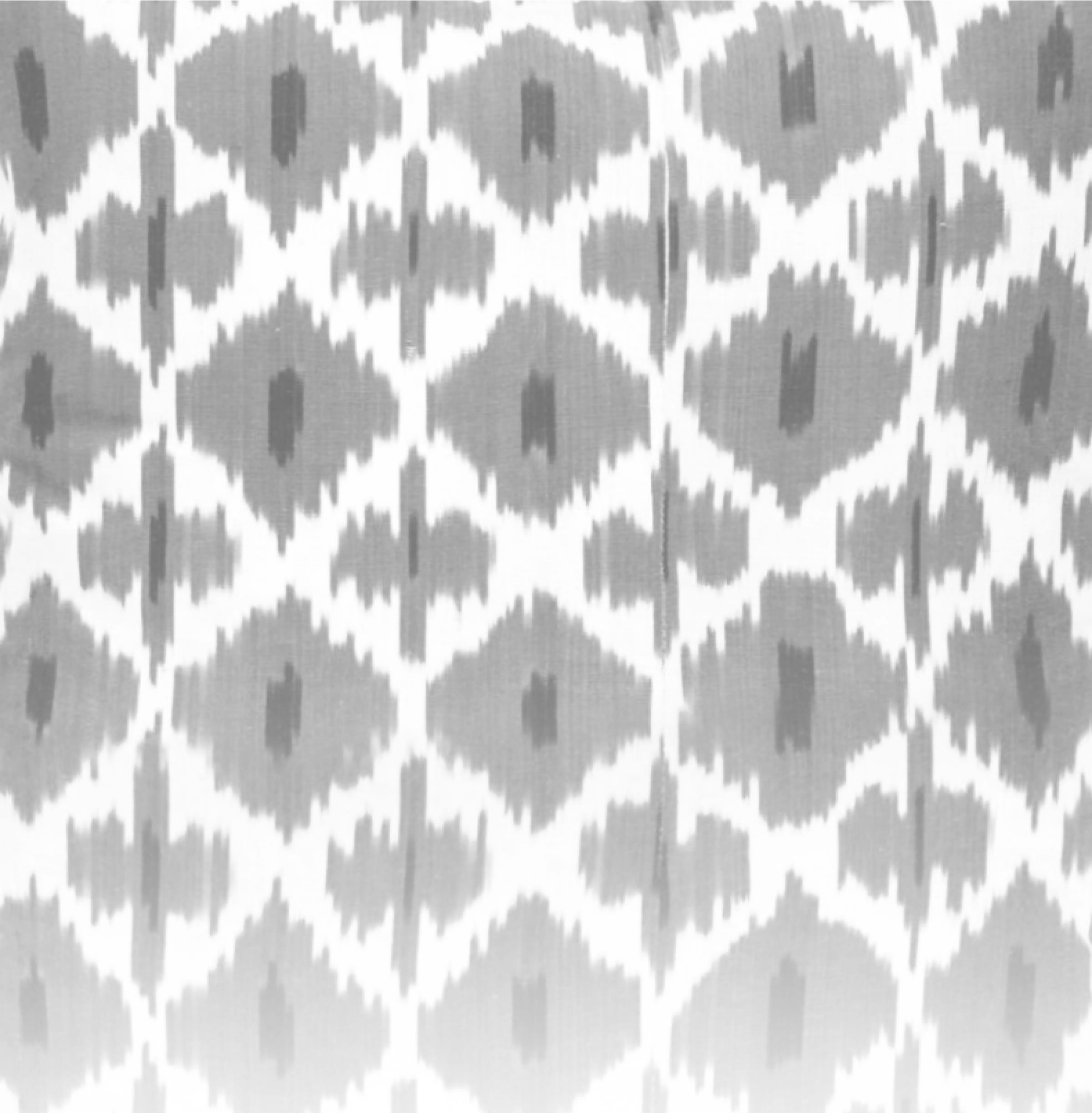


Views diagram



Views axonometric





Design Approach

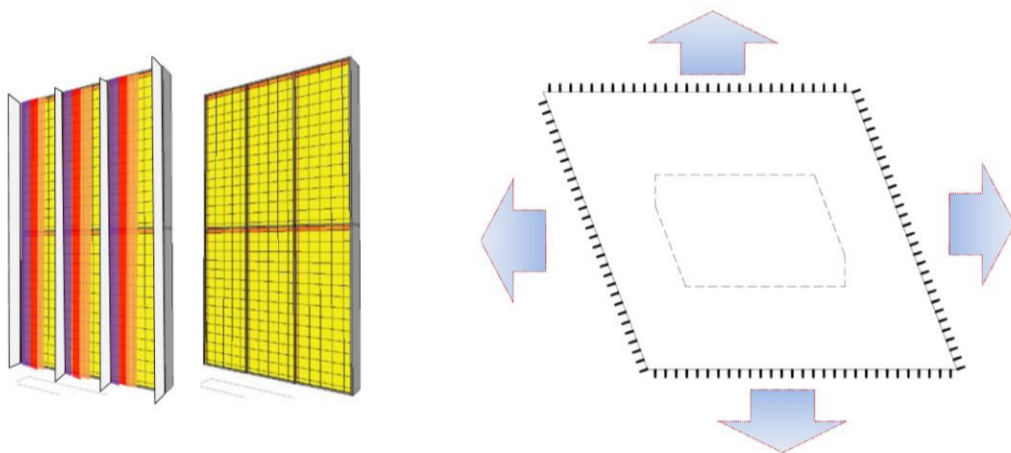
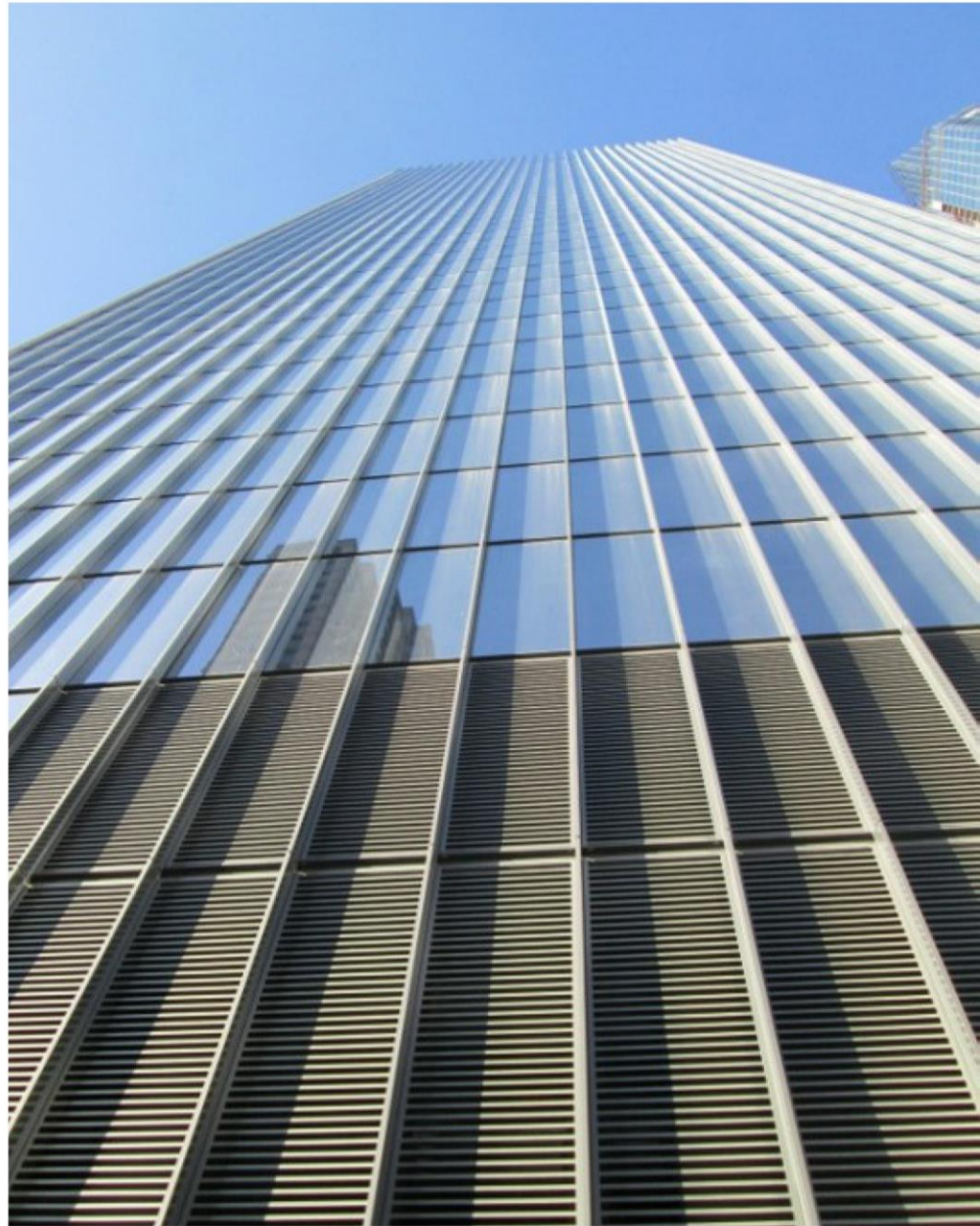
Design Approach

Tower Orientation and Concept

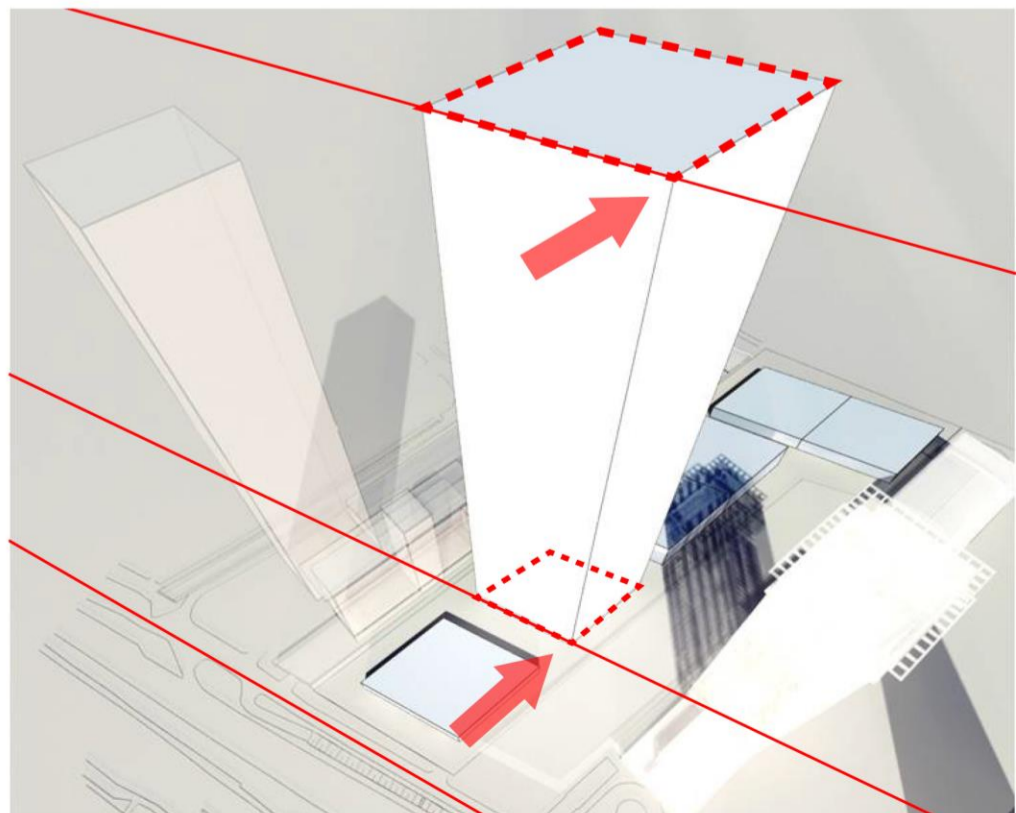
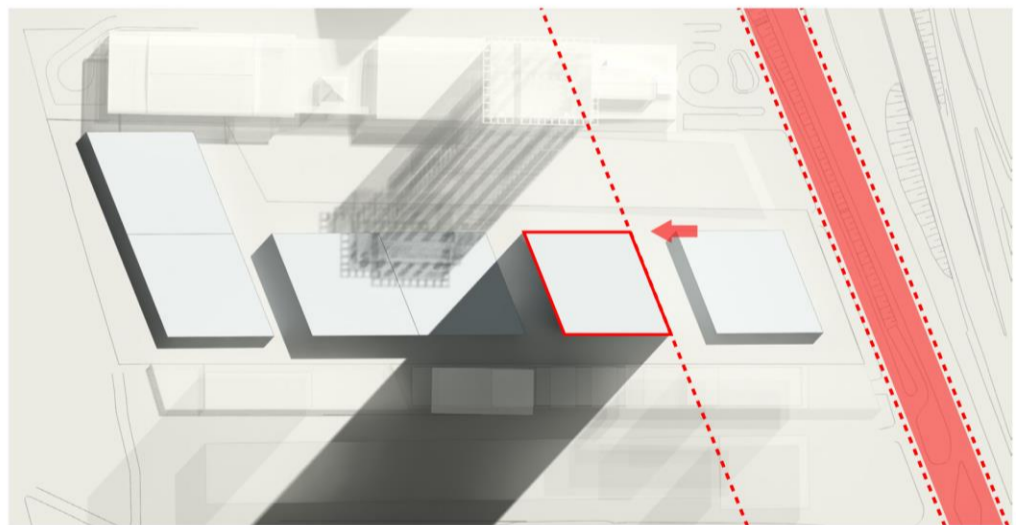
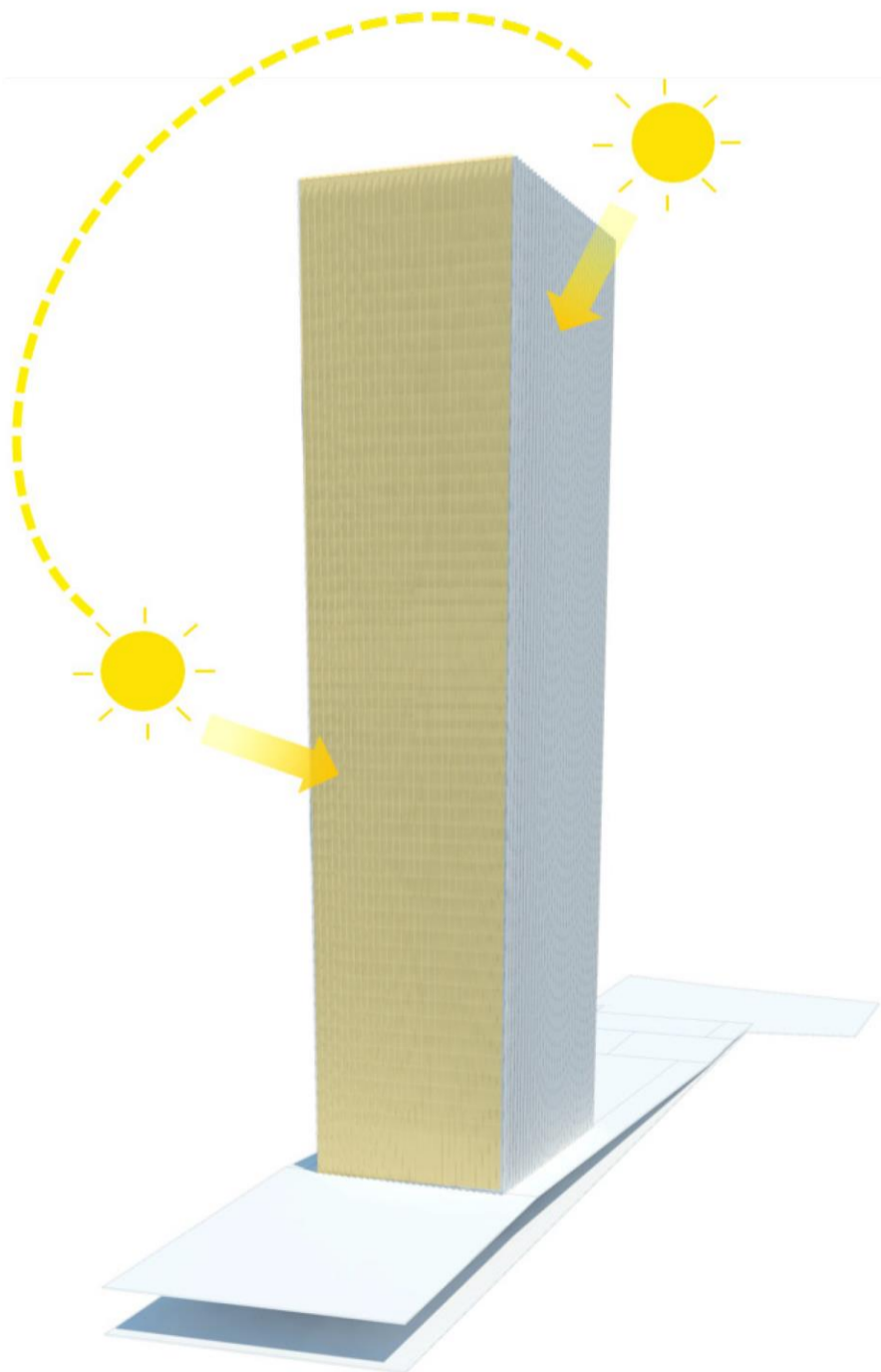
The placement of Istanbul Tower parallel to Levent Buyukdere Street creates a striking gateway for the development and a strong presence within its urban context.

The alignment of the tower to Buyukdere street distinguishes it from the surrounding buildings and embellishes the vantage points to Istanbul Tower. The distinct location facilitates commanding views of the Bosphorus, Golden Horn and the Black Sea. The tower's strong architectural identity gives reference to the geometric intricacies that exist in Turkish art and architecture.

Istanbul Tower's identity is strengthened by the striking facade treatment taking inspiration from the traditional Selcuk Architecture and elegant surface treatment.



Solar radiation analysis

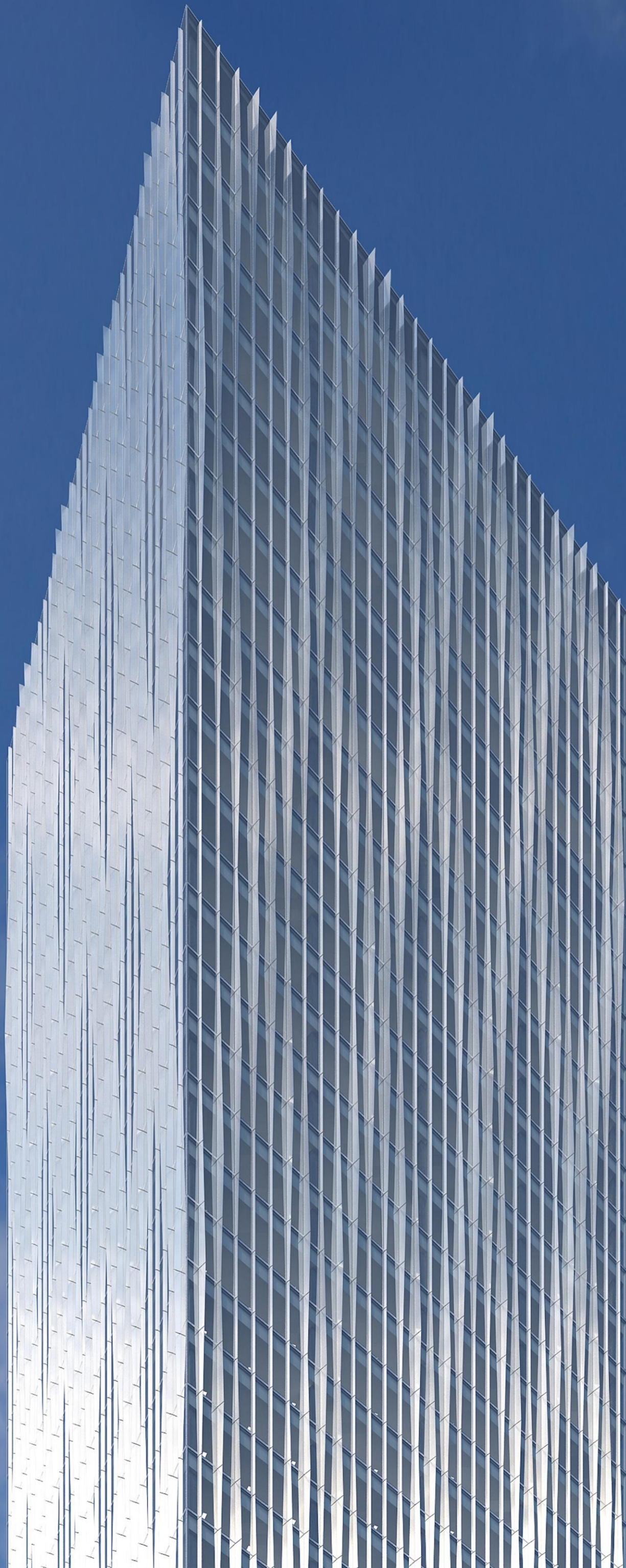


Alignment of the project to Buyukdere Street



The project is inspired by the intriguing geometric patterns, articulations and craftsmanship present in traditional Turkish architecture of Selcuk era.



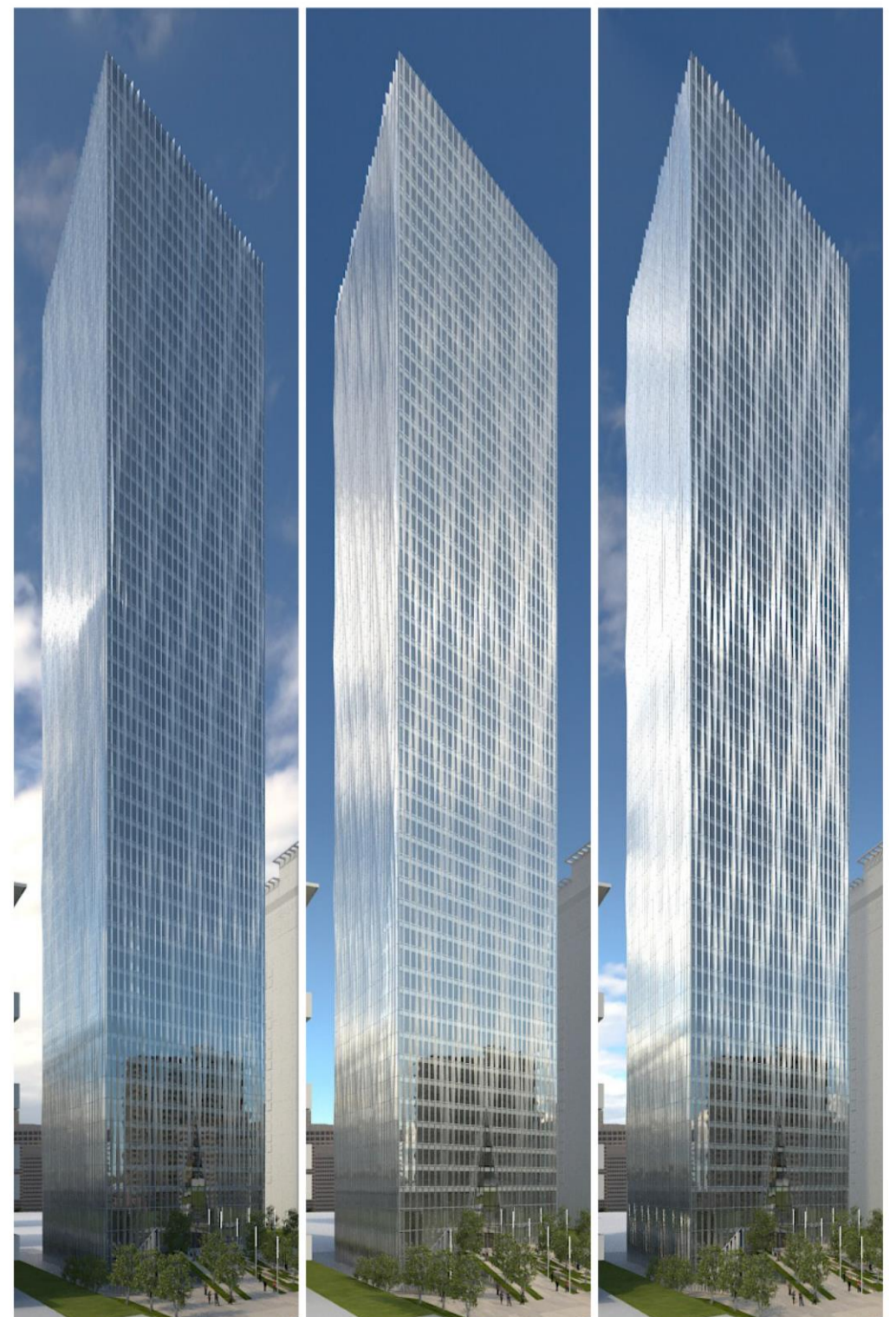
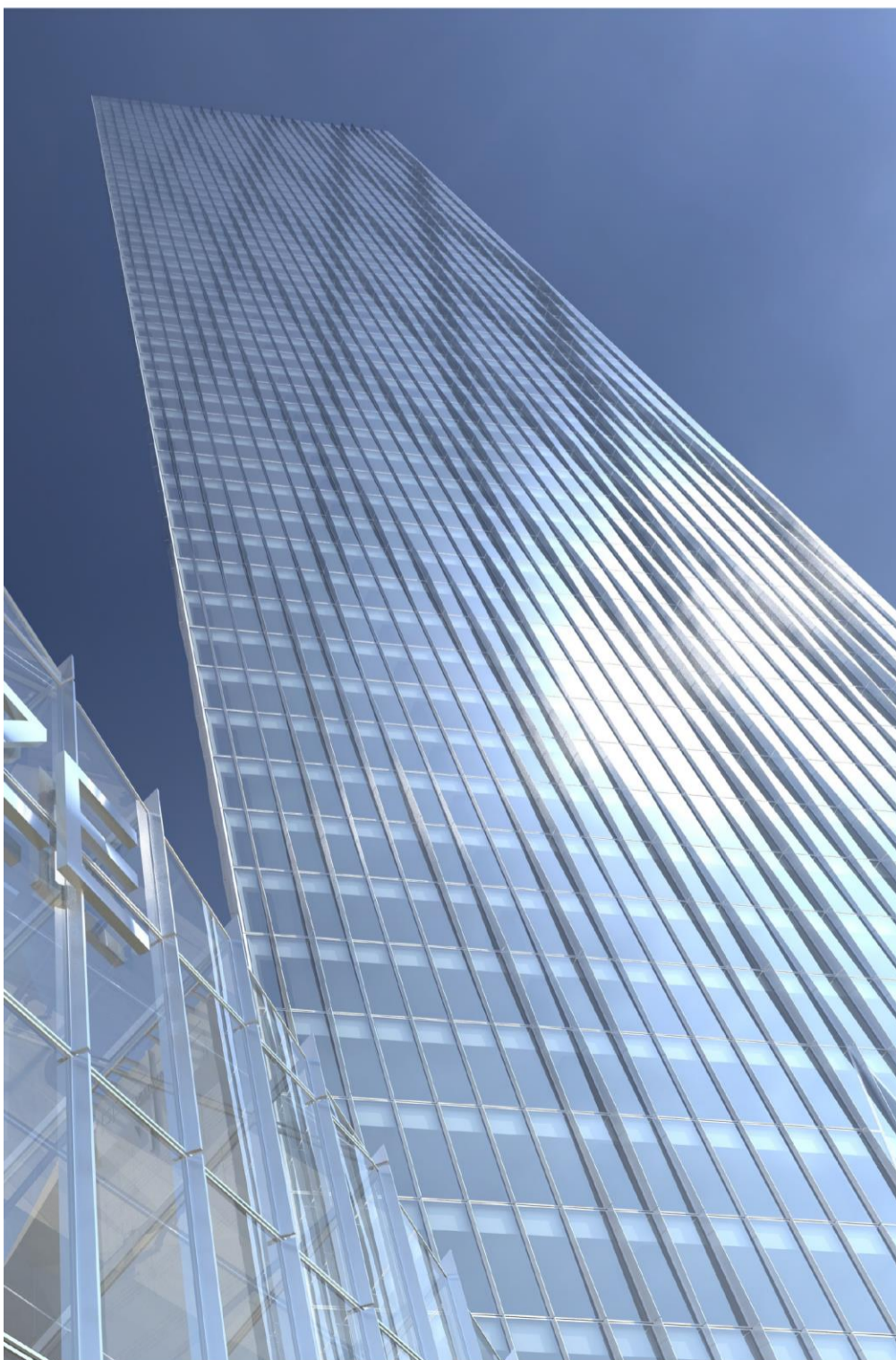


The pristine 3 dimensional fins of Istanbul Tower's facade are designed to enhance panoramic views and maximise natural daylight, whilst sheltering the office spaces from direct sunlight and heat gain. The fins simple yet elegant articulation creates an impressive yet elegant quilting pattern. The tower is designed to be perceived differently as one moves around the building: a straight reading from straight angles and a quilted reading from oblique angles.



The tower facade comprises a unitized curtain wall system, with shading fins on the outside. The fins are designed to create an ever changing reading and reduce solar gains and radiation. The intriguing facade design maximises the amount of daylight that infiltrates the building as well as enhancing the views from within.

The site's highly visible location allows the curtain wall system to provide unique visual experiences when approaching the tower. Whether travelling by car or as a pedestrian, the facade offers a dynamic perception of the building further emphasizing the reading identity and timeless quality of the tower.



Design Approach

Identity and Facade Design



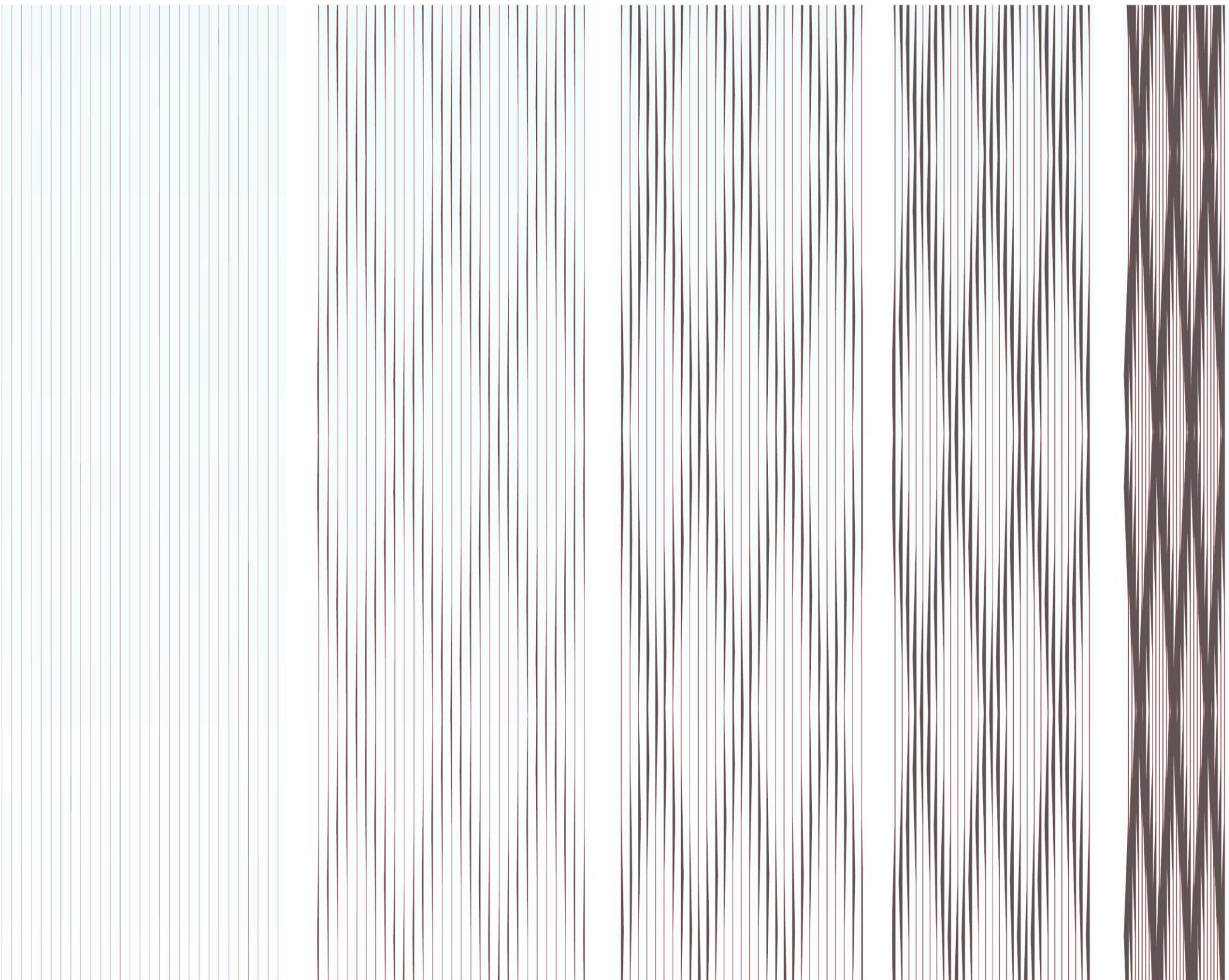
Facade Precedent for ever changing daylight capture on facade fins: SOM high-rise at 250 W55th Street in New York.

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W55th Street in New York. The materiality of the facade and the alternation of fins results in varying effects throughout the course of the day.

Facade perception diagram from straight to oblique angles





Night Time Tower Rendering

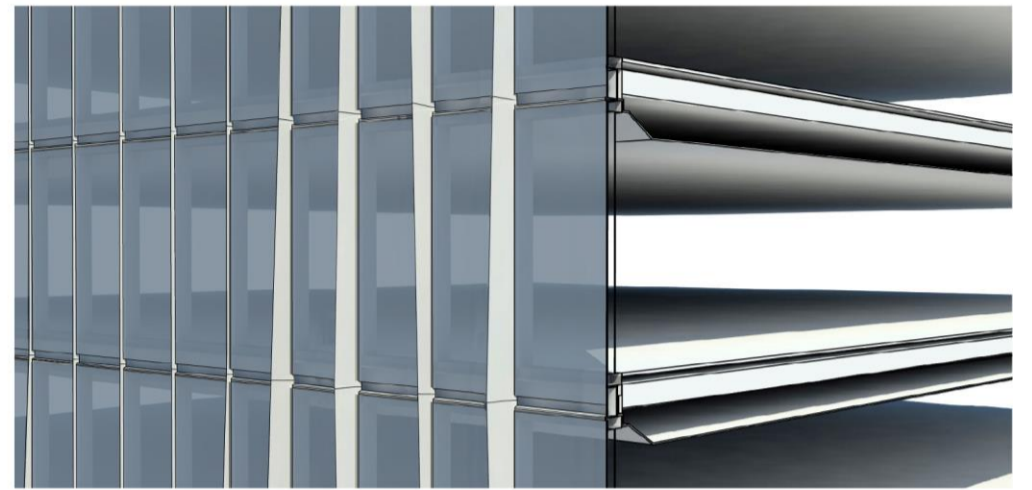
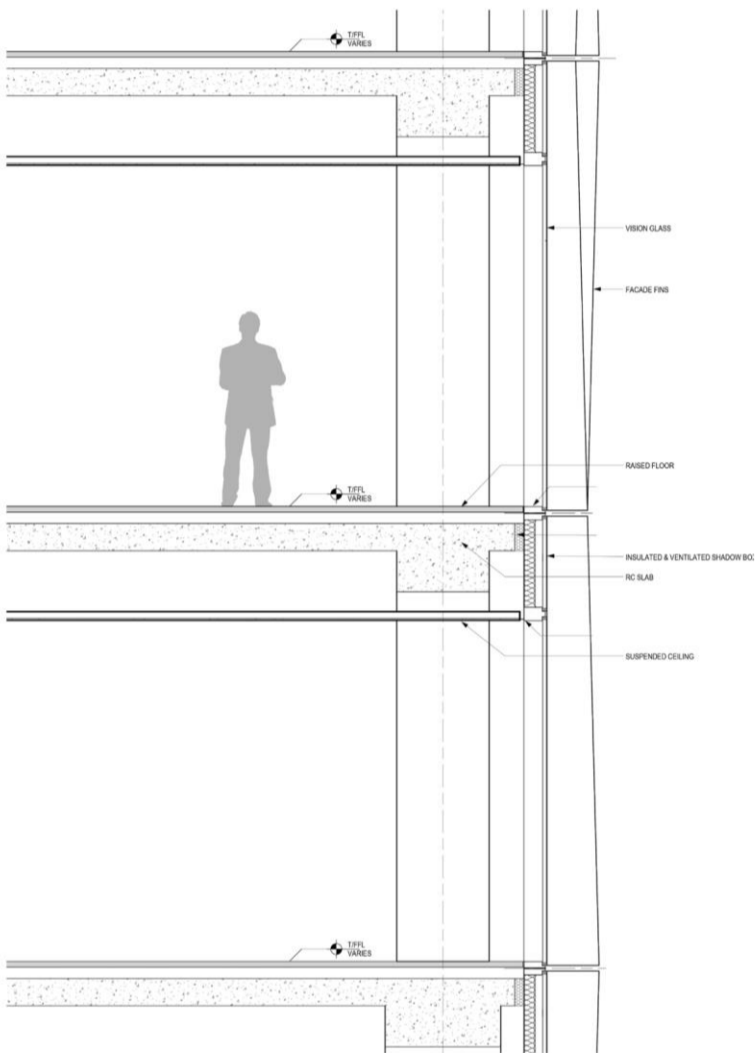
Design Approach

Office Workplace

Flexible open plan office space for Istanbul Tower occupants is provided across all levels of the tower and podium. The perimeter structure allows for maximum flexibility of interior layouts and also allows for multi tenant configurations. All office space benefits from spacious, column-free floor plates spanning from core to external facade. Within the tower and podium, a variety of interior design configurations can be implemented within this single fluid workspace providing long-term flexibility to accommodate varying commercial tenant requirements. Taking into account research on international practices in office spaces, the design incorporates flexibility to accommodate a combination of open plan and enclosed office spaces.

With the subtle articulation of the geometry along the facade, the design aims to increase the perimeter condition. It also maximises natural daylight and sky exposure into the office plan.

The executive offices areas located at the upper most floors of the tower. These prestigious office areas benefit from stunning views towards the Bogazici Bridge, Fatih Sultan Mehmet Bridge along the Bosphorus, Golden Horn and Black Sea in distance. A helipad is positioned on the roof level of the tower for executive use.



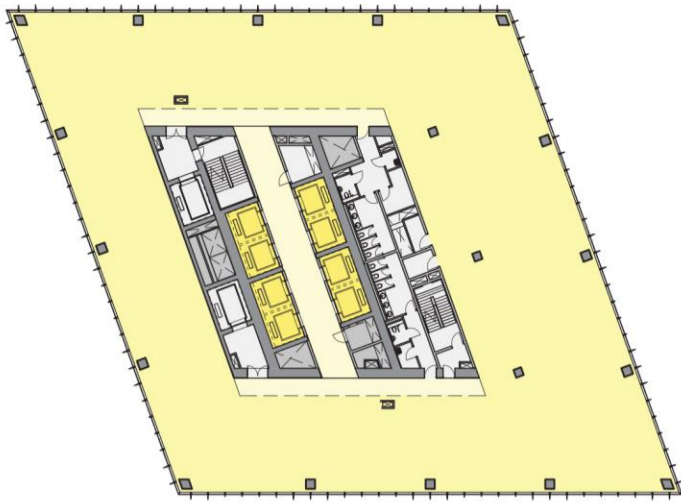
Sectional Perspective Diagram



Indicative Open Plan Office Rendering



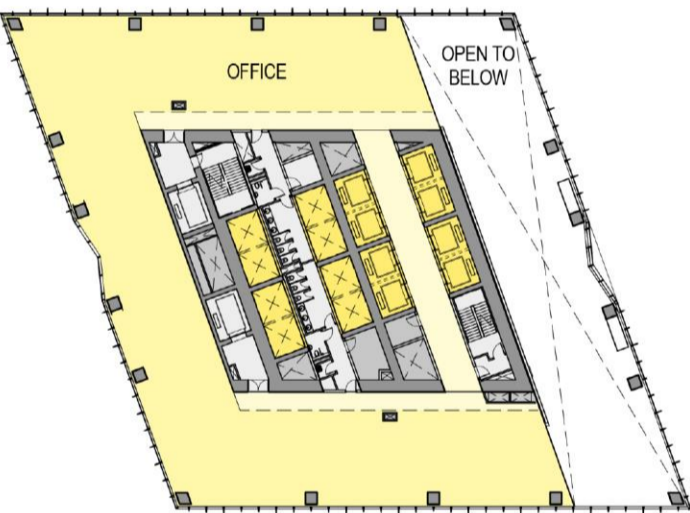
Indicative Office Floor Rendering



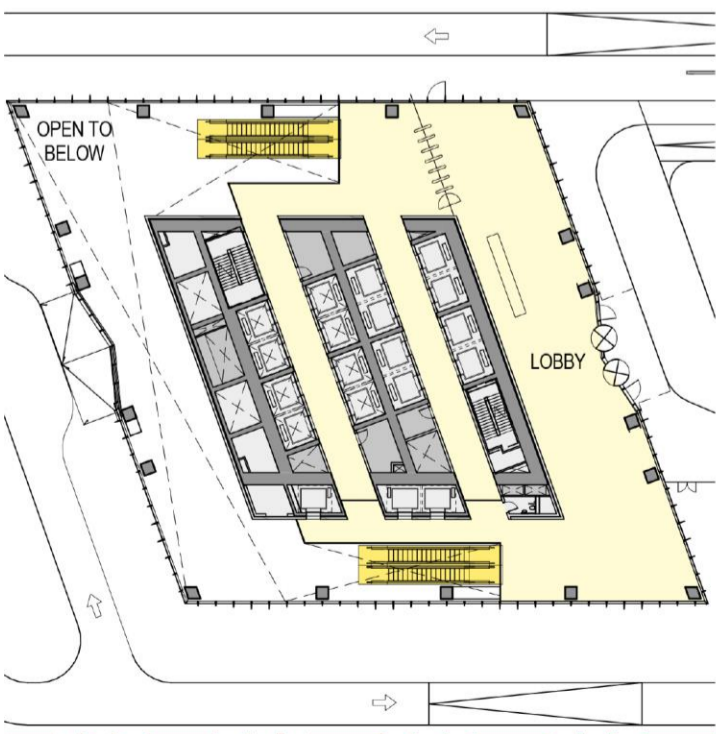
Typical High Rise Office Floor Plan



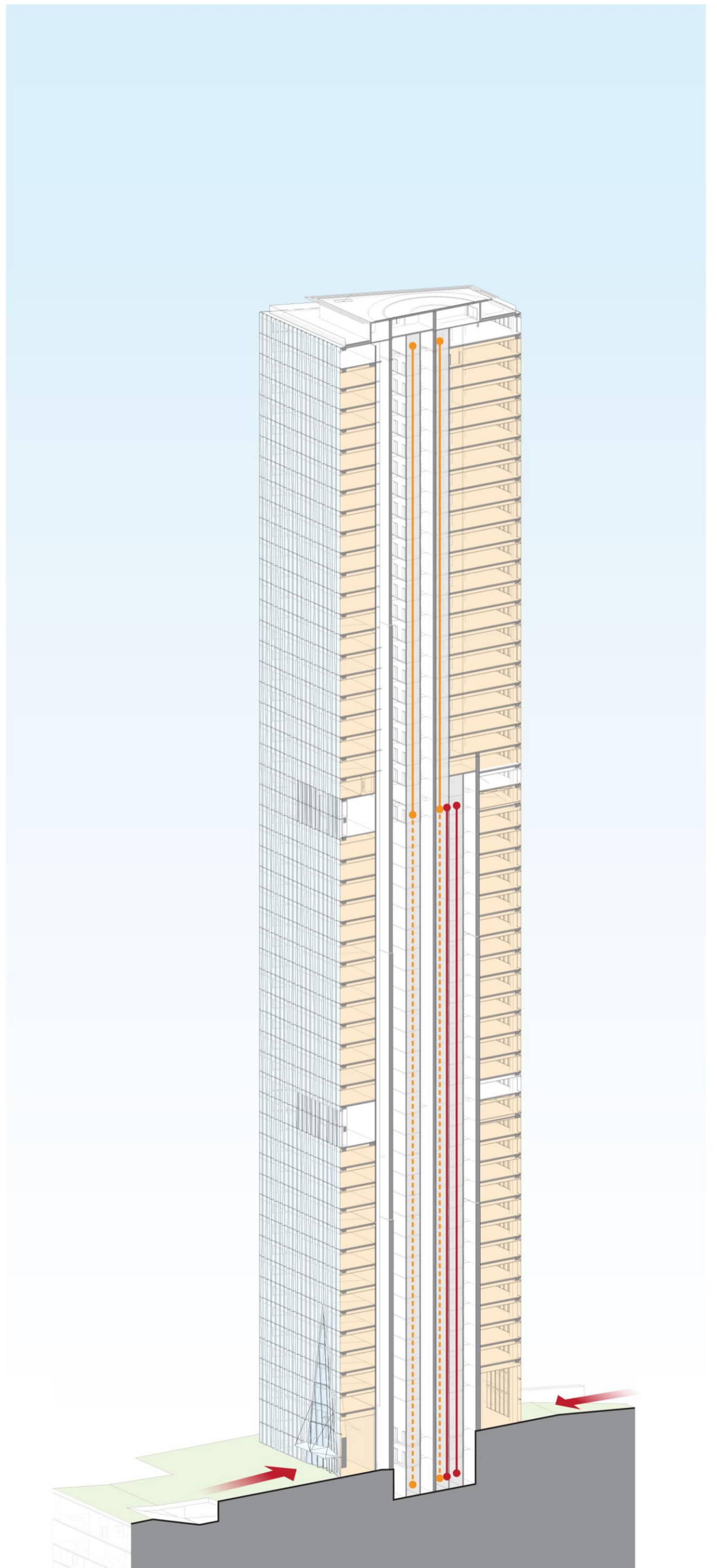
Typical Low Rise Office Floor Plan



Level 01 Plan



Ground Level Plan



Sectional Perspective Diagram

Design Approach

Lobby Design

Istanbul Tower's identity is characterised by its remarkable double height lobby on the ground floor, both visually and physically connecting the two plazas on either sides of the tower. The lobby entrance is marked by a recessed gateway leading into an impressive triple height space filled with natural daylight, providing a striking first impression for the public. The undulating quilted fin pattern is continued from the external wall into the lobby through the use of glass fin ceiling and wall cladding.



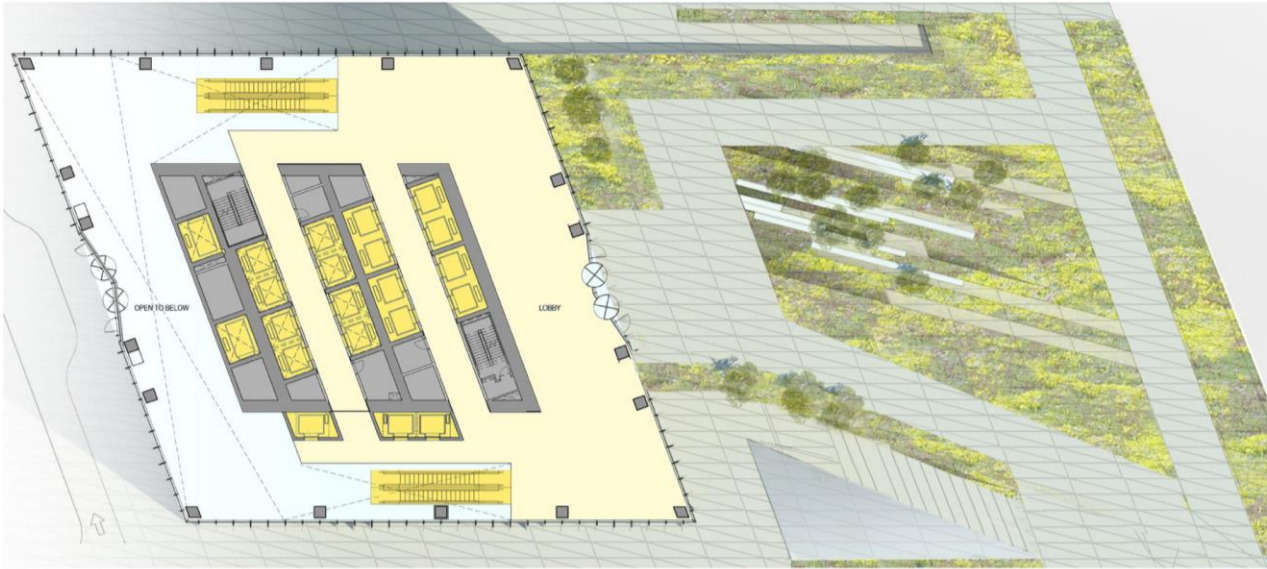
Upper and Lower Lobby Renderings



Tower Lobby Rendering

Design Approach

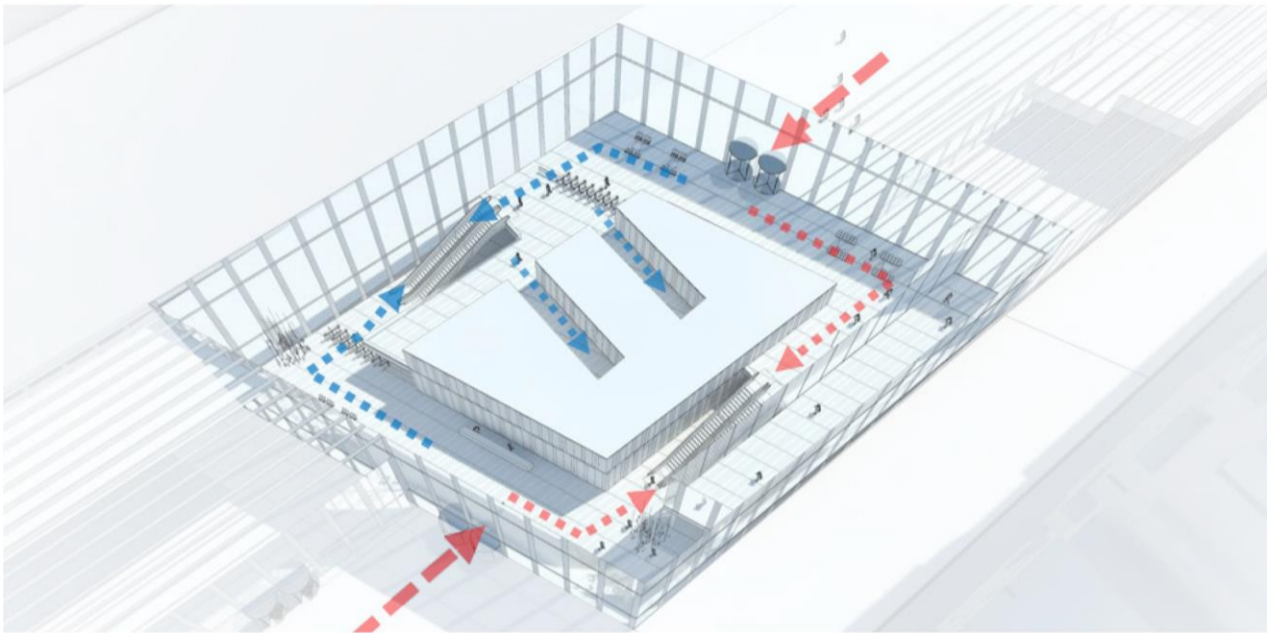
Pedestrian Access



Ground Level Plan

The Tower entrance sequence is reinforced by a landscaped public open space adjacent to Buyukdere Street, creating a front plaza and protective zone from the street. The front plaza facilitates a vehicle free approach for pedestrians by limiting the vehicular plaza access to VIPs only. The lower plaza is designed as the main drop off area for the tower.

The split level lobby design provides an easy access to double deck lifts on one side, and promotes activity providing a connection between the two plazas on the other.



Split Level Lobby Diagram



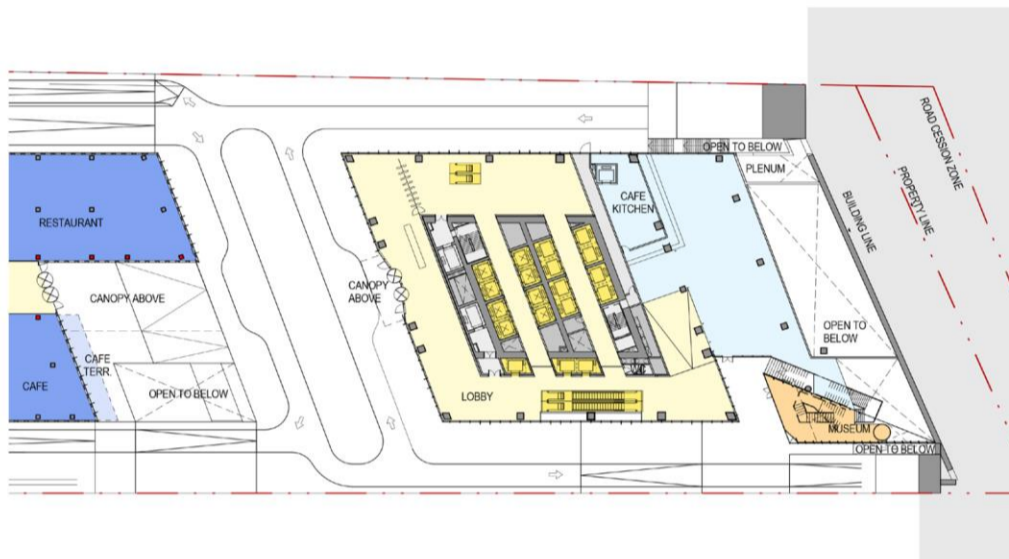
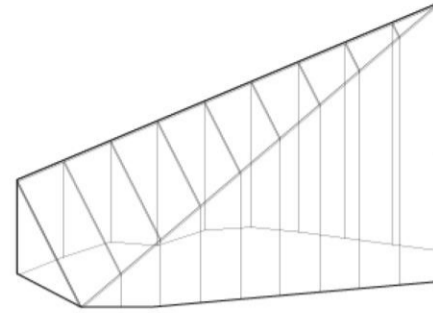
Plaza Rendering on Buyukdere Street

Design Approach

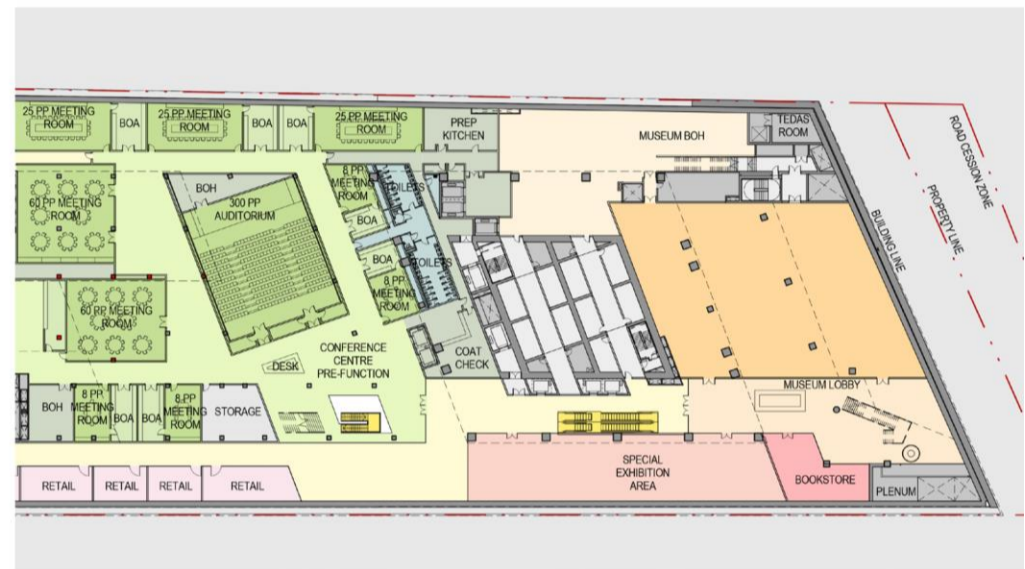
Museum Design

Defining the south side of the plaza, a pure glazed volume forms the Museum Pavilion. Its transparent skin invites visitors to get in while the pyramidal volume leads the way down to the exhibition areas, at the same time that establishes a direct relationship with the Istanbul Tower main entrance.

The reception area inside the pyramid creates a grand lobby area for directly linking the permanent and temporary collections. A bookstore, cafe and direct connection to the conference centre completes the Museum experience by creating opportunities for larger cultural events to take place.



Level B1 Plan



Level B2 Plan



Buyukdere Plaza Rendering



Museum Reception Area Rendering



Museum Reception Pavilion Rendering



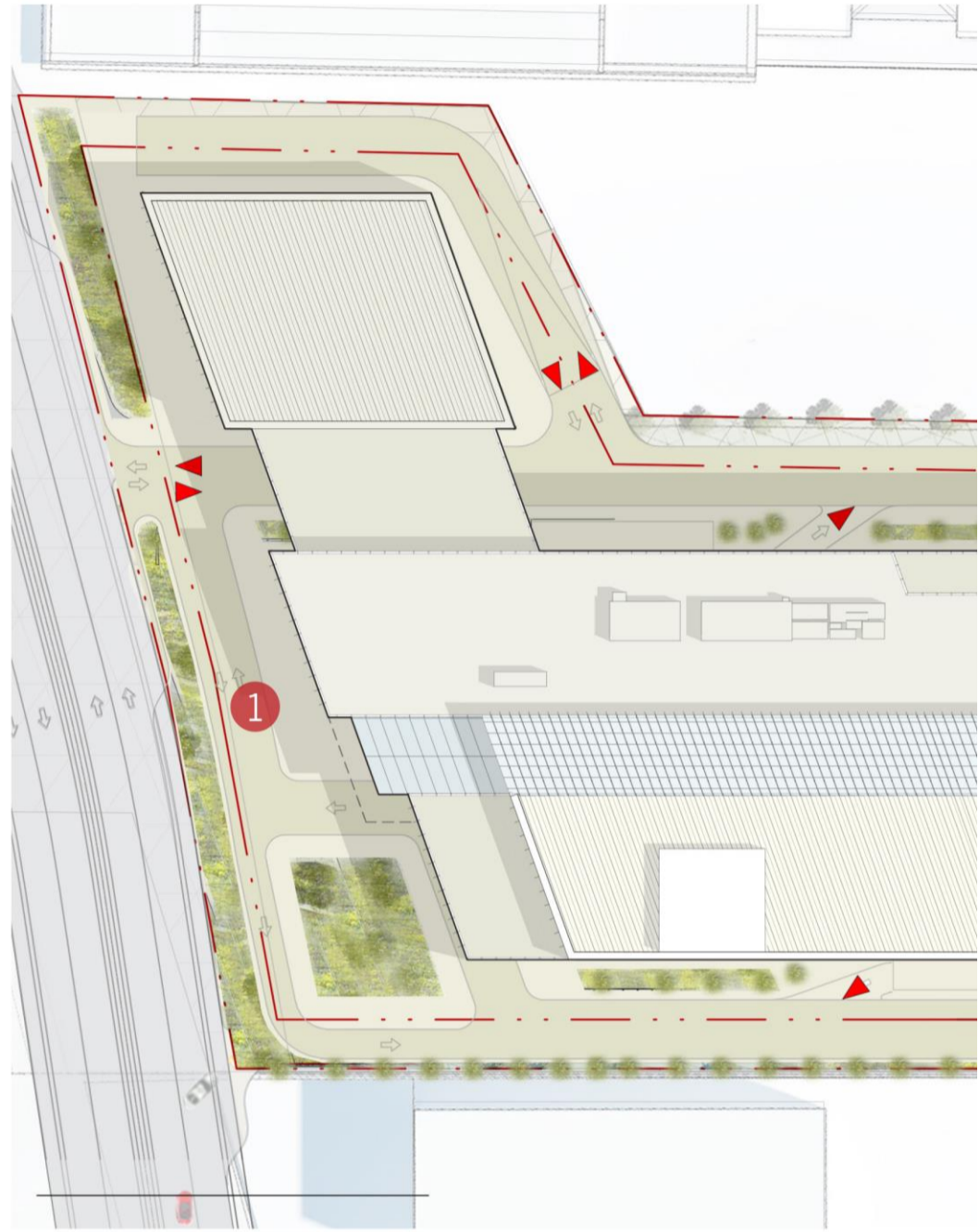
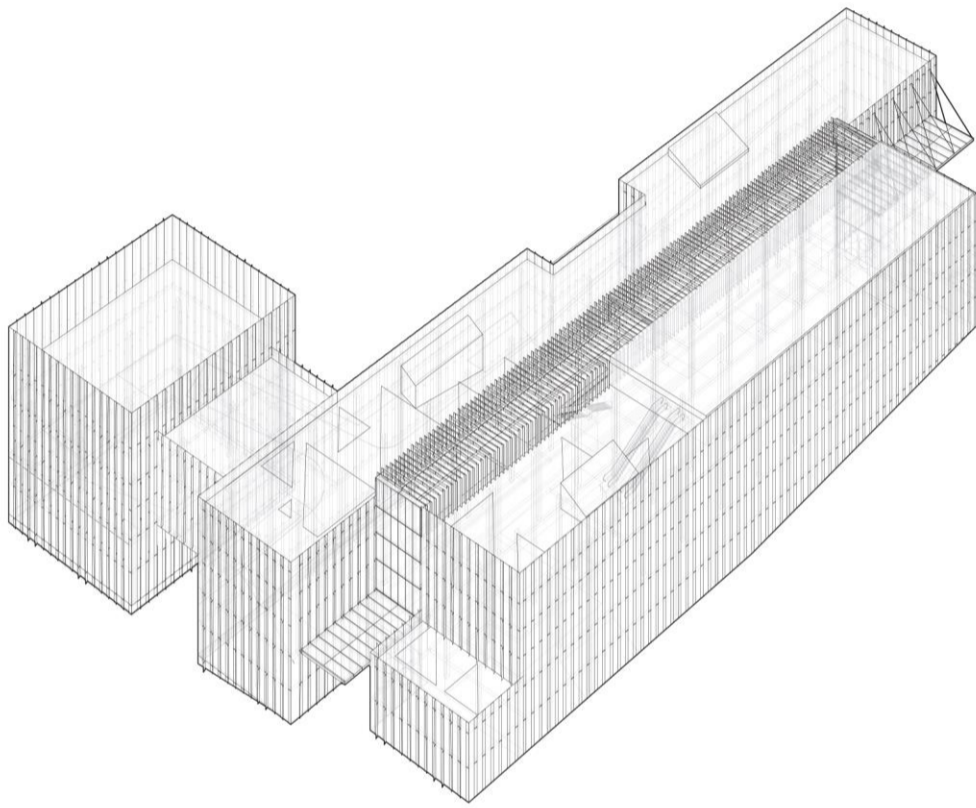
Museum Pavilion Rendering

Design Approach

Podium Design

The podium building is designed to be an active connector between the tower and Oto Street, housing offices, amenities for office users and selective retail elements. Some of these uses include, conference centre, auditorium, fitness, roof terraces, cafes and restaurants.

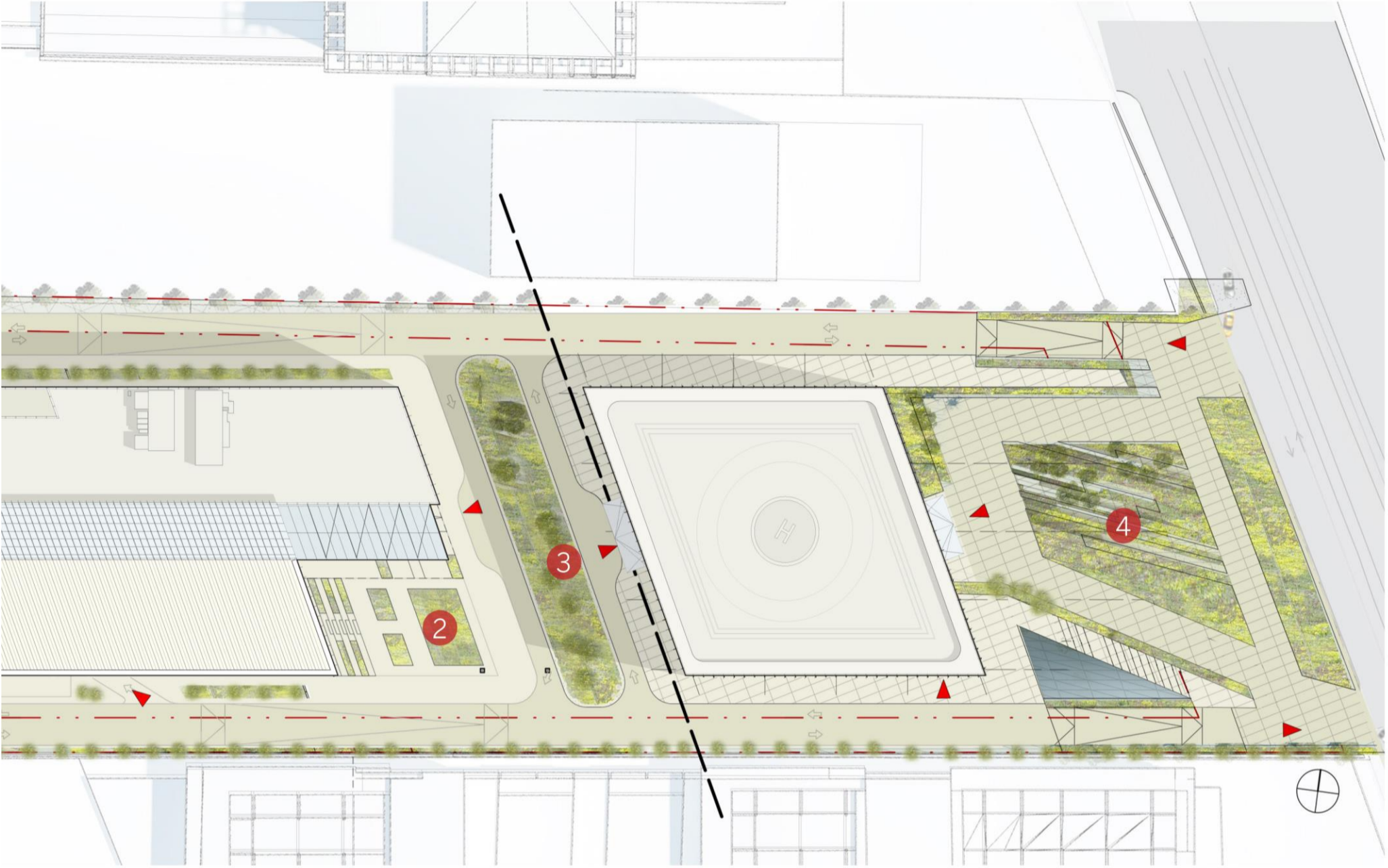
The podium building is necklaced by two landscaped plazas on either sides and an atrium connection in between the two. Each plaza is designed with a distinctive character to strengthen the project's identity.



1. Oto Street Plaza Entrance



2. Mid Plaza Podium Entrance



3. Mid Plaza View



4. Buyukdere Street Plaza

Design Approach

Project Plans



B4 Floor Plan



B2 Floor Plan



Level B6 Floor Plan



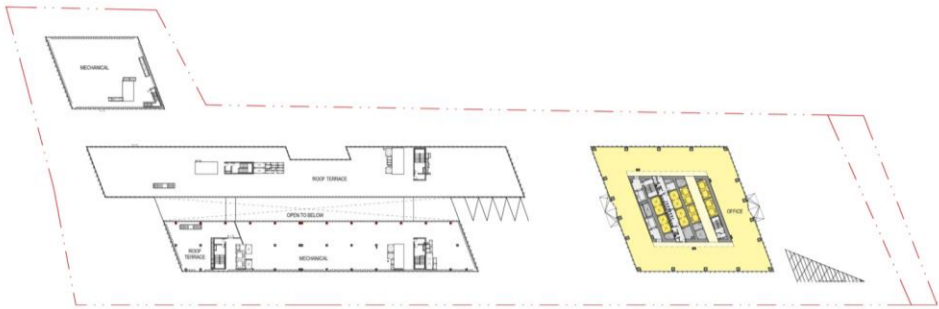
B3 Floor Plan



Oto Street Plaza Rendering



Ground Floor Floor Plan



Second Floor Plan



B1 Plan



First Floor Plan



Podium Atrium Rendering



