



GALLO
Audrey



AUDREY GALO, MArch

UNDERGRADUATE WORK | ILLINOIS INSTITUTE OF TECHNOLOGY

2008_a DENSE BLOCK | architecture

2009_a DENSE SOLUTION | architecture

GRADUATE WORK | CALIFORNIA COLLEGE OF THE ARTS

2010_ALAMEDA NAVAL BASE MASTERPLAN | urban design

2011_HISTORIC WUDADAO MASTERPLAN | urban design

PROFESSIONAL WORK | CLARK CONSTRUCTION LLC.

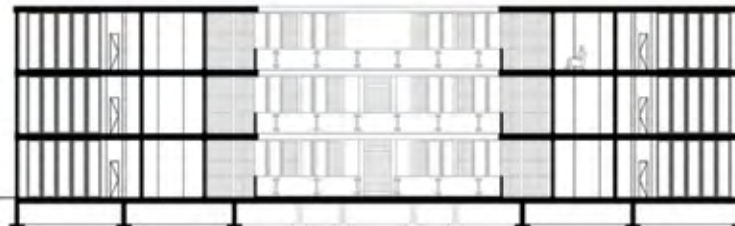
2007_McCORMICK PLACE WEST EXPANSION

2008_300 NORTH LaSALLE



PROJECT_a DENSE BLOCK
TYPE_RESIDENTIAL
LOCATION_CHICAGO, IL
SITE_TYPICAL CITY BLOCK
PROGRAM_180 UNITS, 120 TWO BD., 60 ONE BD.,PARKING

Chicago city blocks consists of 40 typical residential lots. This condition creates low density and few outdoor green spaces. Without creating residential towers, how can the block become four times more dense, preserve a sense of community and allow green spaces?





PROJECT_a DENSE SOLUTION

TYPE_RESIDENTIAL

LOCATION_CHICAGO, IL

SITE_TYPICAL CITY BLOCK

PROGRAM_84 UNITS, 63 THREE BD., 21 TWO BD.

A new density housing typology that achieves green spaces on every unit level. The design incorporates private and public green areas and two parking spaces for each unit. The block is twice as dense as the typical Chicago block.

ALAMEDA NAVY AIR STATION

DECOMMISSIONED MILITARY BASE WITHIN SAN FRANCISCO BAY AREA
 GIVEN THE SEVERE SOIL AND WATER CONTAMINATION ON SITE AND ITS PROXIMITY TO A UNIQUE
 LEAST TERN BIRD HABITAT; THE ALAMEDA NAS MASTERPLAN WILL RESPOND TO THIS AND OTHER
 LONG TERM CONSIDERATIONS.

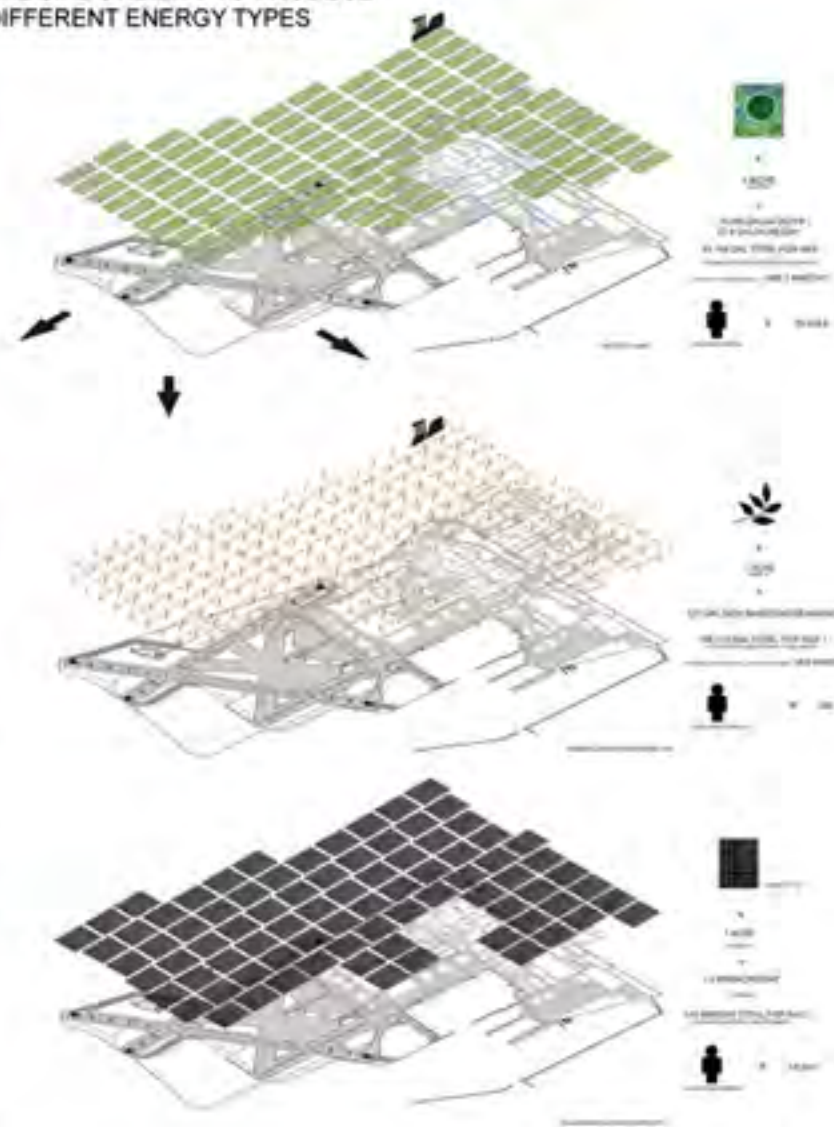
IN THE NEXT 100 YEARS, HOW WILL ALAMEDA NAS BE READY TO RESPOND TO INCREASES IN POPU-
 LATION, WATER CRISIS, ENERGY CRISIS AND RISING SEA LEVELS?



POPULATION DENSITY STUDIES
 POPULATION DISTRIBUTED OVER
 ENTIRE SITE BASED ON CHANGING
 STREET SECTIONS



ENERGY SITE POTENTIAL STUDIES
 THE SITE'S ABILITY TO PRODUCE
 DIFFERENT ENERGY TYPES



ALAMEDA NAS MASTERPLAN

WATER RECYCLING PLANT
GREYWATER IS RECYCLED AND FILTERED IN A LONG CHANNEL AND THEN PUMPED INTO THE LARGE COLORFUL POOLS OF ALGAE.

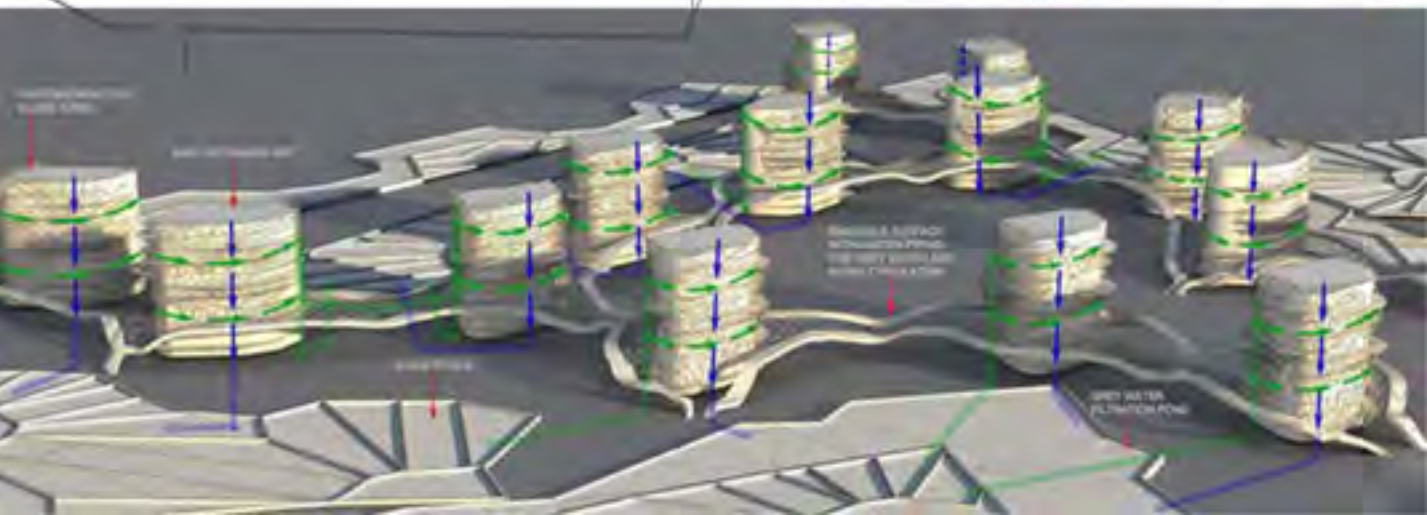
ENERGY AND WATER
GREYWATER COLLECTION SYSTEM FEEDS THE RESIDENTIAL TOWERS WITH ALGAE PHOTO BIOREACTOR FACADES AND THE ALGAE OPEN POOLS.



BIRD HABITAT
THE ORIGINAL BIRD HABITAT STAYS INTACT AND SLOWLY TURNS INTO AN ESTUARY.

TRANSPORTATION HUB
FERRY AND TRAIN FROM SAN FRANCISCO CONNECT DIRECTLY TO ALAMEDA ISLAND.

ALGAE LAGOON
FLOATING OPEN POOLS OF ALGAE FILL THE LAGOON.



HISTORIC WUDADAO MASTERPLAN URBAN CONTEXT

BEIJING-TIANJIN URBAN AGGLOMERATION UNDERSTANDING THE URBAN ECONOMY, CITY THROUGH POPULATION, CONSTRUCTION ON ECONOMY

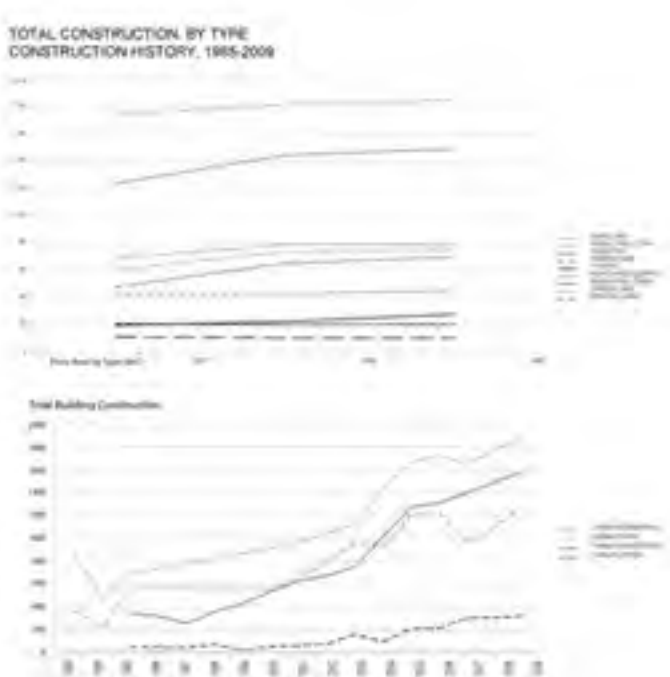
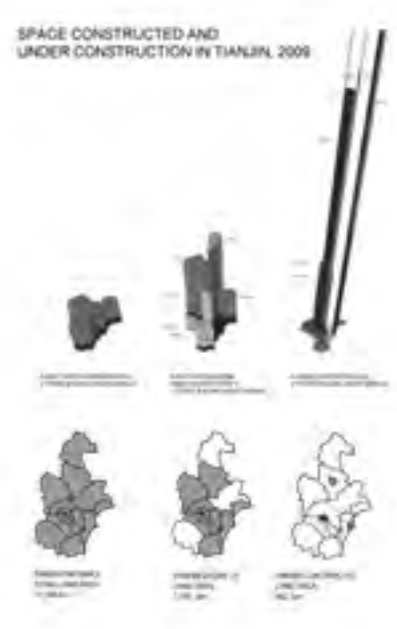
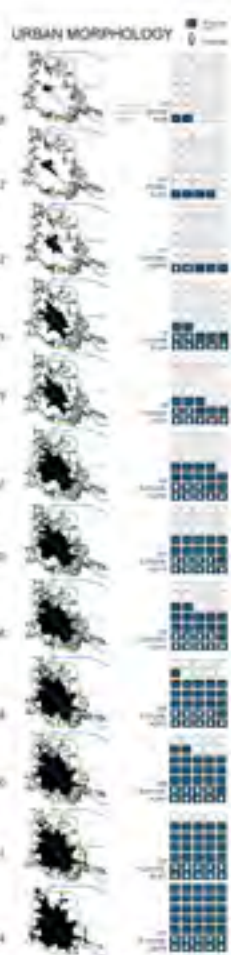
China is undergoing the unique scale of urbanization in history and at an unprecedented pace. During the past three decades, the share of China's population living in cities more than doubled, reaching 48.8 percent in 2007. Based on current trends, urbanization in China will rise to about 64 percent by 2020, which translates to an increase in urban population of roughly over 200 million. If the annual population increase in Chinese cities over the next 20 years is five percent, it will be about 17.7 billion, the equivalent of one New York City (17.8 million) or Seoul (17.5 million) each year. By 2020, Chinese cities will house about 12 percent of the world's population, up from about 8 percent today.

Tianjin's urban area is 45 km from the Tianjin city center (100 km from Beijing, and 30 km from Tangshan). With the new Beijing-Tianjin-Hebei Expressway extended to the Tianjin, and other planned trunk transport connecting Tianjin and Tangshan, JZTTC will be able to join Beijing's one-hour economic radius, and will be better suited to the northeast. It encompasses one of the world's largest ports (Tianjin Port), and two major economic zones: the Tianjin Economic Technological Development Area (TEDA) and the Tianjin Free Trade Zone (FTZ). Tianjin produces 44 percent of Tianjin's GDP with only 10 percent of its population. It has experienced one of the fastest growth rates among cities in China, and attained an average annual GDP increase of 20.9 percent from 1994 to 2005.

Regional arterial infrastructure has been expanded, and new infrastructure is expected in coming years. This includes expanding the airport and port, and investing in high speed rail from Beijing to Tianjin. The economy of Tianjin relies heavily on manufacturing. Chemical, information, chemical, technology, automobile, and other manufacturing operations make up to 90 percent of the economy.

The city plans will have to absorb 157,000 people between 2001 and 2020.58 but the Tianjin area will have to absorb 150 million people between 2001 to 2020. In light of Tianjin's population pressure and the goal of providing 40 m² of per capita floor area in residential buildings by 2010 to the gap in the housing sector is significant. Nearly 15 million m² of residential buildings need to be built by 2010, and 64 million m² by 2020. To being sustainable, the land and for a commission (located) areas in Tianjin's central districts within the outer ring, most of the increased housing stock is expected to be located in the TEDA and the suburban districts, where cheap and affordable. From this perspective, the development of real estate in JZTTC responds to the housing demand in the region.

See Singapore Tianjin Eco-City
A Case Study of an Emerging Eco-City in China
November 2008 Vivaris Bank Report



DISTRIBUTION OF TOTAL INVESTMENT IN TIANJIN PROVINCE



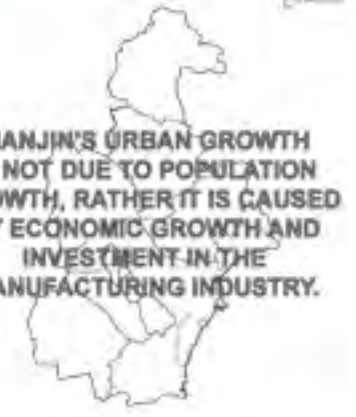
BEIJING-TIANJIN MEGAREGION ZONES



CITY AREA GROWTH 1946-2004



TIANJIN'S URBAN GROWTH IS NOT DUE TO POPULATION GROWTH, RATHER IT IS CAUSED BY ECONOMIC GROWTH AND INVESTMENT IN THE MANUFACTURING INDUSTRY.

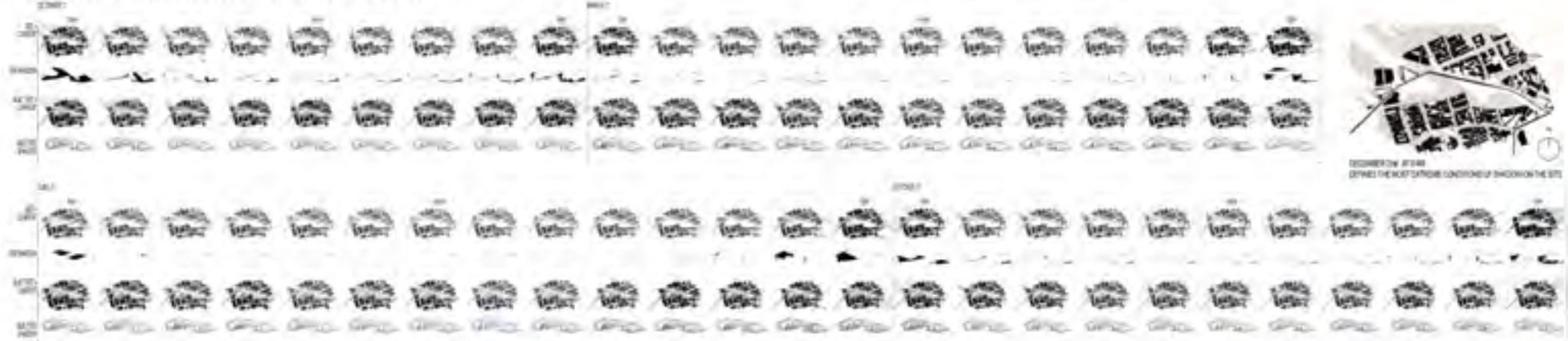


SITE SHADOW STUDY

WUDADAO
IS A GATEWAY TO A UNIQUE HISTORIC DISTRICT.
TIANJI
IS A MODERNIZING METROPOLIS AND
NAIJIN ROAD
IS AN UNCROSSABLE BARRIER TO THESE TWO CONDITIONS.



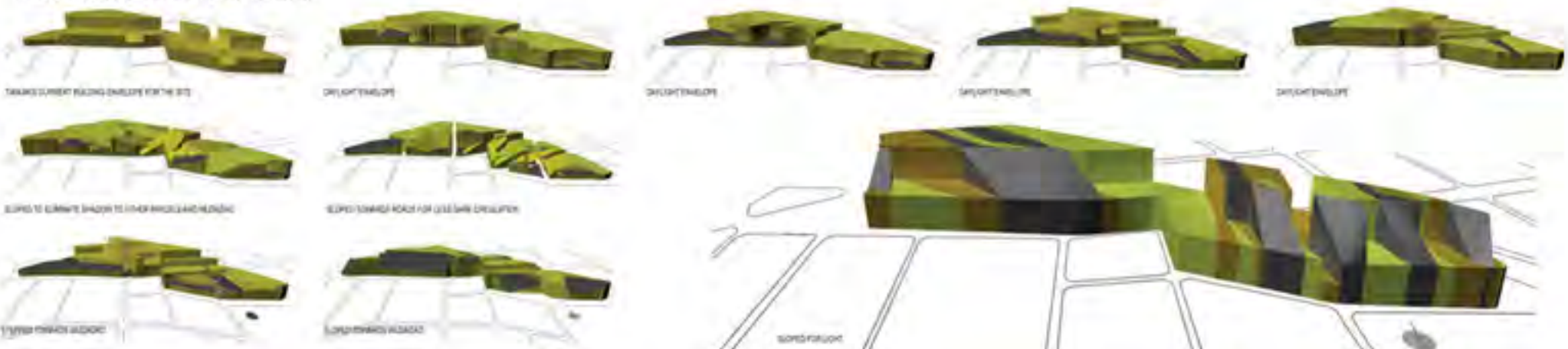
SUN STUDY ANALYSIS OF SHADOWS PRODUCED BY SITE CONTEXT AND TESTING OF NEW SITE TOPOGRAPHY



PARCELIZATION PARCELS DETERMINED BY DIFFERENT SHADOW ANALYSIS METHODS

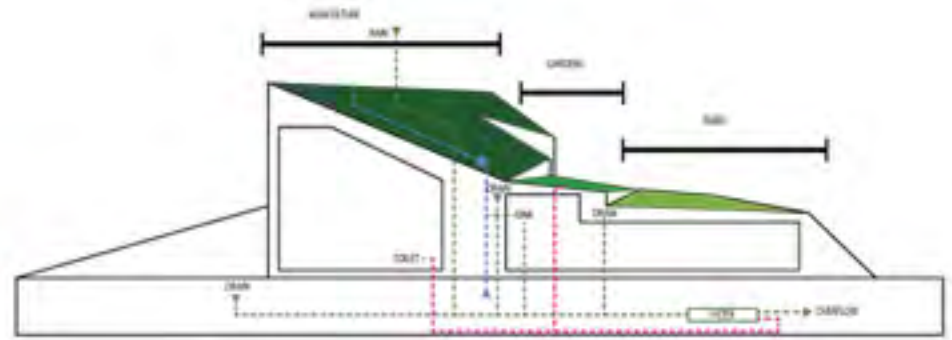


ENVELOPE STRATEGY PARCEL STRATEGIES CREATE DIFFERENT DAYLIGHT ENVELOPES



TOPOGRAPHY TYPOLOGIES

METABOLISM: CONSUMPTION VS. COLLECTION



DIMENSIONING STUDIES



DRIFLIGHT FROM SOUTH IN VOIDS



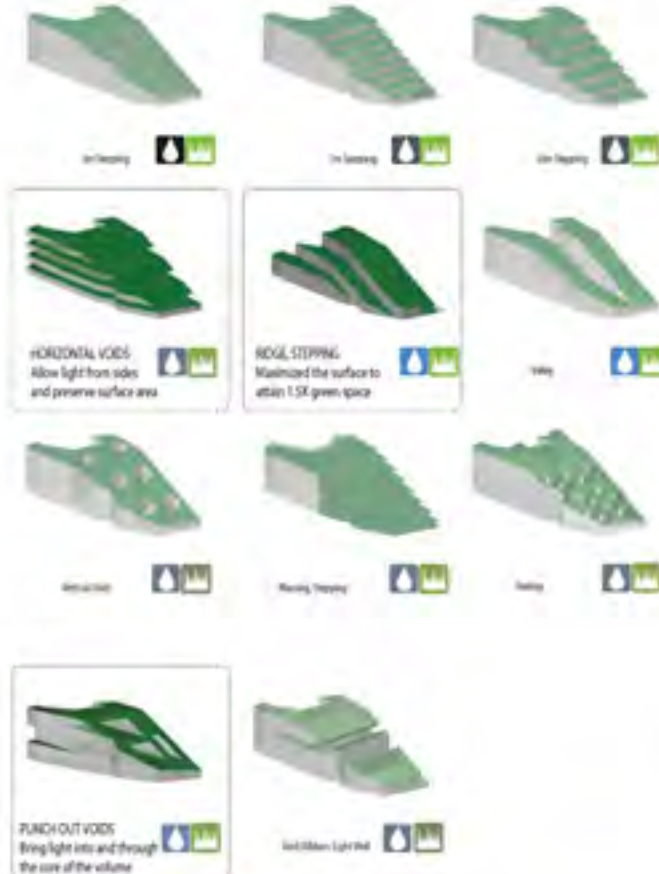
TOPOGRAPHY TYPOLOGIES

TYPOLOGY HELPED DETERMINE THE DIFFERENT STRATEGIES FOR MAXIMIZING SURFACE AREA OF THE TOPOGRAPHY

BAR



MAXIMIZING SURFACE AREA



PERIMETER



CULTIVATING WUDADAO MASTERPLAN



GREEN BUSINESS

- FLOWER GARDEN
- COMPOST
- RECYCLE
- WATER COLLECTION
- WELLNESS CENTER
- COMMUNAL EDIBLE GARDEN
- INDOOR OUTDOOR SPACES

RESIDENTIAL

- COMMUNAL RESOURCES
- OPEN AIR PROGRAMS
- EDIBLE LANDSCAPE
- WATER REUSE EQUIPMENT
- DAILY ACTIVITIES

EDUCATION

- URBAN FARM INSTITUTE
- COMPOSTING CENTER
- WATER RECYCLING
- RECYCLE CENTER
- GREEN LIFESTYLE SEMINARS

SPORTS AND RECREATION



PROGRAM

THE TOPOGRAPHY ALLOWS FOR A VARIETY OF GREEN PROGRAMS



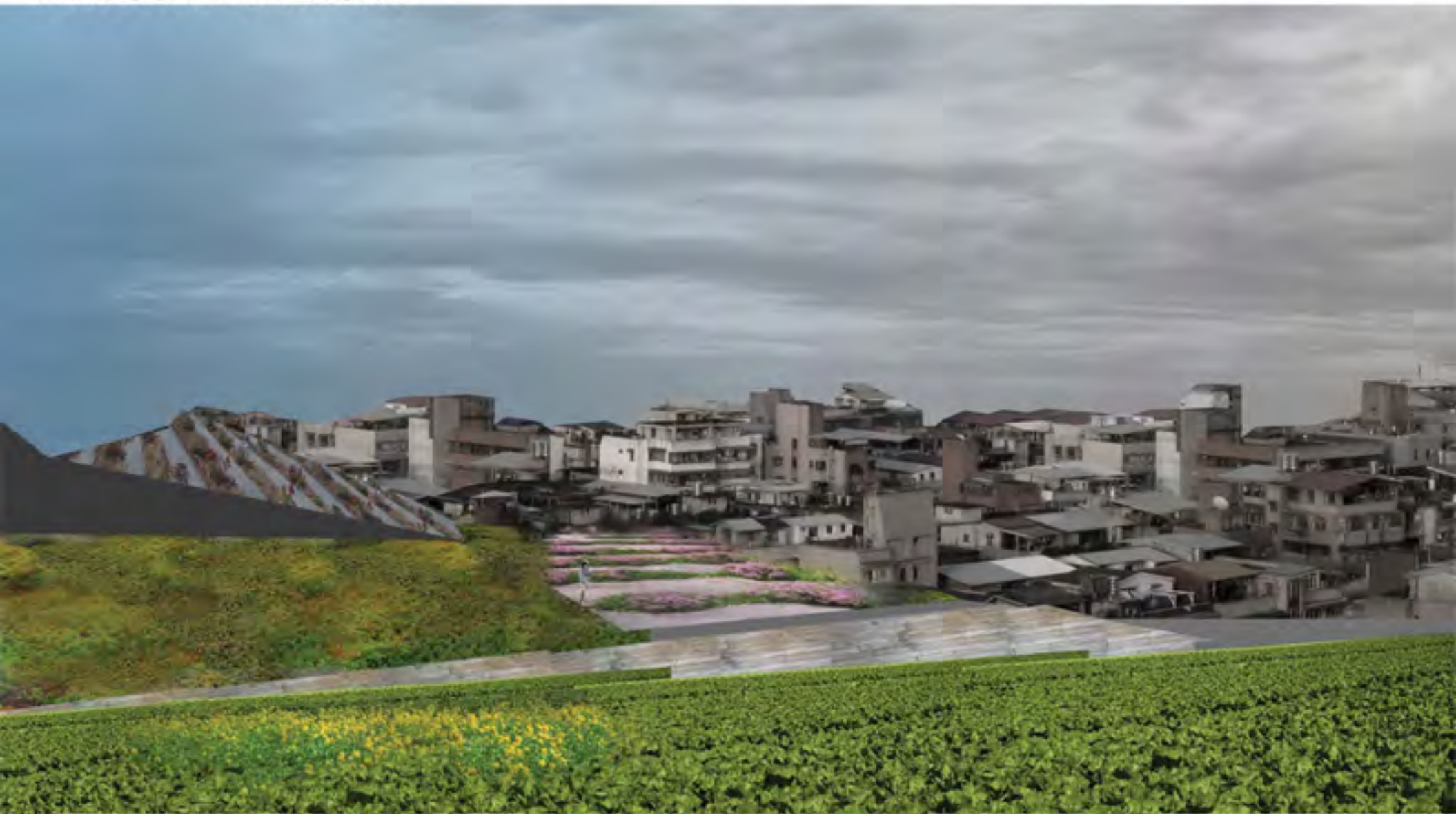
CIRCULATION: INTERNAL AND EXTERNAL



■ PARKING LOTS
 ■ FOREST
 ■ FLOWER GARDENS
 ■ SPORTS AREAS
 ■ COMM. SPACES
 ■ PLANTATIONS
 ■ TRANSITION ZONES
 ■ RETAIL SPACES
 ■ WATER RESOURCES

— MAIN ROAD
 — INTERNAL/EXTERNAL CONNECTION
 — EXISTING PATH
 ○ EXISTING STOP
 ● STOP

LANDSCAPE NETWORK



ENTRANCE TO PUBLIC PARK FROM WALKING ROAD



PUBLIC PARKS SERVE THE ENTIRE NEIGHBORHOOD



MAKING WAY FOR TALL PUBLIC SPACES



McCORMICK PLACE WEST EXPANSION CHICAGO, IL 2004-2008

At 2.7 million square feet, including 1.2 million square feet of exhibit space, downtown Chicago's McCormick Place is one of the nation's largest LEED® certified buildings.

The McCormick Place West Building expansion added 470,000 square feet of exhibit space to the existing 2.2 million square feet at the convention center. The West Building also boasts 250,000 square feet of meeting space spread across 61 rooms and a 100,000 square-foot ballroom.

McCormick Place is LEED Certified; among the environmentally-conscious features in the West Building are a green roof, storm water tunnel to Lake Michigan, and a high-efficiency HVAC system.





**300 N. LaSALLE ST.
CHICAGO, IL
2006-2008**

300 North LaSalle is a 60-story office building in downtown Chicago. The 1.3-million-square-foot building is located on the west side of LaSalle Street on the north bank of the Chicago River. Rising over 800 feet, the building was one of Chicago's tallest upon completion.

Due to its location on the north bank of the Chicago River, the building features a half-acre sunlit waterfront public garden with direct access to the river's edge.

As a certified Gold LEED-CS development, the tower is extremely energy efficient. Its façade is clad in richly articulated glass and stainless steel, maximizing the introduction of daylight and minimizing solar gain.

