

New Approaches to Dense Urban Multifamily

FR112

Friday June 22 7AM

1.00 LU HSW GBCI RIBA

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Acknowledgements/Credits

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Hudson Companies, Inc.

MPFP PLLC./M. Paul Friedberg & Partners

Speakers List

- John Cetra, FAIA, *Founding Principal, CetraRuddy Architecture DPC, New York, NY*
- David Kramer, *President, Hudson Companies, Inc., New York, NY*
- Rick Parisi, *Managing Principal, MPFP PLLC./M. Paul Friedberg & Partners, New York, NY*

Course / Learning Objectives

- Explore design solutions for high-density, urban multifamily design and how they address affordability, land use, and livability concerns in US cities.
- Compare various typological approaches' suitability for urban multifamily use.
- Learn about key planning, zoning and building code issues arising from the use of the presented case study design solutions for urban multifamily uses, and consider possible design and construction solutions for those issues.
- Discuss how development incentives, tax credits, and inclusionary zoning rules can allow for innovation and address regulatory issues such as historic preservation, permitting issues, and building code compliance.



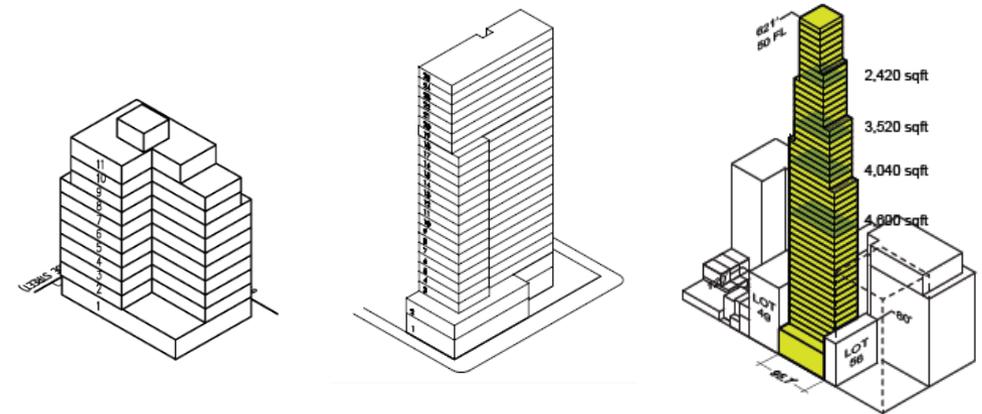
New Approaches to Dense Urban Multifamily Architecture

Evolution of Multifamily Housing

- Projected growth of urban centers
- Zoning resolutions and land use procedures and the impact on the built environment



Typical Urban Multifamily Housing Massing Studies



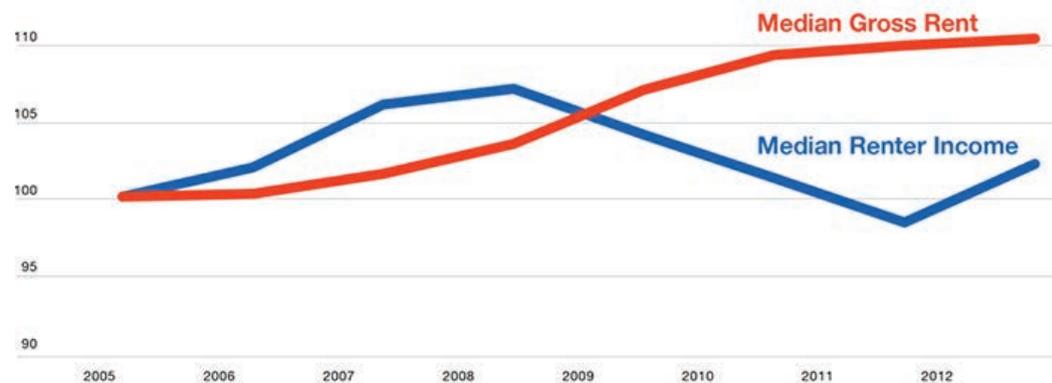
<http://www.urban-hub.com/ideas/urbanization-on-the-rise-trends-challenges-the-road-ahead/>

New Approaches

Challenges

- Affordability
- Developable Land
- Livability Concerns

Index of New York City Median Gross Rent and Renter Household Income, 2005 - 2012



Data source: 2005-2012 American Community Survey (1-Year estimate);
Bureau of Labor Statistics CPI-NYC



Source: Viller Samuel. Data is for all of Brooklyn.

Data source: https://therealdeal.com/issues_articles/486631/

New Approaches

Solutions

- Building Technology
- Form
- Planning
- Shared Spaces/Amenities
- Air Rights and Air Space
- Co-Living
- Micro Units
- Adaptive Reuse



CCNY Housing Studio Spring '17: TOVU: Tompkinsville on Vertical Urbanism, Kelleher, Gasc & Shufelt

What are other challenges we are facing?

Affordability

What does affordability mean for urban multifamily housing?



*Right: LA Central, Bronx, NY
Developer: Hudson Companies
Architect: MHG Architects, FX COLLABORATIVE*

Affordability

Process

Affordable

- multiple funding sources
- specific program requirements
- defining specific income qualifications
- layers of financial, political and regulatory requirements
- more community and stakeholder engagement

Market Rate

- fewer funding sources
- flexible program requirements

Parameters/Constraints

- Scale
- Location
- Construction
- Construction Technologies
- Neighborhood Economics

The Clark, Brooklyn, NY

- Affordable Economics

*Developer: Hudson Companies
Architect: Jonathan Kirschenfeld Architects*

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*350 Clarkson Street
Brooklyn, NY*

- Building Technologies

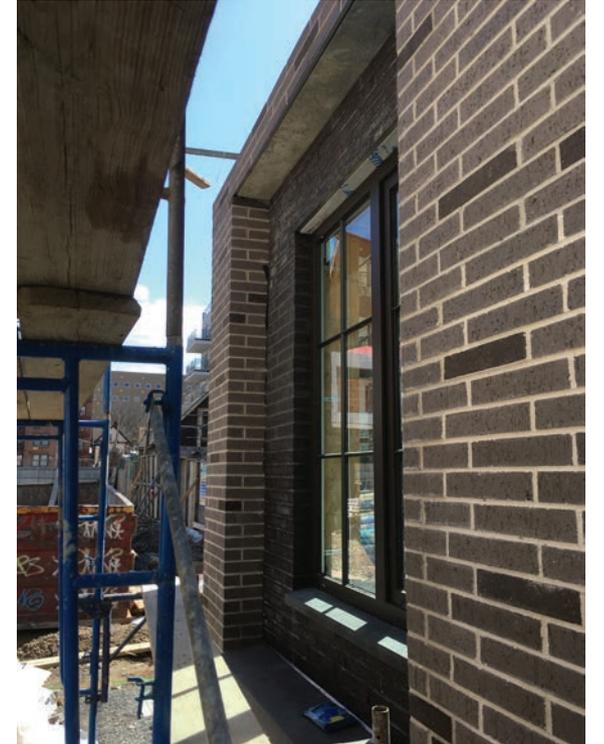
*Developer: Hudson Companies
Architect: CetraRuddy Architecture DPC*

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350 Clarkson Street, Construction



What are successful examples of innovations in building technology that reduce cost?

Developable Land/Regulations

Zoning regulations and their impact on process

*Schaefer Landing, 440 Kent Avenue
Brooklyn, NY*

- Approvals process
- Environmental impact

*77 Commercial Street
Brooklyn, NY*

- Zoning's impact on waterfront redevelopment



Schaefer Landing
Developer: BFC Partners
Architect: Karl Fischer Architects



77 Commercial Street
Developer: Chetrit Group
Architect: CetraRuddy Architecture DPC

Incentive Zoning

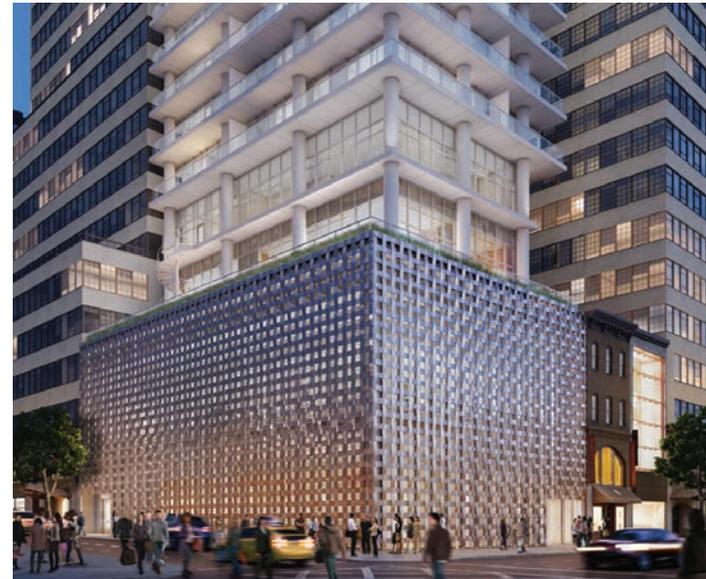
Social, economic and environmental benefits

200 East 59th Street, New York, NY

- Zone Green Deduction
- Building outperforms NYS Energy Code by approximately 122%
- Exterior wall thickness deductions resulted in a 5,766 SF gain

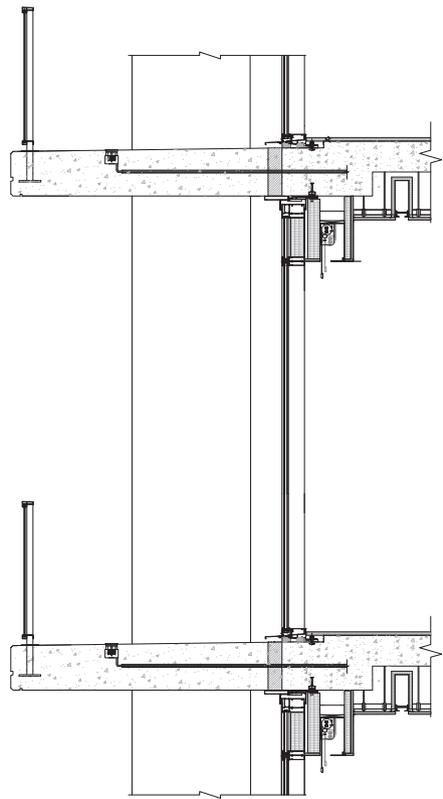
*Developer: Macklowe Properties
Architect: CetraRuddy Architecture DPC*

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200 East 59th Street



*Developer: Macklowe Properties
Architect: CetraRuddy Architecture DPC*

Incentive Zoning

Environmental benefits

The House at Cornell Tech, New York, NY

- Largest and tallest Passive House building in the world
- Reduced energy costs
- Prefabricated metal panel system facade
- Compared to conventional construction, the building is projected to save 882 tons of CO2 per year, equal to planting 5,300 new trees

*Developer: Hudson Companies
Architect: Handel Architects*

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Incentive Zoning

Social benefits

SOBRO, New York, NY

- improved pedestrian and vehicular entrances adjacent to the shoreline
- creation of outdoor plaza spaces, interior courtyard & amenity terraces



*Developer: Chetrit Group/Somerset Partners
Architect: Hill West Architects
Landscape Architect: MPFP PLLC*

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Leveraging Existing Building Stock

Zoning's Role in Adaptive Reuse

Walker Tower, New York, NY

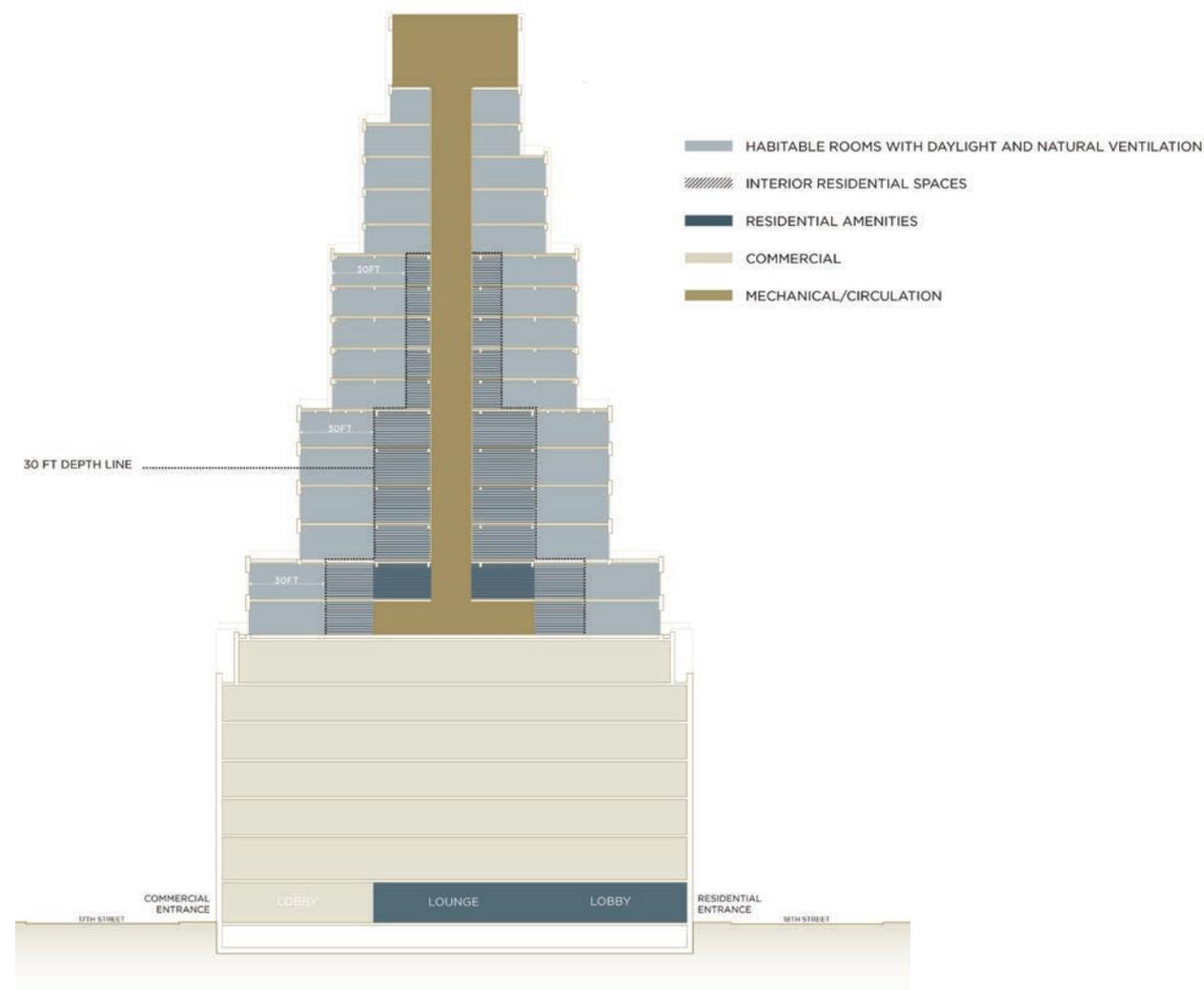
- Existing 1930's Ralph Walker building
- Lowering of existing parapets resulted in the addition of 20,000 SF at the top of the building



Developer: JDS Development
Architect: CetraRuddy Architecture DPC

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Walker Tower



Developer: JDS Development
Architect: CetraRuddy Architecture DPC

What are the challenges associated with converting an existing building to multifamily?

Livability

Open space/landscape design to enhance livability

Adding green space wherever you find it

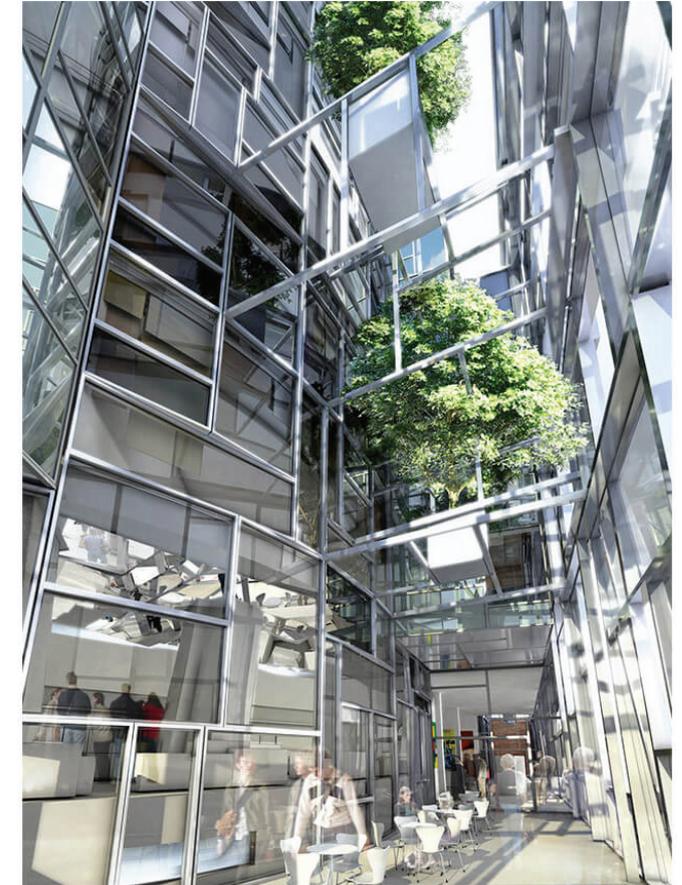
- Building setbacks to capture green space
- Landscape as oasis



Midtown West Residential Building
Architect: CetraRuddy Architecture DPC
Landscape Architect: MPFP PLLC



Cabrini at Gramercy Square
Architect: Woods Bagot
Landscape Architect: MPFP PLLC



100 11th Avenue
Architect: Jean Nouvel/ Beyer Blinder Belle
Landscape Architect: MPFP PLLC

Livability



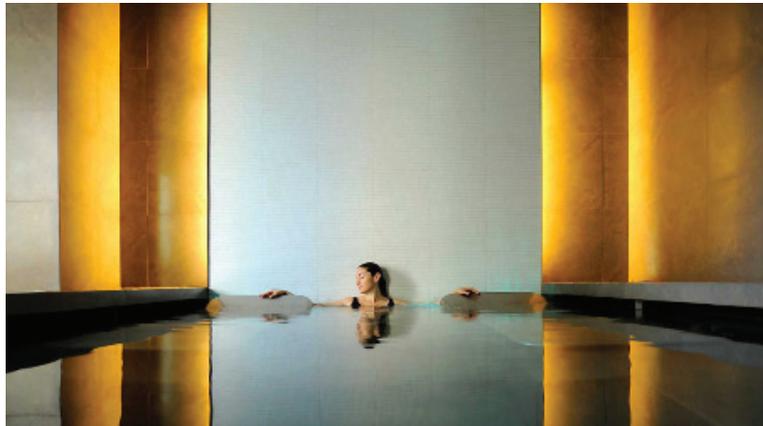
wellness



Livability



physical
fitness

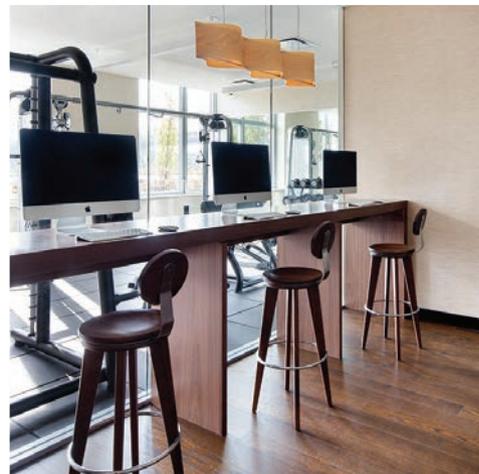
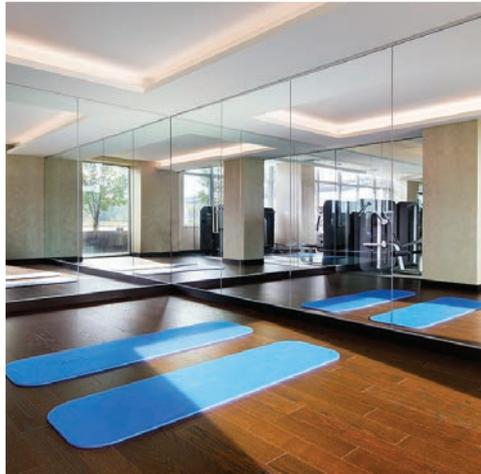


Livability

Emphasis on shared space

Riverwalk Point, Roosevelt Island, NY

- Smaller units
- abundant common amenities



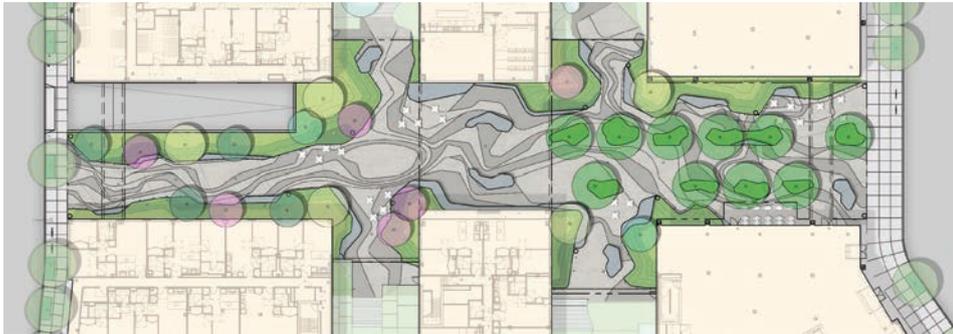
Developer: Hudson Companies
Architect: SLCE Architects/Gruzen Sampton LLP/Costas Kondylis & Partners LLP
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Livability

Emphasis on shared space

1 Bushwick, New York, NY

- 18,000 SF of public access space through an undulating river-like plaza



Developer: All Year Management
Architect: ODA
Landscape Architect: MPFP PLLC

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Livability

Vertical Communities

High density cities:

- Buildings go vertical
- Communities go vertical

ARO, New York, NY

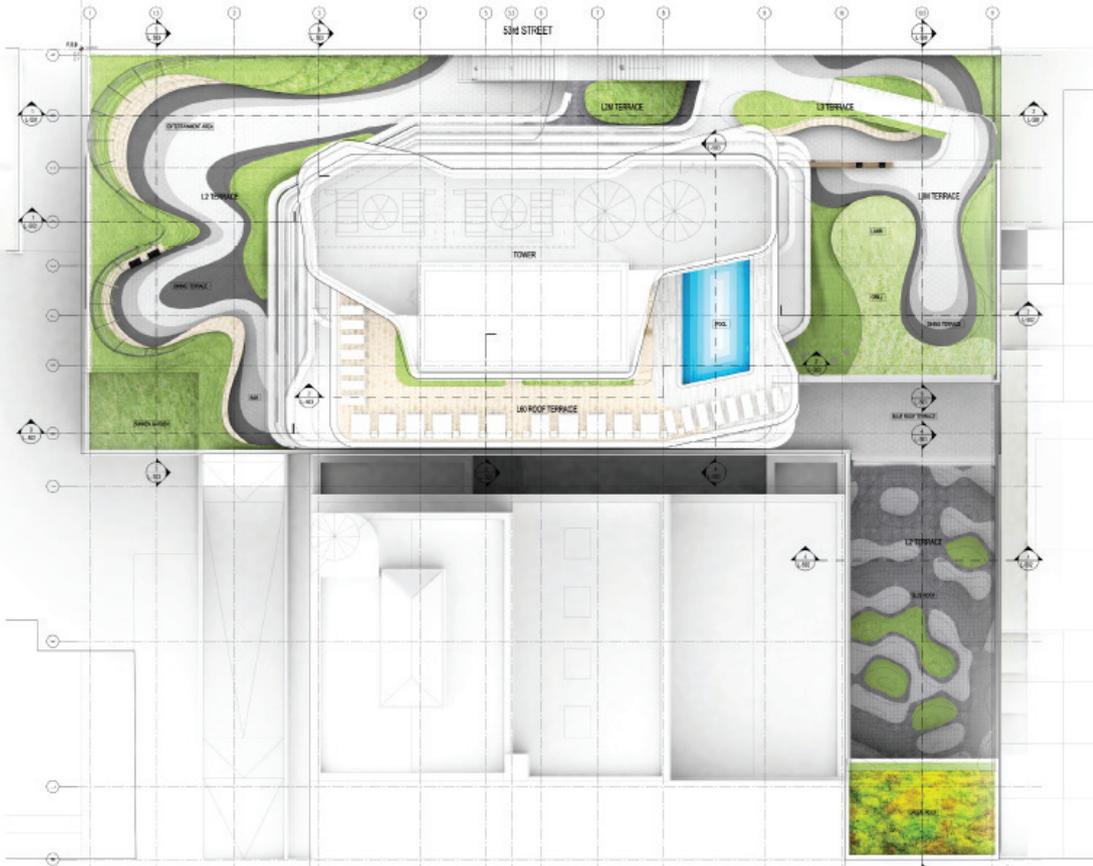
- Cascading layers of amenities at podium level increasing connectivity among residents
- Stepped terraces create verticality of green spaces at different levels



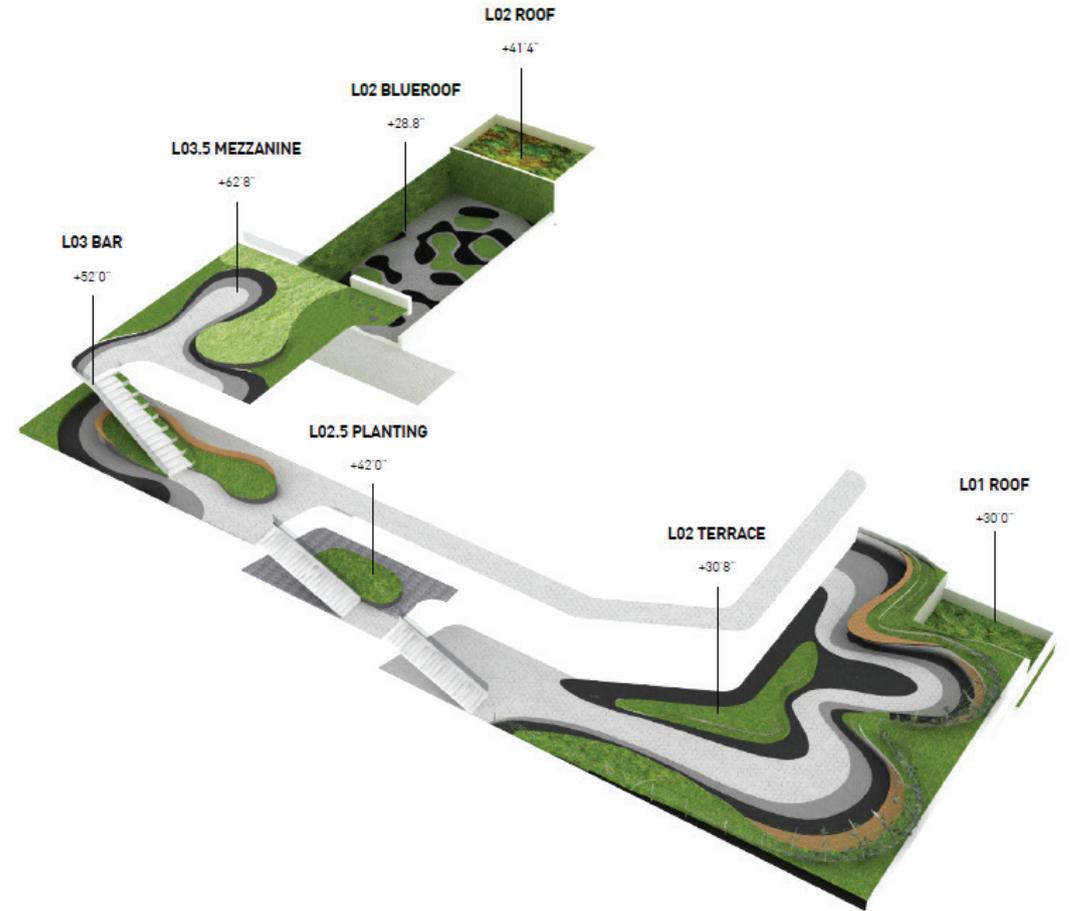
Developer: Algin Management
Architect: CetraRuddy Architecture DPC
Landscape Architect: Balmori Associates

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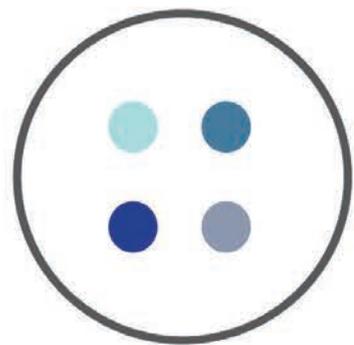
ARO Roof plan



ARO Podium Sequence

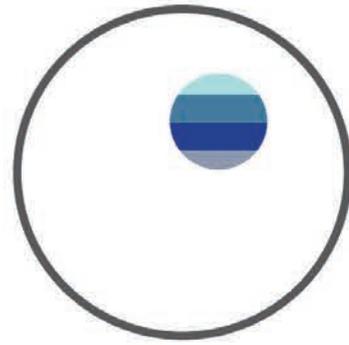
Technology

Flexibility & Value of Space



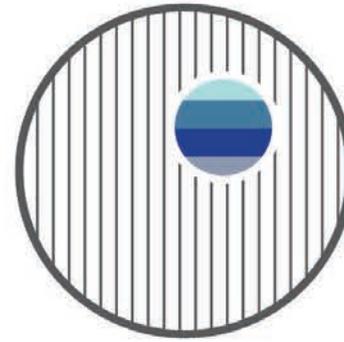
ZONES OF FIXED SPACE

TECHNOLOGY
----->



CONSOLIDATED ZONES FOR
MULTI-FUNCTIONAL USES

----->



FREE SPACE
FOR FUNCTIONS

----->

MORE SPACE?
LESS SPACE?
HOW DOES THIS
IMPACT HOW WE
DESIGN?



What does the future look like?

Thank you!