COMMITTEE ON DESIGN
Department of Planning and Development

The 78 – Southeast Corner of S. Wells St. and 15th St.

User: University of Illinois System/ Discovery Partners Institute

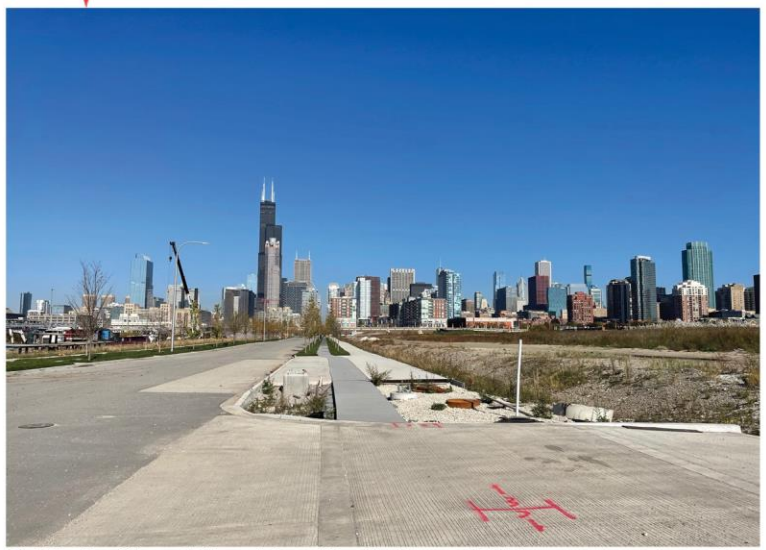
State Agency: Capital Development Board

Designer: OMA (Design Architect)/ Jacobs (AOR)

October 12, 2022

SITE CONTEXT MAP

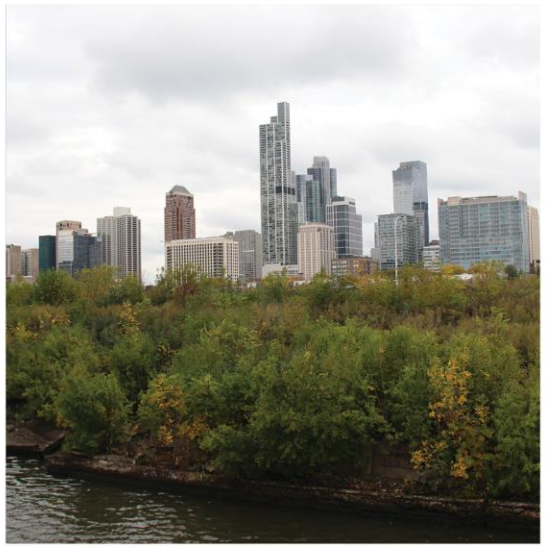
DESIGN IN PROGRESS



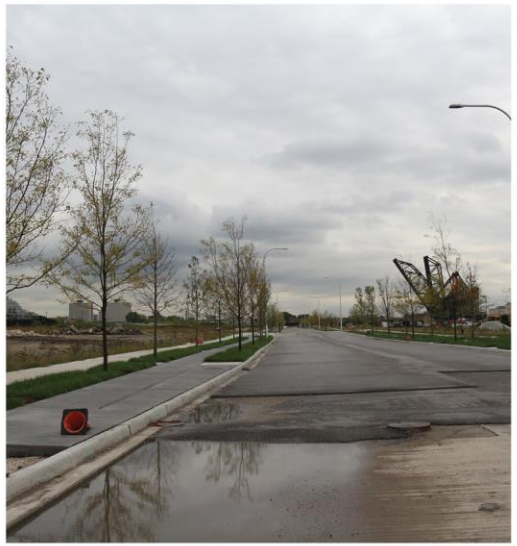
S. Wells Street (Looking North from 15th)

Corner of Wells and 15th (Looking East)

St. Charles Air Line Bridge (From Site)



View of Site from Chicago River



S. Wells Street (Looking South to Site)

BNSF Rail Yard (Across Chicago River)

S. Clark Street (Looking South)

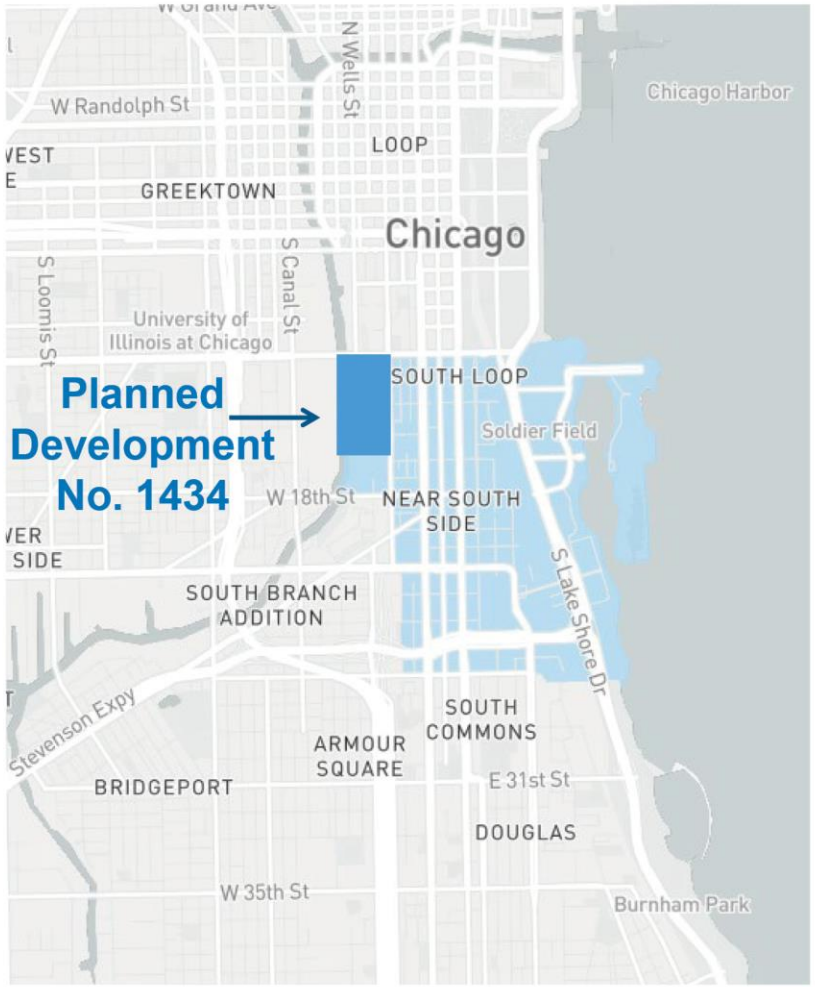
Neighborhood Street to West (Near South Side)

ADJACENT SITE CONTEXT

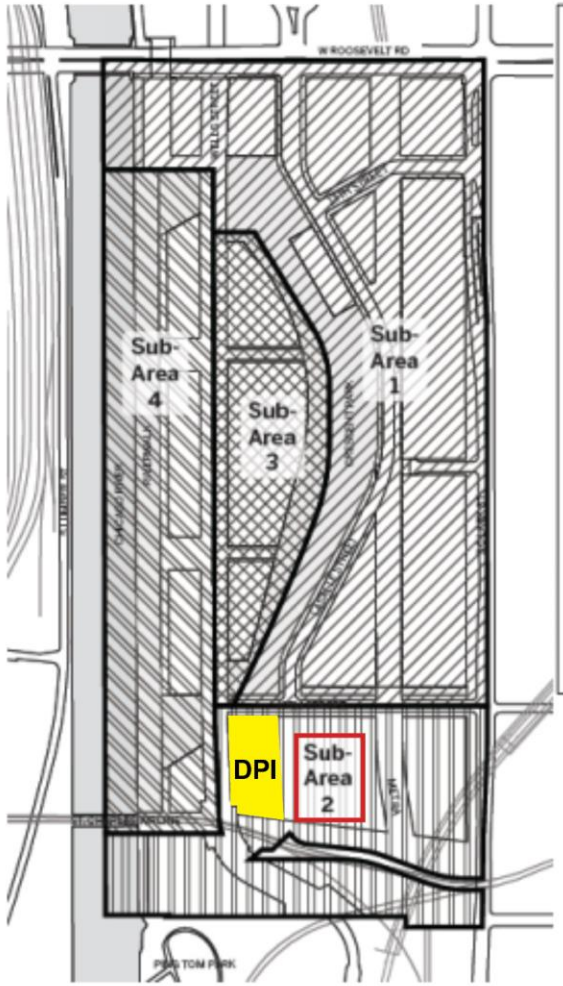
DESIGN IN PROGRESS

PLANNING AND DESIGN GUIDELINES

Alignment with Planned Development-1434 requirements



THE 78: PD SUBAREAS AND FAR FLEXIBILITY



Net Site Area (sf):	2,301,758
Subarea 1	1,127,333
Subarea 2	450,538
Subarea 3	313,765
Subarea 4	410,122
Maximum Floor Area Ratio:	5.65*
Subarea 1	6.74
Subarea 2	5.99
Subarea 3	4.78
Subarea 4	2.95
Maximum Buildable Floor Area (sf):	13,000,000
Subarea 1	7,598,224
Subarea 2	2,698,722
Subarea 3	1,499,797
Subarea 4	1,209,859

** The maximum floor area ratio permitted per subarea may be increased by up to 20% if transferred from other subareas, subject to Statement 16.*

PLANNING AND DESIGN GUIDELINES

Planned Development No. 1434 Bulk Regulations

	Subarea 2	DPI building
Max Floor Area Ratio (FAR):	5.99 (261,000 sf)	212,904 sf
Min Off-Street Parking Spaces:	Transit served location per 17-10-0102-B (up to 100% reduction upon DPD approval)	None
Min Bicycle Parking Spaces:	1 per 10 auto spaces	52 (including changing and shower facilities)
Min Off-Street Loading Spaces:	Per DX-5: (2) 10'x50'	(2) 54' x 14'
Max Building Height:	800'	133' 6"
Min Setbacks:	1.5' along Wells St.	1.5' along Wells St.

Planned Development No. 1434 Key Design Guidelines

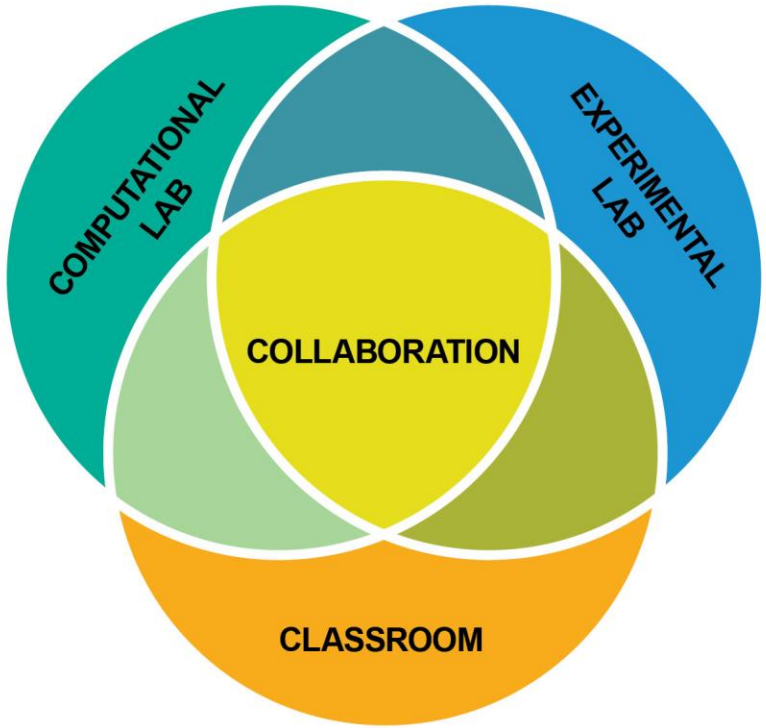
- Wells and 15th street intersection is a district gateway with primary facades
- Achieve varied and distinctive skyline
- Building massing to step down in height towards the river
- Activate street with cafes, seating and windows to interior spaces
- Showcase activity inside the building
- Public, universal accessibility
- Integrate serving and parking entrances with building façade
- Integrate ventilation and rooftop mechanical equipment screens with materials consistent with the overall building façade.
- Maximize daylighting and minimize shading on adjacent buildings
- Upper-level setbacks activated as terraces
- High quality architectural materials. No mirrored or high-reflectivity glass is allowed
- Bird friendly design

COMMUNITY ENGAGEMENT

- Communities are excited about DPI's programs being available for their youth and adult learners, continued recruitment desired
- Increased community outreach planned in surrounding communities and across Chicago
- DPI will curate events and activities that draw the community when the building opens

- With respect to the building, community feedback includes:

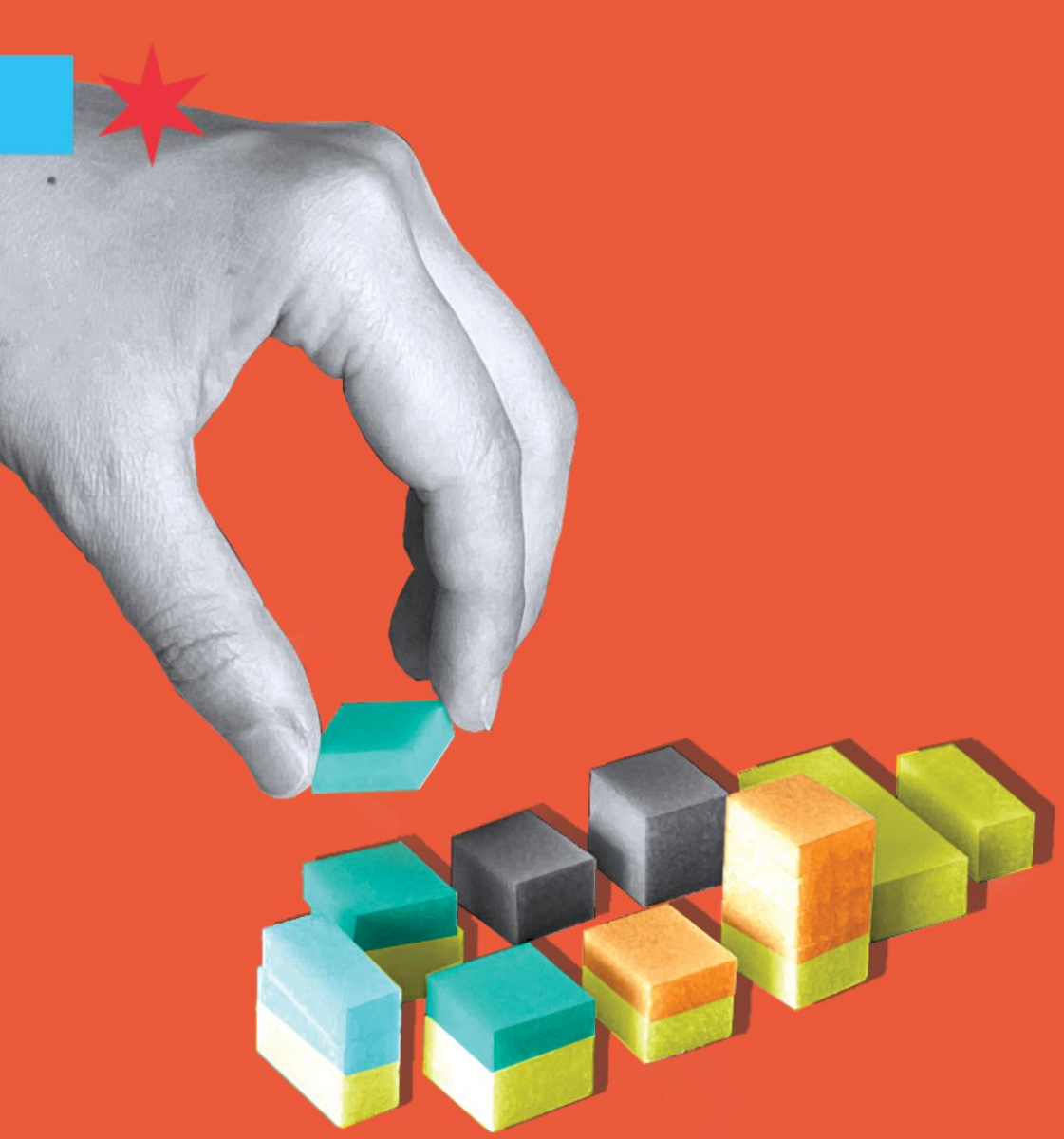
1. Ability to use multipurpose rooms on ground floor for community events ranging from meetings to performing arts
2. Café/food operation needs to be unique and special to draw in community – tie in to technology, integrate with outdoors
3. Interest in partnerships with local businesses for project construction and/or operation
4. Questions around what else is happening at The 78



TOTAL
212,904 SF

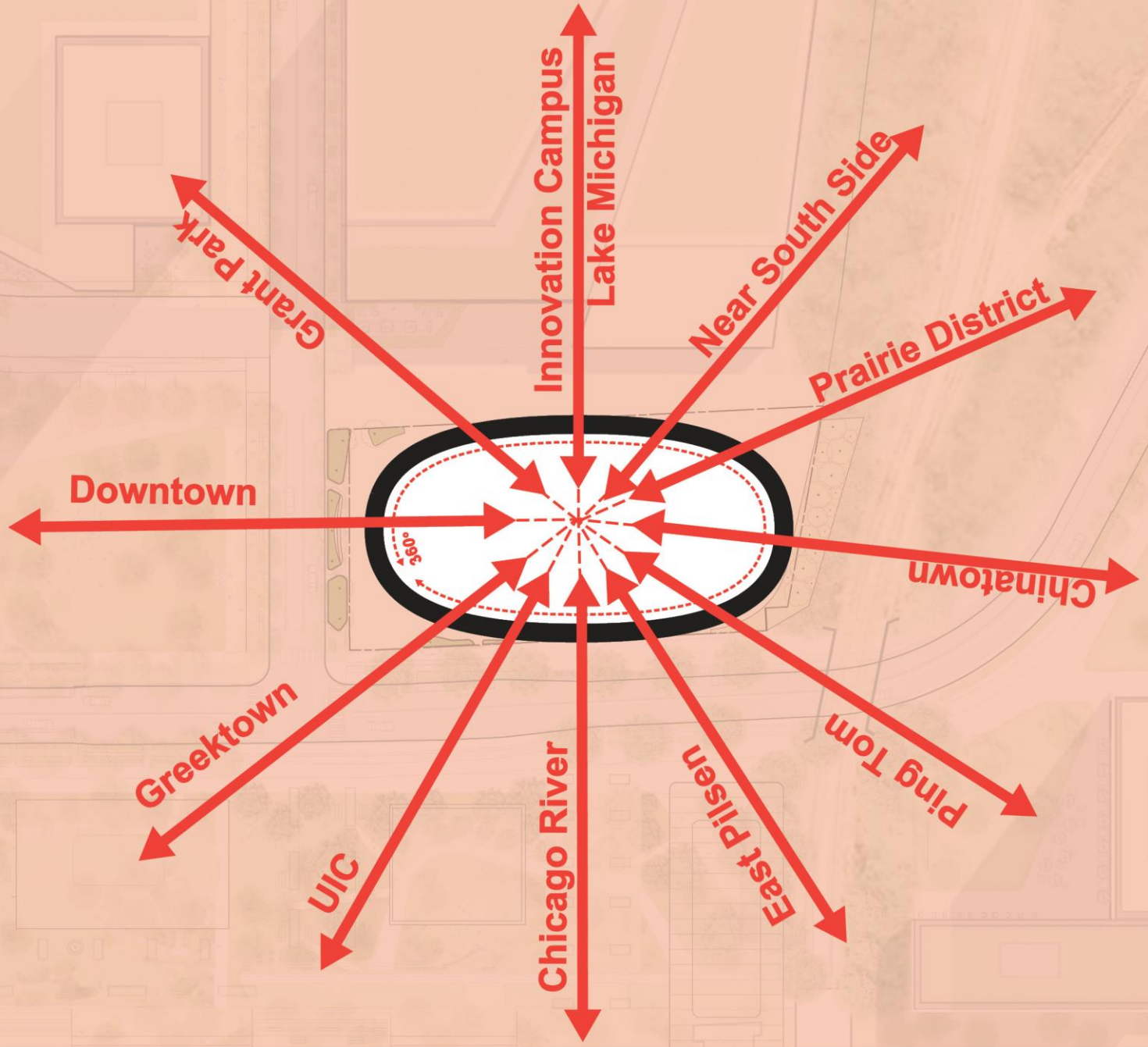
Kitchen	1,586 SF
Collective	7,798 SF
Classroom 17,477 SF	
Instructional	8,455 SF
Exp. Lab 20,519 SF	
Comp. Lab 19,815 SF	
Innovation 19,729 SF	
Office 11,876 SF	
Circulation 37,360 SF	
Service 68,289 SF	

PROGRAM



1. Stack Program Into Efficient Volumes

2. Enclose Program Volumes



360º DIRECTIONAL

DESIGN IN PROGRESS

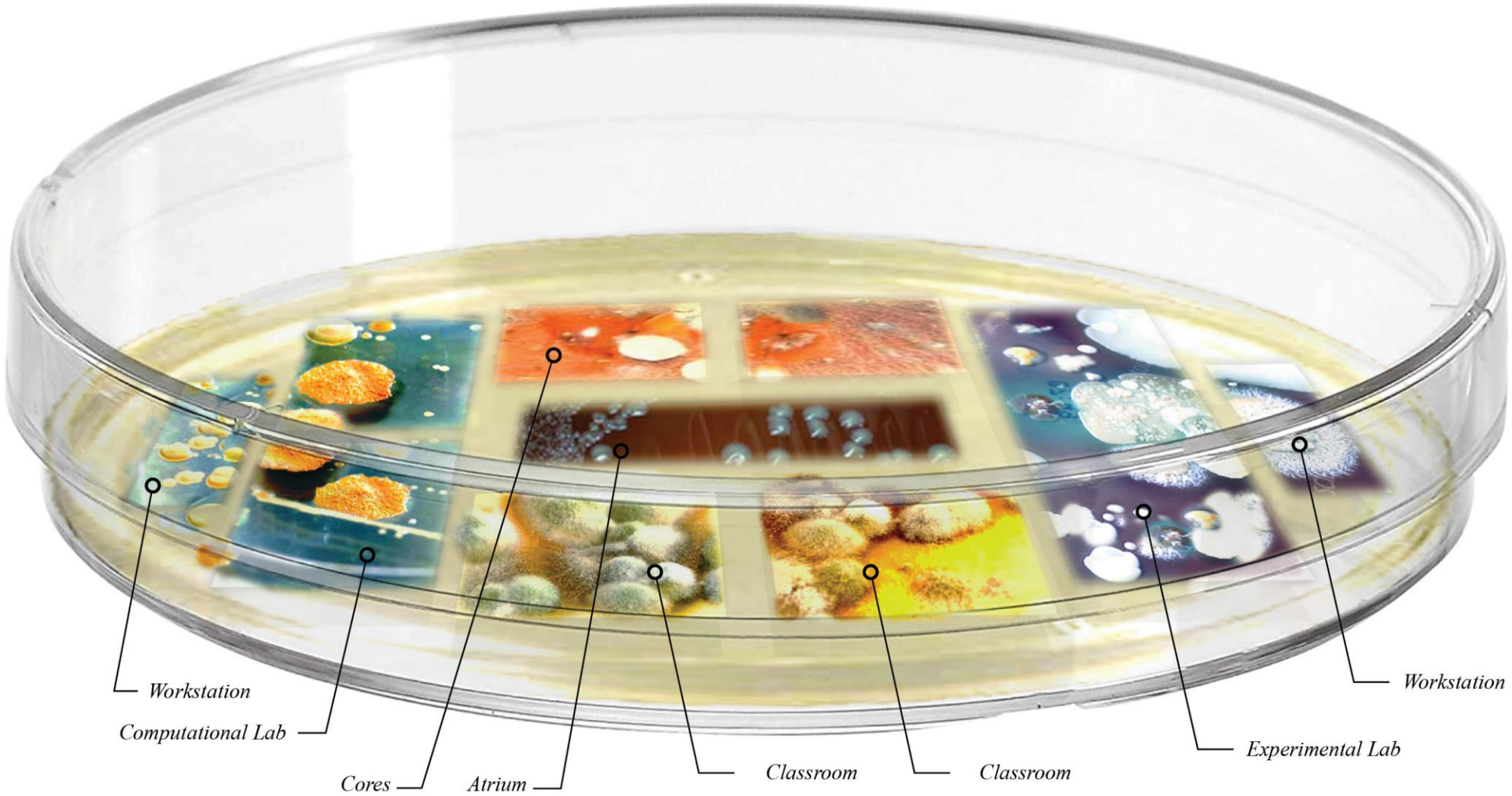

‘The Bean’


Amoeba

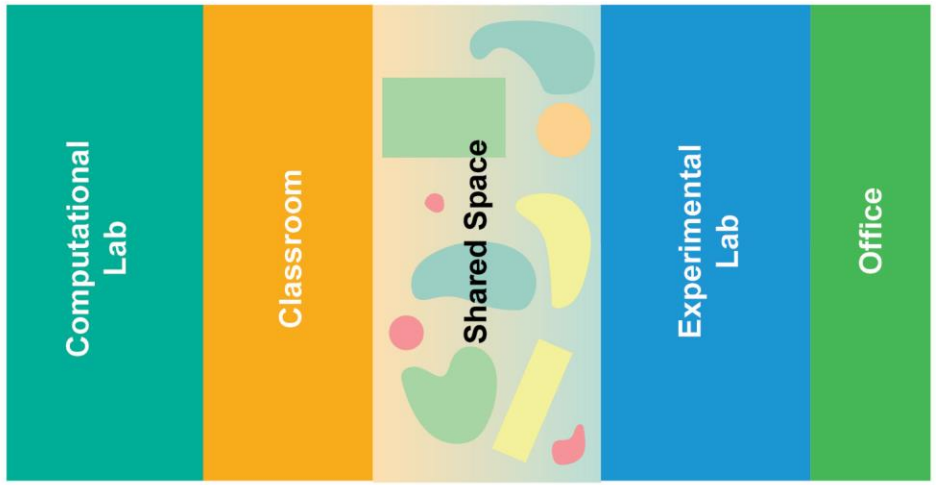

Beehive


Silk Cocoon

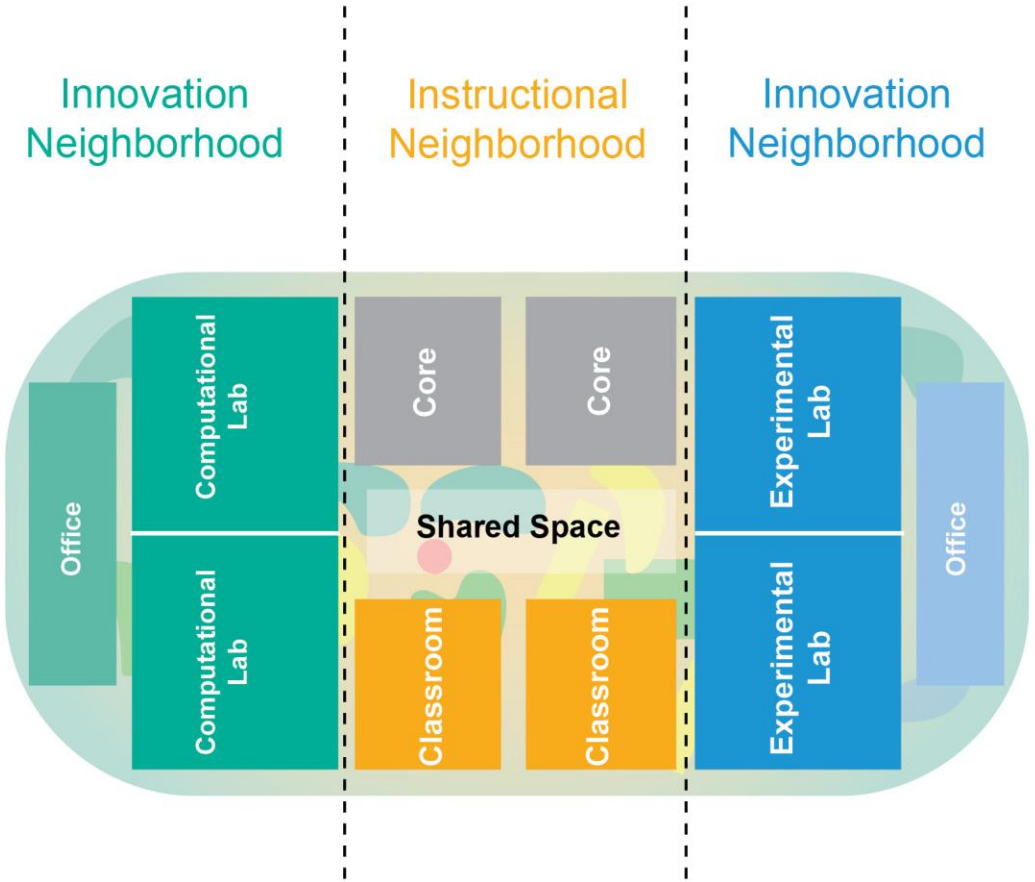
BIOPHILIC AND TECHNOLOGICAL INSPIRATION



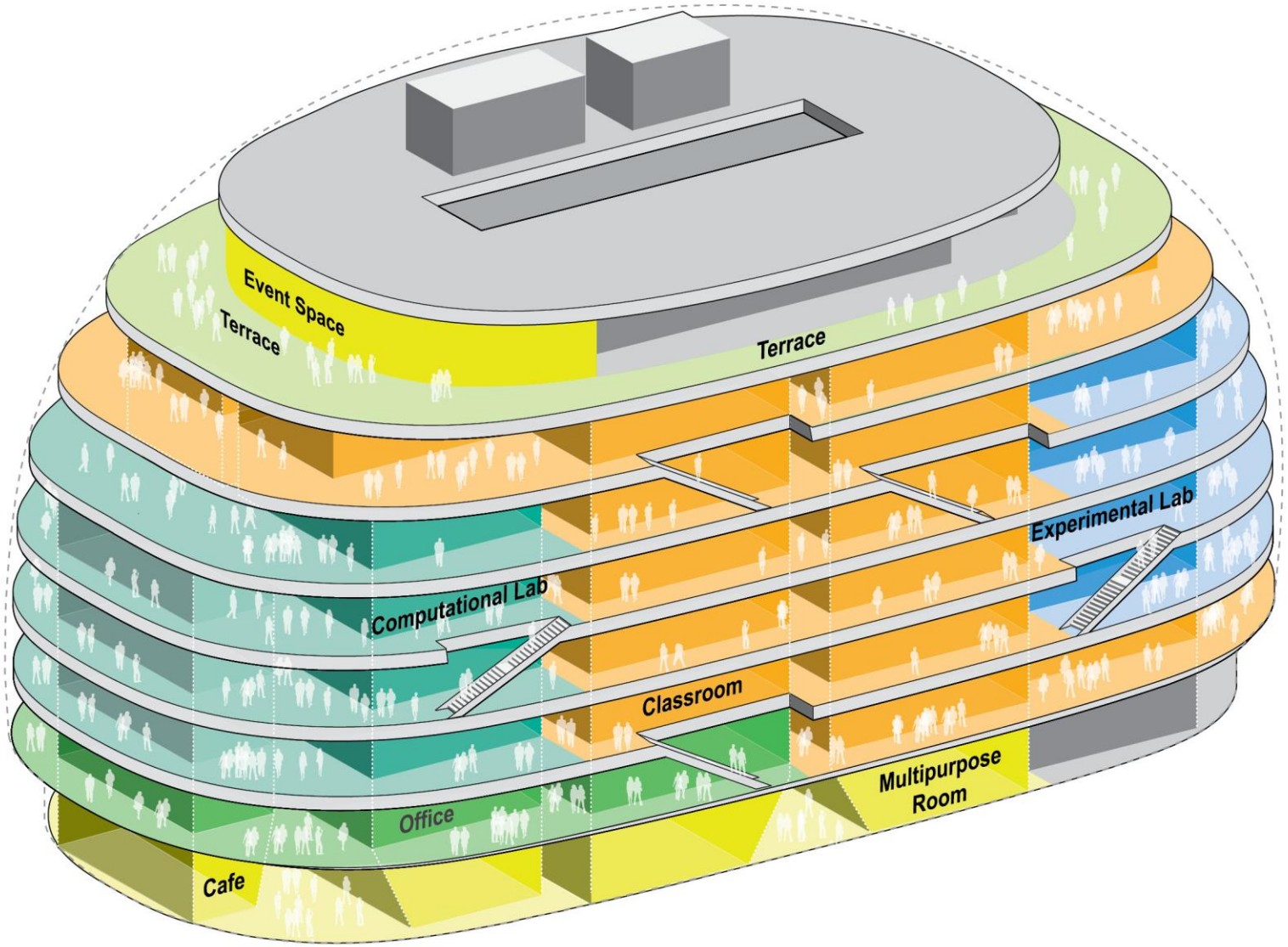
PETRI DISH OF PROGRAMS/ CULTURES



Program Bar



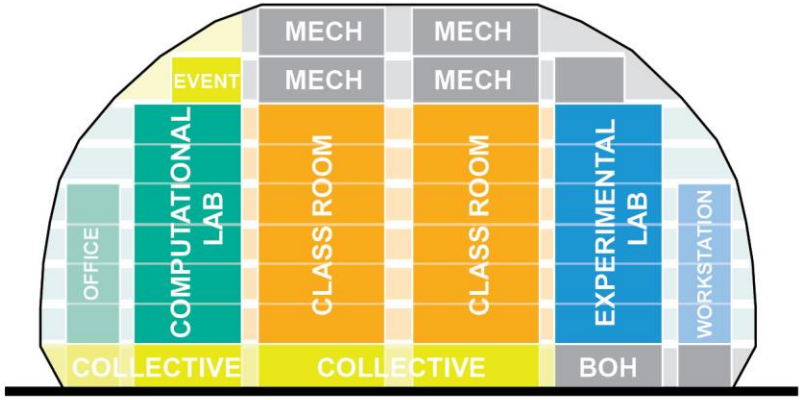
BANDS OF PROGRAM AND SHARED SPACE



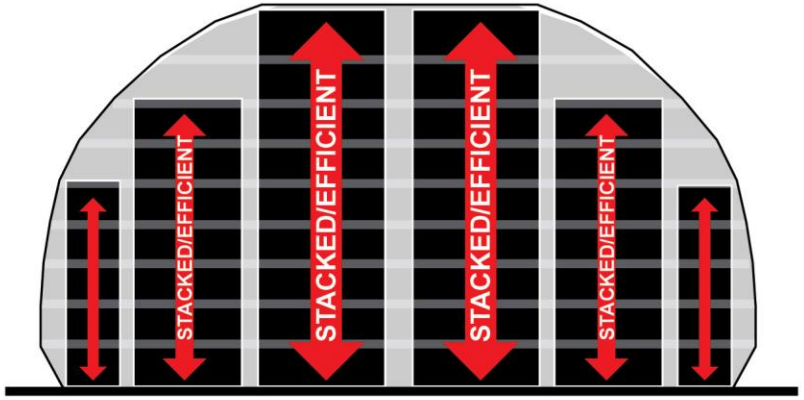
PROGRAM AXON

DESIGN IN PROGRESS

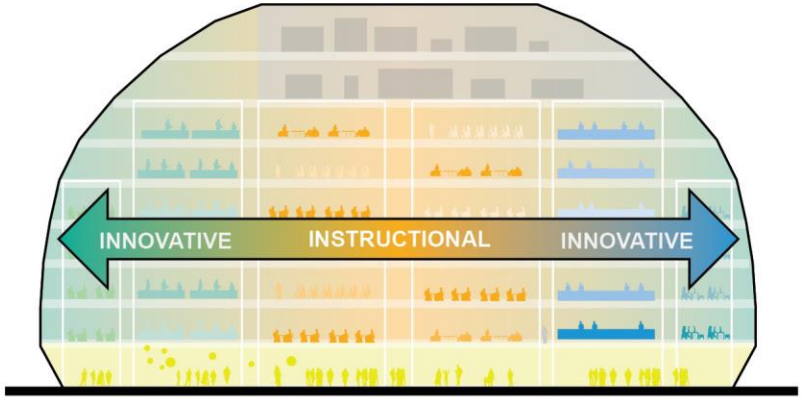
Program



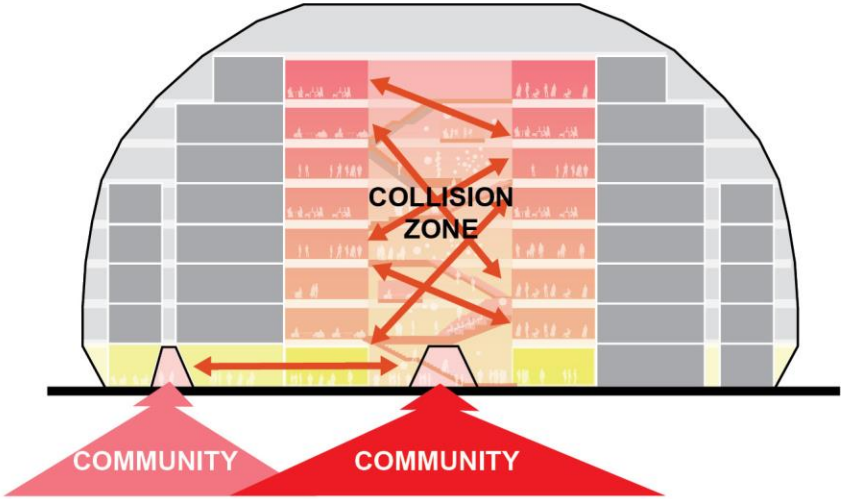
Efficient Program Towers



Blended Neighborhoods



Diverse and Varied Interaction



PROGRAMMATIC AND SITE CONNECTIVITY

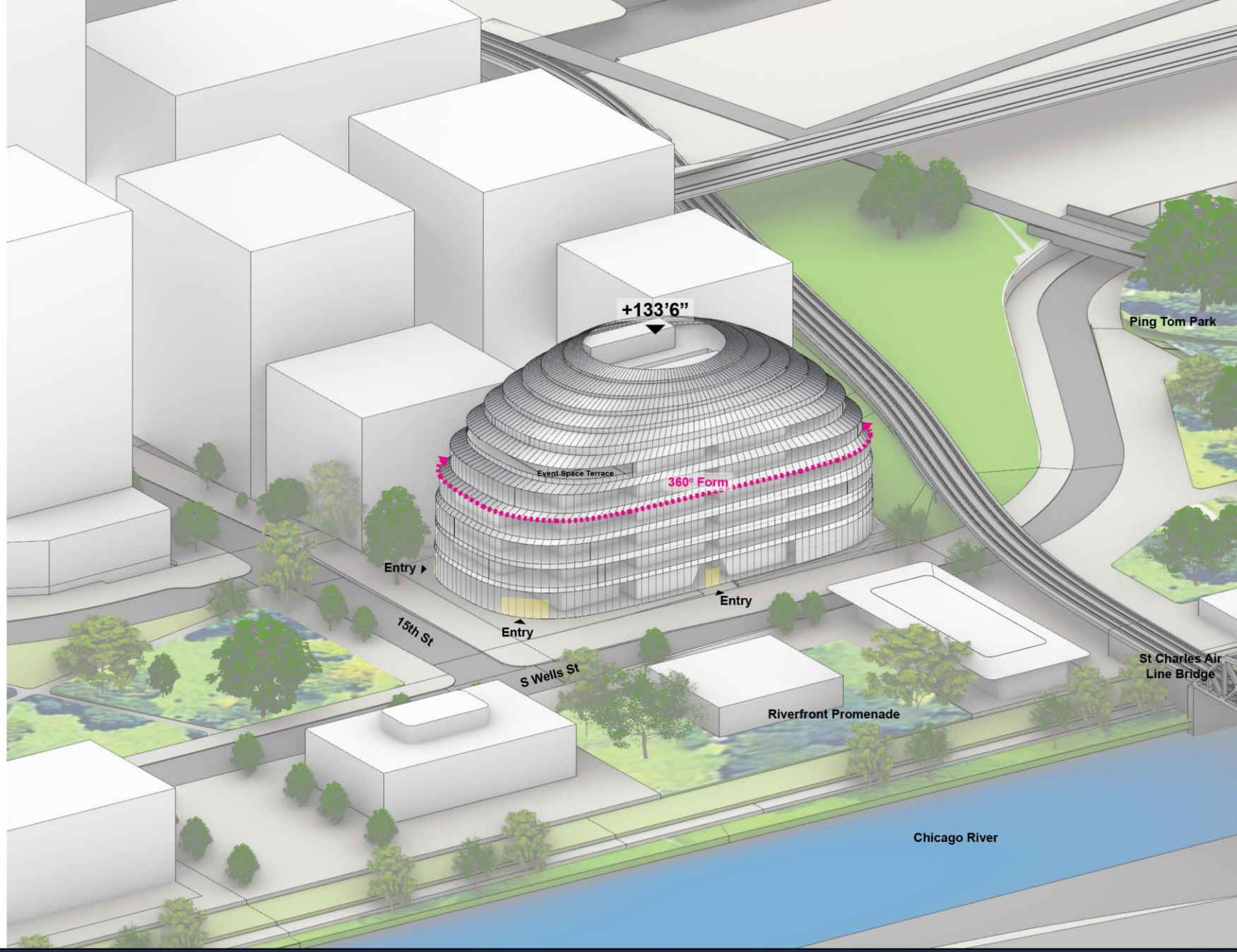
- **The 360° / Multi-Directional Form** addresses the surrounding neighborhoods and assets, such as the Chicago River, Chinatown, South Loop, and views towards downtown Chicago.

- At **the Ground Floor** of the building, the new Center is welcoming and porous, addressing the various surrounding neighborhoods and site features with multiple entries for different visitor approaches. Public programs create an opportunity for the community to be welcomed into and engage with the building.

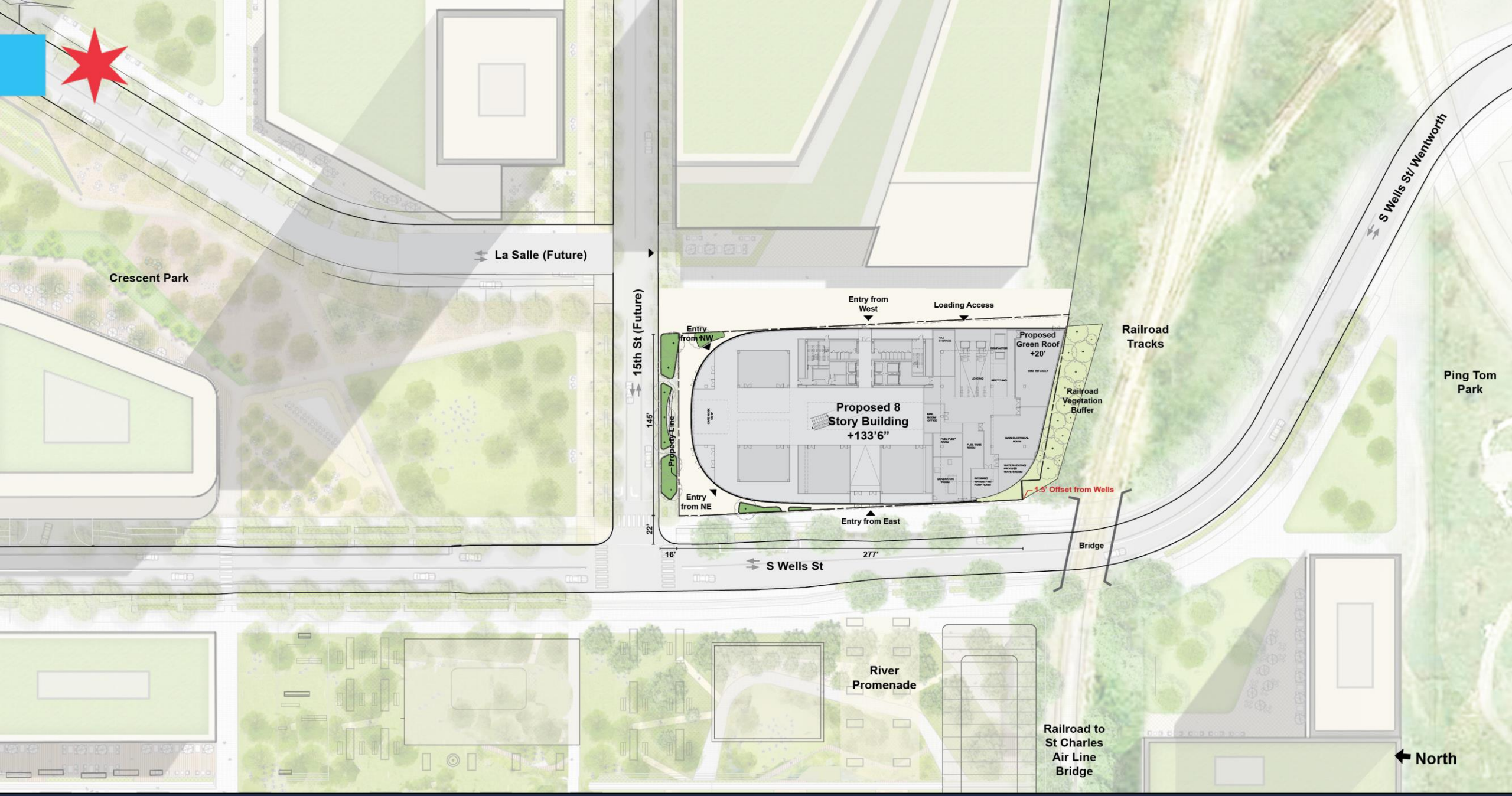
- **Programs** are organized to maximize efficiency and interactions between diverse user groups on every level. The horizontal and vertical organization of program blocks defines larger neighborhoods: computational, instructional and experimental.

- **A Central Atrium** defines a “collision zone” of collaboration, while additional circulatory paths and breakout spaces will also increase the opportunities for unexpected interactions between building users.

- **The Facade** creates natural shading by widening towards the south of the site.



DESIGN NARRATIVE



SITE PROGRAMMATIC PLAN

DESIGN IN PROGRESS

IIT Innovation Center
Location: Chicago, IL, USA
Architect: John Ronan Architects
Program: Collective, Classroom, Lab, Office

Siebel Center for Design, UIUC
Location: Champaign, IL, USA
Architect: Bohlin Cywinski Jackson
Program: Collective, Classroom, Lab, Office

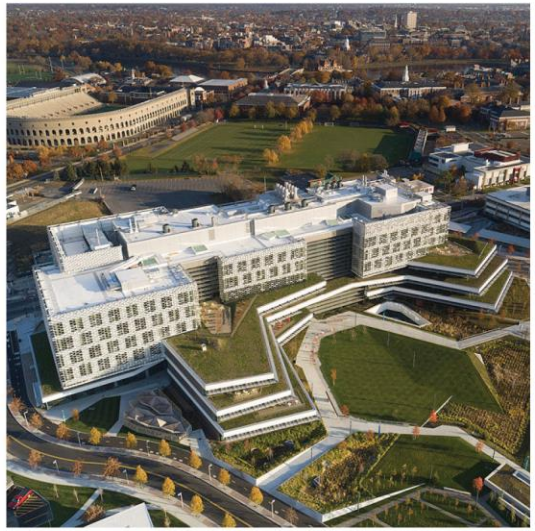
Bloomberg Center at Cornell Tech
Location: New York, NY, USA
Architect: Morphosis
Program: Offices, Classrooms, Lab

Kellogg School of Management, Northwestern University
Location: Evanston, IL, USA
Architect: KPMB Architects
Program: Collective, Classrooms, Office

Campus Instructional Facility (CIF), UIUC
Location: Champaign, IL, USA
Architect: SOM
Program: Classrooms, Lecture Hall

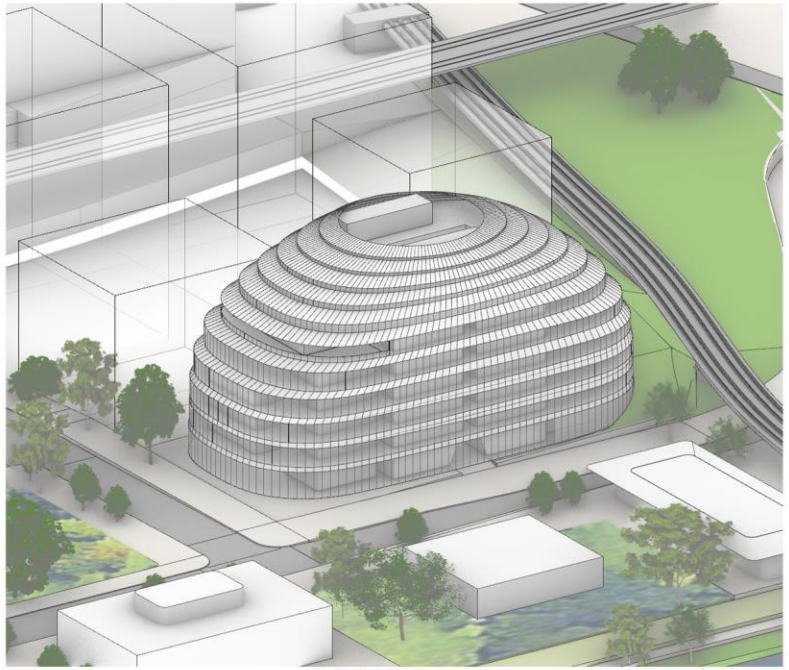
Electrical and Computer Engineering (ECE) Building, UIUC
Location: Champaign, IL, USA
Architect: Smith Group
Program: Classrooms, Labs

Tata Innovation Center
Location: New York, NY, USA
Architect: Weiss/Manfredi
Program: Collective, Classroom, Lab, Office

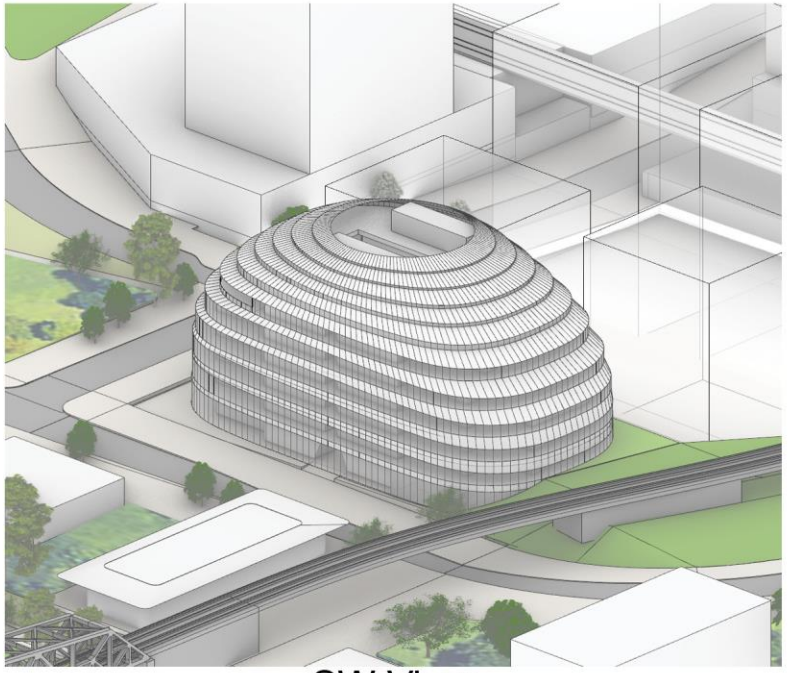


Harvard School of Engineering and Applied Sciences
Location: Boston, MA, USA
Architect: Behnisch Architekten
Program: Collective, Classroom, Lab, Office

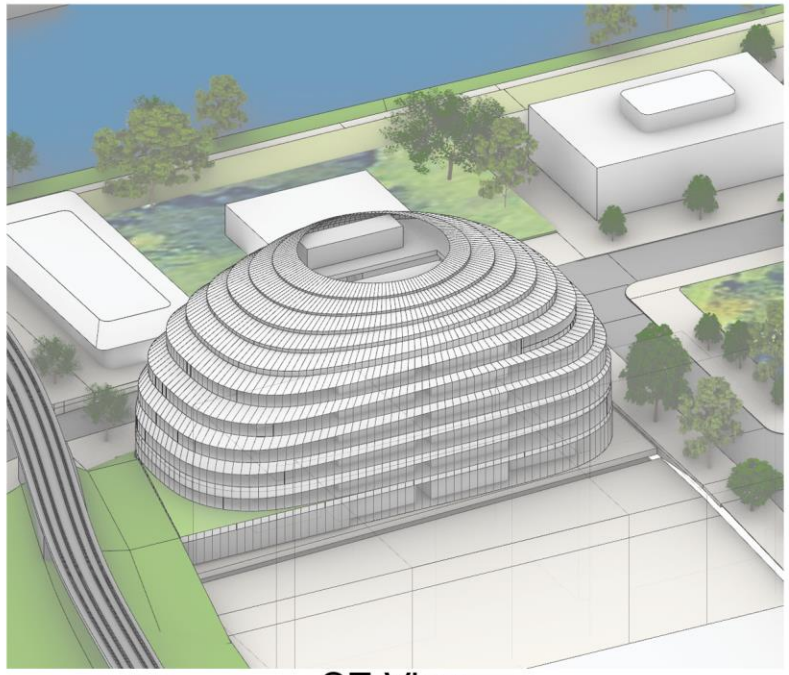
PRECEDENT IMAGES



NW View



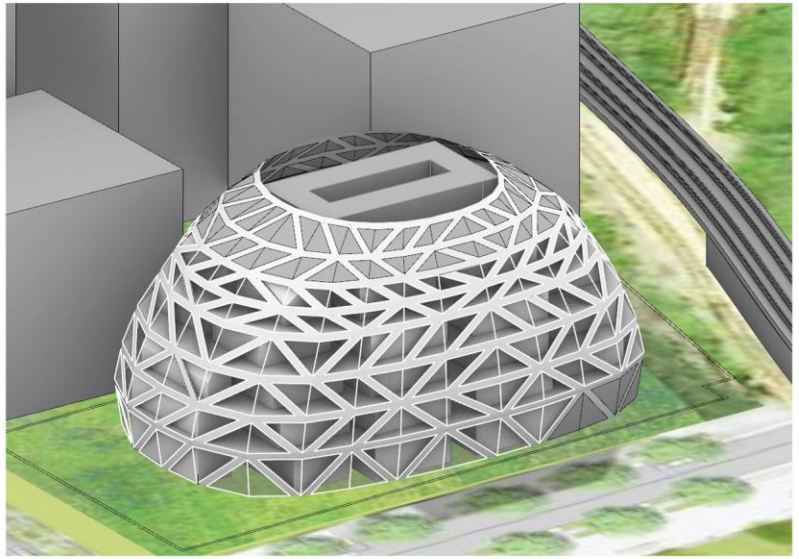
SW View



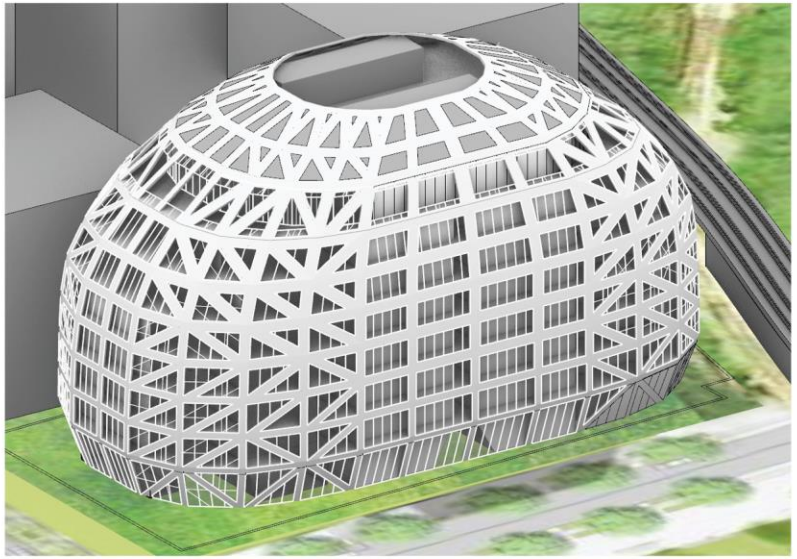
SE View

VIEW LOOKING NORTH

DESIGN IN PROGRESS

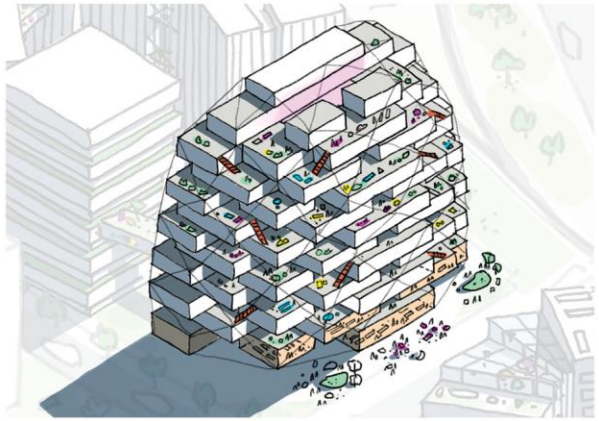


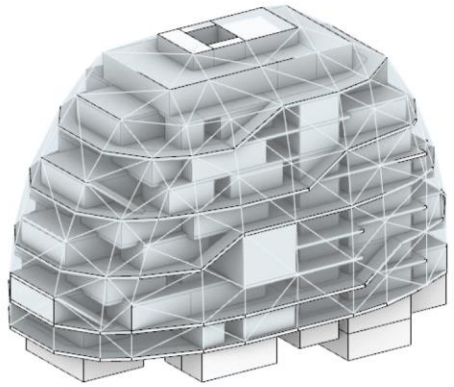
CDB SD 100% Option 1

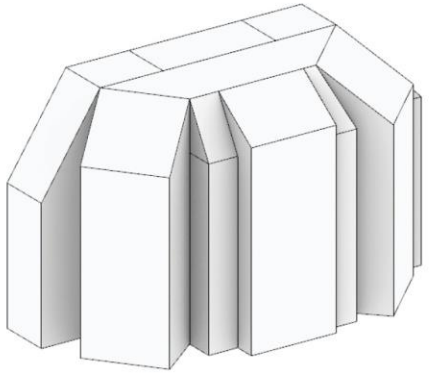


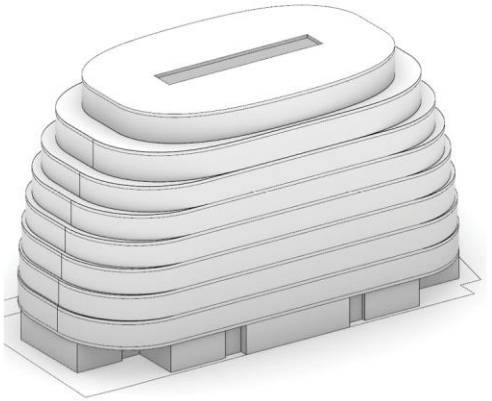
CDB SD 100% Option 2

CDB SD 100% Option 3

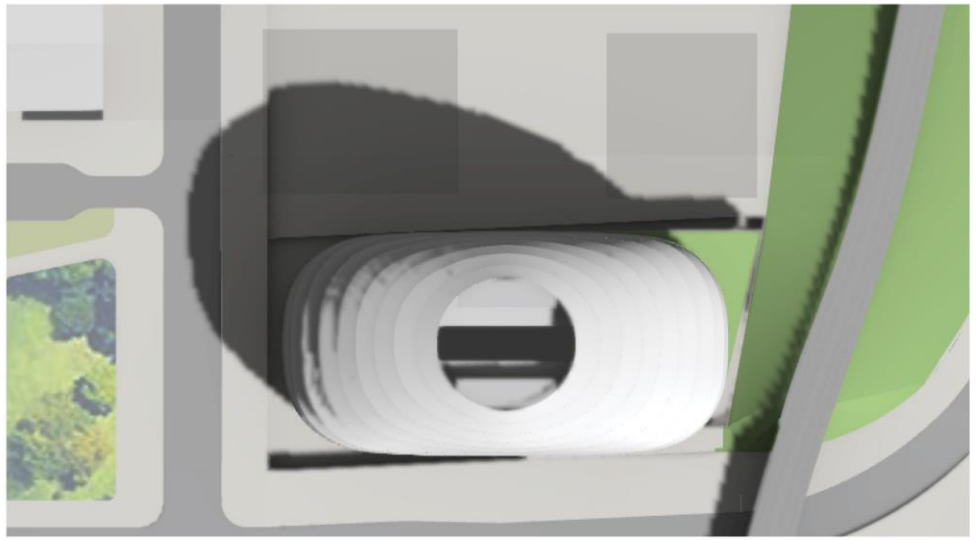




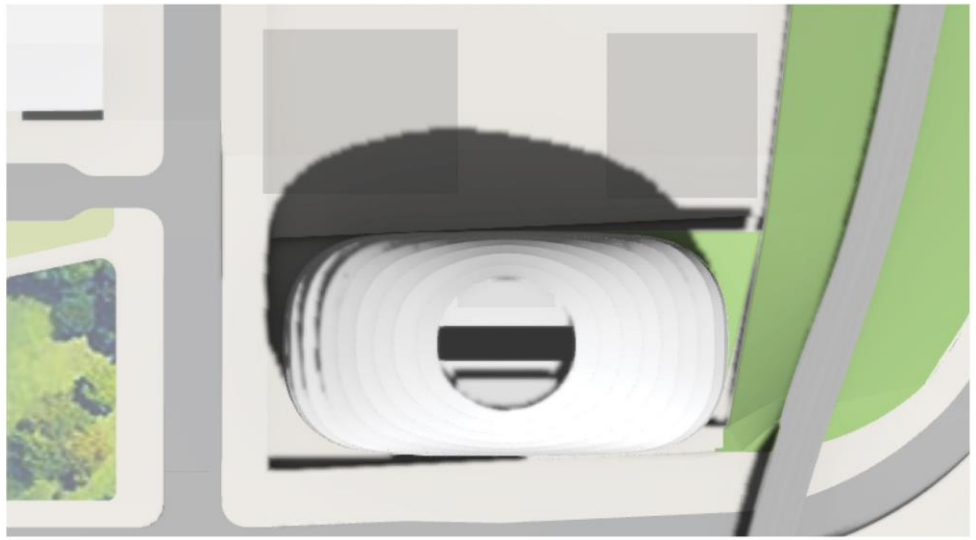




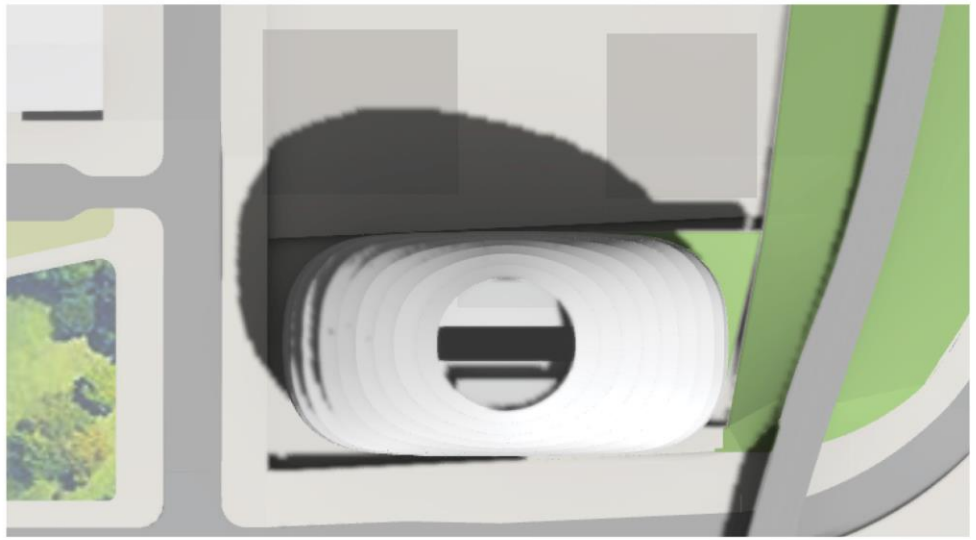
DESIGN EVOLUTION



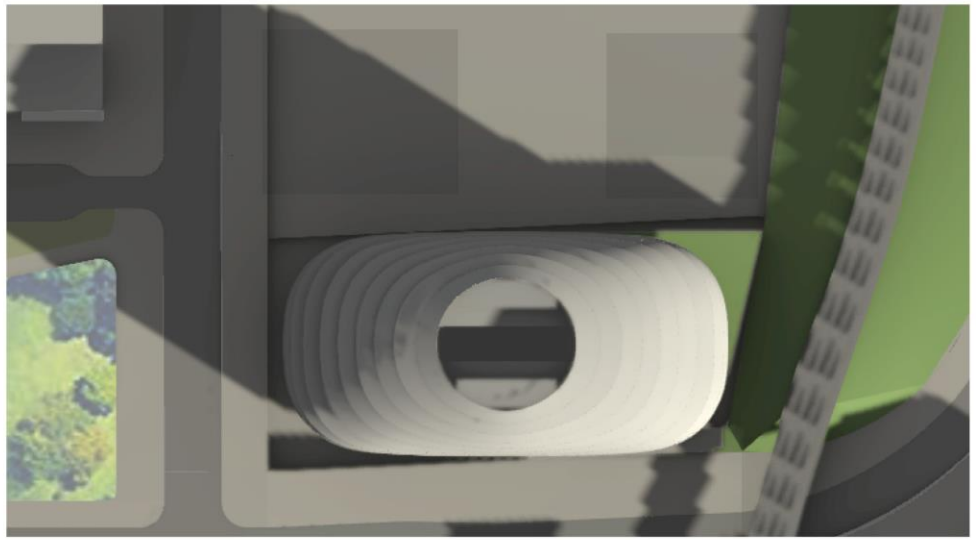
Spring - March 21st 2PM



Summer - June 21st 2PM



Fall - August 21st 2PM



Winter - December 21st 2PM

North

SHADOW STUDY

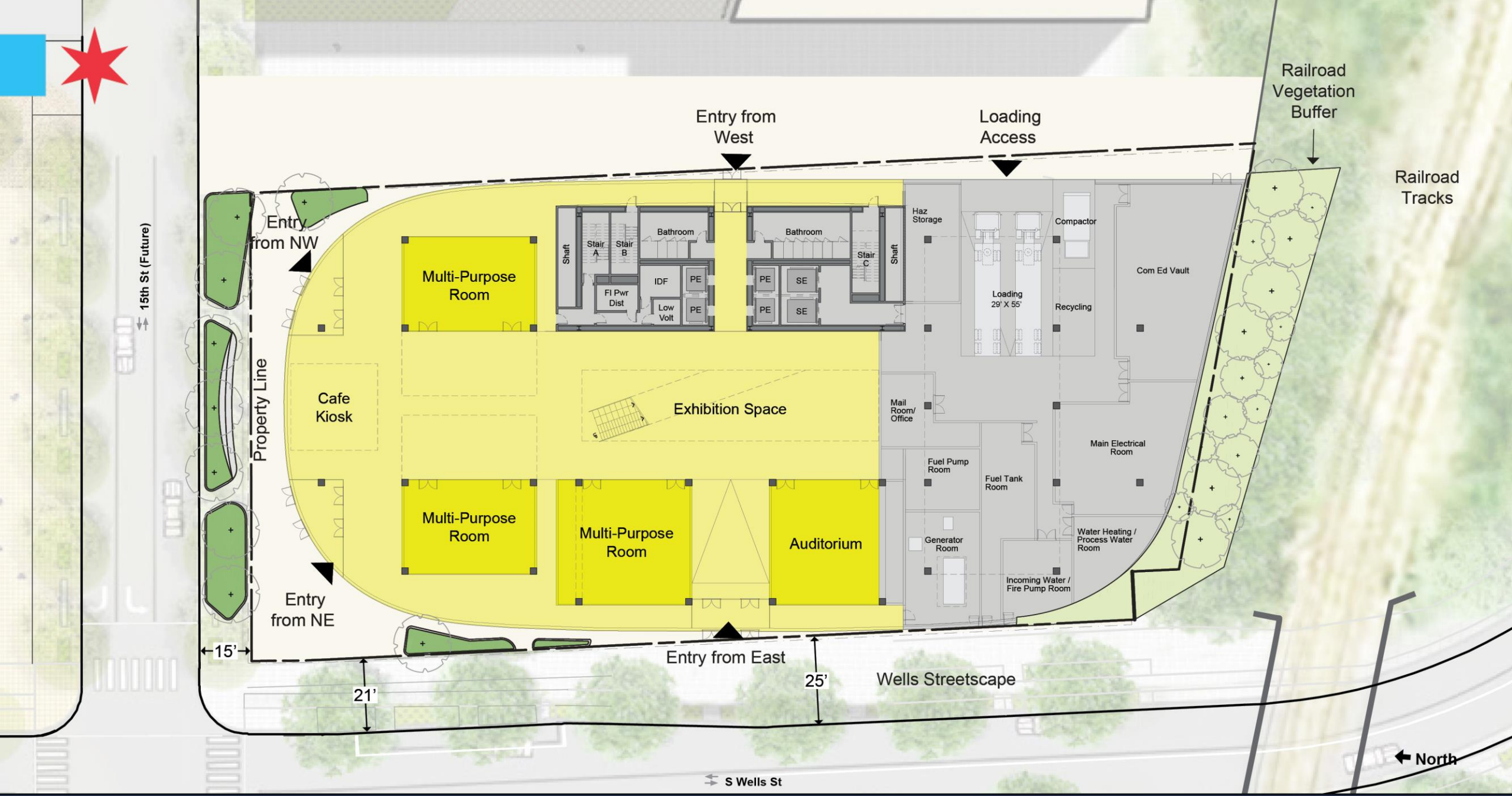
DESIGN IN PROGRESS

ENTRY VIEW FROM RIVER PROMENADE

DESIGN IN PROGRESS

ENTRY VIEW

DESIGN IN PROGRESS

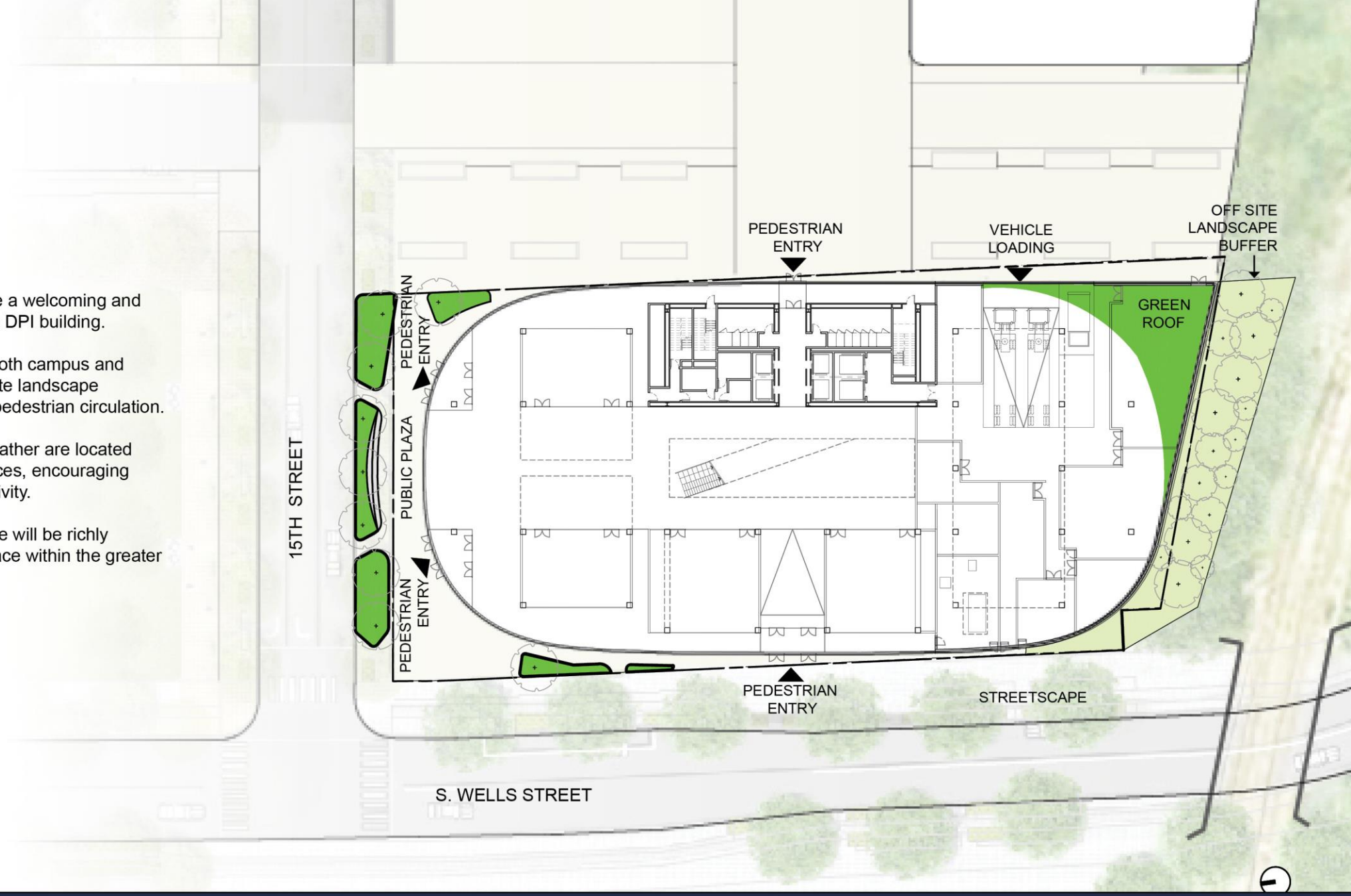


GROUND FLOOR PLAN

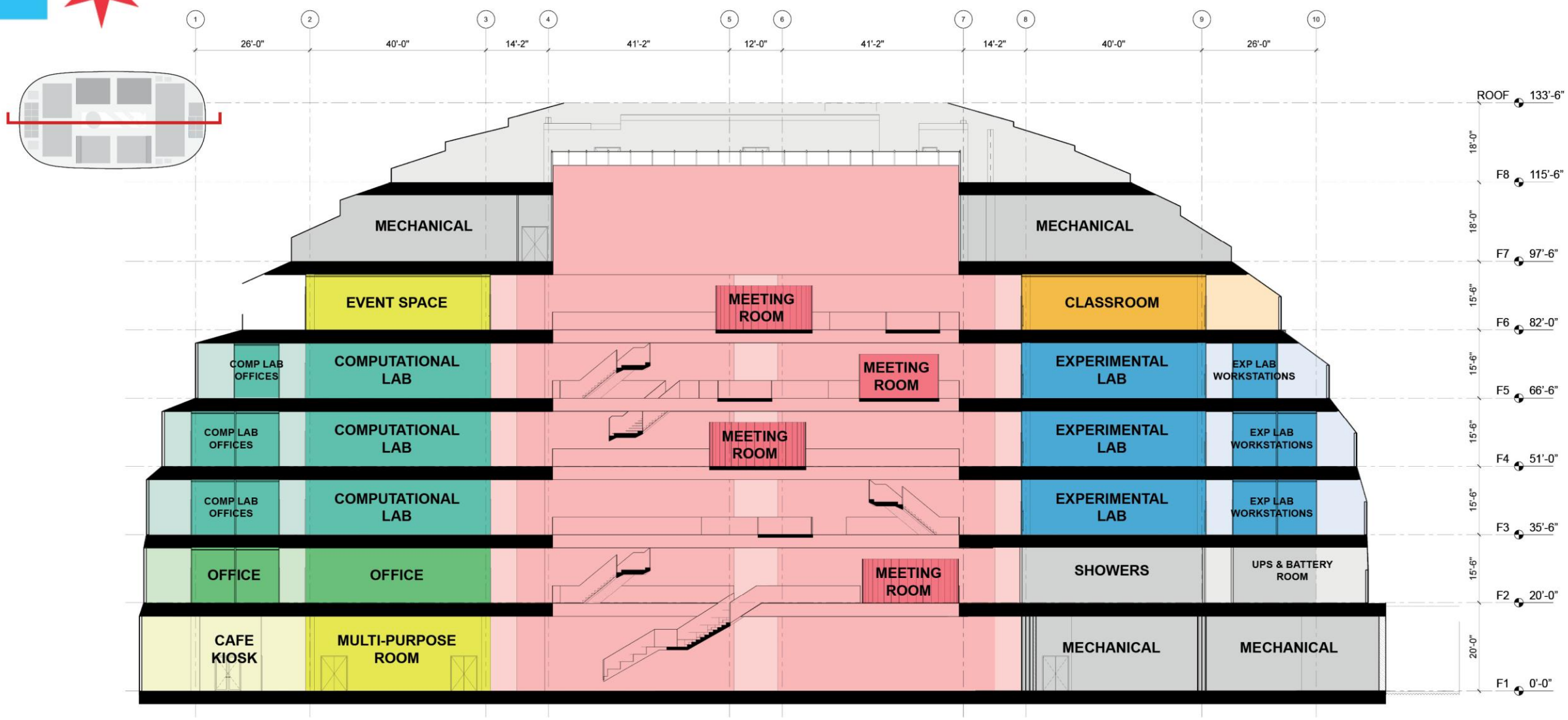
DESIGN IN PROGRESS

ZONING CODE
17-8-0909 Parks, Open Space, and Landscaping

- The plaza and landscape provide a welcoming and community-facing frontage to the DPI building.
- The site balances the needs of both campus and streetscape by providing adequate landscape amenities while also enhancing pedestrian circulation.
- Spaces for the public to sit and gather are located adjacent to building spill-out spaces, encouraging exchange, conversation, and activity.
- Custom, comfortable site furniture will be richly detailed to provide a sense of place within the greater development block.

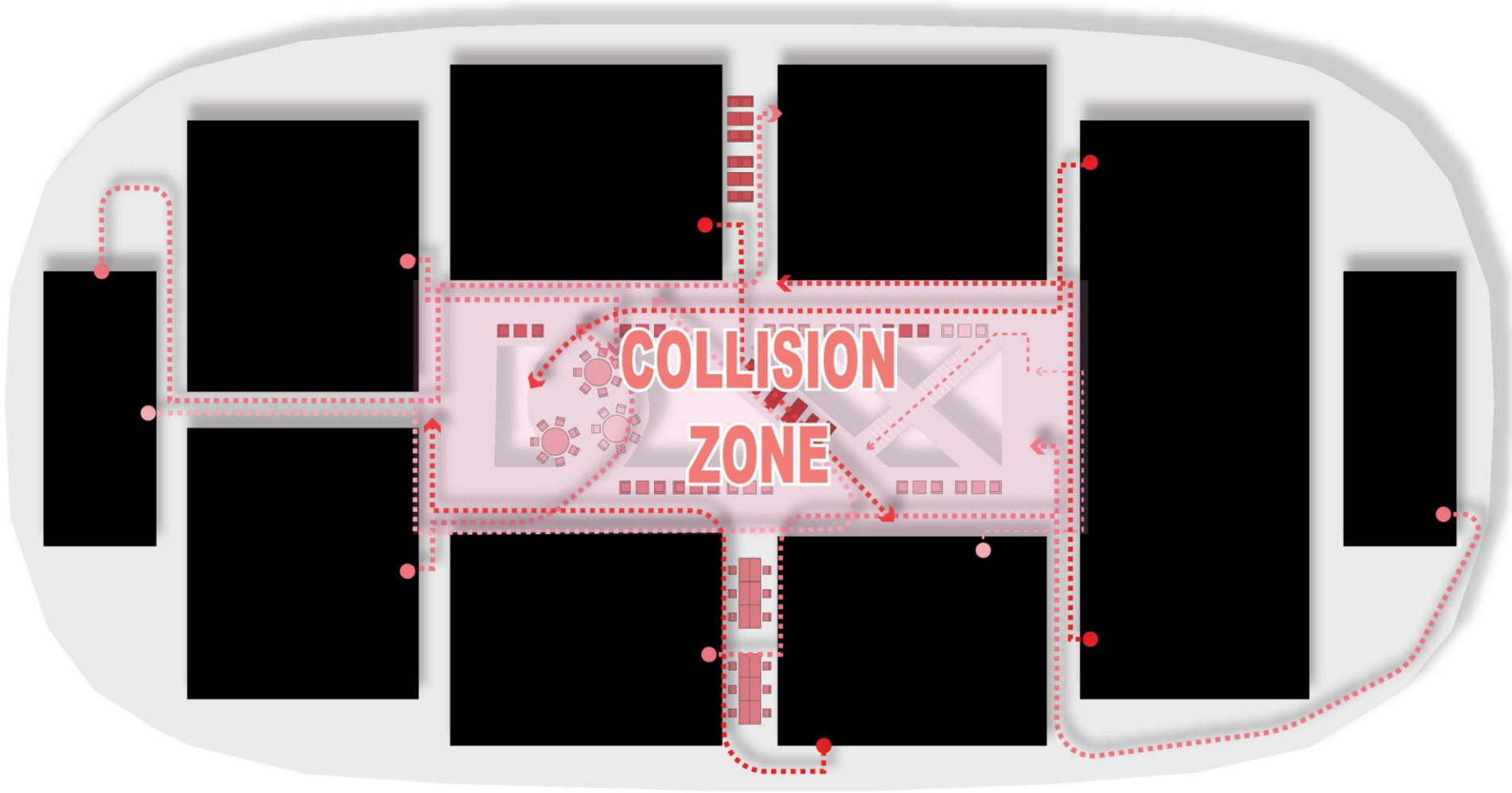


OPEN SPACE + LANDSCAPING

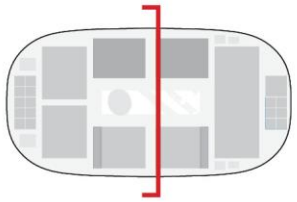


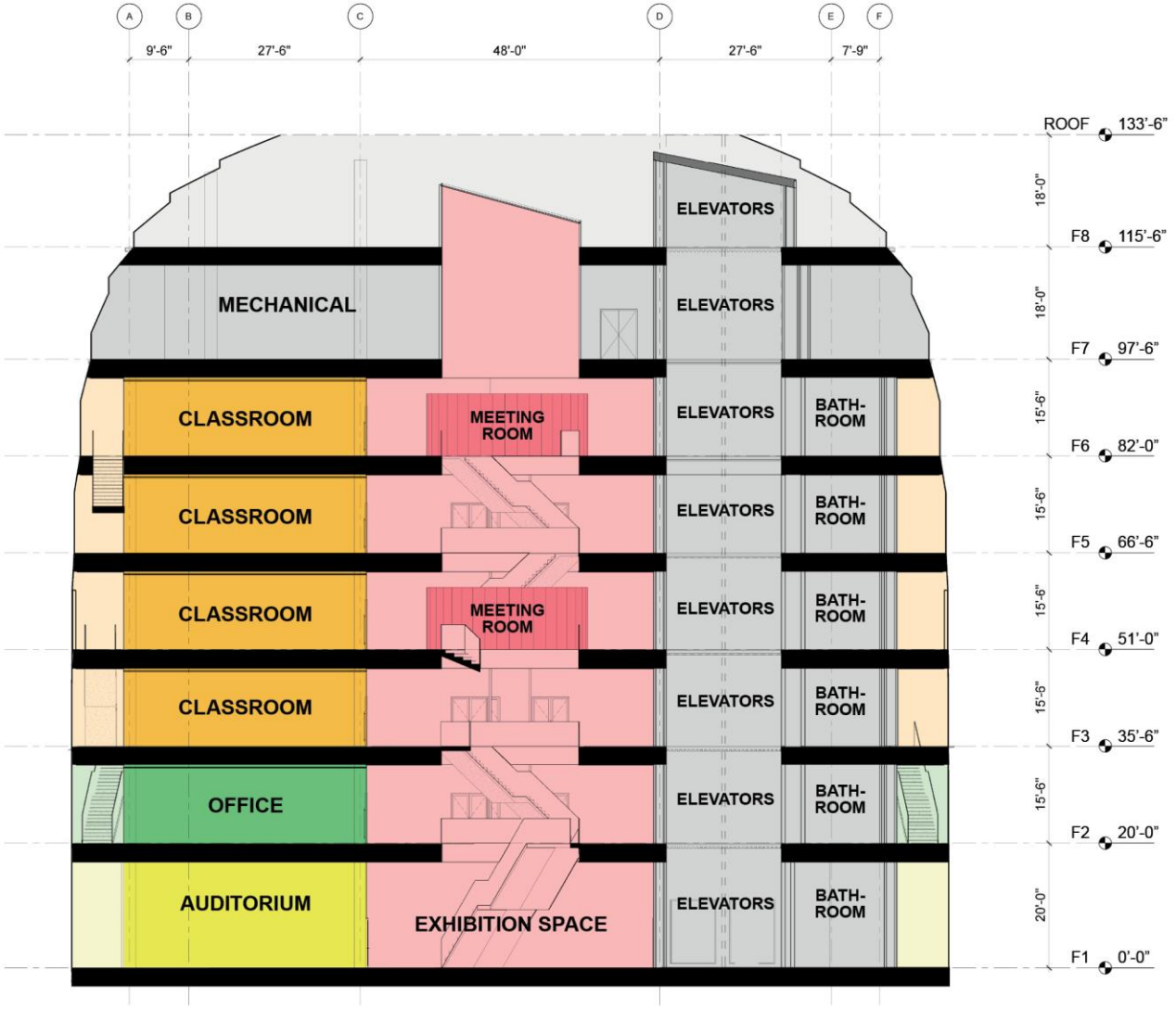
BUILDING SECTION (A-A)

DESIGN IN PROGRESS



COLLABORATION/ COLLISION ZONES



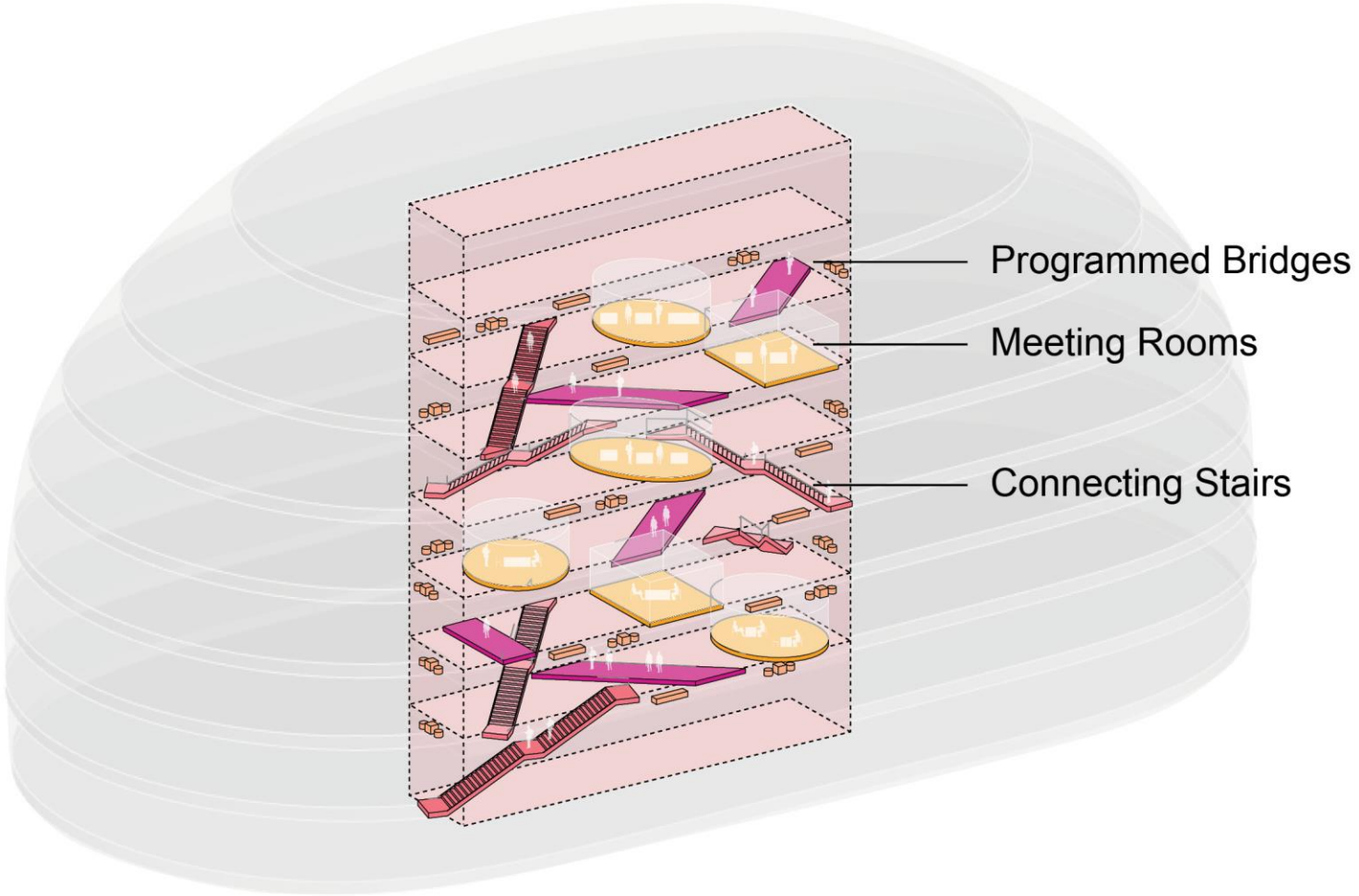


BUILDING SECTION (B-B)

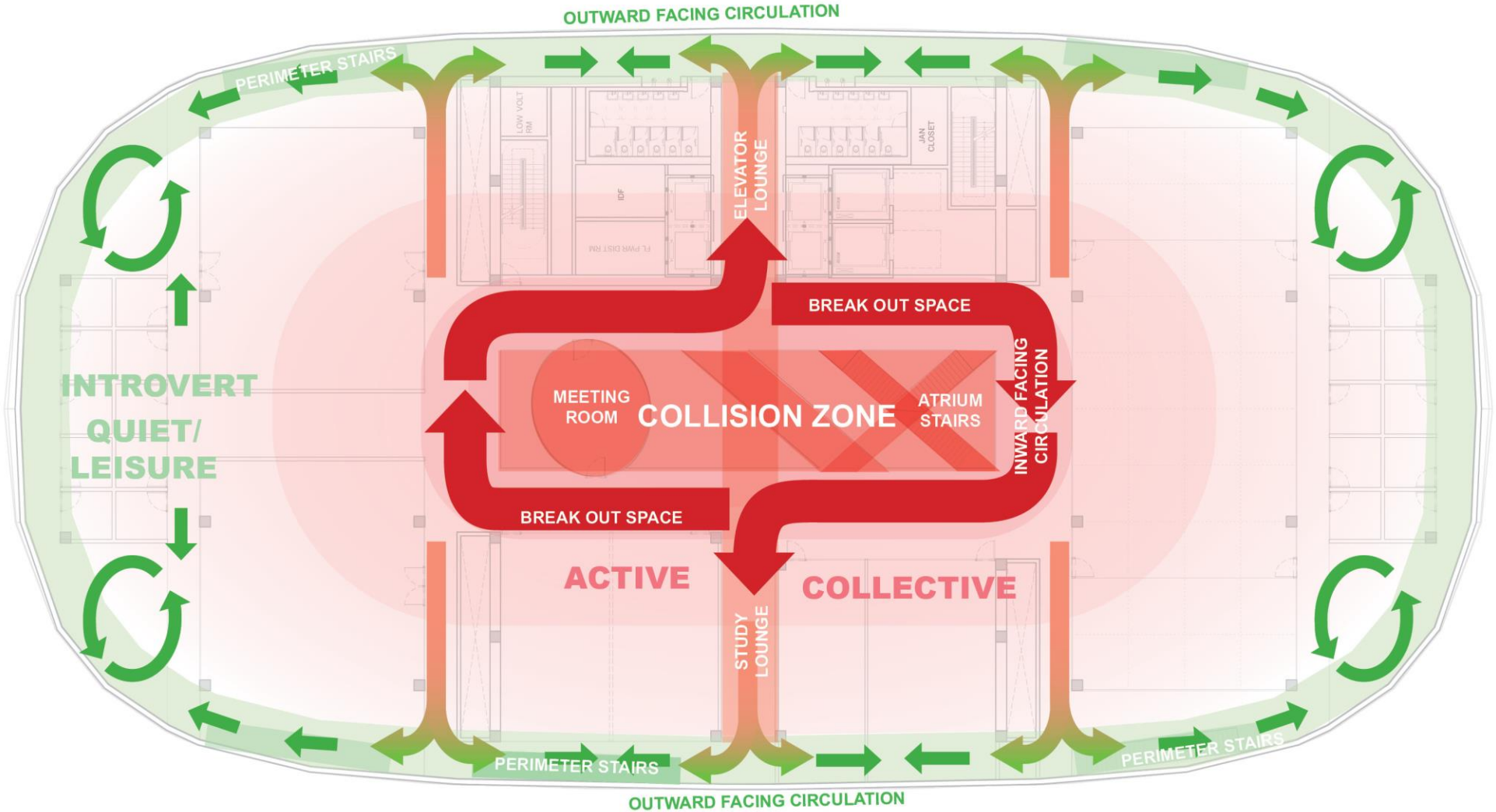
DESIGN IN PROGRESS

ATRIUM

DESIGN IN PROGRESS



ATRIUM VOLUME

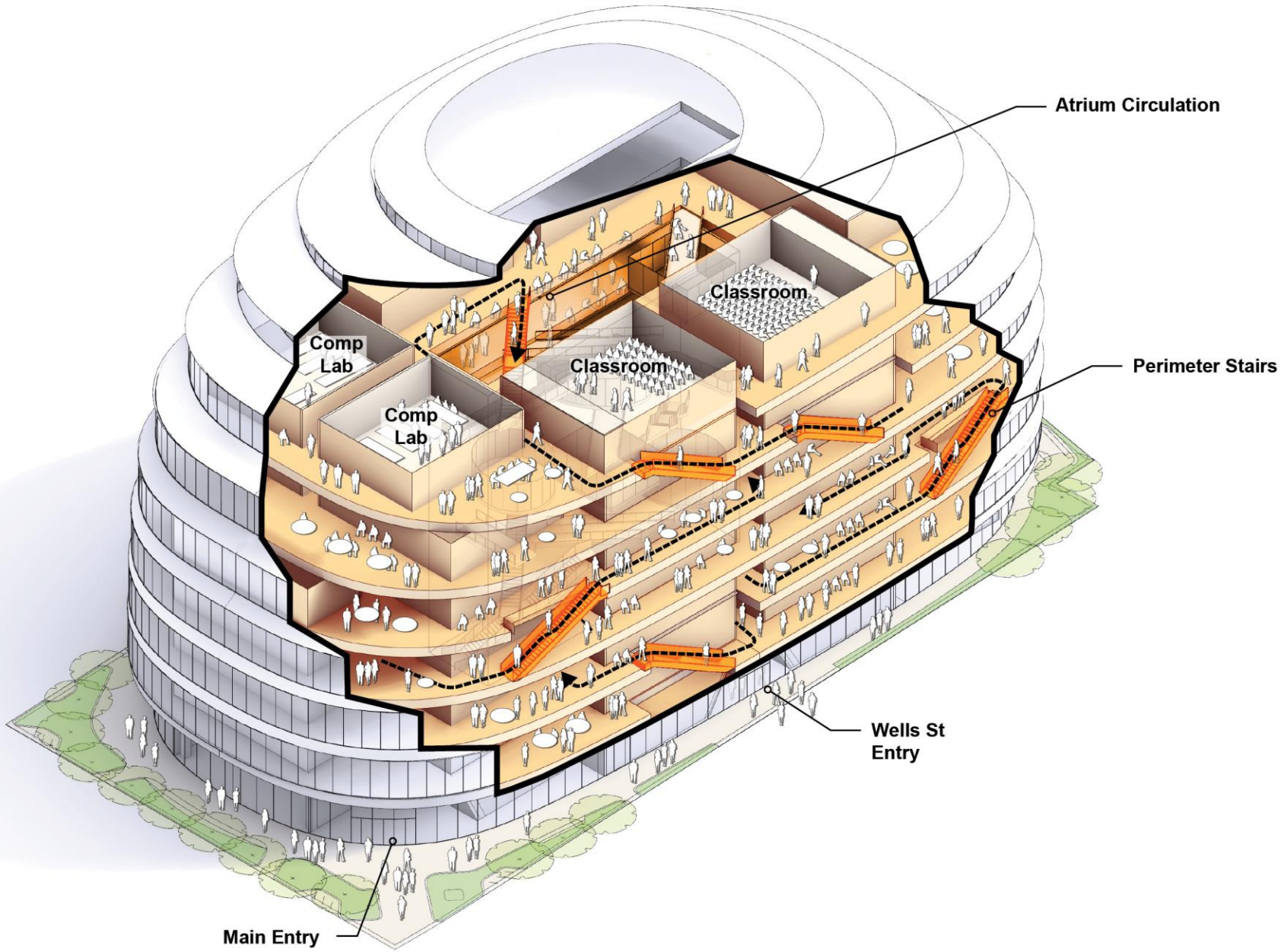


CIRCULATION NETWORK

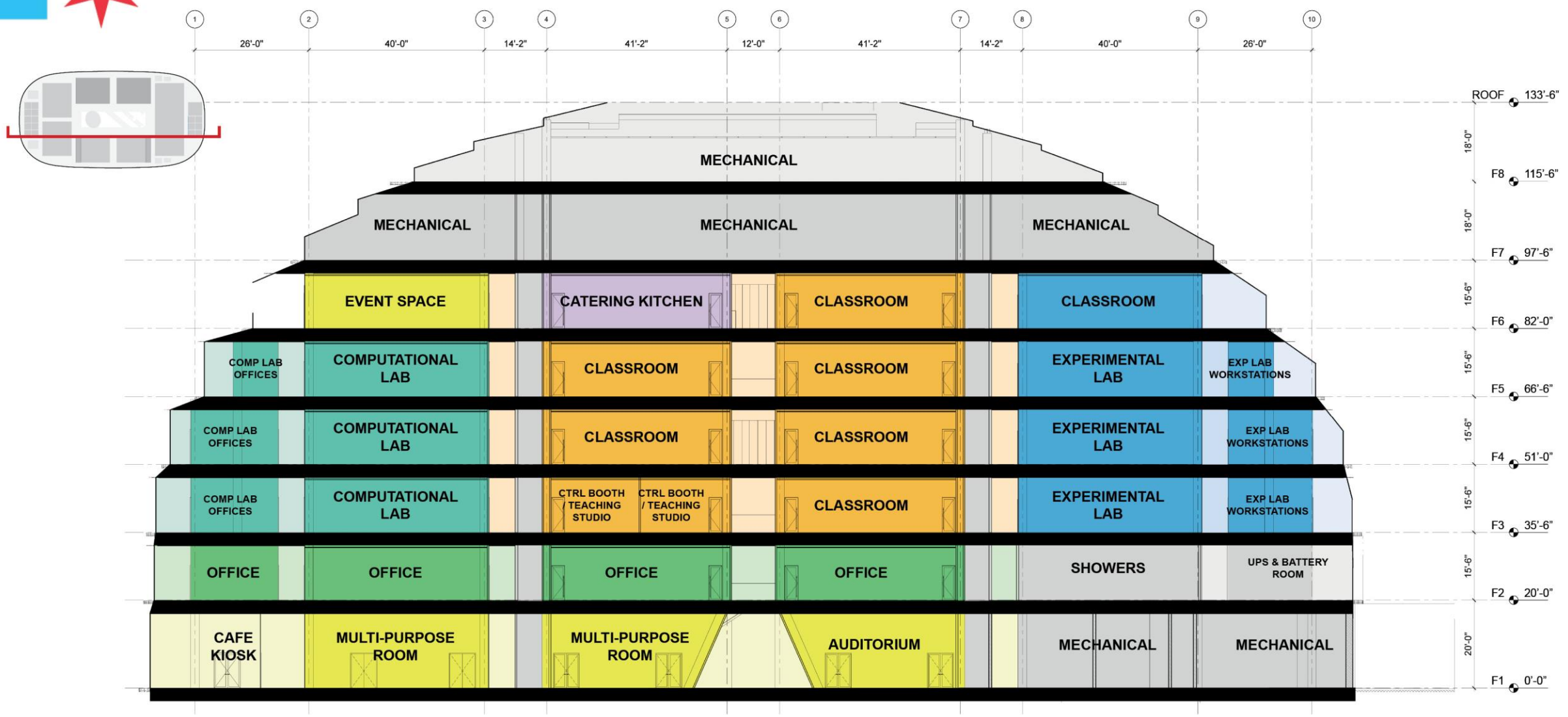
DESIGN IN PROGRESS

PERIMETER CIRCULATION

DESIGN IN PROGRESS

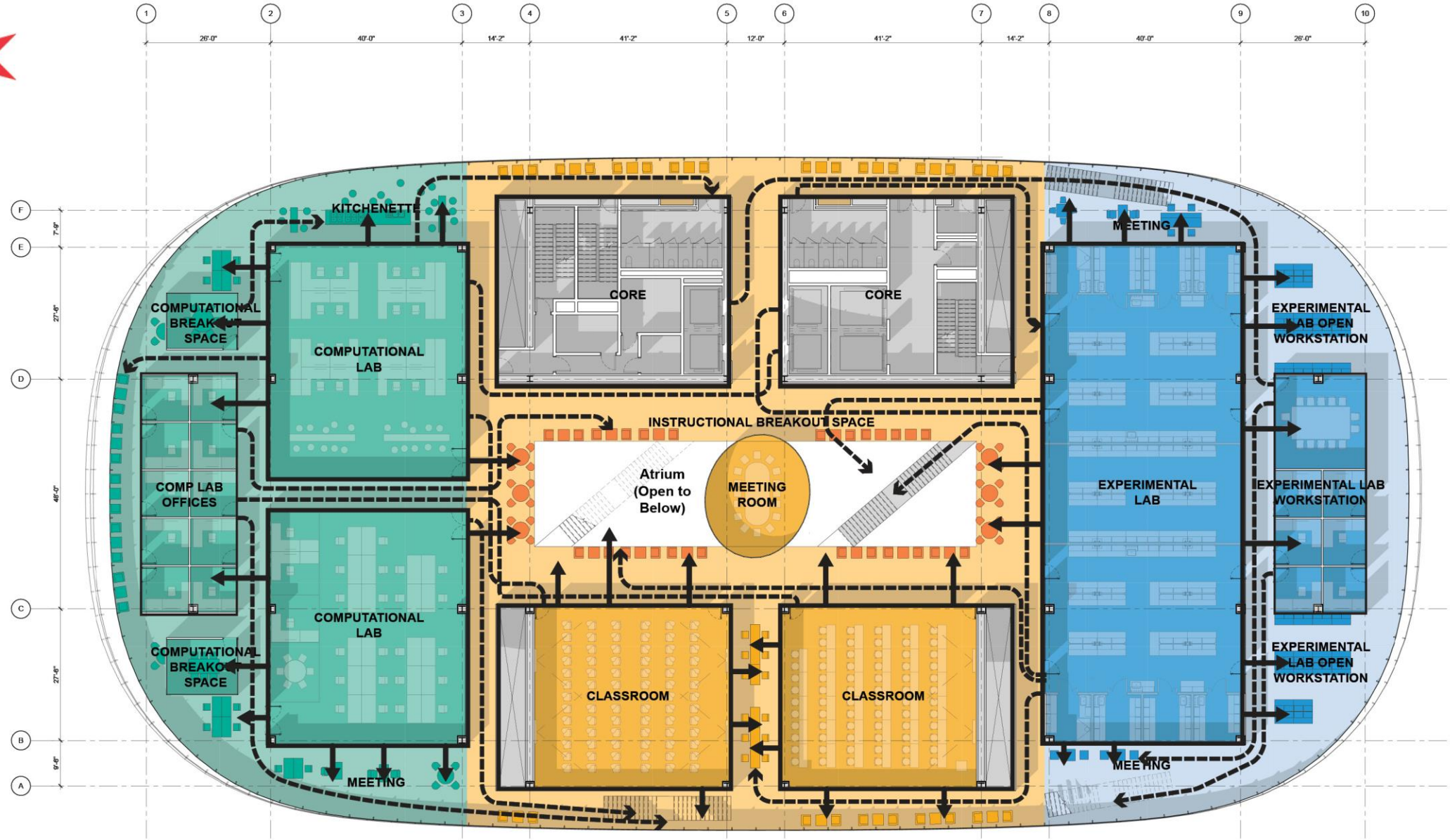


CIRCULATION



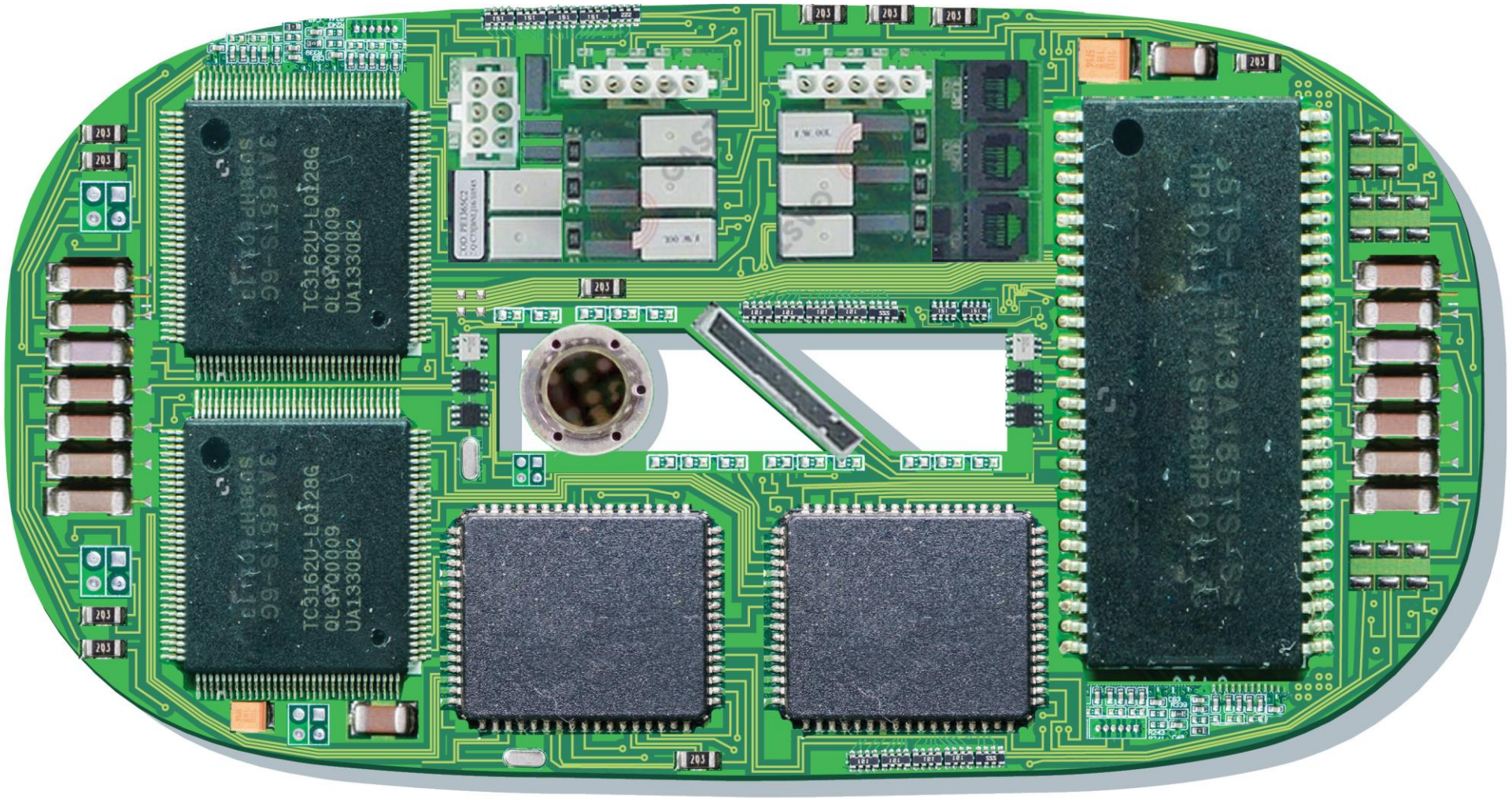
BUILDING SECTION (A-A)

DESIGN IN PROGRESS



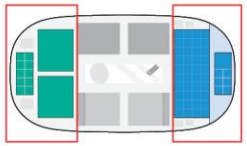
4TH FLOOR PLAN (TYPICAL LAB FLOOR)

DESIGN IN PROGRESS

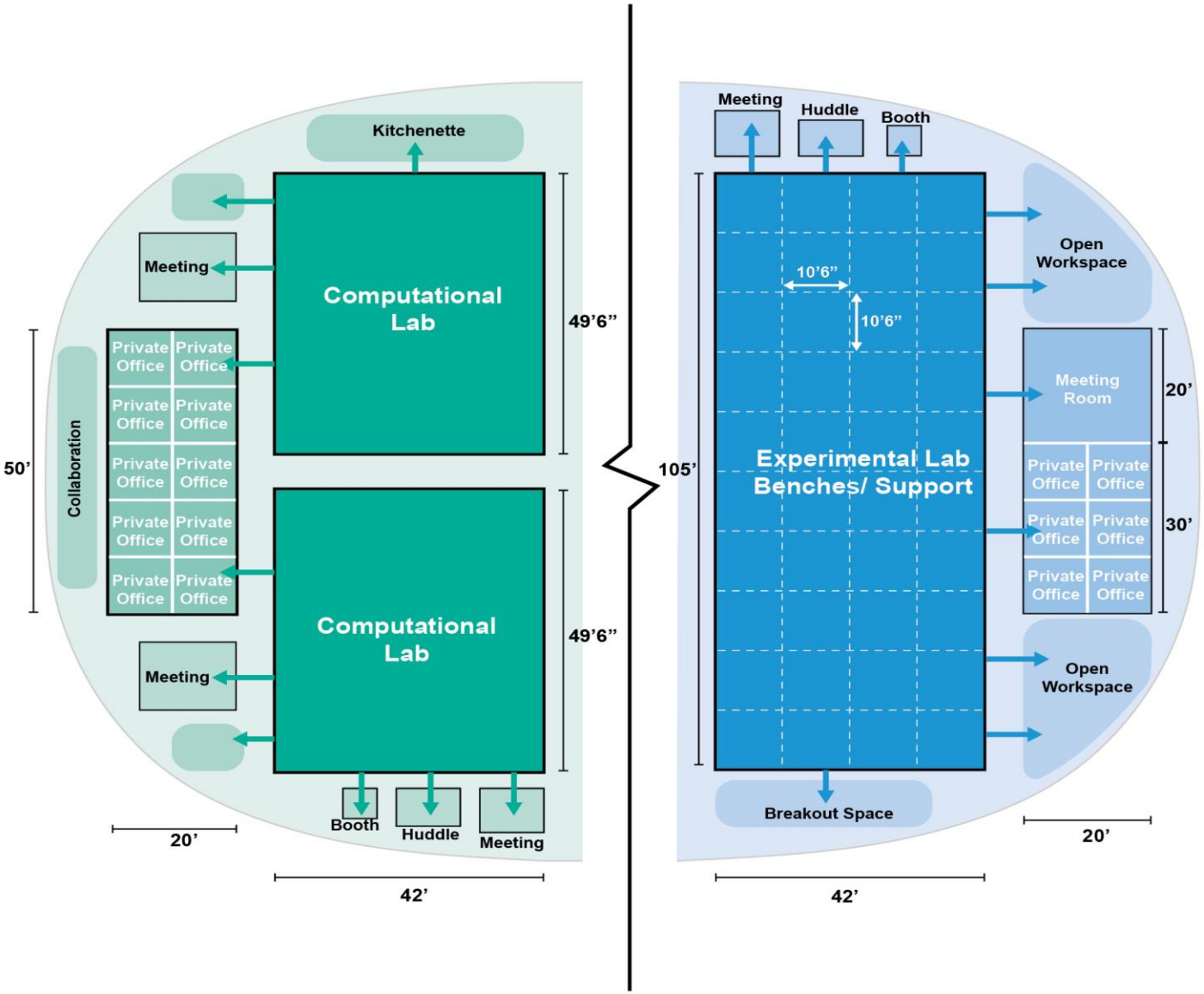


PROGRAM NETWORK

DESIGN IN PROGRESS



Computational Innovation Neighborhood



Experimental Innovation Neighborhood

INNOVATION NEIGHBORHOODS

DESIGN IN PROGRESS

Computational Lab

Purdue University

Purdue University

Emory University

Experimental Lab - Dry

Engineering Lab "Light"

Boston University
Drone Lab

Richard Weeks Hall of Engineering Rutgers University - Visualization Lab

Engineering Lab "Medium"

CalTech CAST
Robotics Lab

Engineering Lab "Heavy"

Washington University
Imaging Lab

University of Rhode Island
Workshop

Engineering Lab "Extra Heavy"

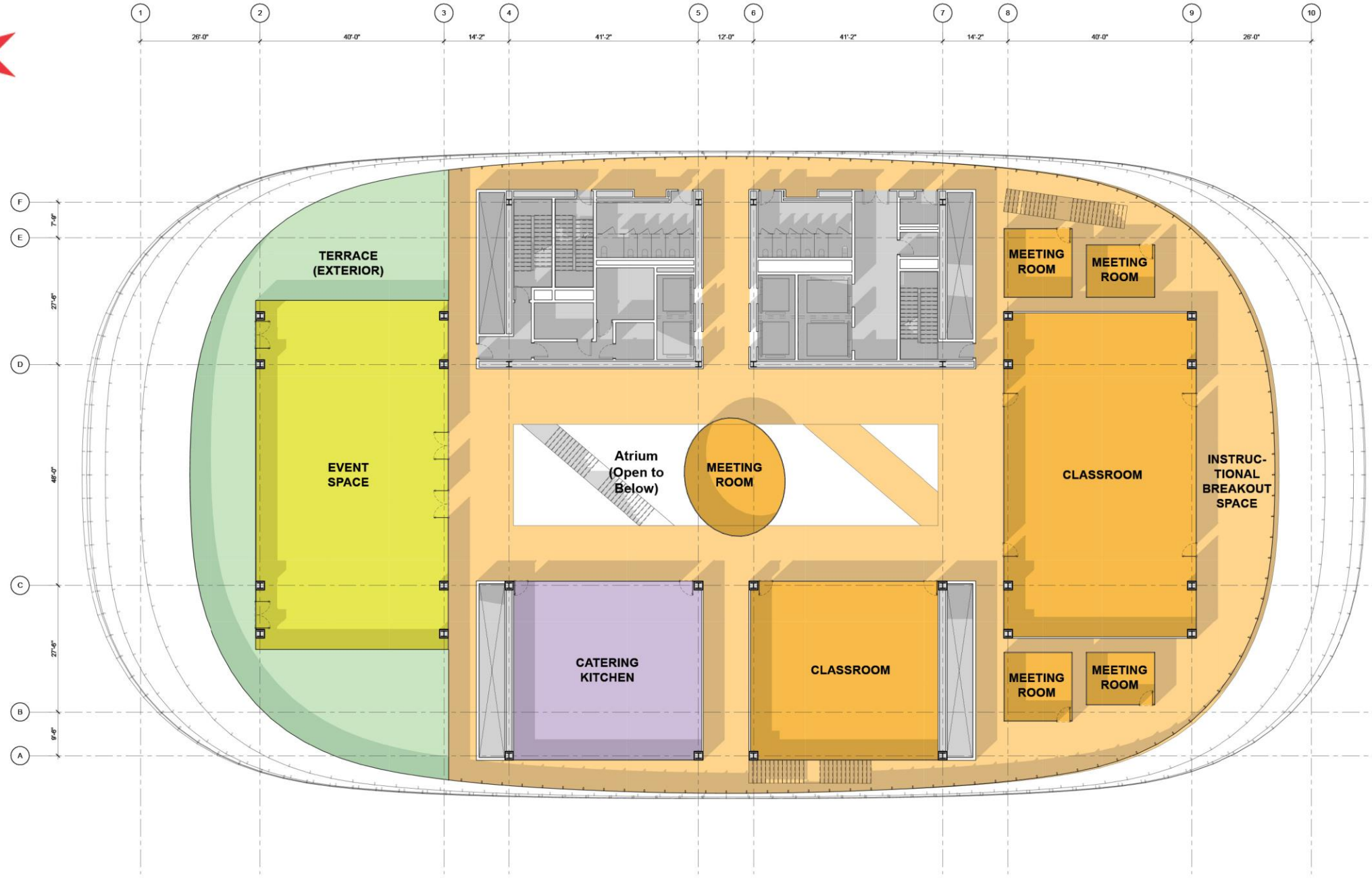
Rice University
Physics Lab

COMPUTATIONAL LAB

DESIGN IN PROGRESS

EXPERIMENTAL LAB

DESIGN IN PROGRESS



6TH FLOOR PLAN (EVENT SPACE FLOOR)

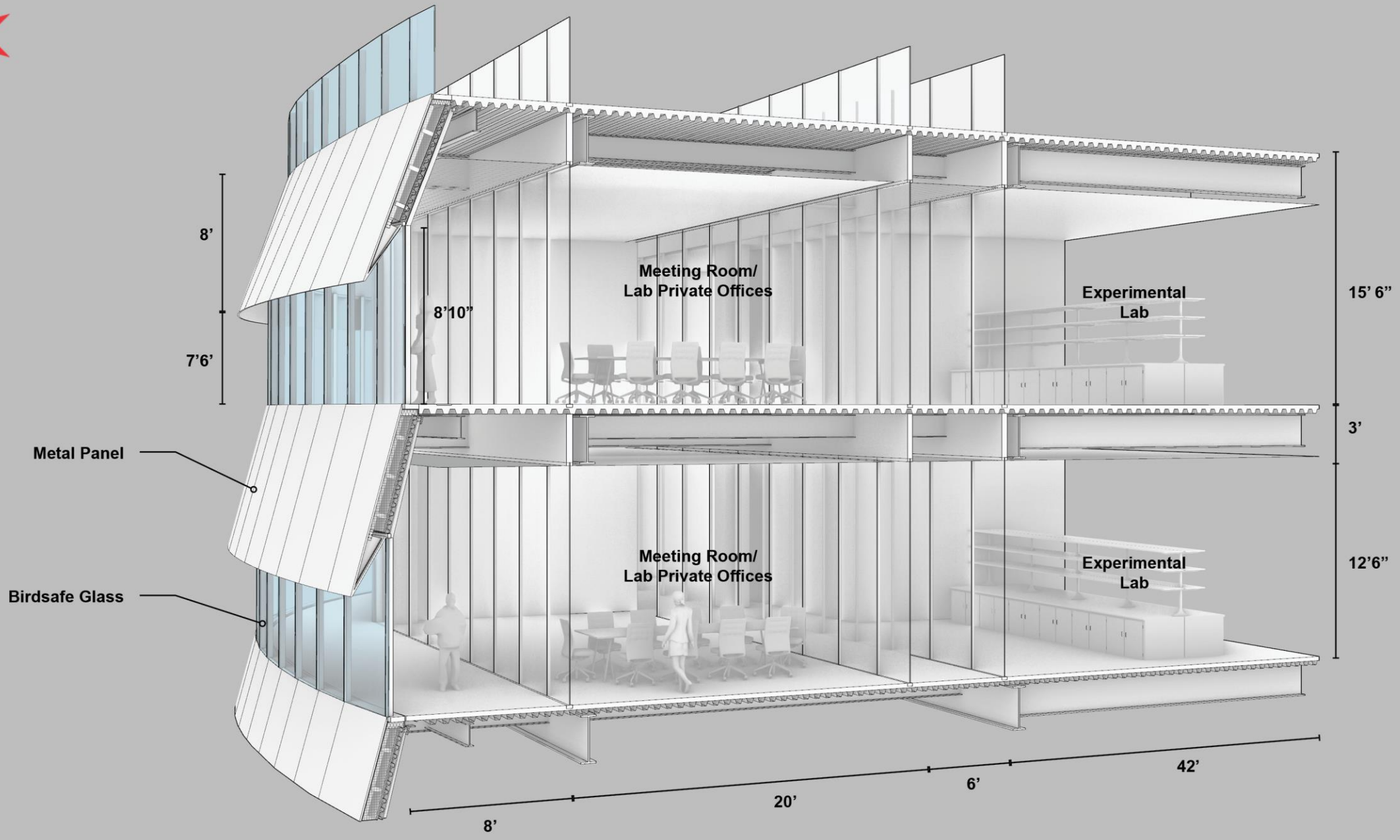
DESIGN IN PROGRESS

EVENT SPACE

DESIGN IN PROGRESS

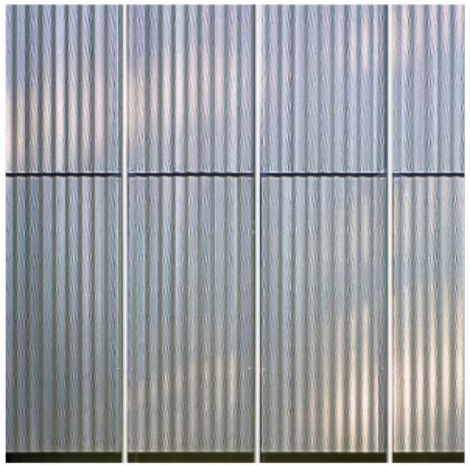
FACADE

DESIGN IN PROGRESS

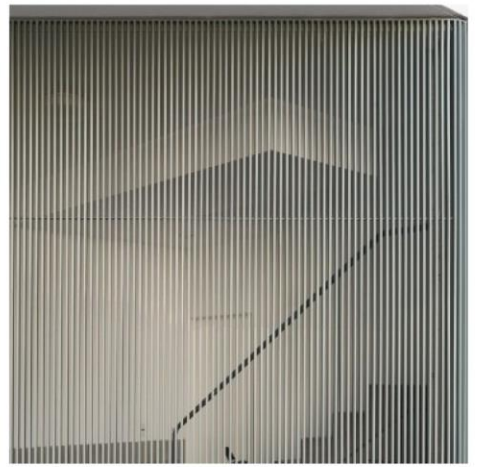


FACADE

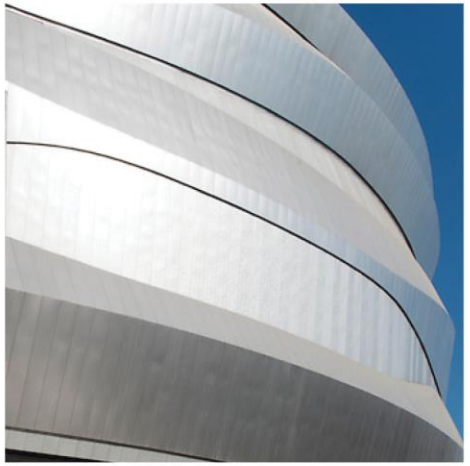
DESIGN IN PROGRESS



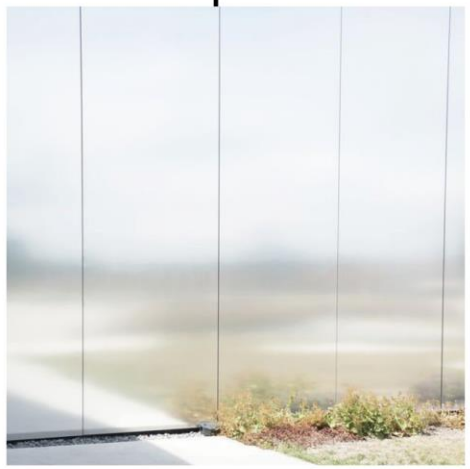
Metal Panel - Options



Perforated Metal Panel/ Louver - Options

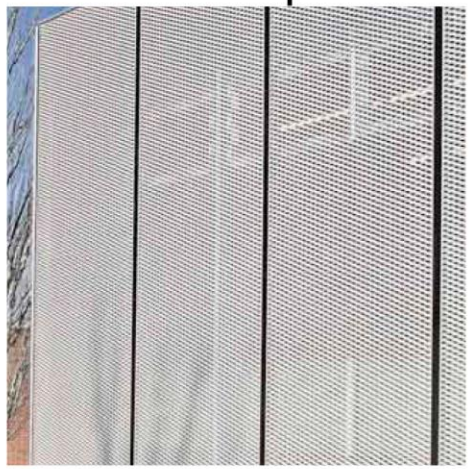


Metal Panel - Options



Metal Panel - Options

Glass



Perforated Metal Panel/ Louver - Options

Perforated Metal Panel/ Louver - Options

BUILDING MATERIALS

DESIGN IN PROGRESS

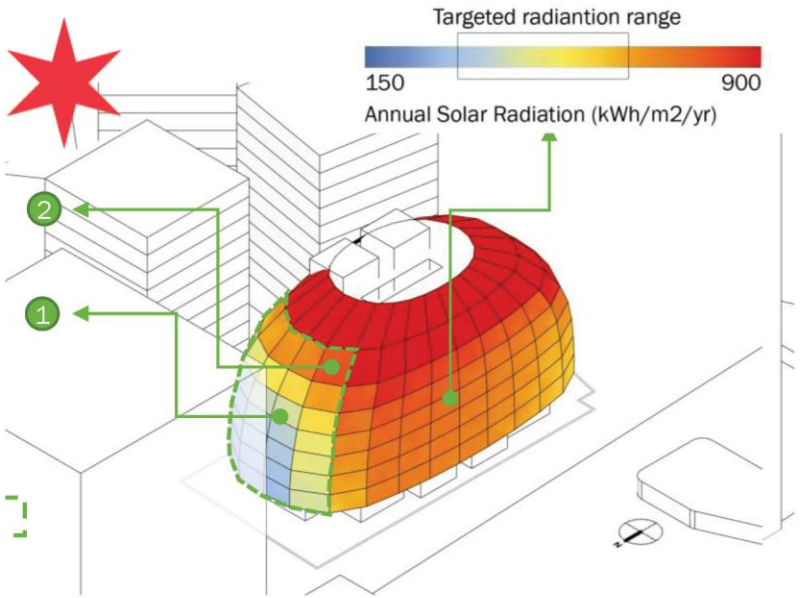


Fig. 4: North and West Facades

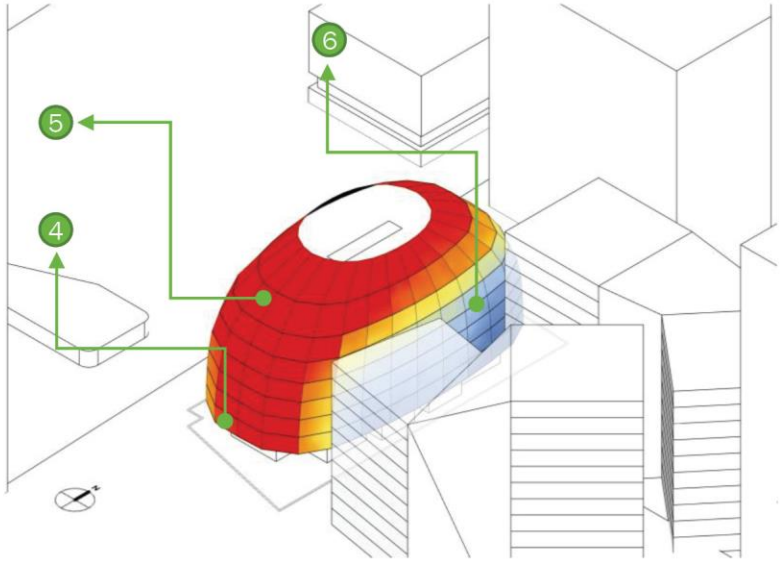
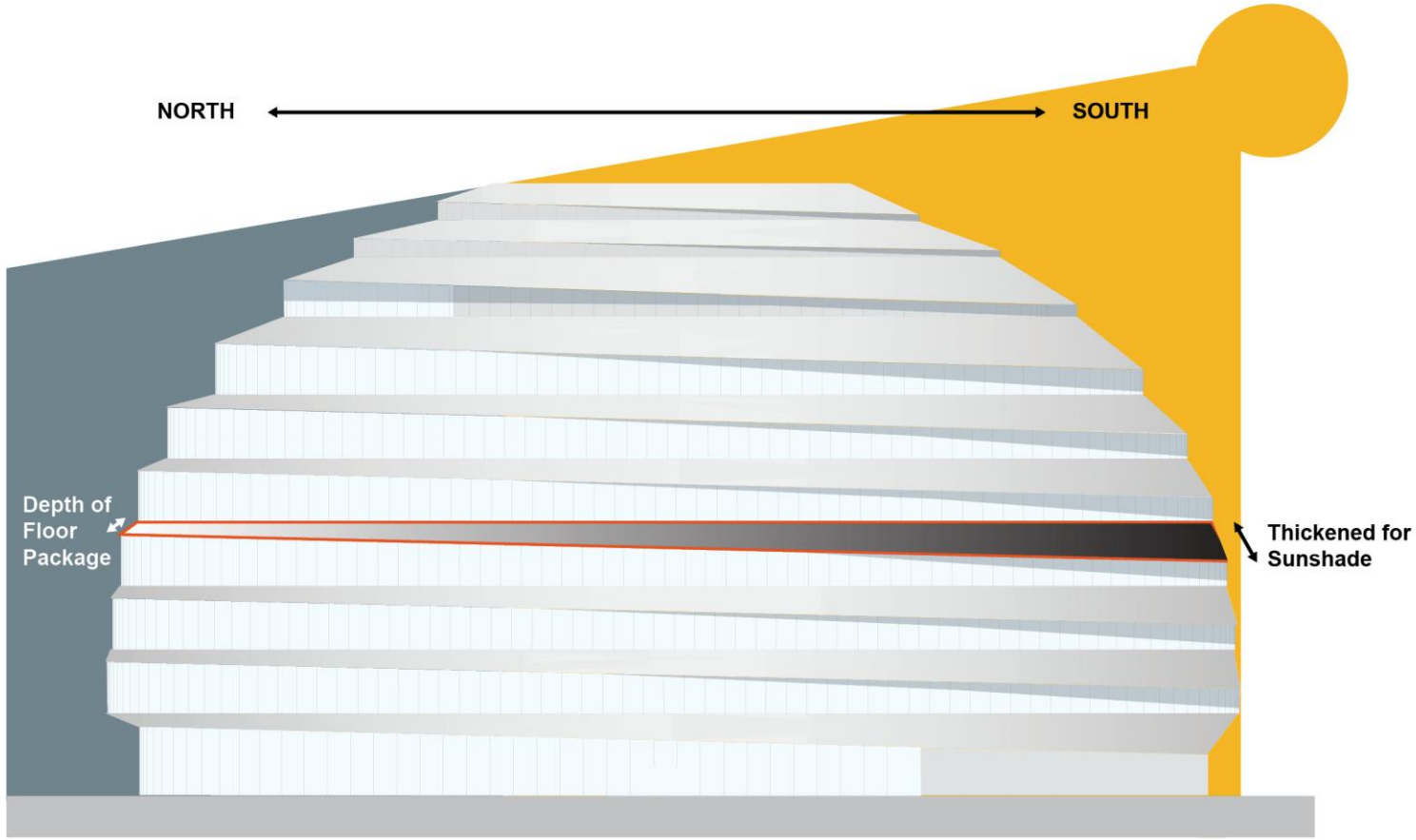


Fig. 5: South and East Façades
(with planned future development)



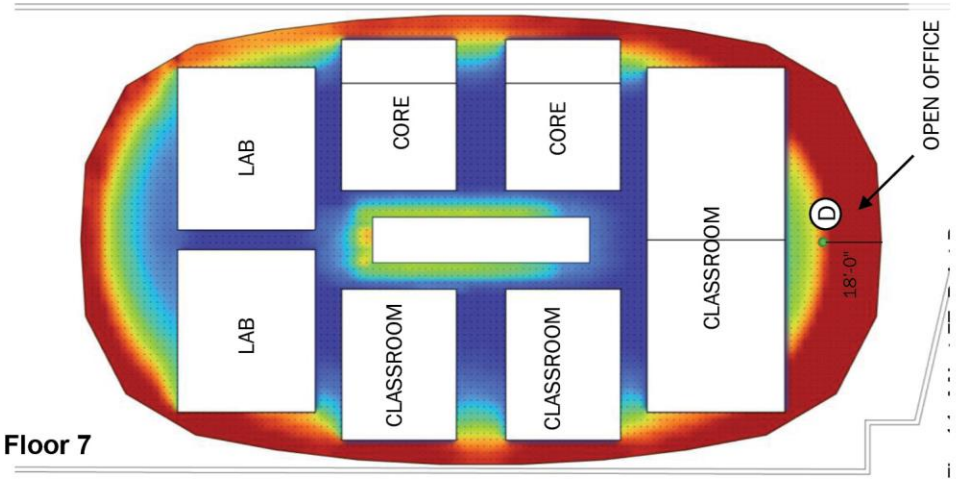
FACADE SOLAR RADIATION

DESIGN IN PROGRESS

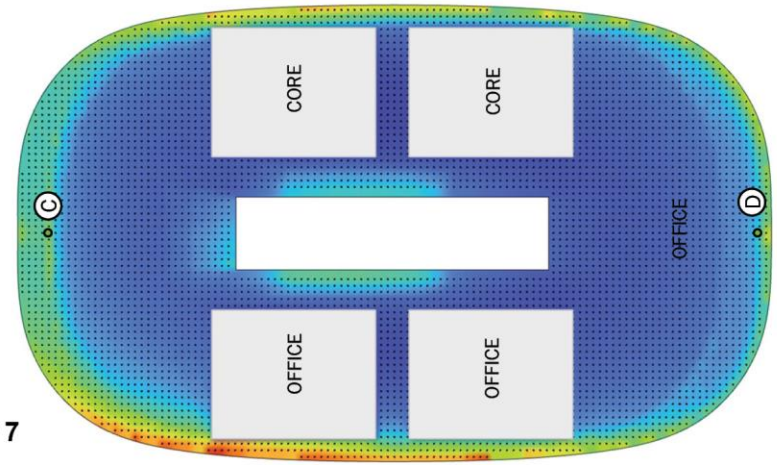
Fig

Previous
No added shading

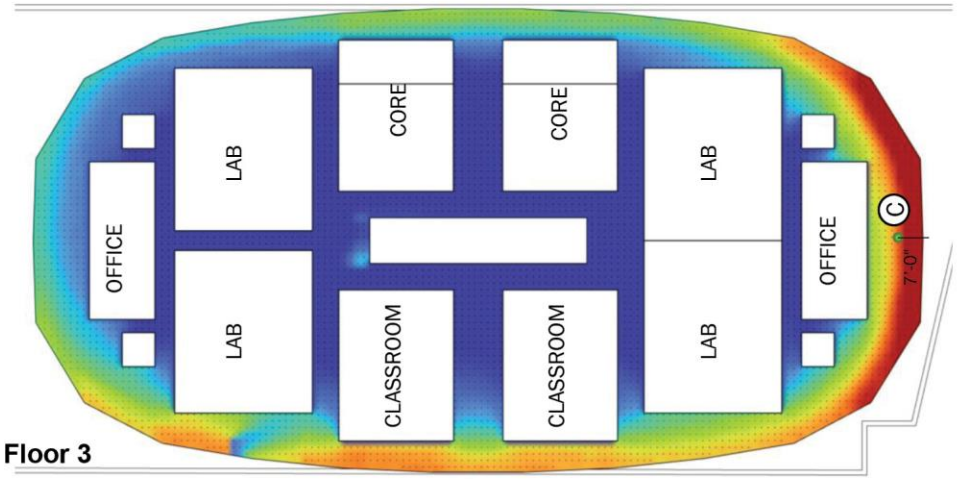
Current
Horizontals react to sun



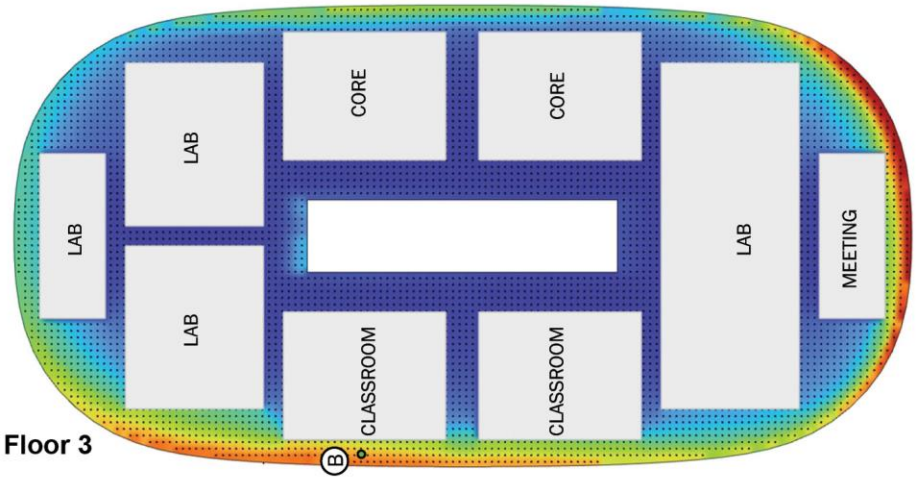
Floor 7



Floor 7



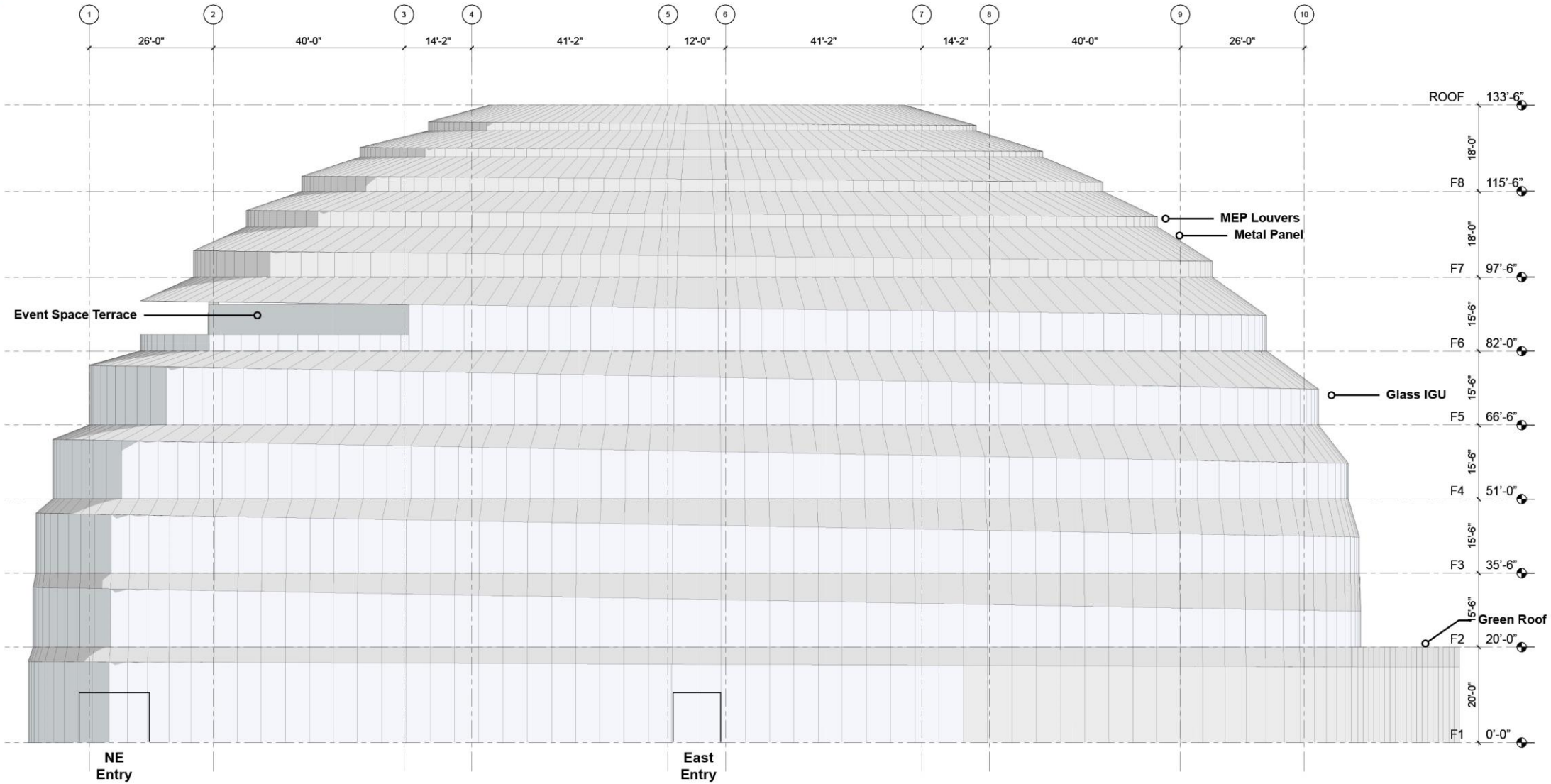
Floor 3



Floor 3

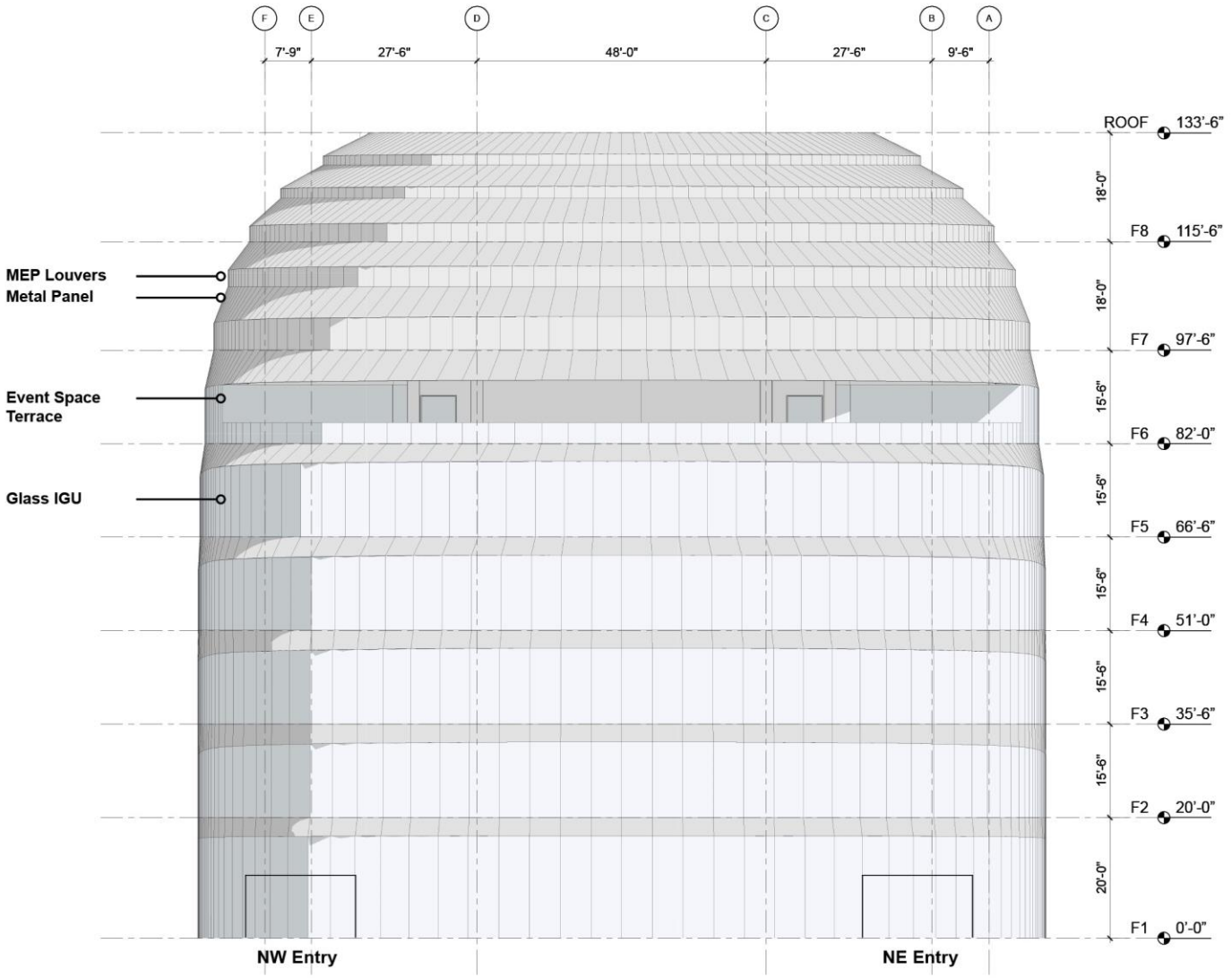
DAYLIGHTING STUDY

DESIGN IN PROGRESS



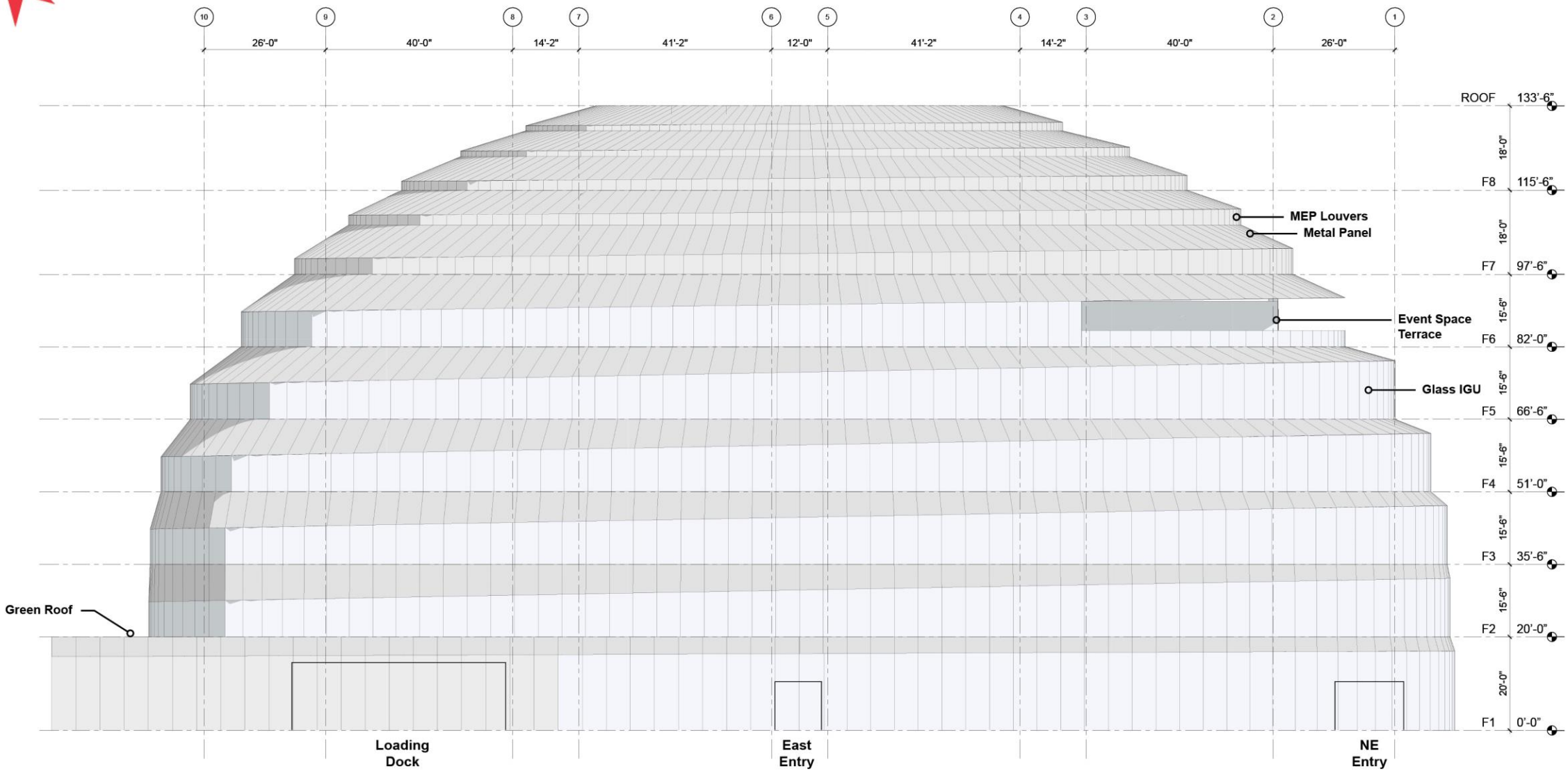
BUILDING ELEVATION (WEST)

DESIGN IN PROGRESS



BUILDING ELEVATION (NORTH)

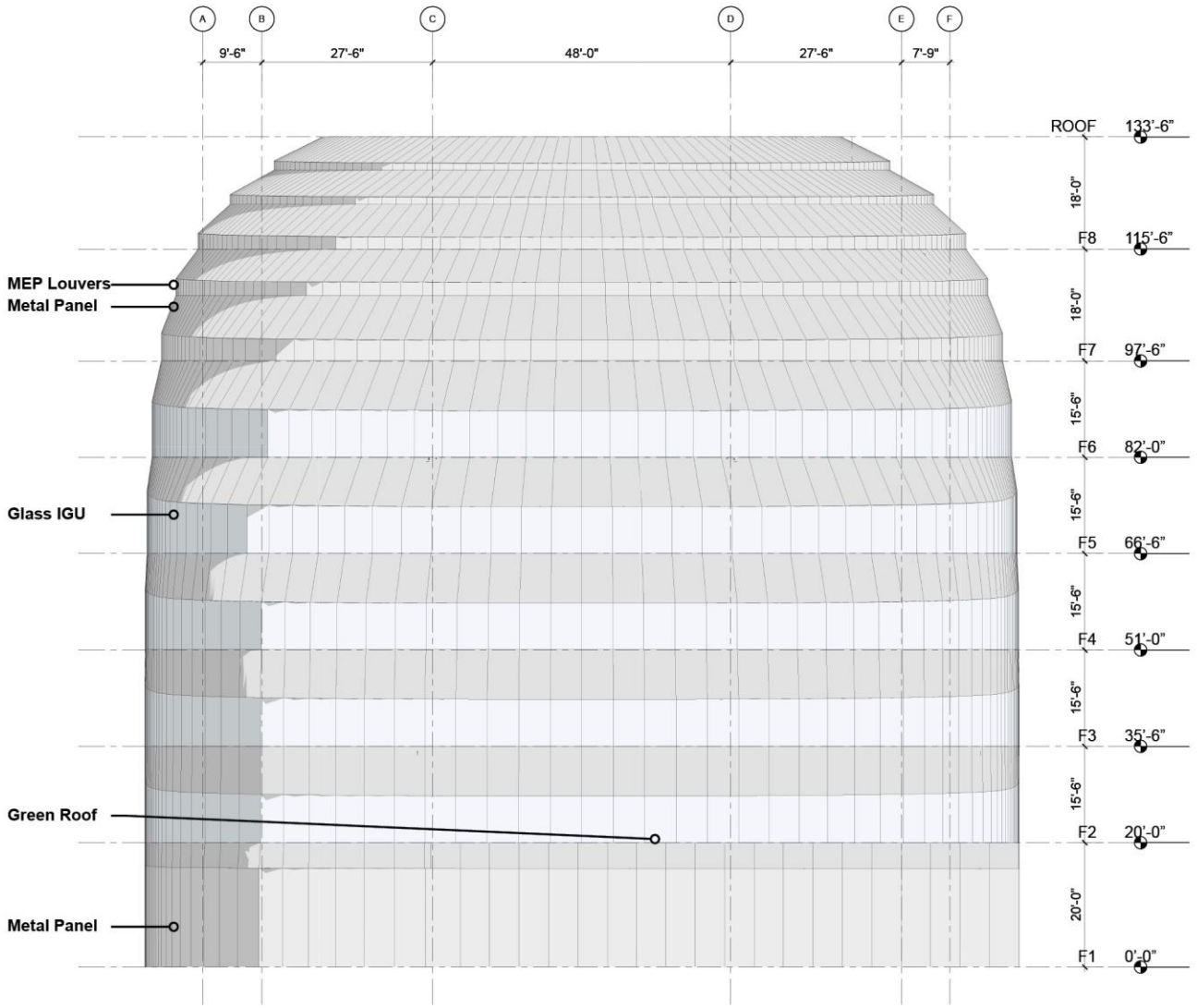
DESIGN IN PROGRESS



North

BUILDING ELEVATION (EAST)

DESIGN IN PROGRESS



BUILDING ELEVATION (SOUTH)

DESIGN IN PROGRESS

Façade design is optimized for sunshading and efficient building performance

Lighting design is dark sky compliant and bird friendly

LED lighting throughout

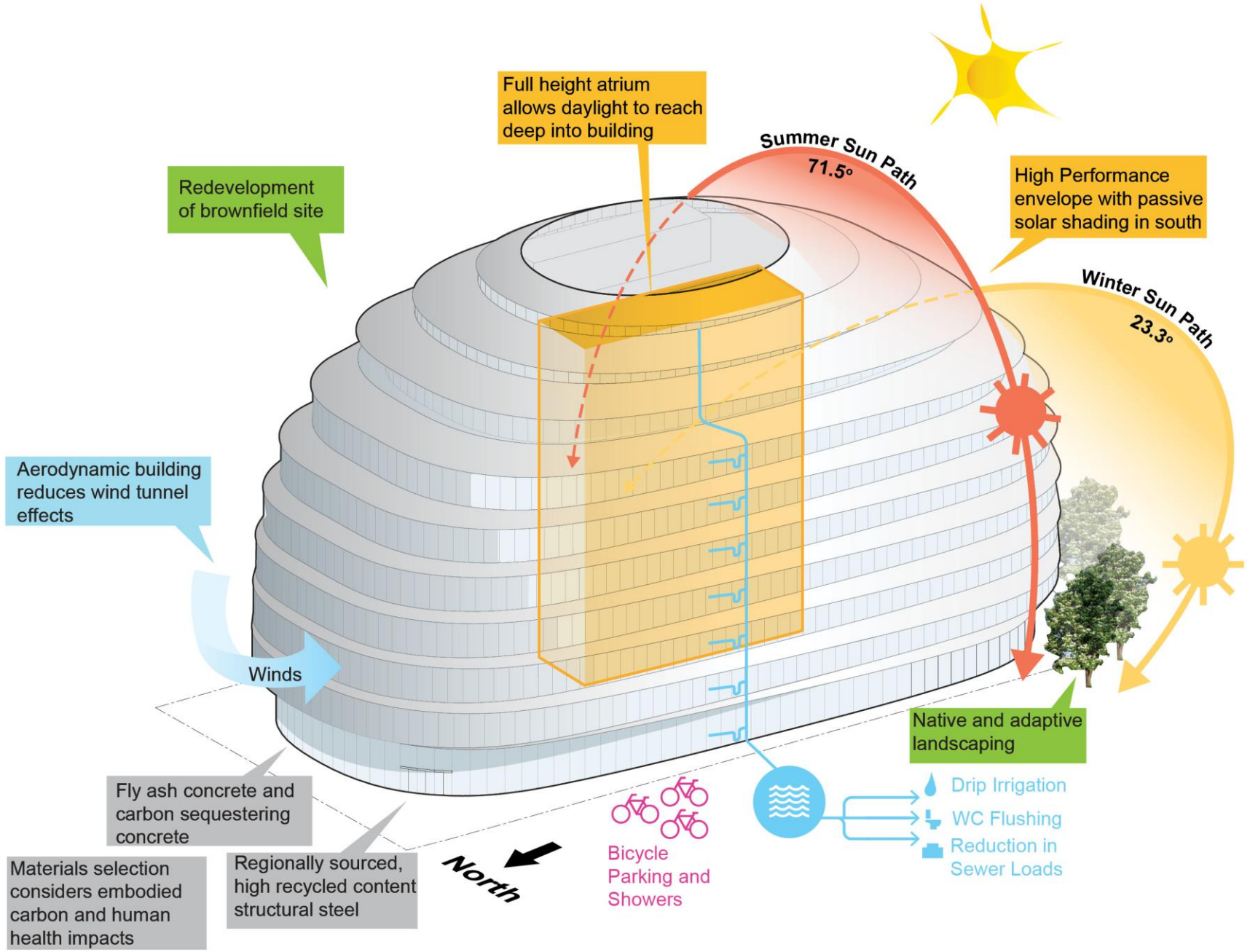
Bird friendly design in materials and massing

Biophilic Design Principles

Resilient design manages expected impacts of climate change

Community outreach programs promote inclusivity and diversity

LEED Gold



SUSTAINABILITY

VIEW FROM RIVERWALK

DESIGN IN PROGRESS