

WEST LOOP COMMUNITY WORKSHOP

The background of the entire page is a detailed architectural floor plan of a city block. The plan shows a grid of streets and various building footprints. Some buildings are filled with furniture and fixtures, such as desks, chairs, and tables, suggesting different uses for the spaces. A prominent green diagonal band runs across the top of the plan, containing the title text. Two circular markers are placed on the plan: one labeled 'STOP' and another labeled 'L STOP'.

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ARCH 772
MARK BARNHOUSE
SPRING 2012

PROBLEM STATEMENT

As technology further develops our abilities to communicate across distance, what role will public space play, if any, in the future shaping of our cities?



Serving Safe Nest
March 9-20

**DIGITAL
COMMUNICATION**

The greatest challenge with the increasing use of more & more advanced communication technologies is a distancing from the self and from the act of creation. The greater ability to connect with others comes with the negative consequence of living vicariously through the actions & experiences of others.

DIGITAL COMMUNICATION



T TYPOLOGY

Adaptive public space &
community workshop.

COMMUNITY CENTERS





+ COMMUNITY
COLLEGE

THE WORKSHOP adapts

the production elements of a community college to the connective purposes of a community center. instead of a focus on communication, something easily facilitated by digital communication, the emphasis instead is on collaboration and creation.

THEORETICAL PREMISE/ UNIFYING IDEA

The digital world must not be allowed to become a cheap substitute for our tactile and perceptual experience of the world.

SITE

CHICAGO is known for great architecture. It is also known for great areas of division. The hectic pace of the city's lifestyle along with its racial and economic divisions make an ideal site for a building to bridge these gaps.

**CHICAGO,
IL**





WEST LOOP
COMMUNITY
GARDENS

L
STOP

L
STOP

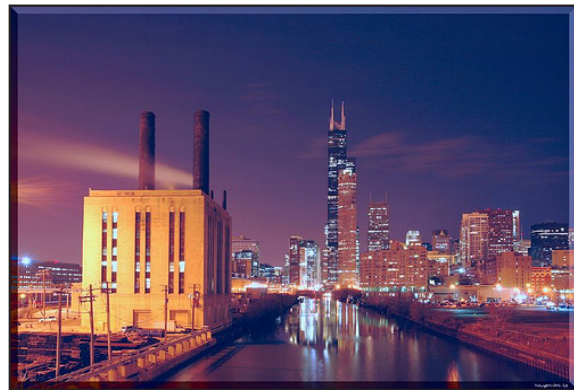
THE SITE

The proposed Site is located just Southwest of the dense Chicago Loop along the South Chicago River. The site was chosen both because of its impact on the community, and the site's old manufacturing history's effect on the project typology. Being on the edge of the developed Loop and the redeveloping West Loop allows for the building to serve as a crossroads to unite Chicagoans of disparate backgrounds and culture. The building's proximity just South of the Eisenhower Expressway entrance to Chicago allows the building to also serve as an important gateway into the city.

WEST LOOP

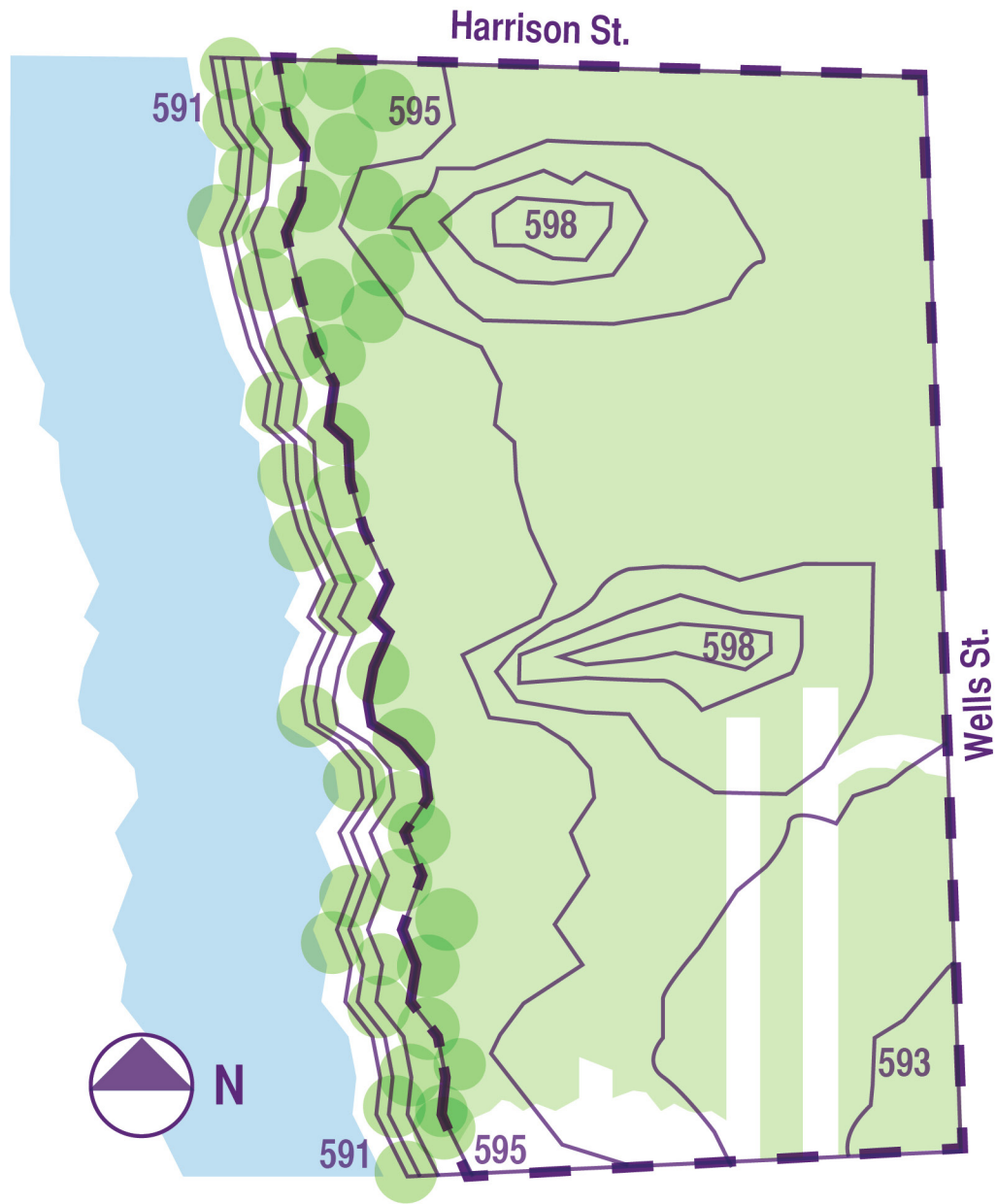
The Site



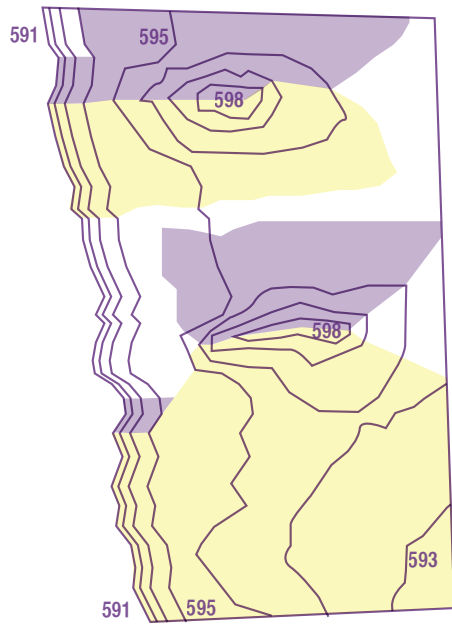


STREET

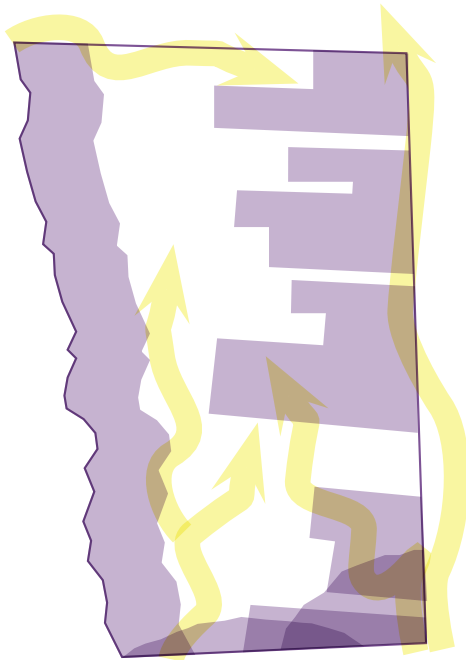




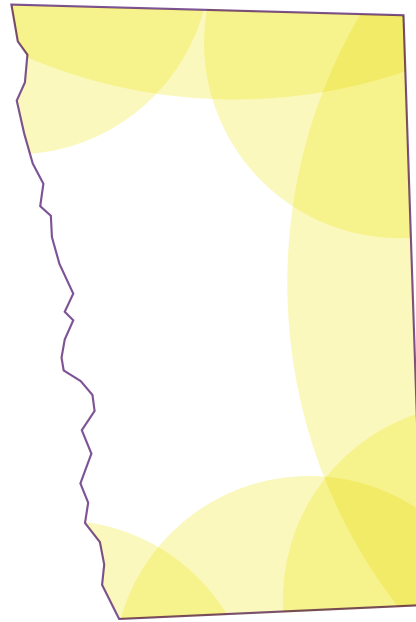
Base Map



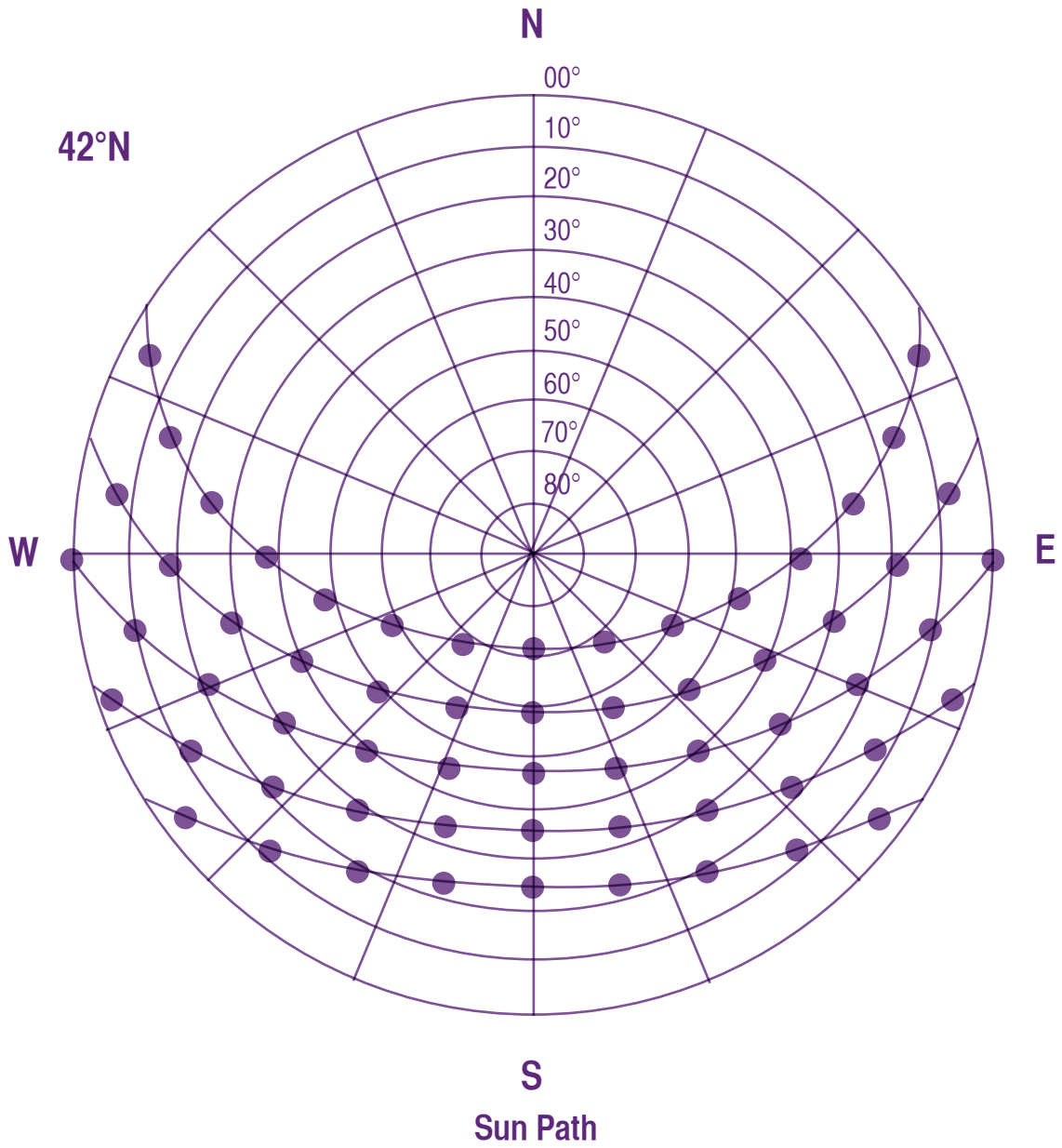
**Slope - Climate &
Topography**



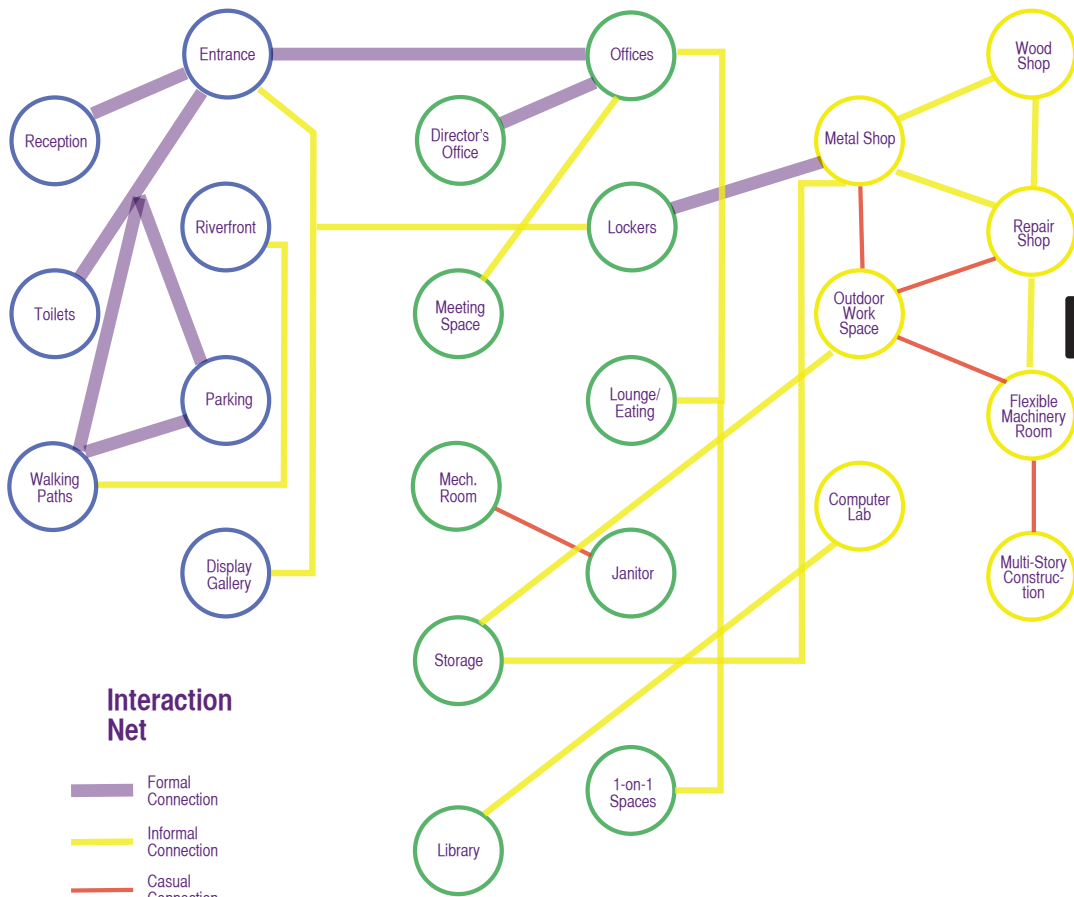
**Shading & Air
Movement**



Noise



THE DESIGN

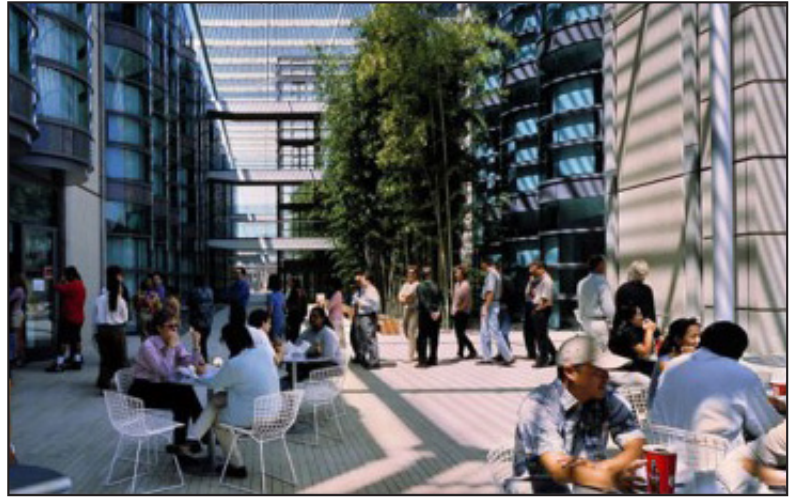
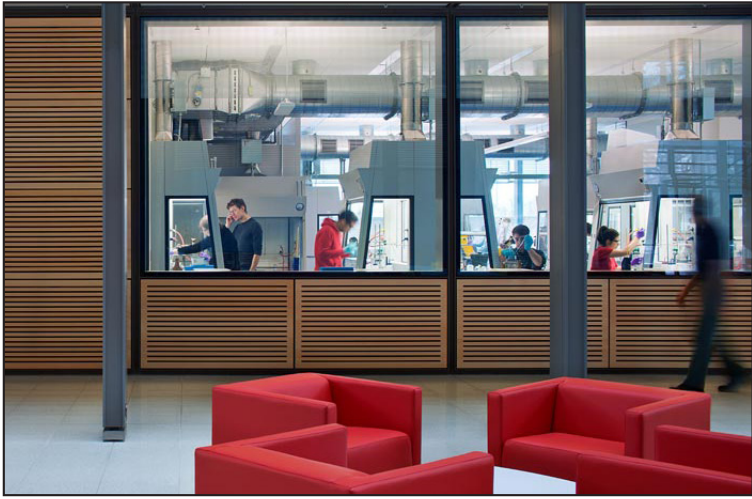


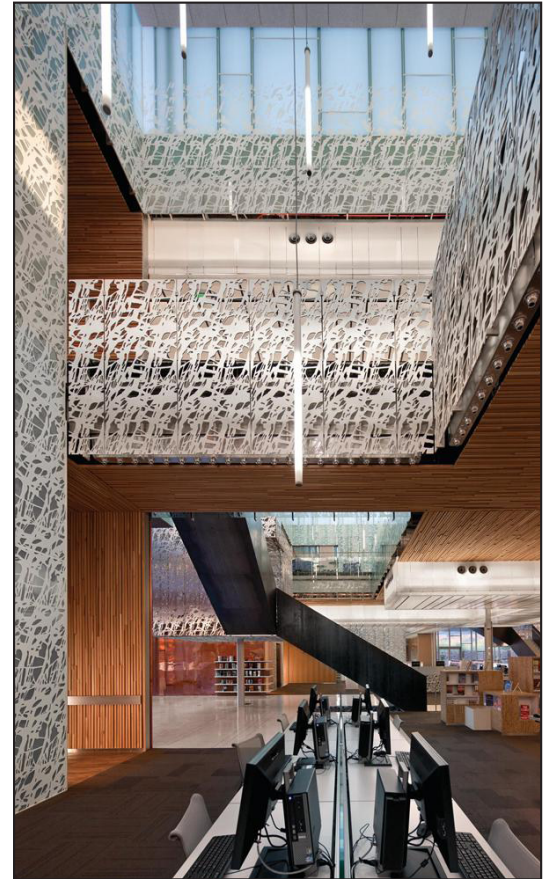
PROGRAM

Space Allocation

Entrance Lobby	1000 s.f.
Private Offices	6@120 s.f.
Reception	150 s.f.
Director's Office	160 s.f.
Public Toilets	6@120 s.f.
Break Spaces	3@300 s.f.
Meeting Space	150 s.f.
Wood Shop	2000 s.f.
Storage	2000 s.f.
Janitor	100 s.f.
Metal Shop	2000 s.f.
Computer Lab	500 s.f.
1-on-1 Spaces	10@80 s.f.
Lounge/Lunch Room	1500 s.f.
Flexible Machinery Room	2000 s.f.
Multi-Story Construction Space	1000 s.f.
Gallery/Display	500 s.f.
Outdoor Display	varies
Library/Resource Center	500 s.f.
Lockers	500 s.f.
Repair Shop	500 s.f.

CONCEPTS





Space-Tradeoff Visually between
 positioning
 Robot Address
 Robot Area of Unit to avoid Hubs
 Priority • Minimizing • Priority
 no. of units • Good connection
 no. of steps • no. of steps
 Typology
 Start to Photo Assignment
 • before minimum end of
 Print 3 of each Photo w/ Training
 Equip

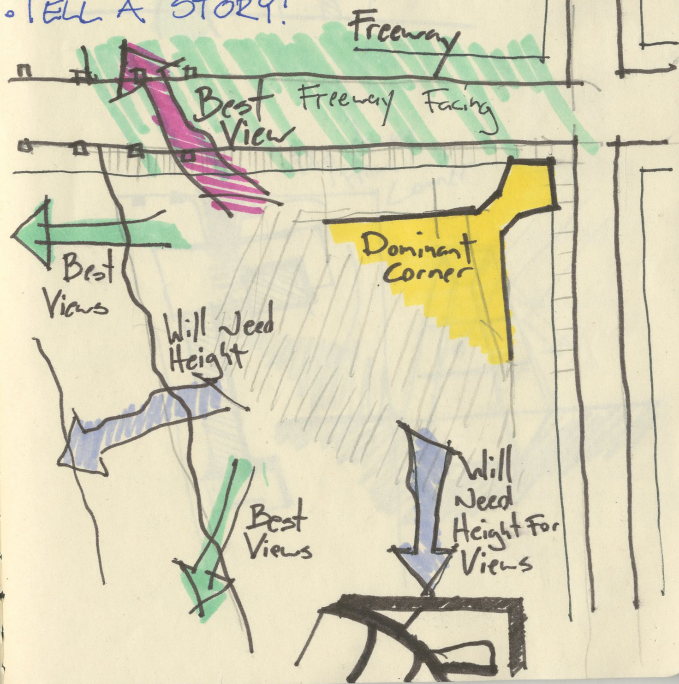
Thesis

March 5th Design Complete
 • Site Design Analysis 1st

Keys

- Process • Detail • Completeness • Section Perspective
- Evocation • Structure
- Detail, Detail, Detail!! • Site Planning
- Process, Process, Process!!!
- Stelarie Francine

• TELL A STORY!



How do I reinvent how
this done?

What issues is your
thesis tackling?

Community involvement - **Connection
Becomes Key!**
Visual symbol of Chicago

How does this drive form?
How do we circulate?
How does it all est. estimate # of users

Requests for
Equip will occur.

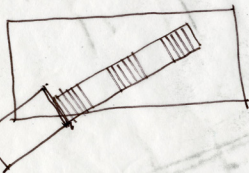
Accessible!
Chance
Encounters!

3 spaces drive form:

- Central Circ/Lobby
- Workshops
- Cafe/Commons

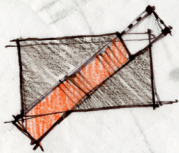


Metaphor?



With seasons
as well

Flexibility
Visibility
Community

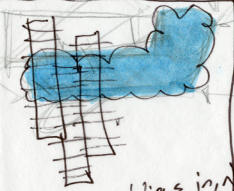


Concept!

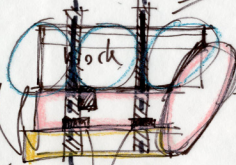
Communicates
or this way?
Lobby
Gesture to
Chicago
How

Circ this
way?
pushes more
views to ext.
bordering spaces

Dichotomy
of forms.
Street is ortho,
tree/line/river is
arbitrary/organic



Views in, not
views out



Tall
Form

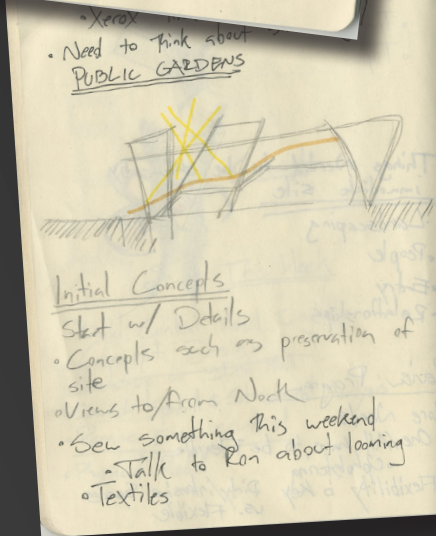
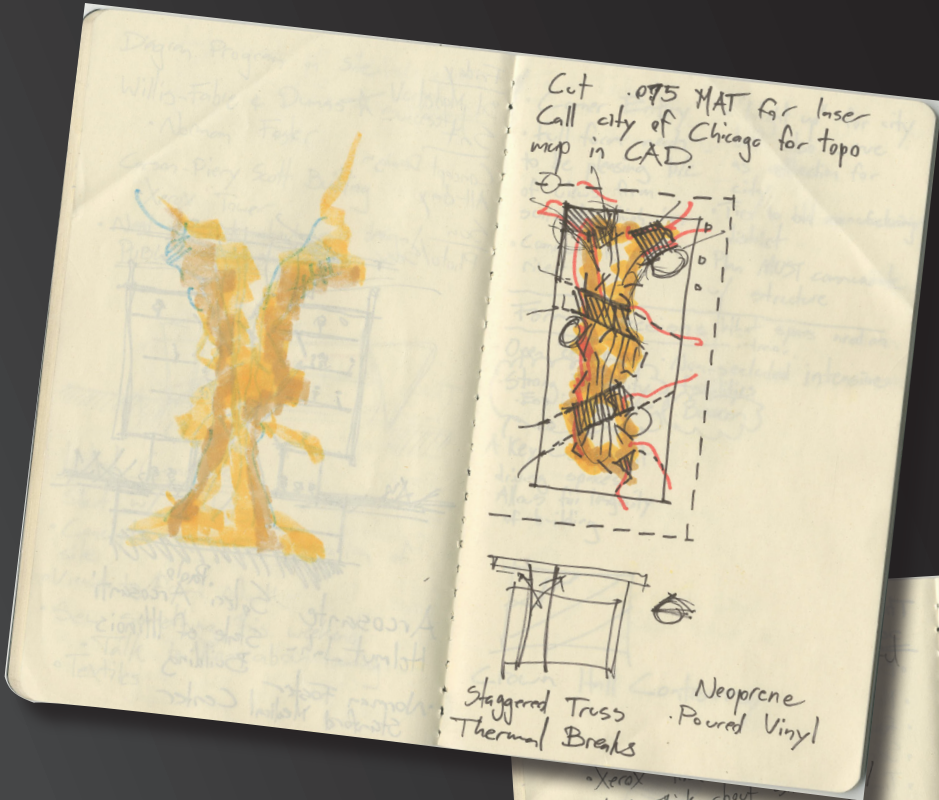


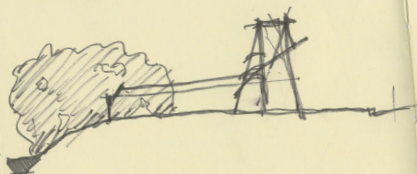
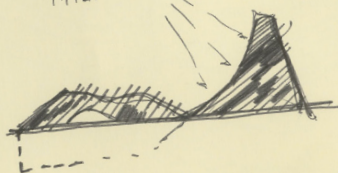
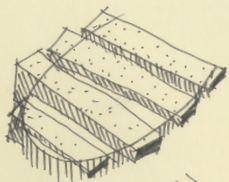
Split work from other
functions, or divide over central
circ?

Passive Systems

- Natural Daylighting
- Passive Heat
- Passive shading
- No parking

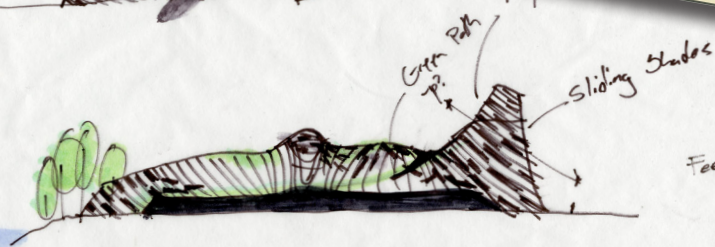
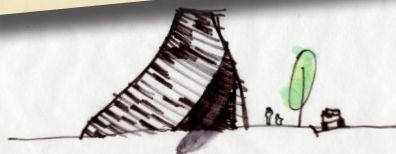
MAIN PROBLEM WILL BE



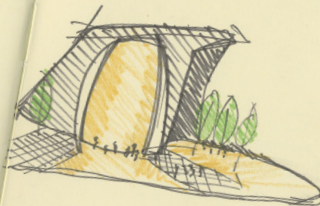
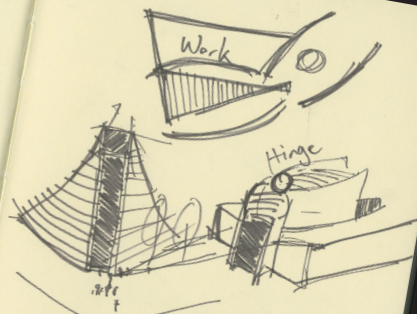
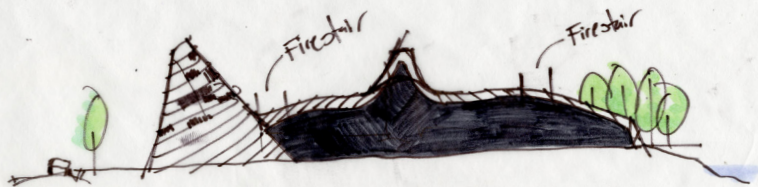


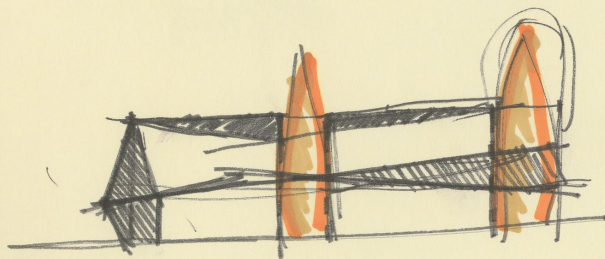
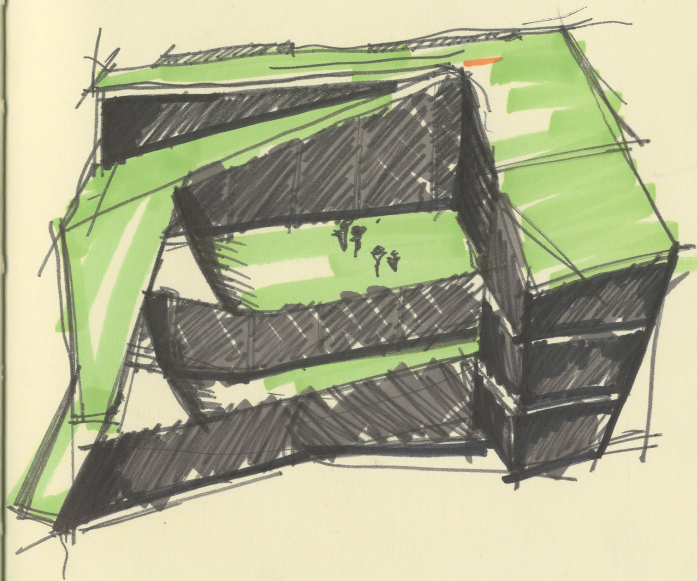
Intimate connections inside

Poster Ideas
Building 'sketch'

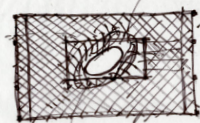
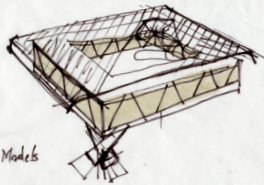


Feels scatterbrained,
uncohesive still.





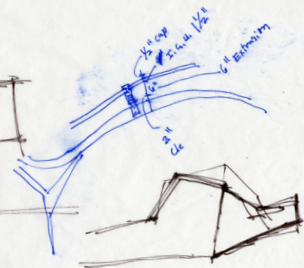
- Website
- RIP Lightroom
- Photo Models
- Make Concept Models
- Drawings
- Renderings/Diagrams



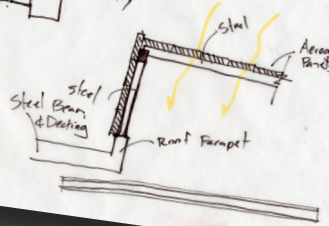
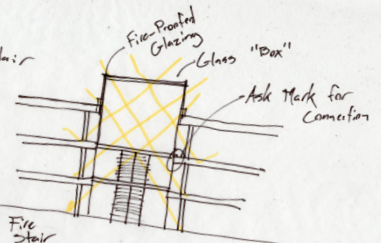
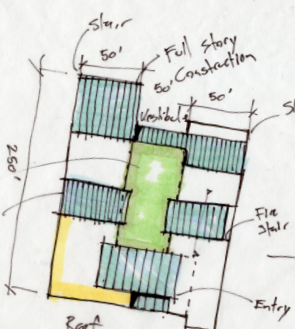
Point of Connection

Defers at Corner Entry/Viewpoint Vert. Circ.

Think about the other locations



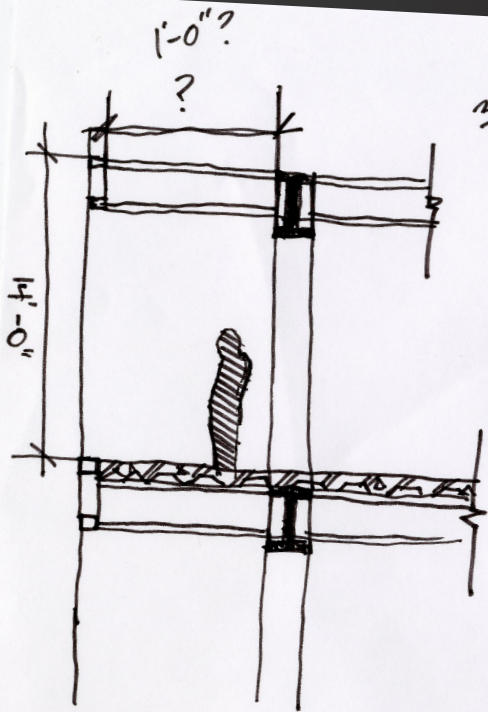
Back



1-way system
24" Girders Ask Mark
24" Joists

- This Weekend
- Finish Truss & Roof Scheme
 - Fire Stairs
 - Fire Proof.
 - Start Sketchup Model

Research Design System for RIP.

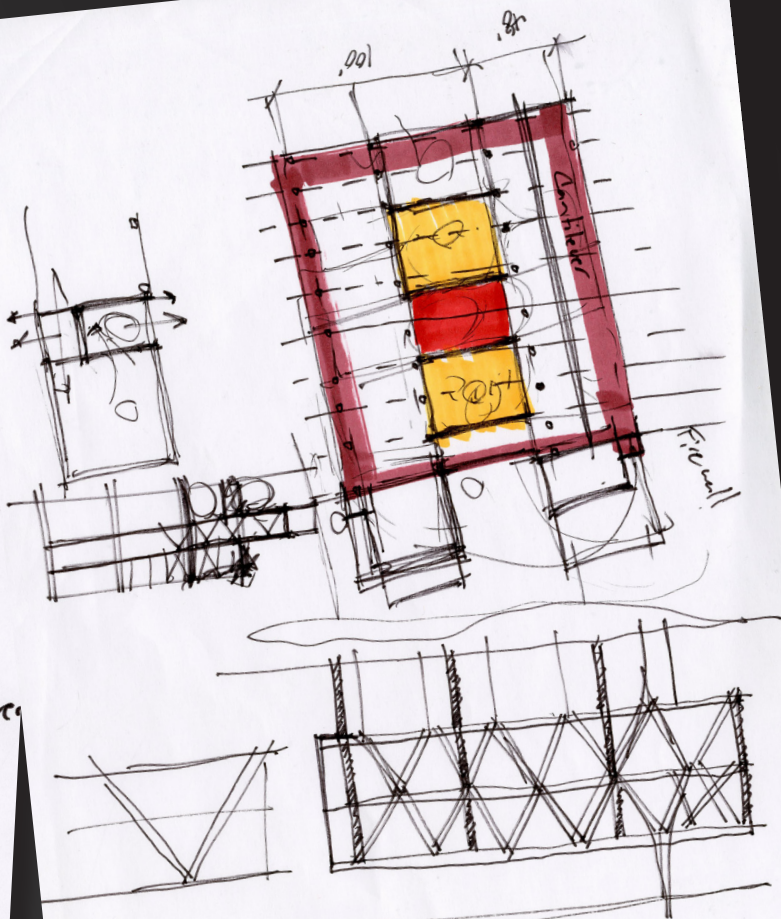


30°

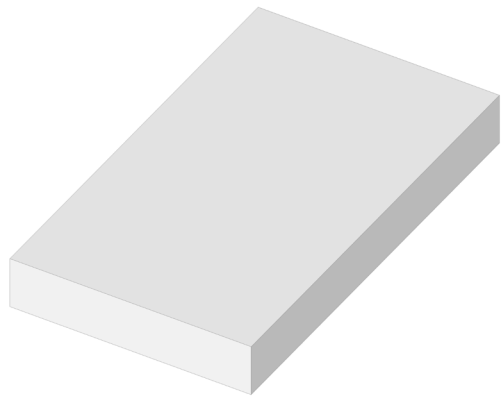
14

Exc

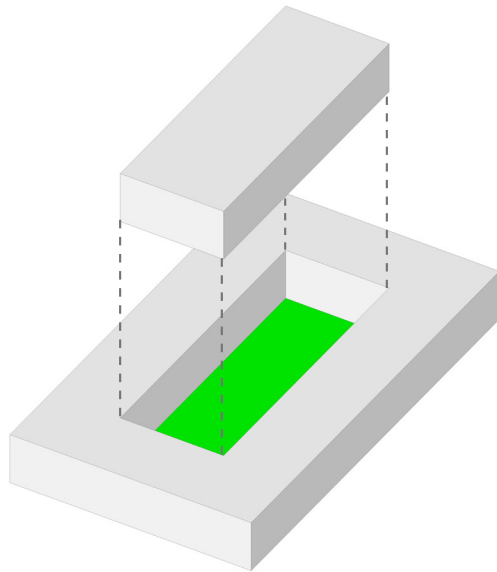
Whor's



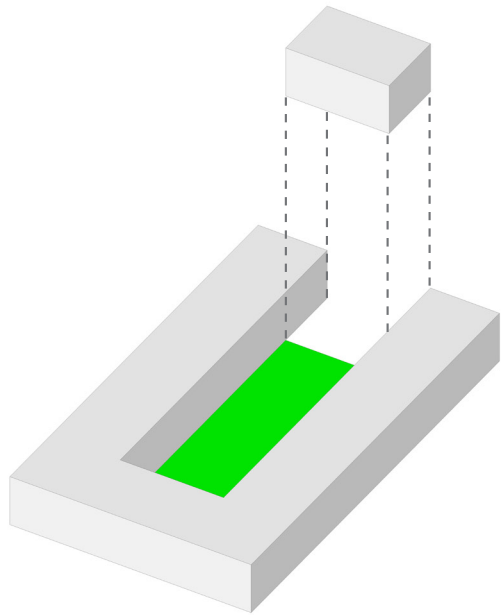
DEVELOPMENT



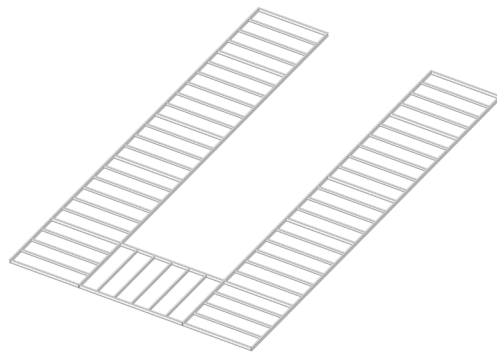
A box is first created to house the workspaces. This space will be elevated 20' above the street level.



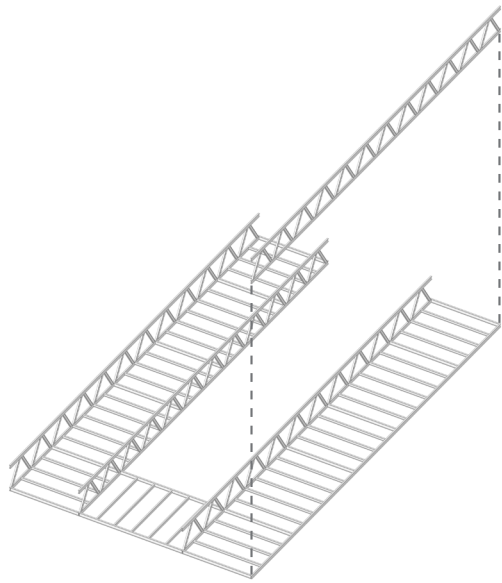
The box is “donuted” to provide for better daylighting and a permanent year-round green space.



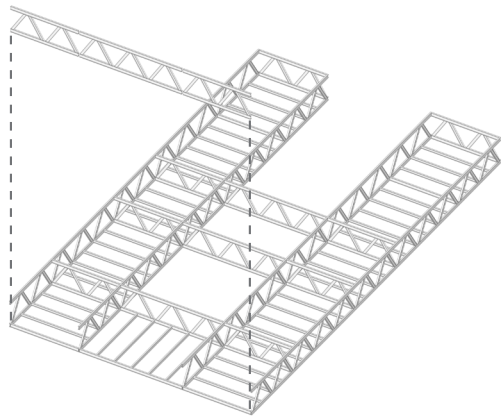
The end of the box is removed to engage the river.



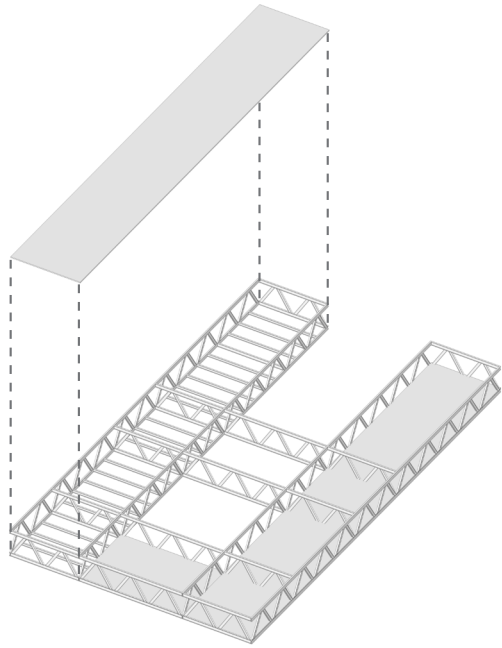
The structure begins simply with a one-way system of heavy steel wide-flange girders and slighter beams.



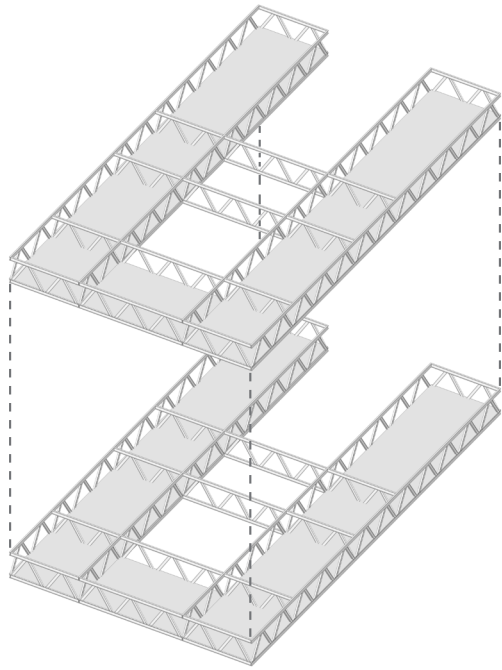
Full-height trusses are then run along the one-way system.



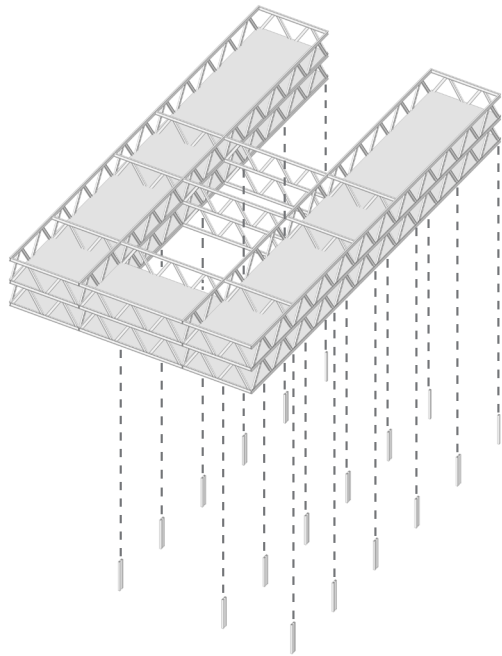
Though a one-way system, the structure is braced by crossing full-height trusses in several locations to add rigidity to the frame. This is important due to a 40' cantilever to the South.



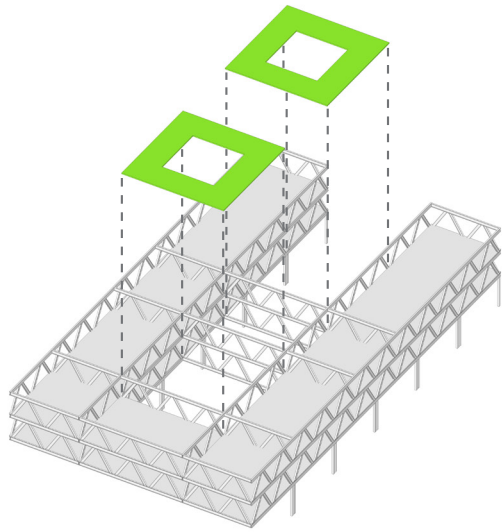
Composite decking will help stiffen the truss further.



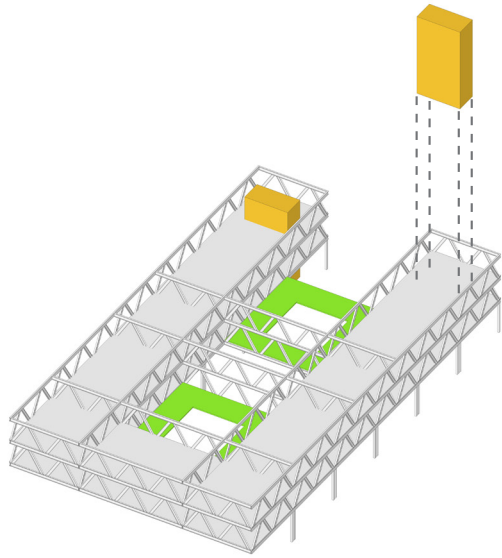
The same floor plan is copied above.



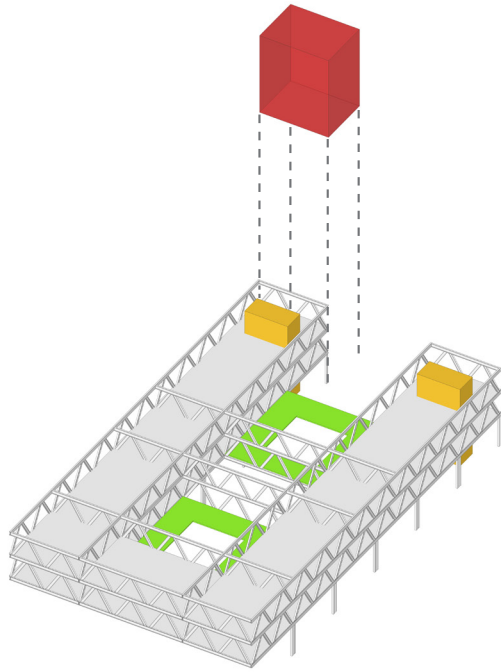
The building rests on paired columns running along the one-way system. The columns are removed on the grid on the South and East elevations to provide for a cantilever.



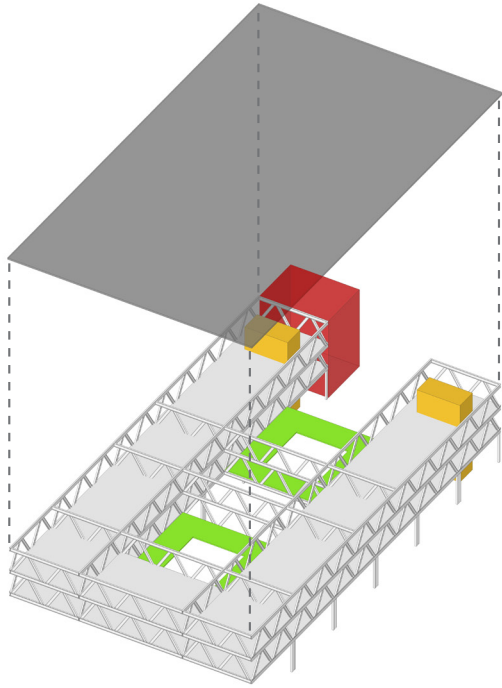
The green spaces are cut with light wells to provide for light to the main-level atrium.



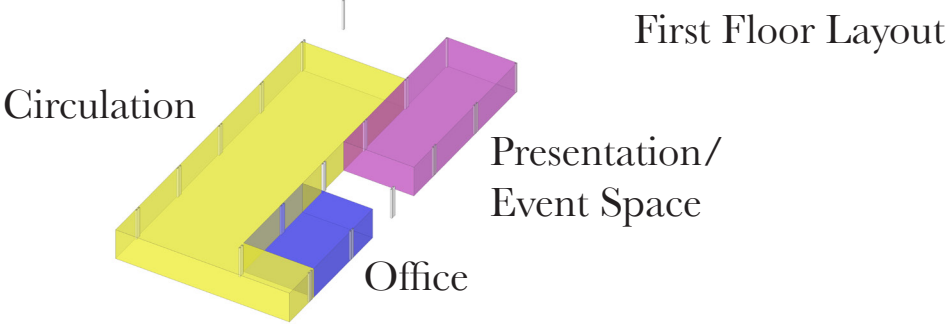
Fire Stairs are provided at the West ends of the building.



A 3-story construction space is added for the construction of larger projects, including the possibility of constructing prefabricated housing for lower-income residents of greater Chicago.



A calwall roof is draped over the entire structure, providing natural light into the green spaces and top-level workshops.

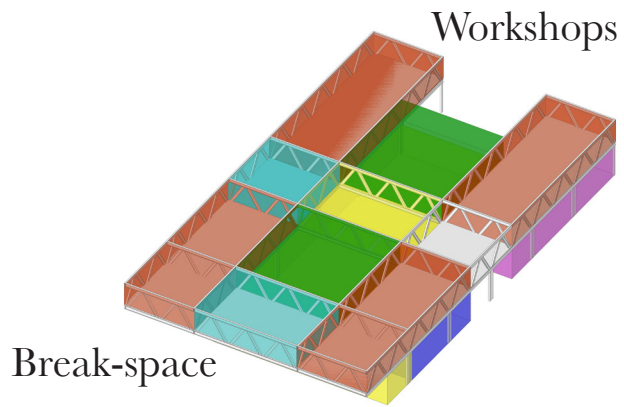


First Floor Layout

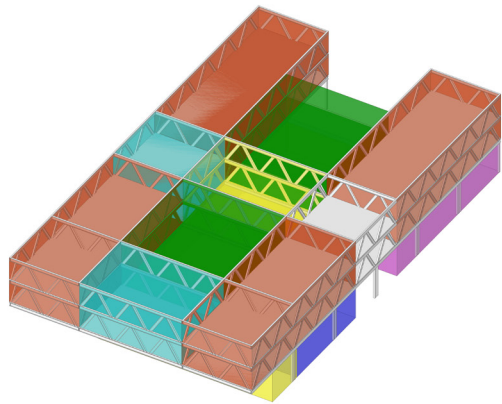
Circulation

Presentation/
Event Space

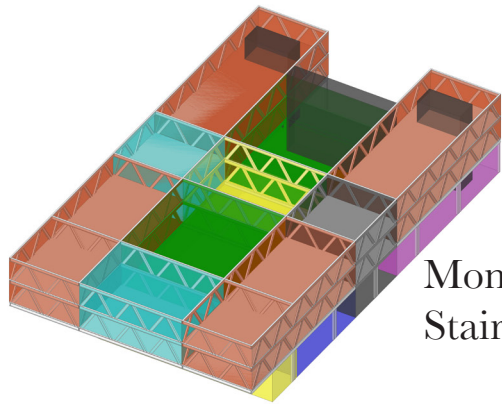
Office



Second Floor Layout

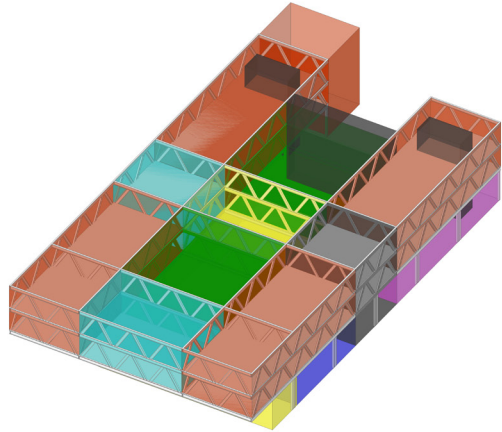


Third Floor Layout



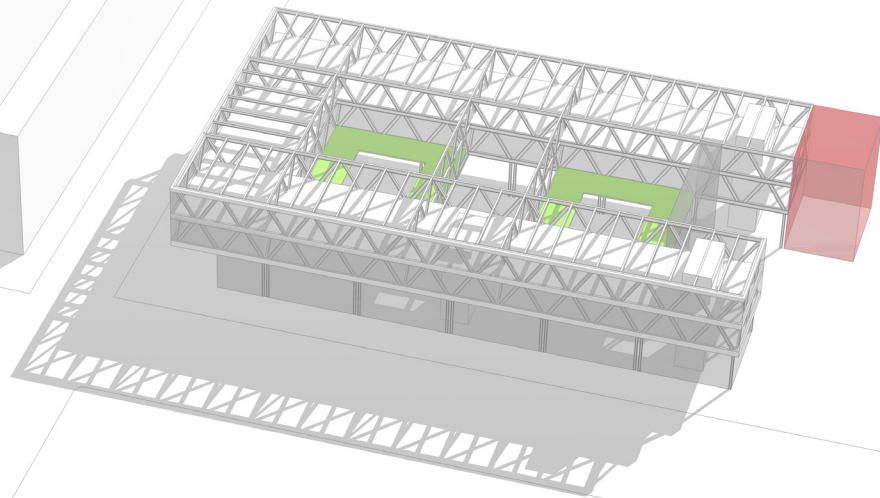
Vertical Circulation

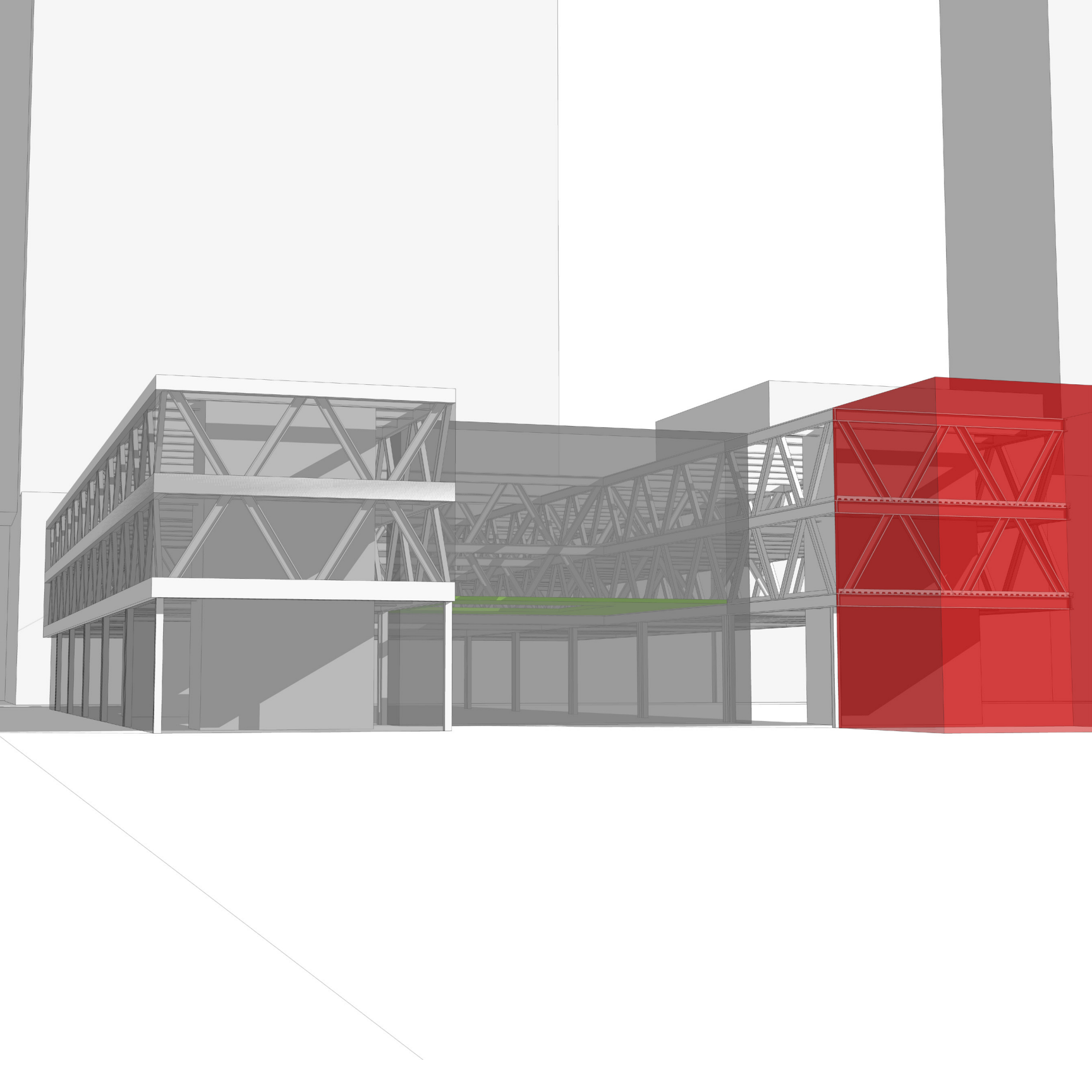
Monumental
Stair



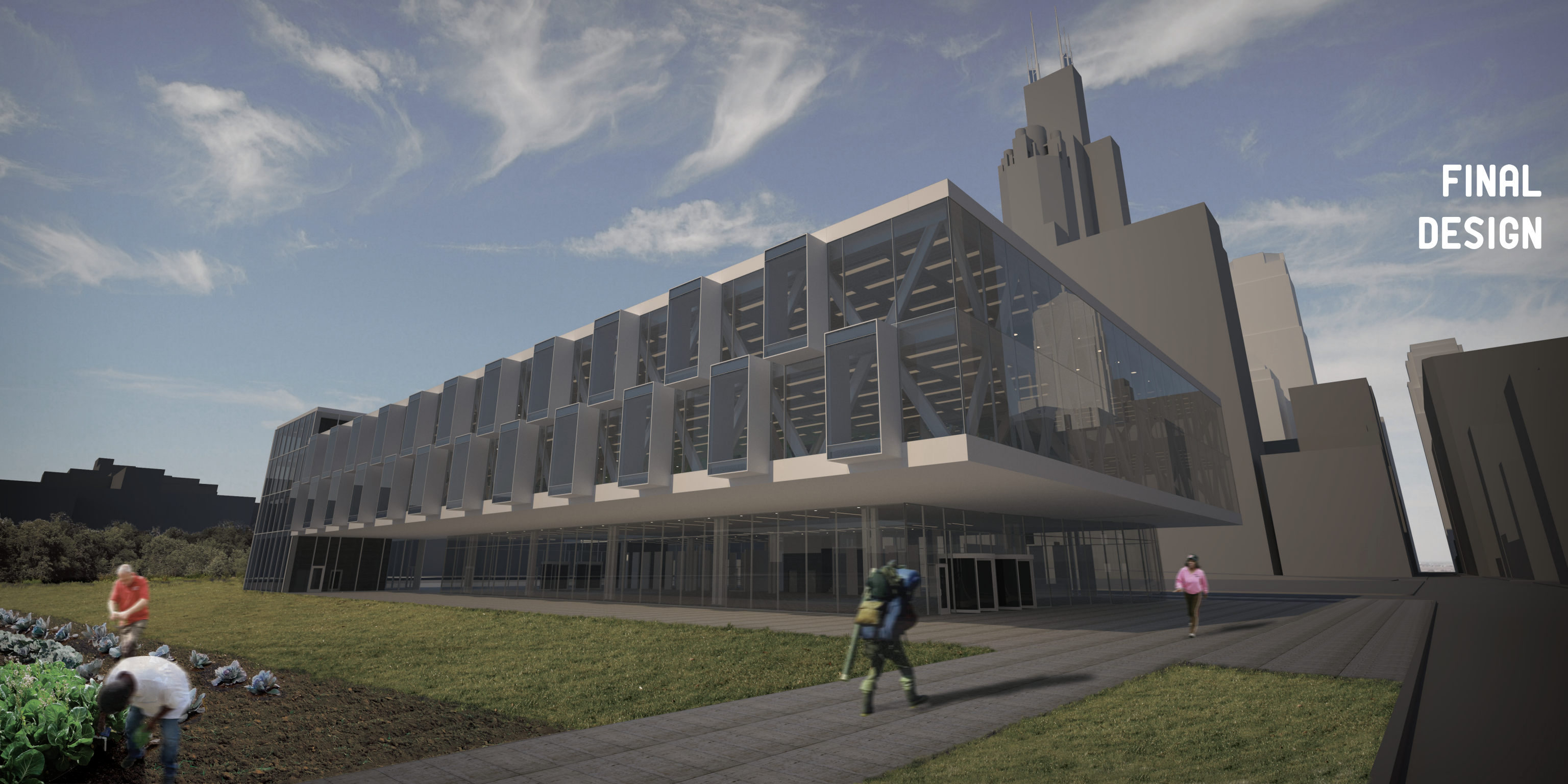
3-story construction space.

INITIAL STRUCTURE





**FINAL
DESIGN**

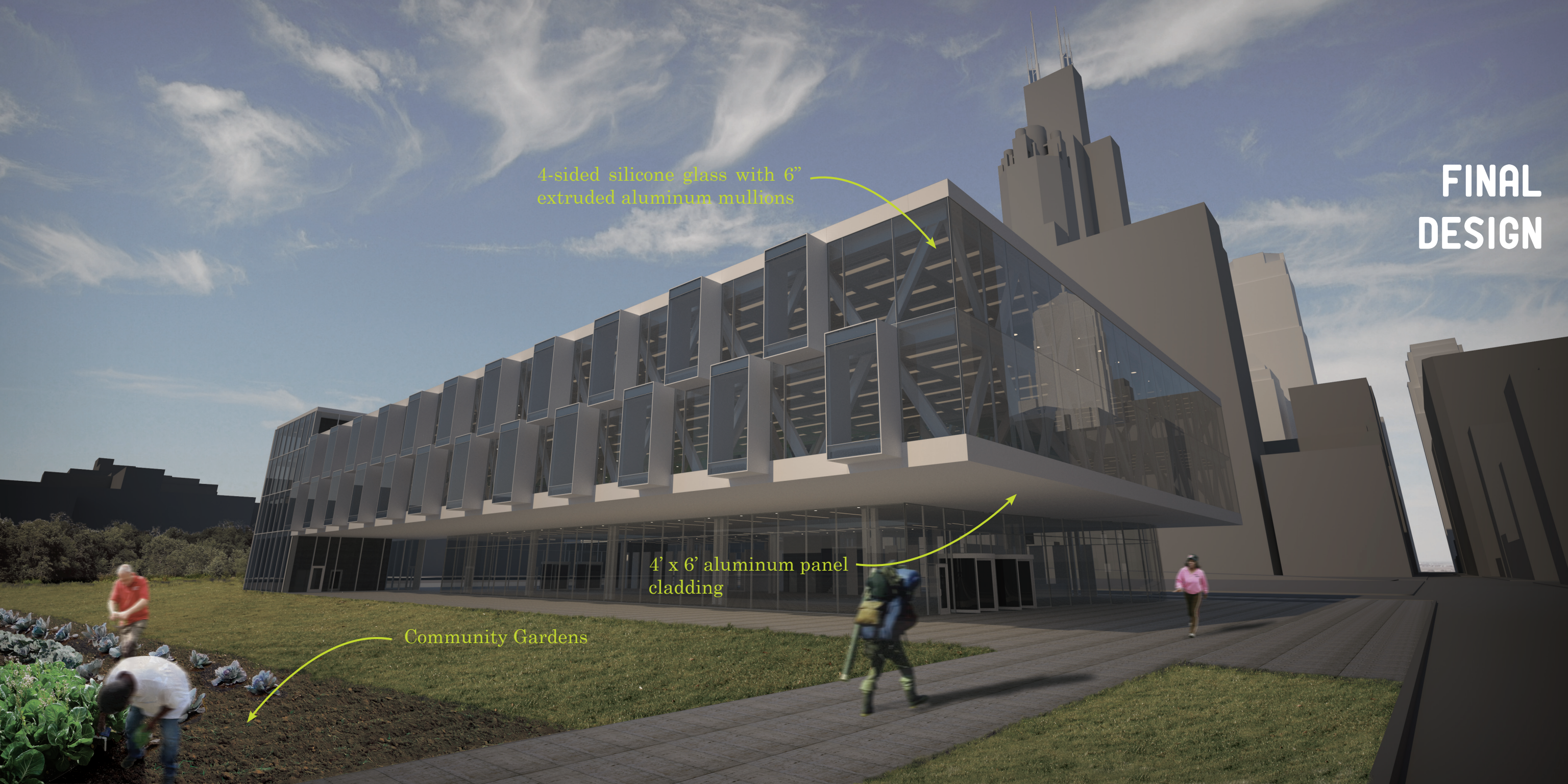


**FINAL
DESIGN**

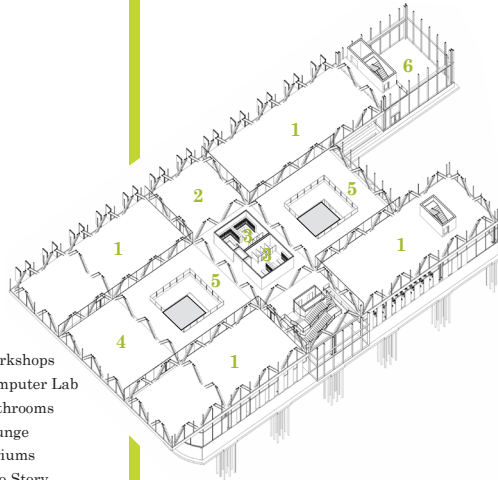
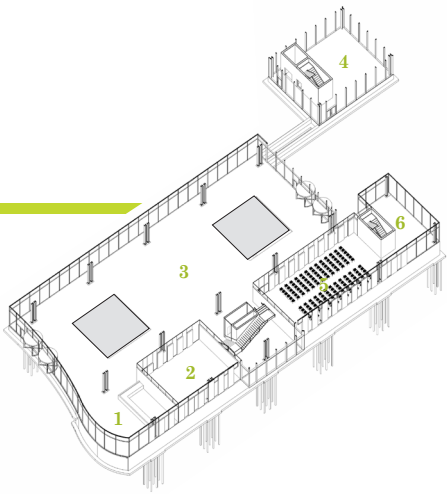
4-sided silicone glass with 6" extruded aluminum mullions

4' x 6' aluminum panel cladding

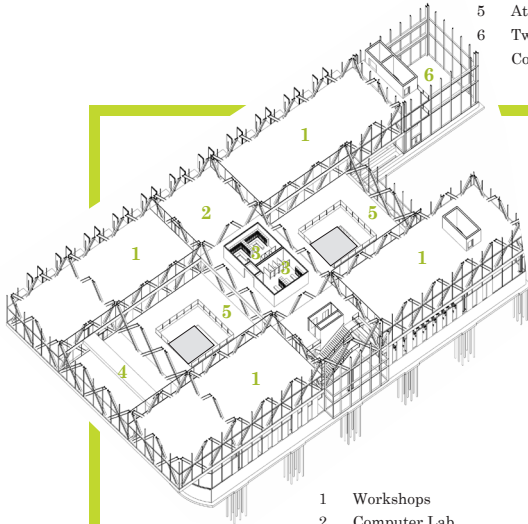
Community Gardens



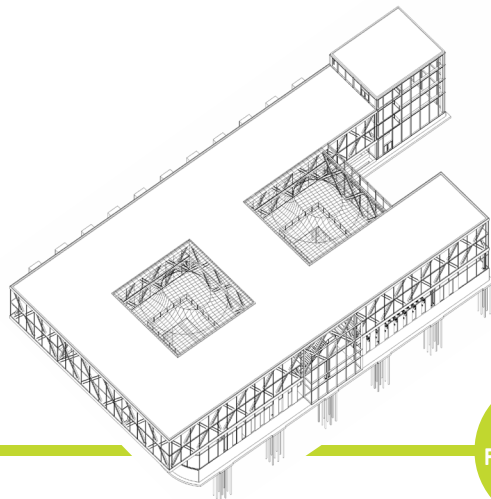
- 1 Reception
- 2 Office
- 3 Cafe/Lobby
- 4 Two Story Construction Space
- 5 Lecture Hall/ Multi-use Space
- 6 Lounge



- 1 Workshops
- 2 Computer Lab
- 3 Bathrooms
- 4 Lounge
- 5 Atriums
- 6 Two Story Construction Space

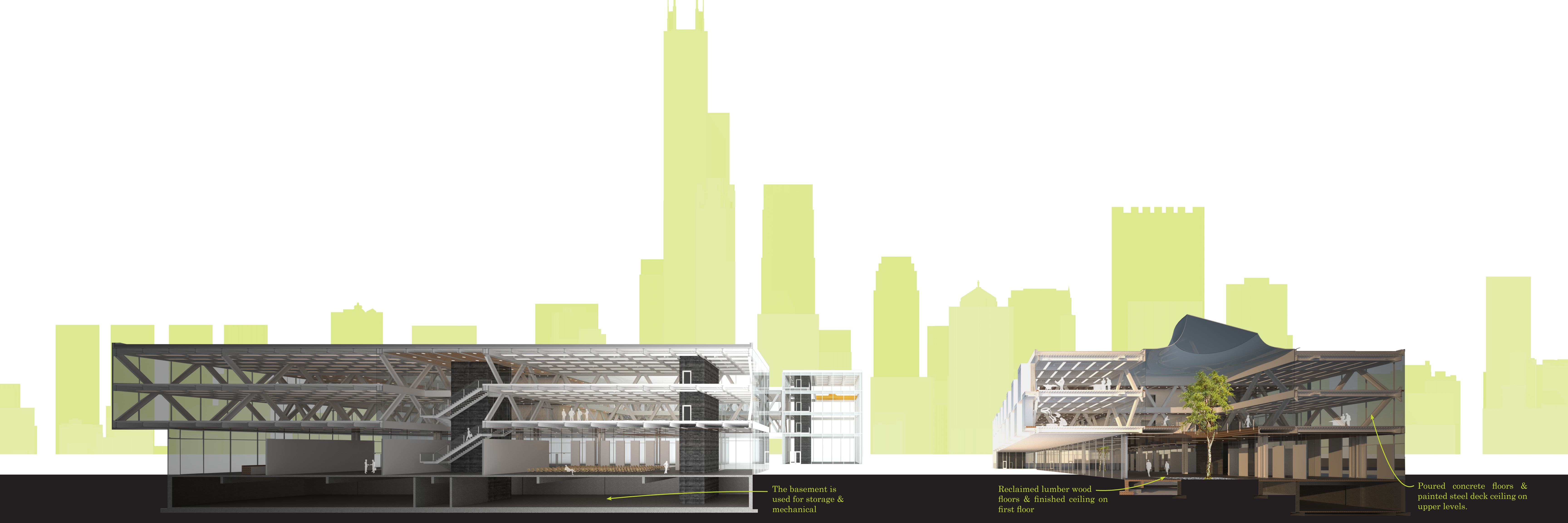


- 1 Workshops
- 2 Computer Lab
- 3 Bathrooms
- 4 Lounge
- 5 Atriums
- 6 Two Story Construction Space



FLOOR PLANS






The basement is used for storage & mechanical

Reclaimed lumber wood floors & finished ceiling on first floor

Poured concrete floors & painted steel deck ceiling on upper levels.



**3-STORY
CONSTRUCTION SPACE**



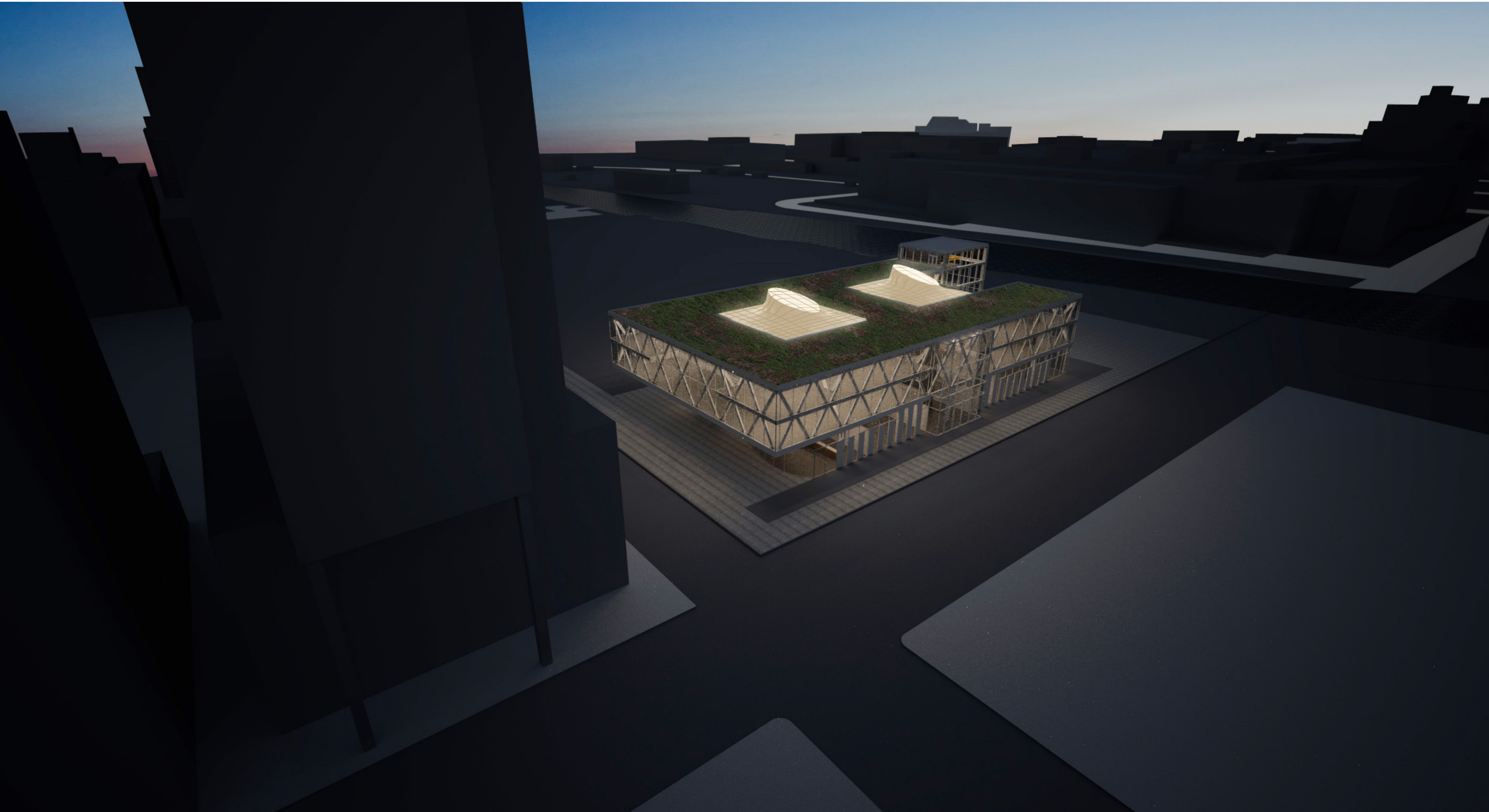
Bridge Crane for large-scale construction.

Board-formed concrete stair core.

24" x 12" steel beams.

Vertical circulation & observation decks.

**3-STORY
CONSTRUCTION SPACE**

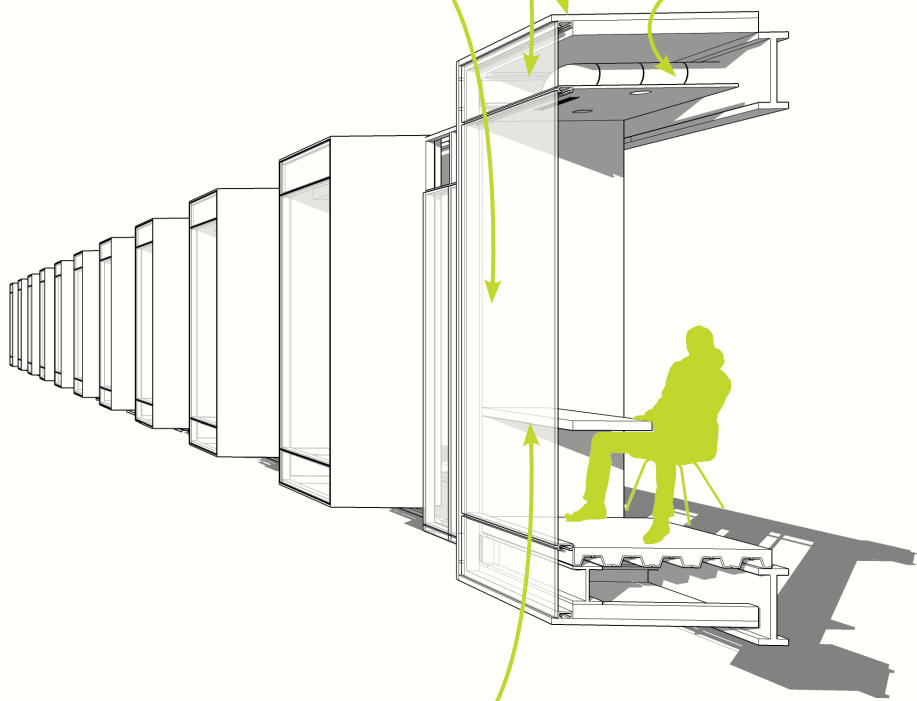


Dark box glazing condition

Aluminum panel cladding

Silicone-sealed glazing

Mechanical access & diffuser

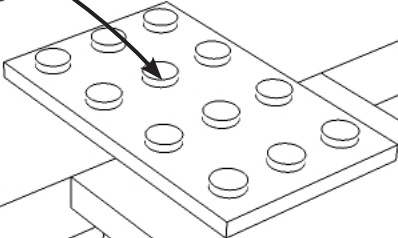


Desk mounted to metal studs within wall

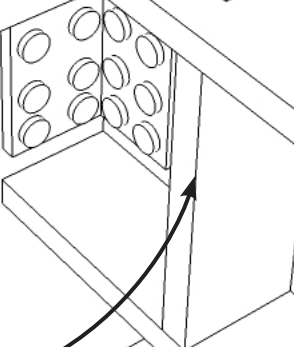
STUDY "BOXES"

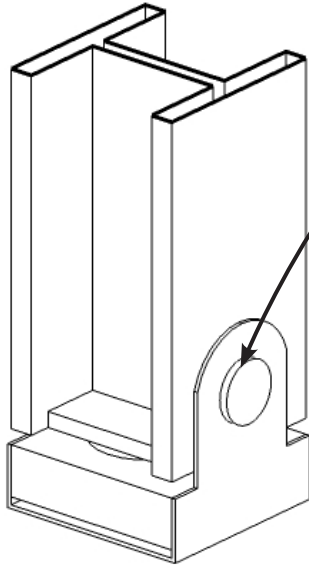
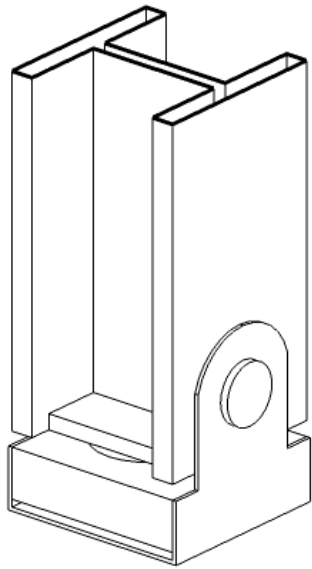
CONNECTION DETAILS

Steel angles with
friction bolts.

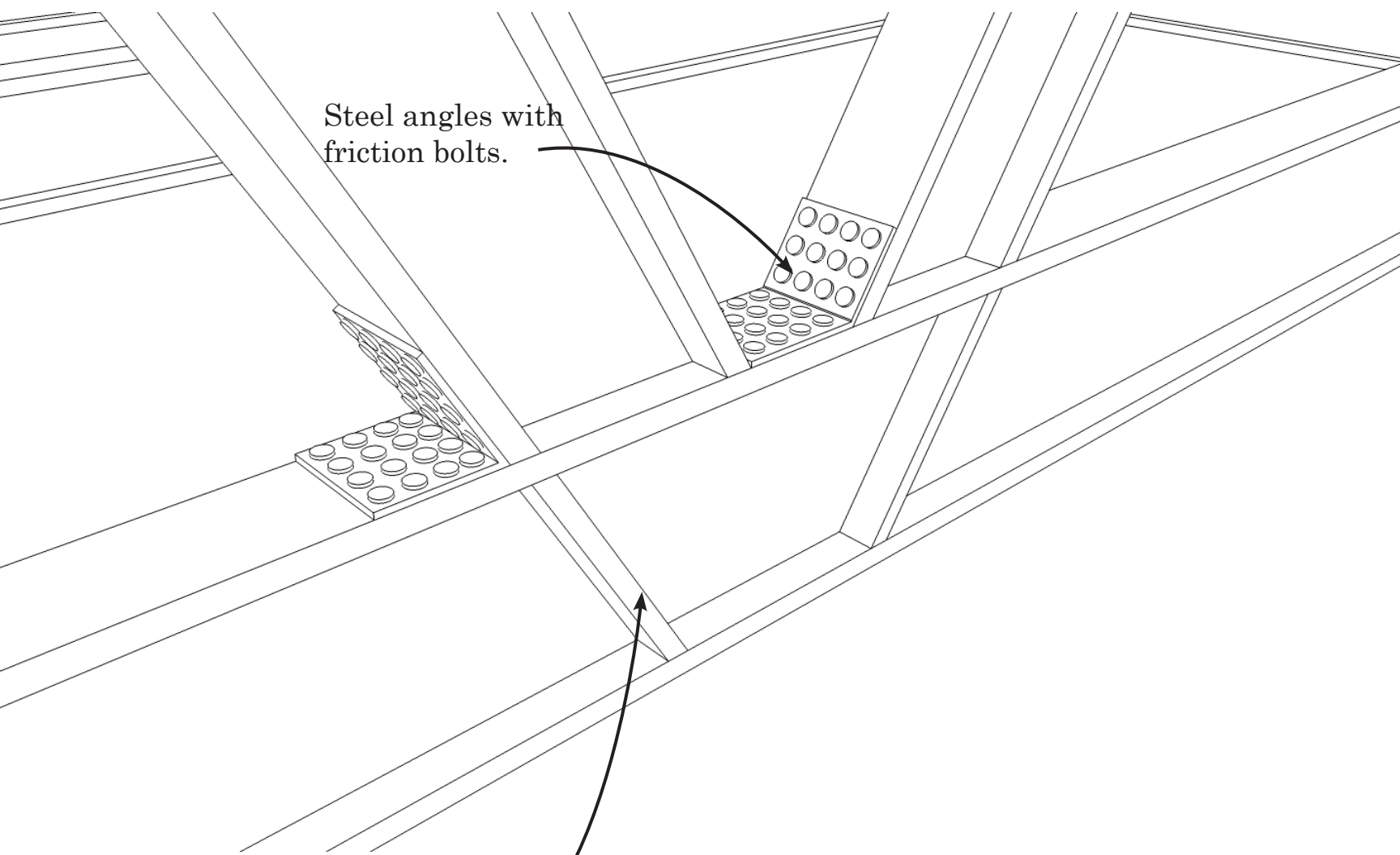


Steel web stiffen-
ers address twist-
ing moment.



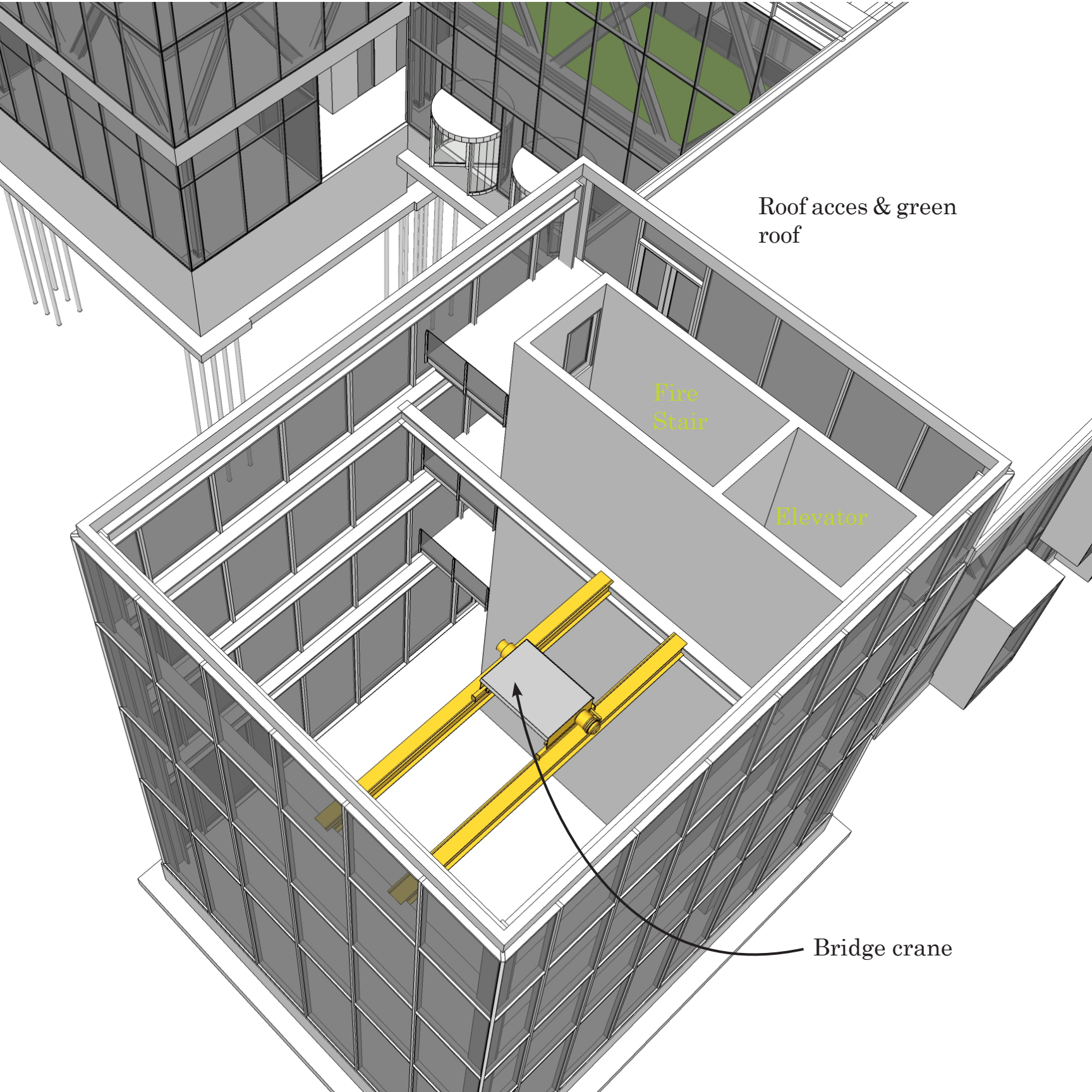


Base detail of columns
on 1st Floor. Decora-
tive condition.



Steel angles with
friction bolts.

Steel web stiffen-
ers address twist-
ing moment.



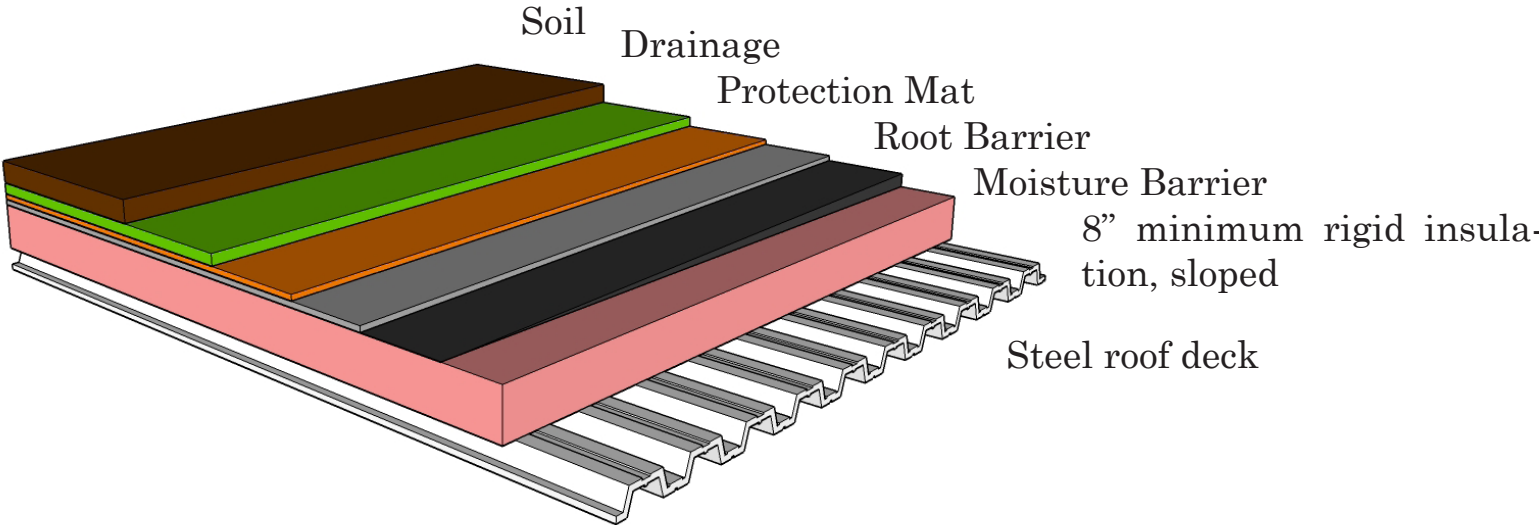
Roof acces & green
roof

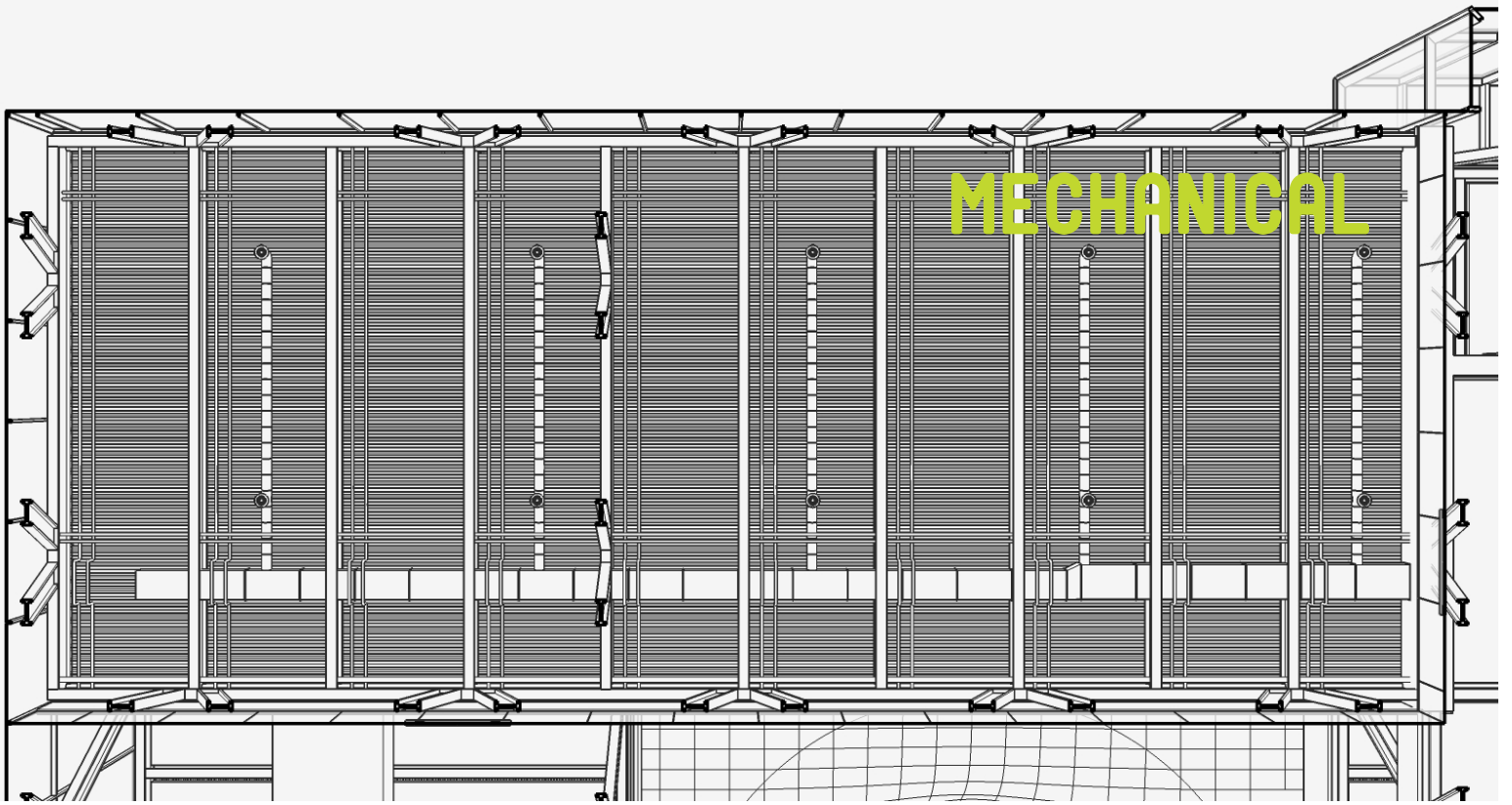
Fire
Stair

Elevator

Bridge crane

GREEN ROOF







QUESTIONS