



# Perkins Eastman

The City of Cambridge

Martin Luther King, Jr. School Construction Project

June 21, 2012

- Team Introduction & Feasibility Study Process Re-Cap
- Selection of Preferred Option
- Sustainable Opportunities
- Summary / Next Steps



- **Iterative Process February to June 2012**
- **Met with School Groups, Community Groups and City Groups**
  - Three neighborhood meetings during Feasibility Study (4/5/12, 5/10/12 & 6/21/12)
  - More than 60 Meetings / Conference Calls that included: School Focus Groups, City Agencies, & City and School Administration
  - Parent Surveys
- **Analyzed and Documented Existing Conditions**
- **Created Education Specification**
  - How will Teachers teach
  - What spaces are needed, how big & how many (Program)
  - What features & character are desired
  - What sustainable goals are desired
  - How should three schools relate to each other and the outside community
- **Created & Evaluated Options**
  - Criteria of Educational Specifications
  - Fit within Community
  - Cost
- **Developed Preferred Option**
  - Concept Plans
  - Concept Images
  - Concept Scope & Budget
- **Just the Beginning...**
  - After Feasibility Study, 1 Year of Design & Permitting and 2 Years of Construction



# Neighborhood Concerns

## Feasibility Study:

- ❑ Parking
- ❑ Traffic
  - ❑ Safety
  - ❑ Drop-Off / Pick-Up
  - ❑ Truck Loading
- ❑ Bicycles
- ❑ Landscaping & Trees
- ❑ Setbacks
  - ❑ Maintain Urban Street Edge
  - ❑ Neighbors
- ❑ Height
- ❑ Solar Orientation
- ❑ Natural Light
- ❑ Sustainability / Net Zero
- ❑ Separate Identities for Schools
- ❑ Encourage Community Use
- ❑ 21<sup>st</sup> Century School – Push Best Practices
  - ❑ Design Principles
- ❑ Parent Input / Student Input
- ❑ Wayfinding
- ❑ Old vs. New

## Future Phases

### (Schematic Design - Construction):

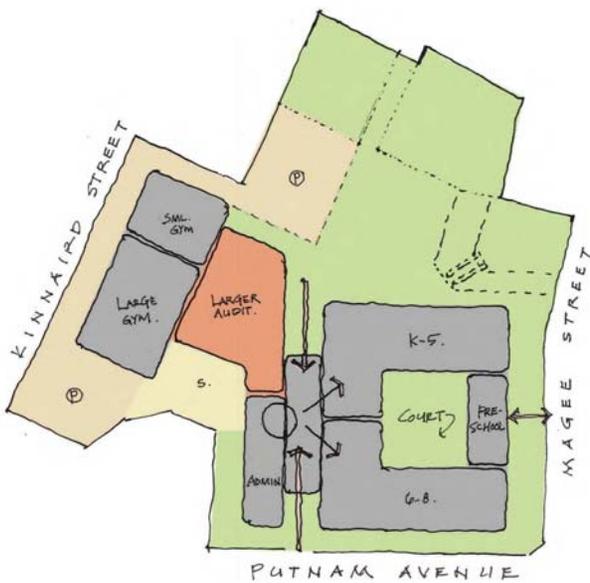
- ❑ Useable Outdoor Space
  - ❑ Pervious / Impervious
  - ❑ Playgrounds
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- ❑ Existing Image: Not welcoming, scary-ugly, no curb-appeal
- ❑ Balance Transparency vs. Privacy
- ❑ Energy
  - ❑ Life Cycle Costs will be considered
- ❑ Indoor Air Quality
- ❑ Security
- ❑ Art / History
- ❑ Utilization of Roof
- ❑ Precedents: Visit NuVu School
- ❑ Construction Mitigation Plan:
  - ❑ meetings w/ abutters & DPW: schedule, storm water, rodents, noise/ disruption/dust



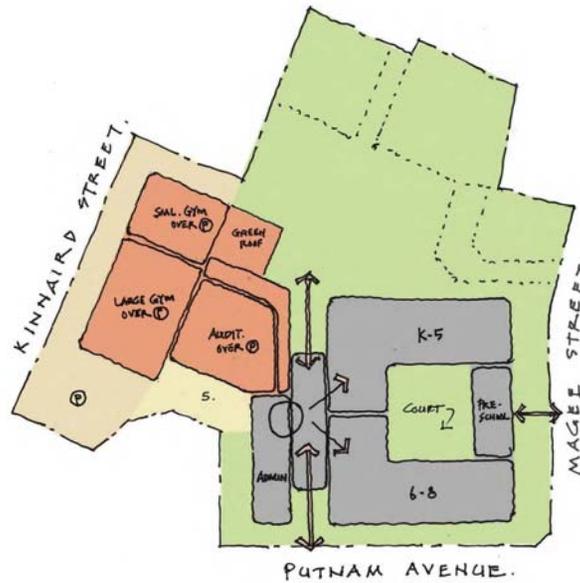
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Selection of Preferred Option

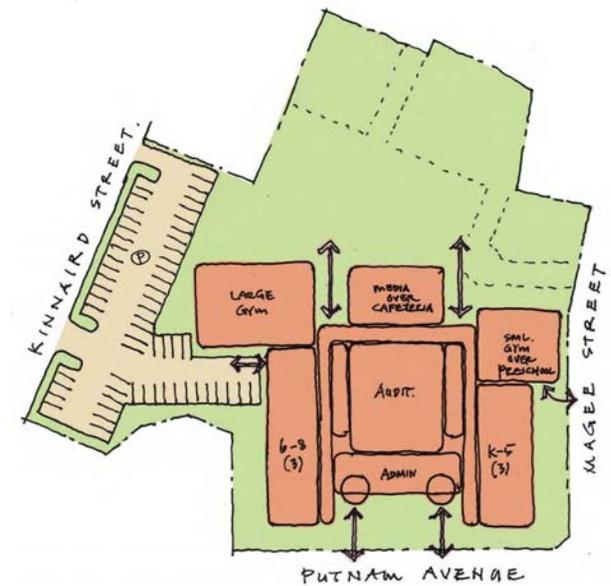
# Three Original Strategies



**Renovation**



**Hybrid:  
Modernization/  
Addition**



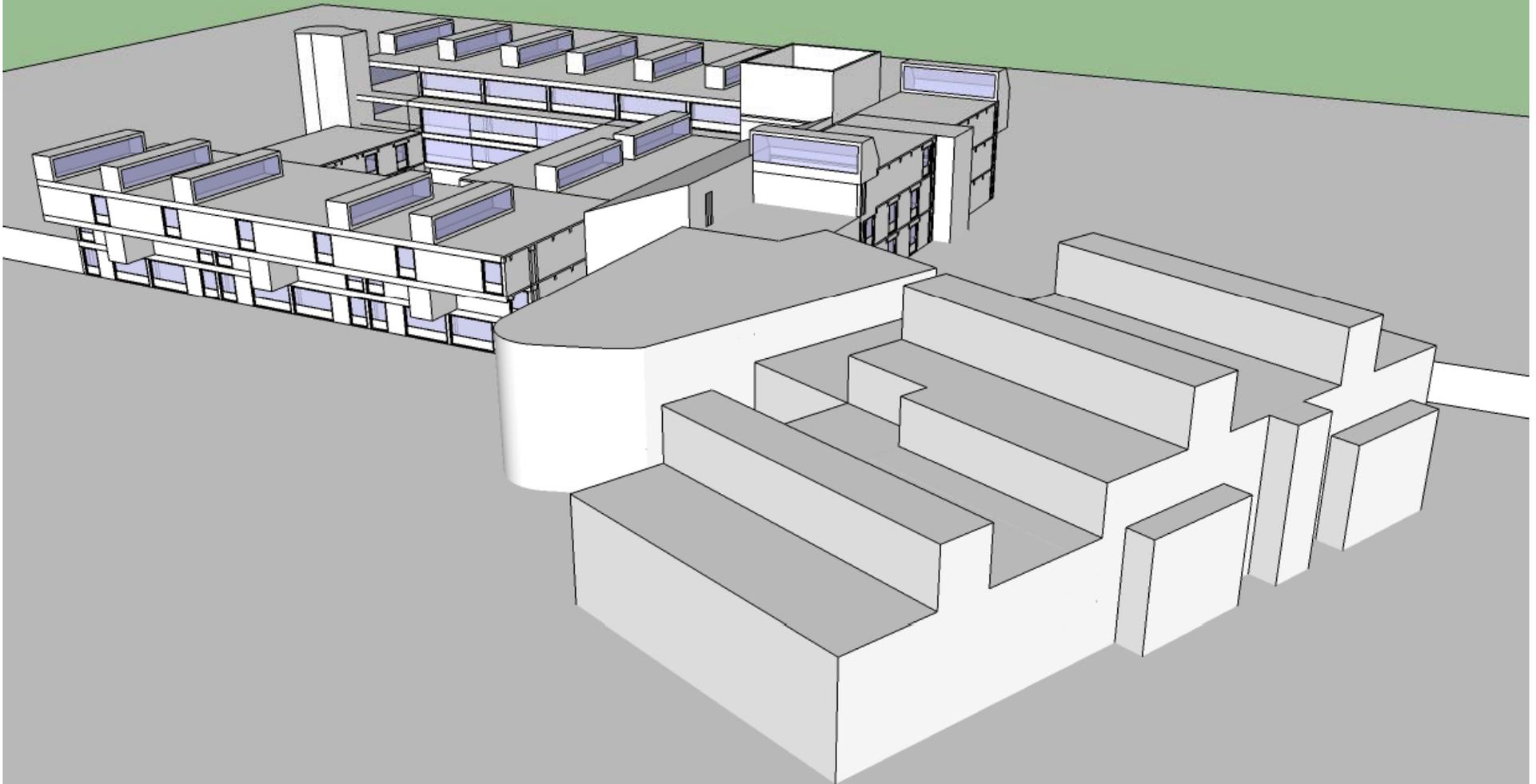
**New**

## Why Not Renovate the Existing Building?

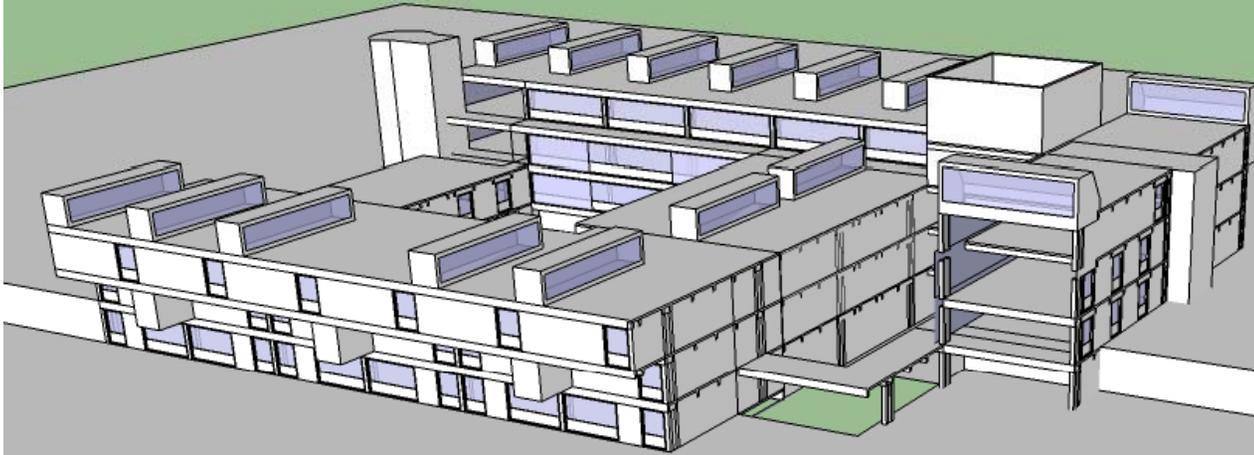
- Does not comply with Seismic Codes.
- Exterior Envelope is neither code-compliant nor High-Performance.
- Does not allow for underground parking.
- Does not meet criteria for Education Specification.



## Why Not Renovate the Existing Building?



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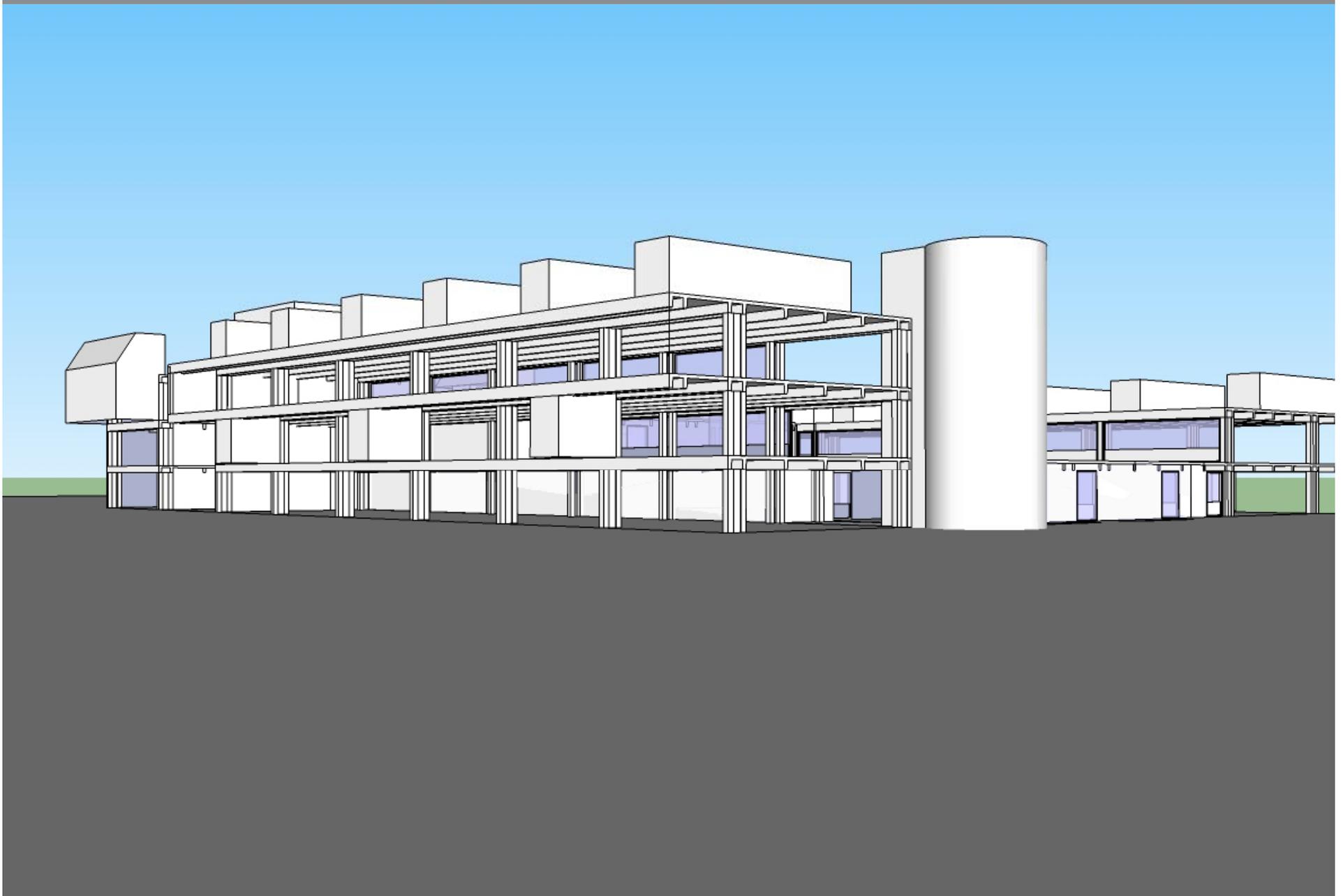
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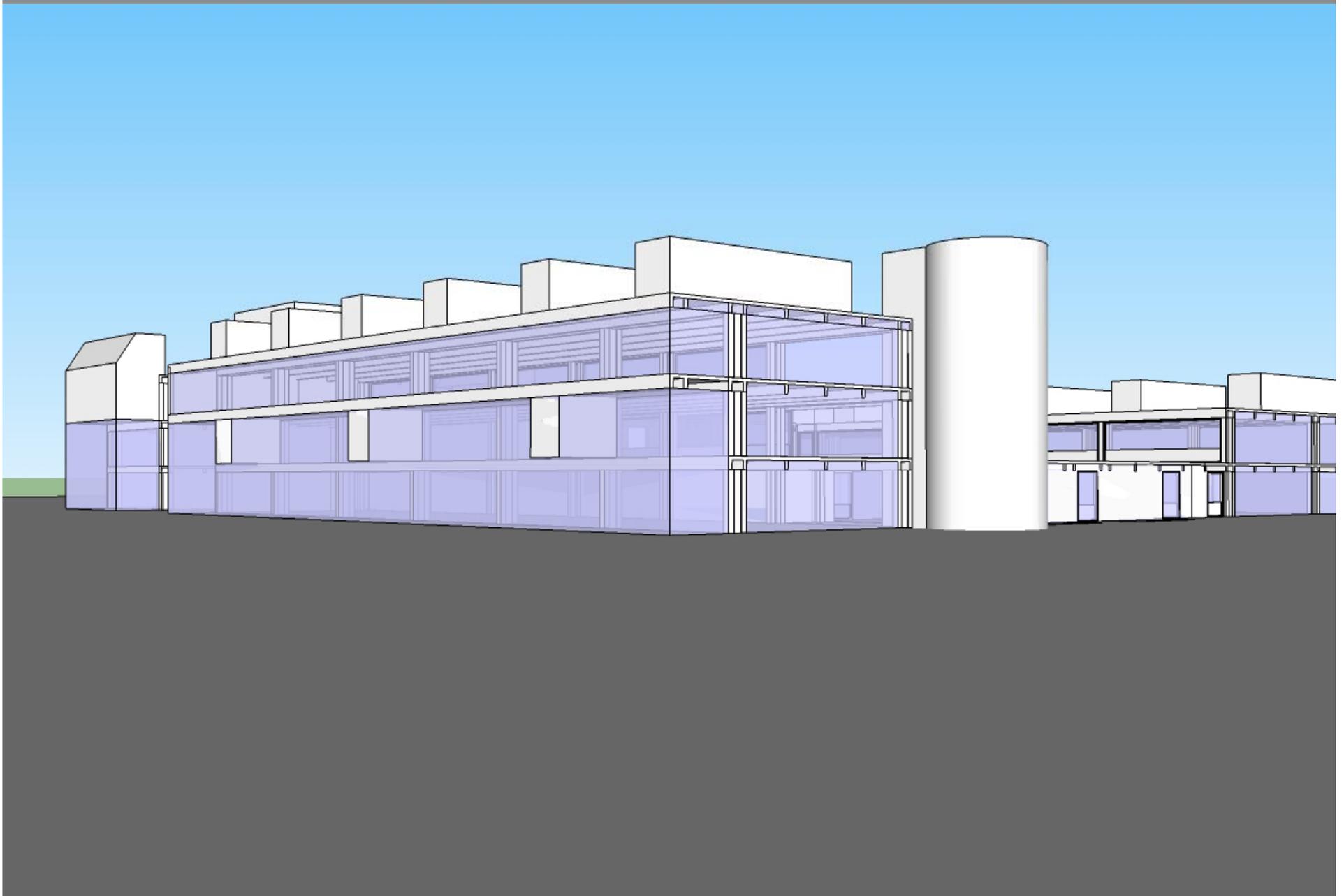
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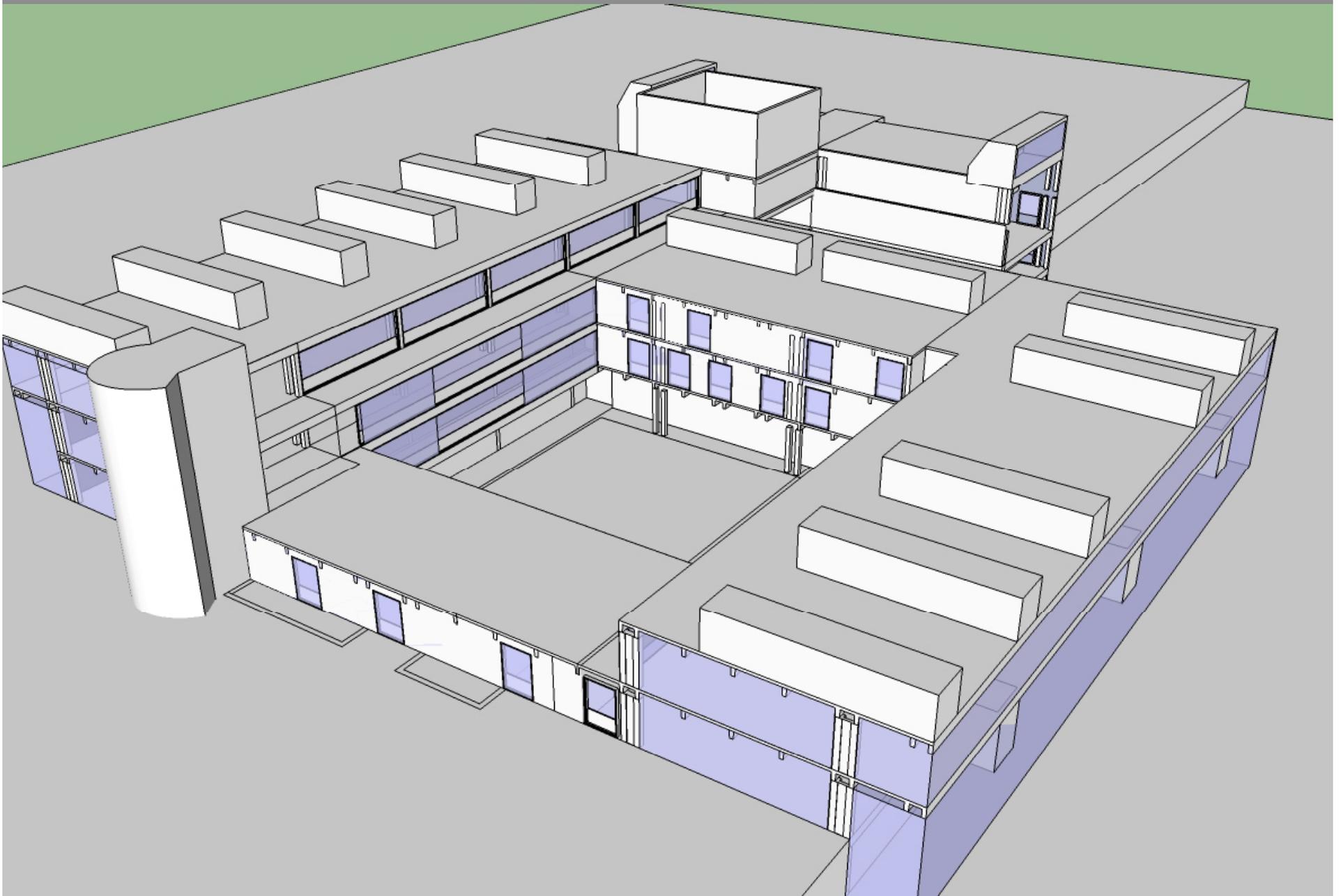
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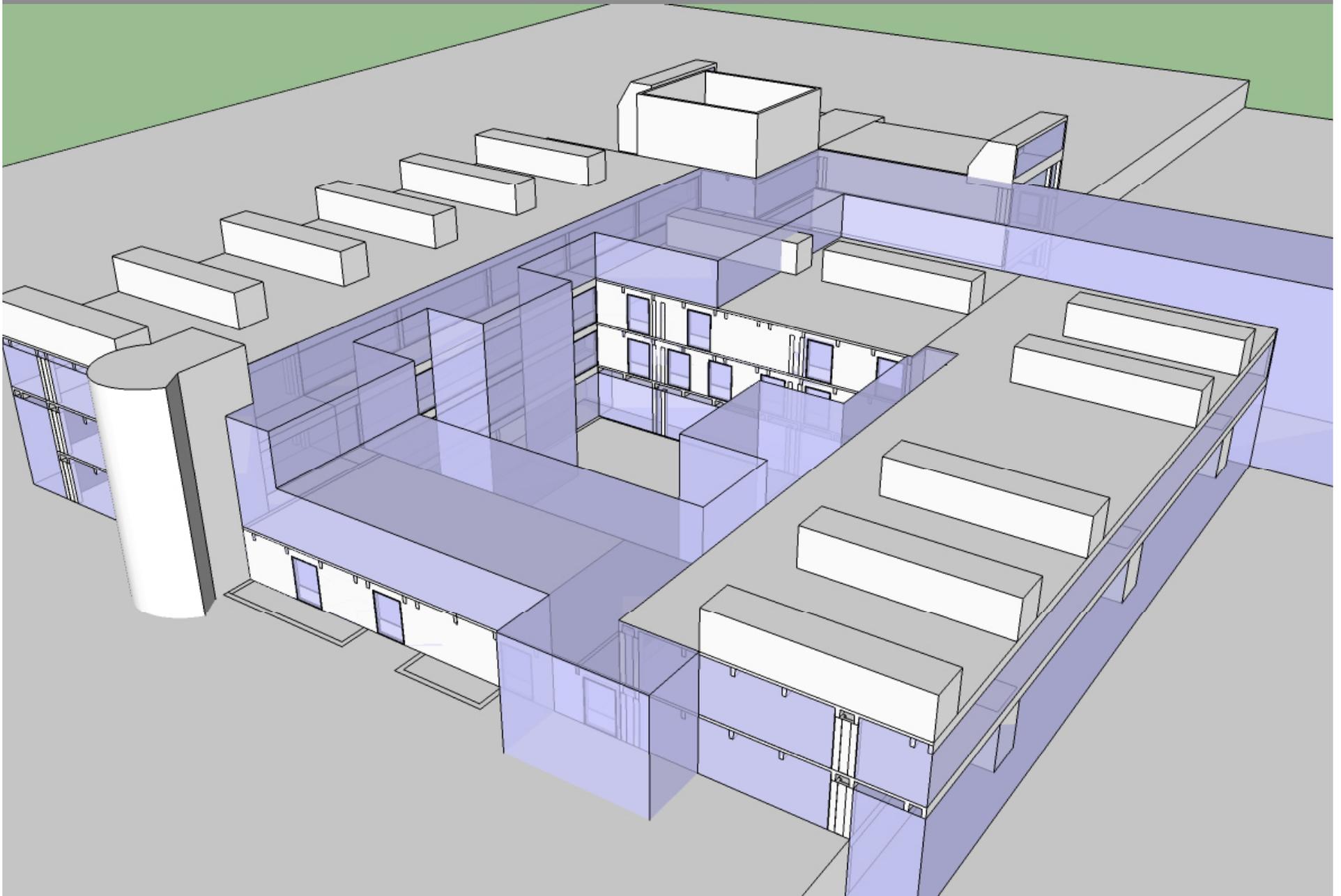
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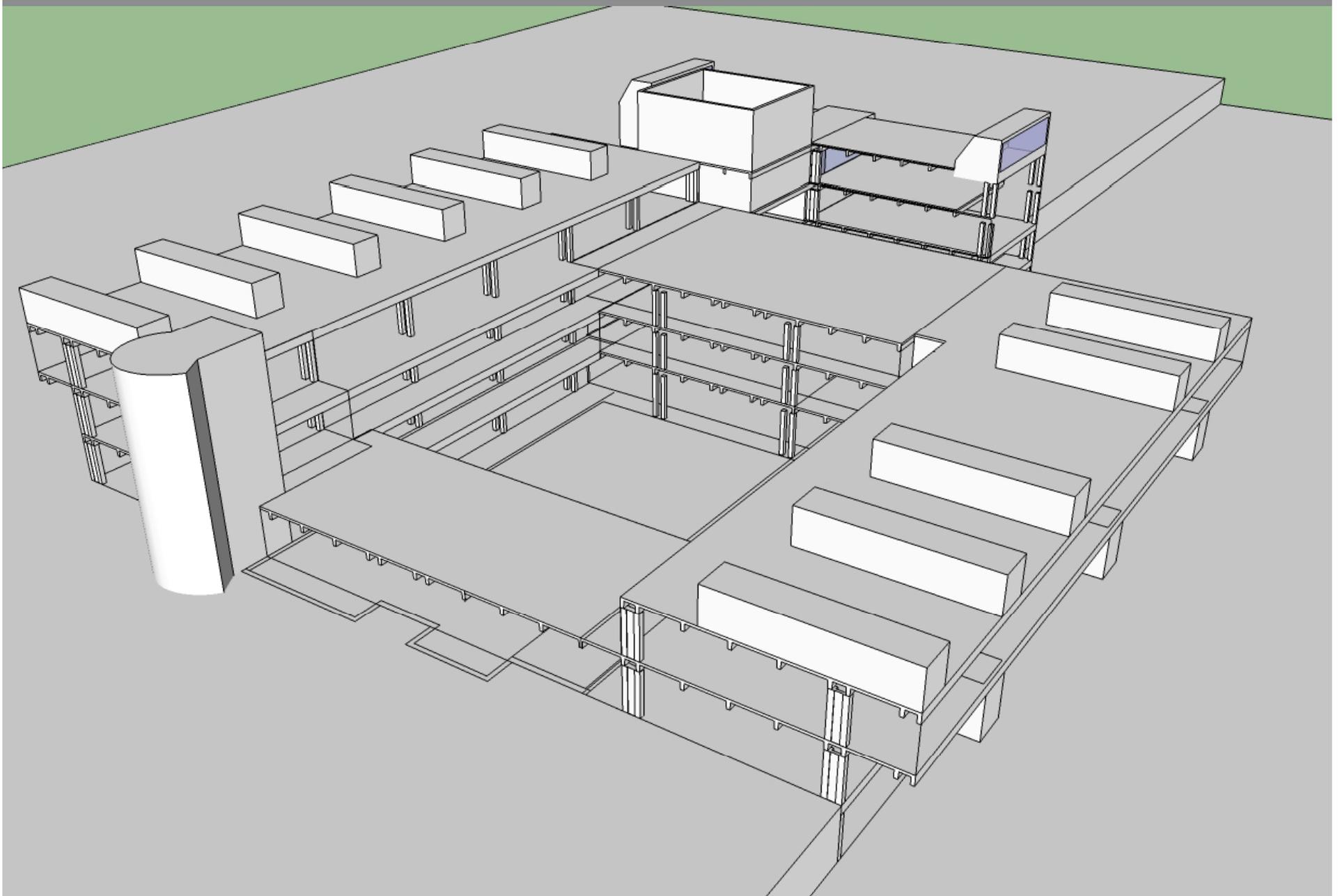
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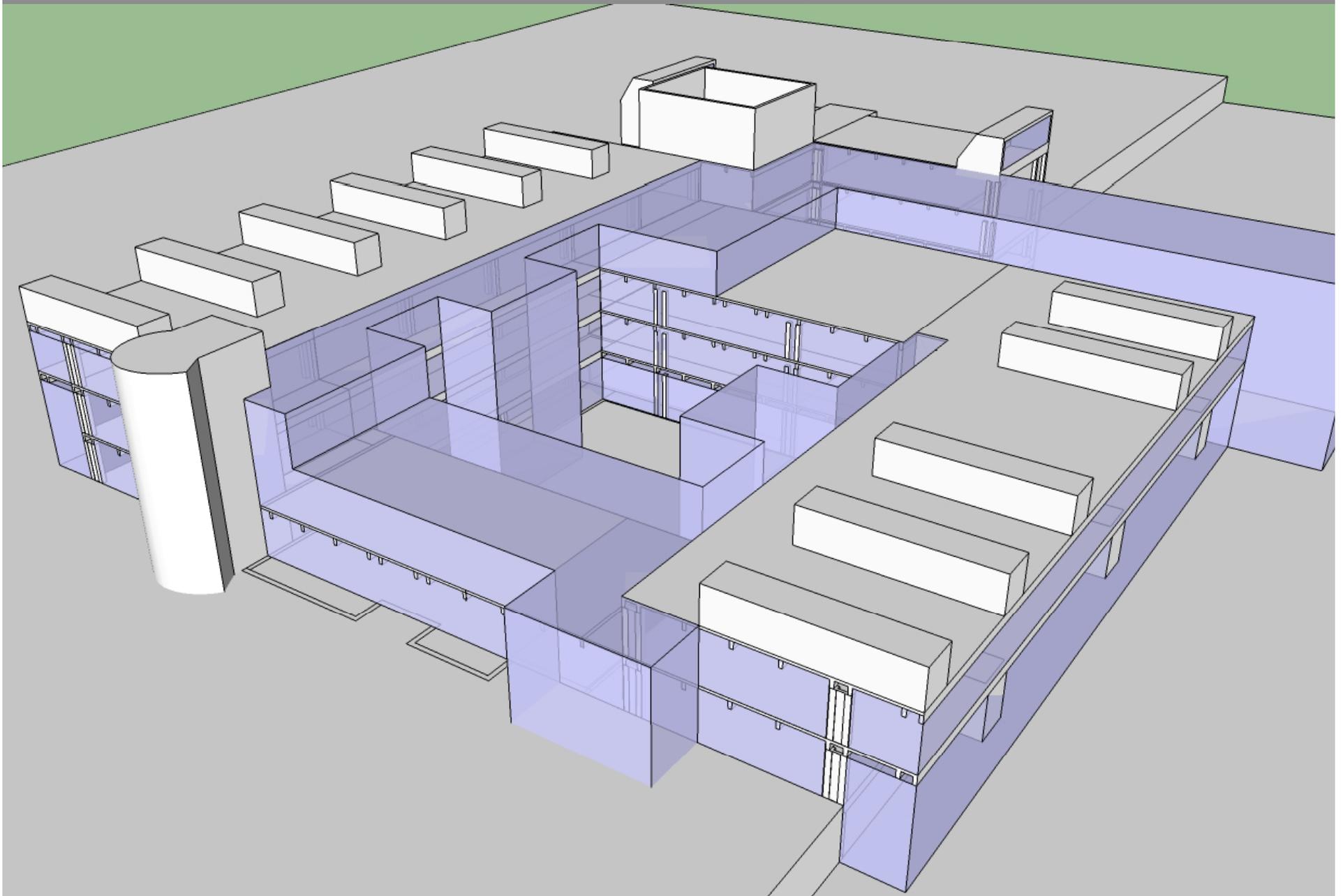
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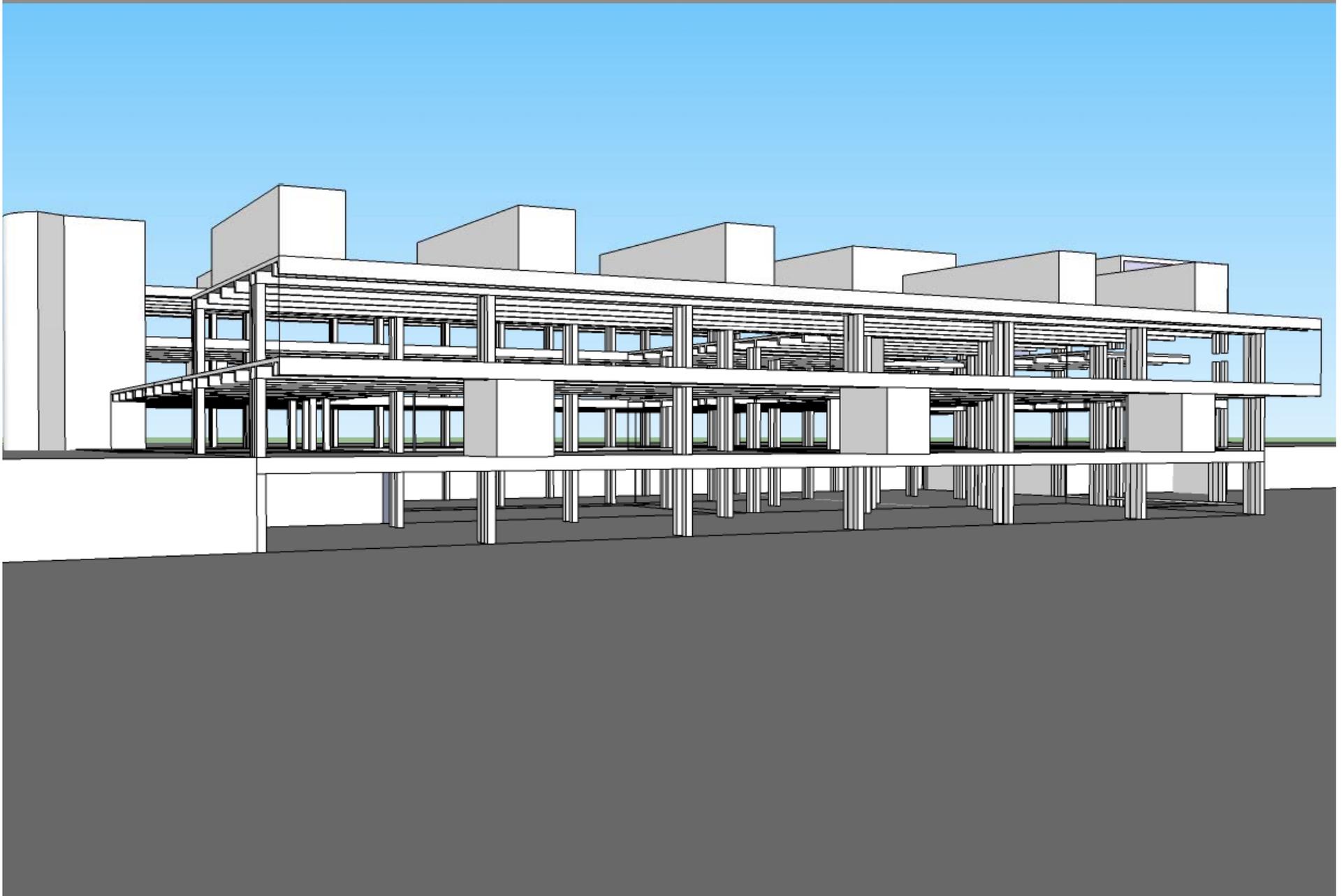
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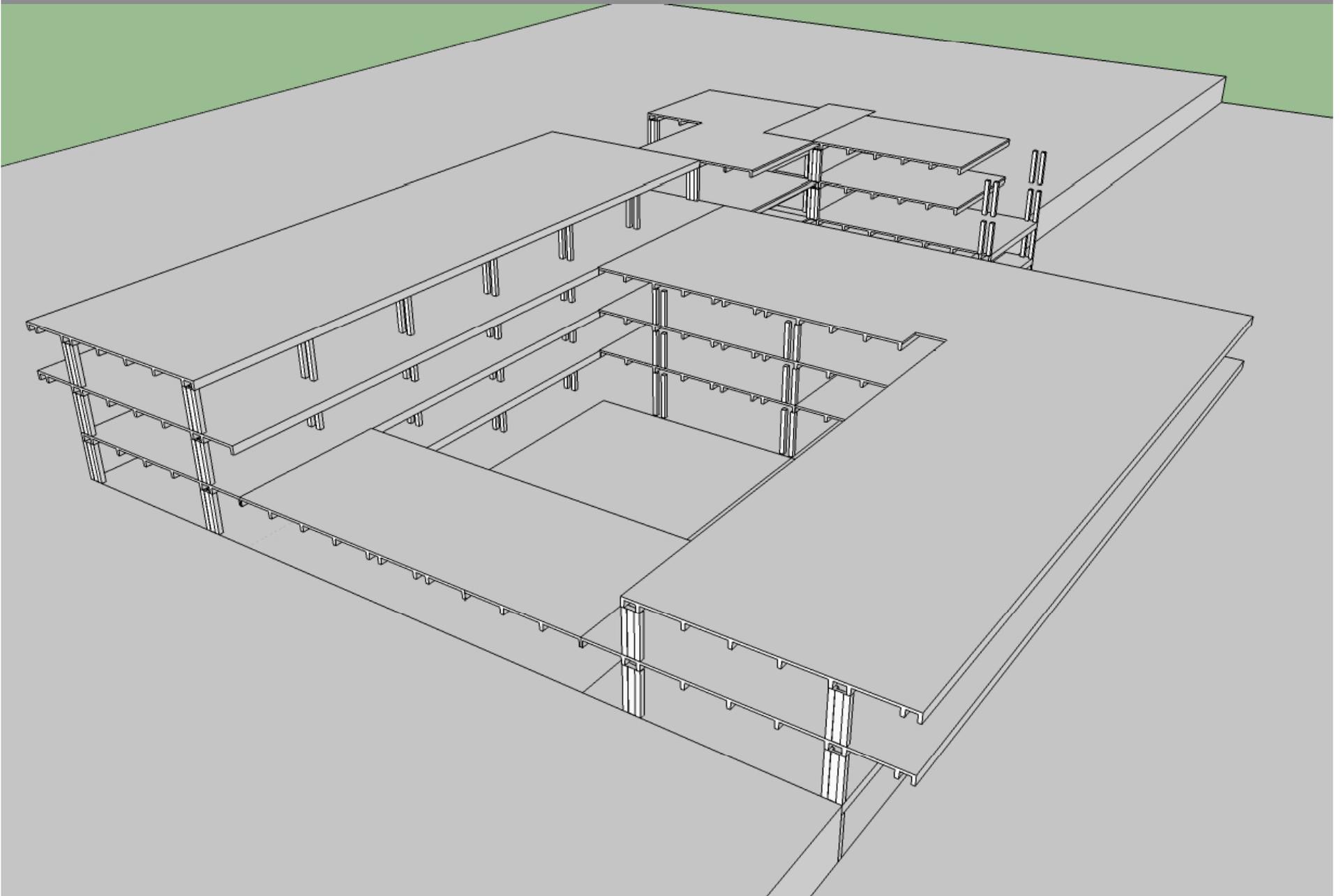
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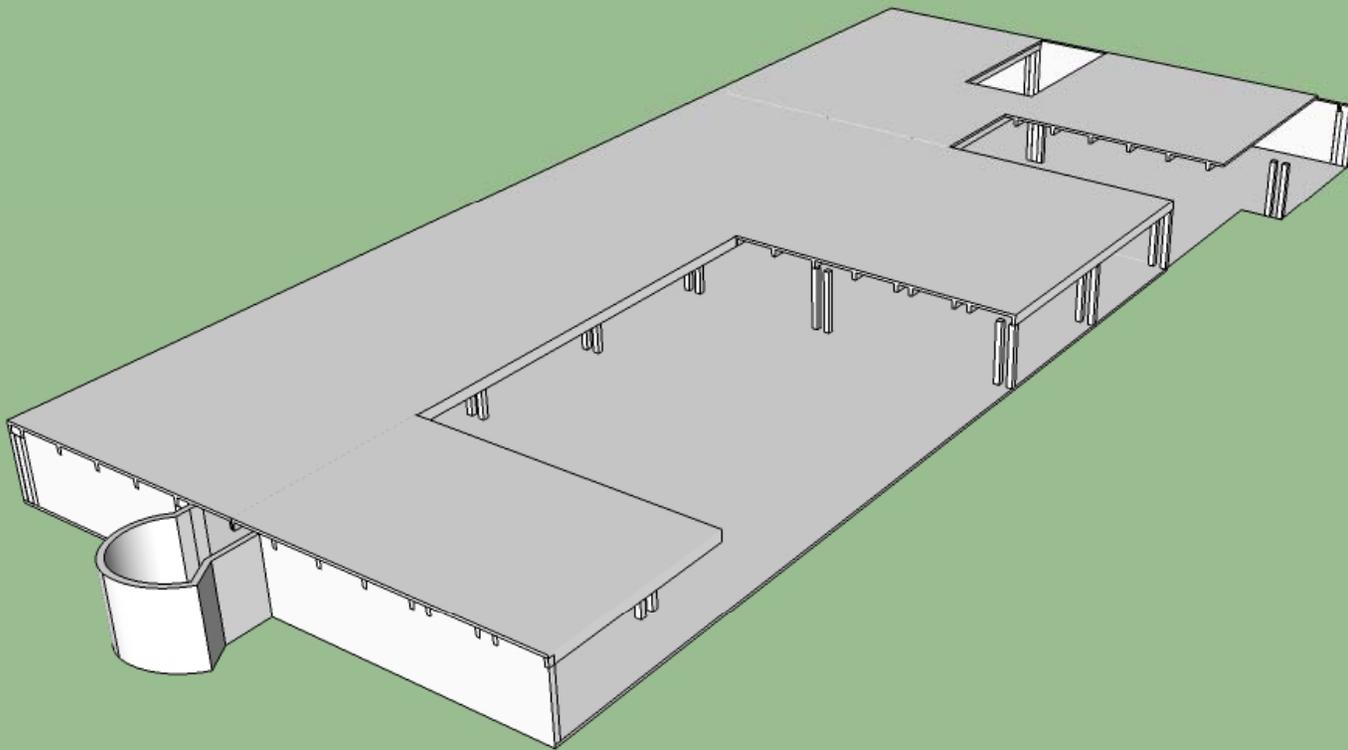
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# Response to Neighborhood Concerns

## Feasibility Study:

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# Design Options: Comparative Matrix



Existing-Modified



Clover



Pi

CRITERIA	EXISTING MODIFIED	CLOVER	PI
COST	2	2	2
OVERALL SUSTAINABILITY	2	2	3
NET ZERO	1	3	2
OPEN SPACE	2	1	3
PARKING	1	2	3
SCHEDULE	2	2	2
URBAN DESIGN / ZONING	1	2	3
PEDAGOGY / ORGANIZATIONAL PRINCIPLES:			
LOWER, UPPER AND PRE-SCHOOLS EACH HAVE A DISTINCT ENTRANCE AND IDENTITY.	1	2	3
THE CAMPUS IS ZONED INTO COMMUNITY / SCHOOL AND SCHOOL-DEDICATED AREAS ORGANIZED AROUND A CAMPUS COMMONS.	1	2	3
EACH SCHOOL ADMINISTRATION CONTROLS THE FRONT DOOR(S) AND THE CAMPUS COMMONS.	1	2	3
THE PRE-SCHOOL HAS ITS OWN ENTRY BUT IS ALSO INTEGRATED INTO THE CAMPUS-COMMUNITY COMMONS.	1	2	3
THE LEARNING COMMONS IS THE HEART OF EACH SCHOOL.	1	3	2
THE LOWER SCHOOL IS ORGANIZED INTO TWO TEAMS: JK-2, 3-5.	2	3	2
THE UPPER SCHOOL IS ORGANIZED INTO THREE GRADE-LEVEL TEAMS.	3	3	3
EACH SCHOOL IS ORGANIZED TO BUILD A PROFESSIONAL COMMUNITY.	2	2	2
THE GARDEN, DINING, SERVERY, KITCHEN AND FOOD LAB COMBINE TO FOSTER A COMPREHENSIVE EXPERIENCE AND EDUCATION ABOUT HEALTHY EATING AND AN ACTIVE LIFESTYLE.	2	2	2
THE EXPERIENCE OF DINING IS SMALLER SCALED, LESS INSTITUTIONAL AND MORE FAMILY-STYLE.	*	*	*
NATURAL LIGHT SHOULD BE PERVASIVE THROUGHOUT THE CAMPUS.	2	1	3
EDUCATION SHOULD FLOW SEAMLESSLY FROM INDOORS TO OUTDOORS.	1	2	2
THE SCHOOL FOSTERS "SUBTLE SECURITY".	*	*	*
ADMINISTRATORS SHOULD BE DISPERSED THROUGHOUT THE BUILDING AND HAVE "OPEN DOORS".	*	*	*
<b>TOTAL</b>	<b>28</b>	<b>38</b>	<b>46</b>

\* To be defined in subsequent design phase

# Site Plan: Existing Compared to Preferred Option



Existing Building



Preferred Option

# Site Plan: Preferred Option



# Ground Floor Plan w/ Parking: Preferred Option



# Massing : Existing Compared to Preferred Option Views from Corner of Putnam Avenue & Magee Street



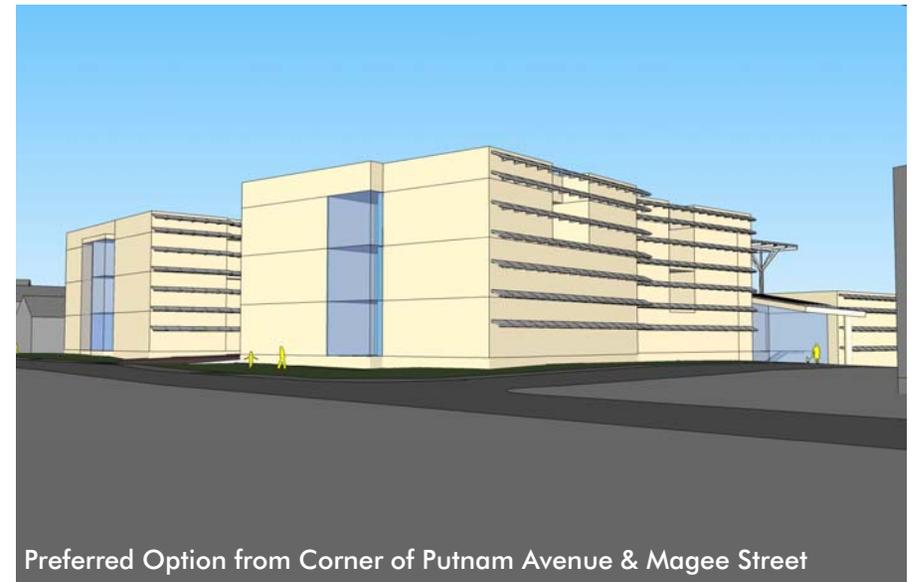
Existing Building Aerial from Corner of Putnam Avenue & Magee Street



Preferred Option Aerial from Corner of Putnam Avenue & Magee Street

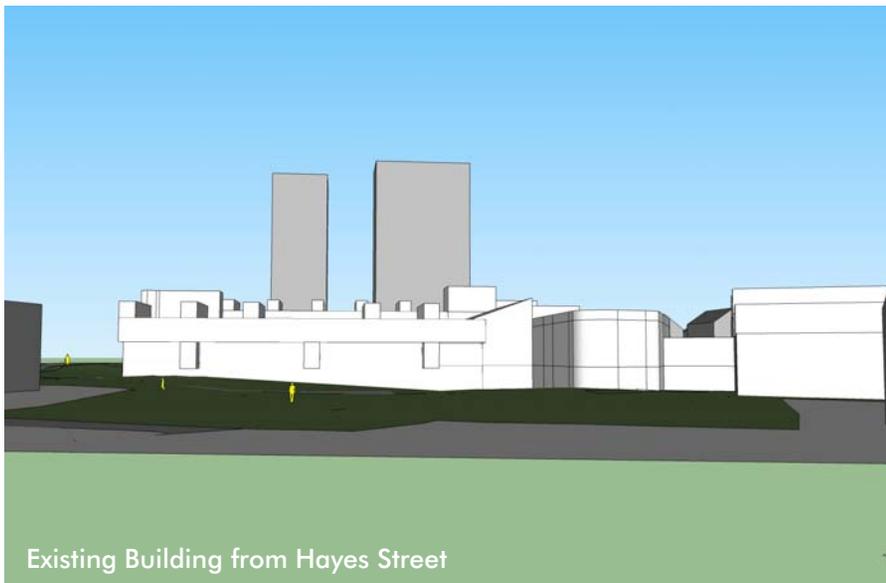


Existing Building from Corner of Putnam Avenue & Magee Street



Preferred Option from Corner of Putnam Avenue & Magee Street

# Massing : Existing Compared to Preferred Option Views from Magee Street & Hayes Street



# Massing : Existing Compared to Preferred Option Views from Kinnaird Street



Existing Building Aerial from Kinnaird Street



Preferred Option Aerial from Kinnaird Street



Existing Building from Entry Drive at Kinnaird Street

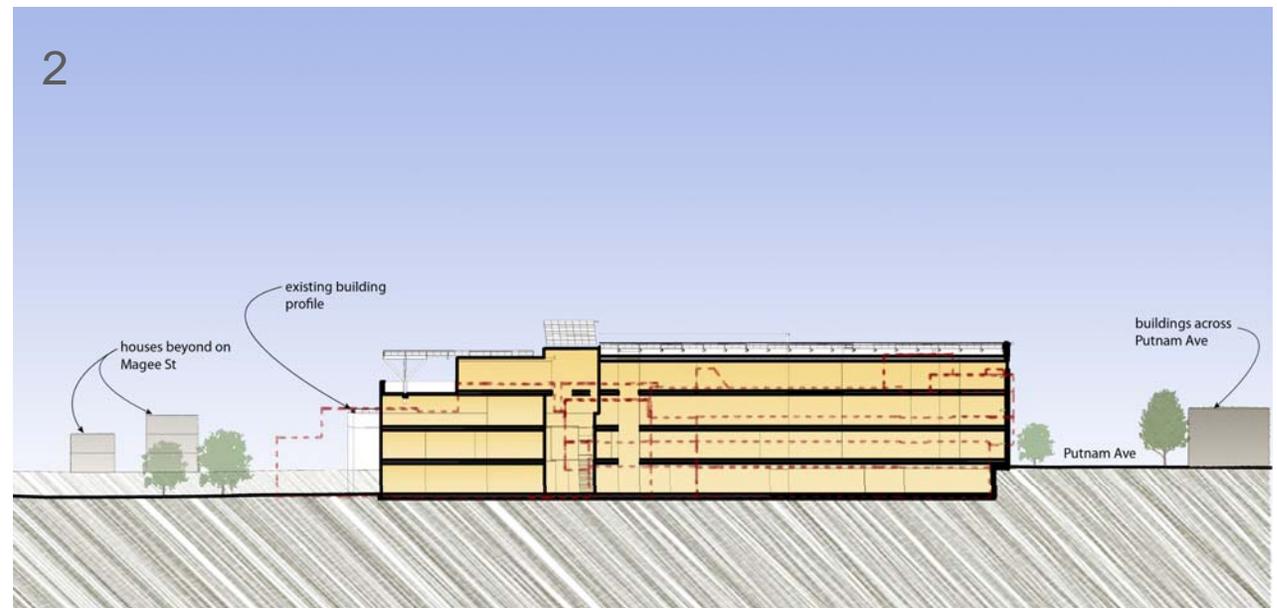
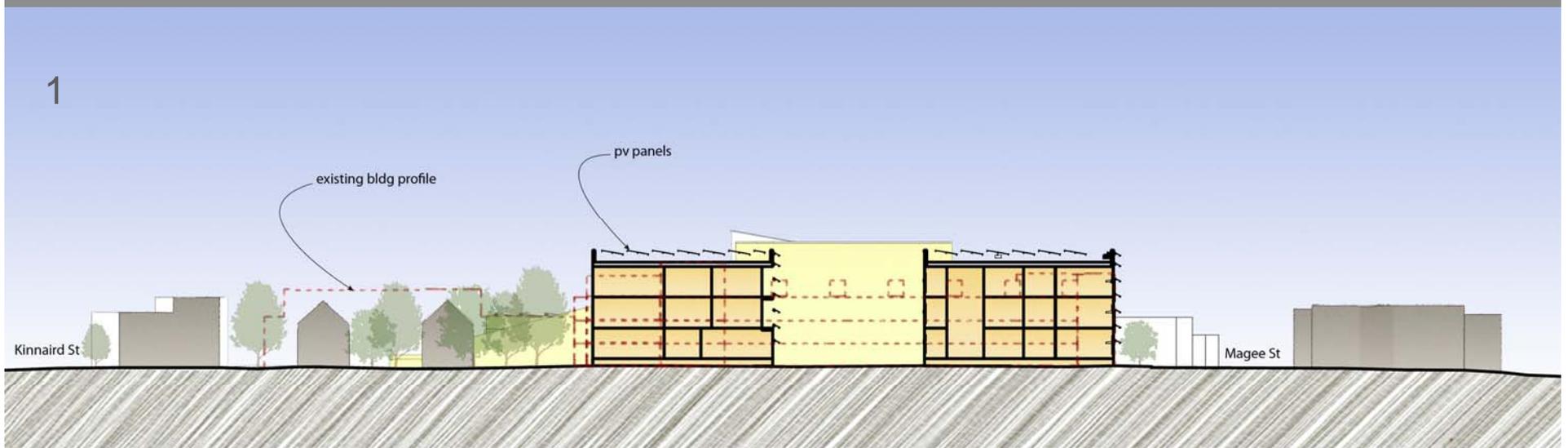


Preferred Option from Entry Drive at Kinnaird Street

## Massing : Existing Compared to Preferred Option Views from Corner of Kinnaird Street & Putnam Avenue



# Height : Existing Compared to Preferred Option





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Sustainable Opportunities

# Sustainability Massing Study Summary



Existing-Modified



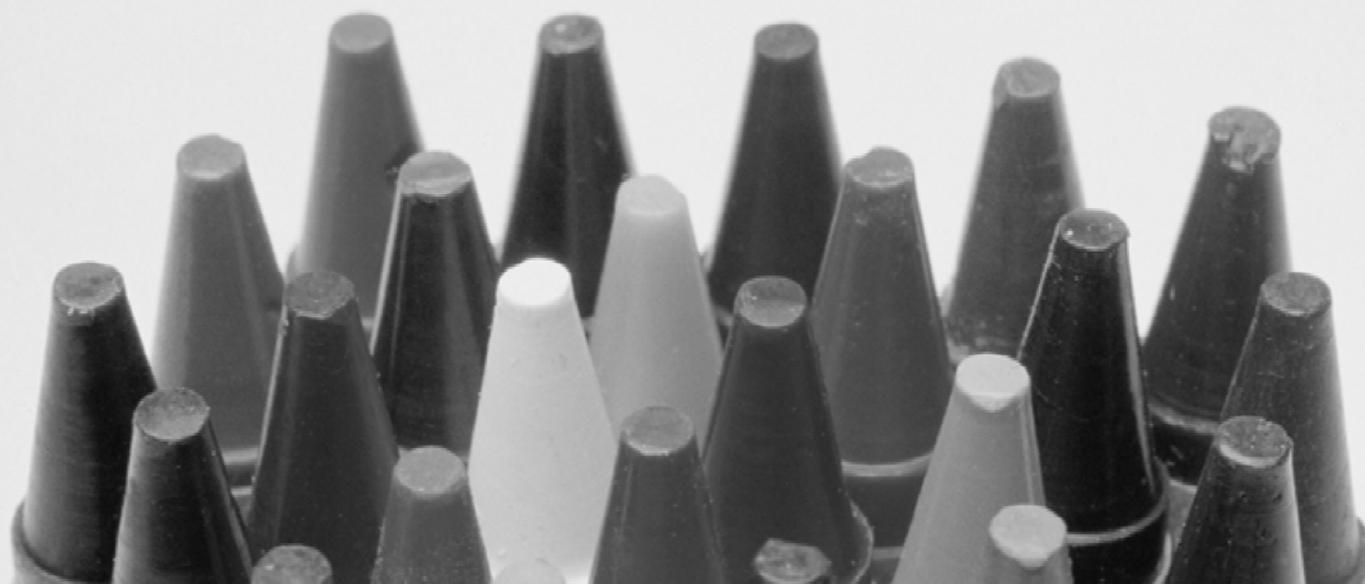
Clover



Pi

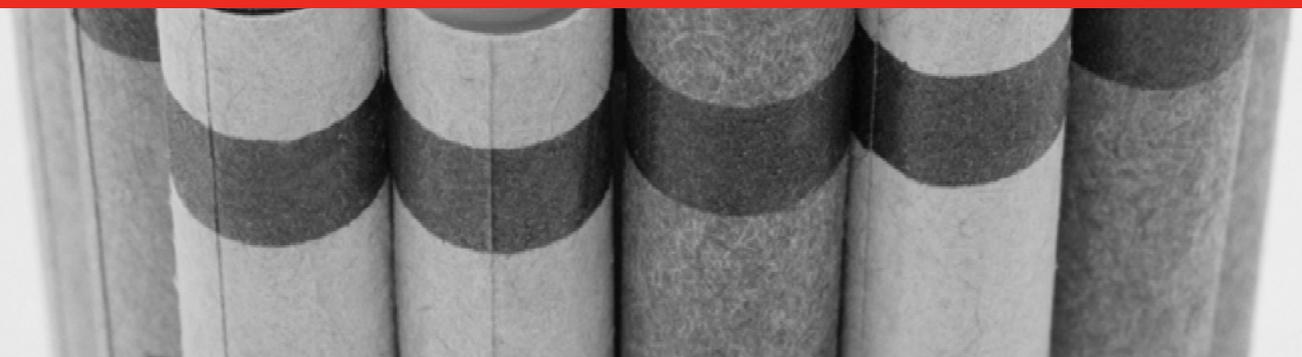
Massing Study Summary

Scheme	Building Envelope		Daylight	Glare	Solar Radiation (kBtu/sf)			Natural Ventilation	PV Potential (annual kWh)		Energy Intensity (kBtu/sf/yr)		Overall Score
	Rank	Ratio			Rank	Rank	Rank		Summer	School	Rank	kWH	
Ex Mod	3	86%	3	1	1	138	190	3	1	673,387	1	30.9	13
Clover	1	90%	2	1	2	116	155	1	3	896,577	3	30.2	13
Pi	2	88%	3	2	2.5	121	156	2	2	726,949	2	30.7	15.5



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Summary / Next Steps



The screenshot displays a web browser window with the address bar showing "The Martin Luther King Jr. School Construction P...". The page features the Cambridge, MA logo and a navigation menu with items: Home, City Departments, Permits & Applications, City Manager, City Council, and Mayor's Office. A secondary menu includes Calendar, Jobs, and City Publications. A search bar with the Google logo and a "Search" button is present, along with a text size selector (A A A).

**QUICK LINKS**

- City Telephone Directory
- Boards & Commissions
- Biotech in Cambridge
- City Ordinances
- Unclaimed City Checks Notice
- CPI Wifi Access Points
- Construction and Traffic
- Library
- MLK School Construction Project
- Mobile Applications
- Public Works
- Social Media Sites

**VISITING CITY HALL**

**HOURS OF SERVICE**  
Monday: 8:30am-8pm  
Tuesday-Thursday: 8:30am-5pm  
Friday: 8:30am-12pm

**City Manager:**  
Robert W. Healy

Cambridge City Hall  
795 Massachusetts Avenue  
Cambridge, MA 02139

**City Manager's Office > MLK School Construction Project**

## The Martin Luther King Jr. School Construction Project

The Cambridge Public Schools' Innovation Agenda will result in the creation of four new upper school campuses serving students in grades 6 to 8. The Martin Luther King Jr. School located at 100 Putnam Avenue, Cambridge, will be the first school to be redesigned to include a JK-5 Program, an Upper School Program, Community School and Afterschool programs.  
[Link to Cambridge Public Schools](#)

The City of Cambridge has contracted Perkins Eastman to perform a Feasibility Study to help determine if the existing building can support the new programming needs or if it will be necessary to construct a new building.

As part of the Feasibility Study, the City and Perkins Eastman have met with various School Department staff, City departments, some abutters and parents. The interviews with staff were required to develop the program needs for the Innovation Agenda. The meeting with parent and abutters is divided in three components of information: Creative Analysis, Existing Conditions Analysis and Design Options.

**Meetings will be at Martin Luther King Jr. School Auditorium, 100 Putnam Ave., from 6-7:30 p.m.**

Meeting 1: April 5, 2012 - Topic: Creative Analysis

Meeting 2: May 10, 2012 - Topic: Design Options

Meeting 3: June 21, 2012 – Topic: preferred Design Option

During the Schematic Design Phase, there will be additional Community informational meetings presenting design progress and how comments made by the residents have been addressed in the design.

**Schedule** | Documents

- Complete programming and issue Feasibility Study - June 2012
- Approval of Construction Management at Risk by Office of the Inspector General – June 2012
- Negotiate design contract with Perkins Eastman – July 2012

Internet | Protected Mode: On | 100%

## ■ Approvals Process

- It is anticipated that the redesigned school will require issuance of a special permit from the Planning Board.
- The formal approval process will occur after the building design takes shape.
- Submission to the planning board in 2013 that includes Special Permit under Planning Board jurisdiction with all associated public meetings.

## ■ Technical Review

- In the next phases the Design Team will continue to consult the following city agencies to ensure compliance with City of Cambridge requirements:
  - Community Development Department and Planning Board: Overall design and compatibility with the neighborhood.
  - Department of Public Works: Storm water, sewer, streets and sidewalks, other utilities.
  - Traffic Department: Vehicle, bicycle and pedestrian circulation, safety and management. Bus pick-up and drop-off.
  - Inspectional Services & Fire Department and : Building Codes, Life Safety, fire fighting access.





# Perkins Eastman

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