

April 25, 2023

Planning and Housing Committee
City of Toronto
100 Queen Street West
Toronto, ON M5H 2N2

Re: PH3.6 - Housing Now Initiative - 2023 Progress Update

Members of the Planning and Housing Committee -

Volunteers from HousingNowTO have worked closely over the last two-years with different multidisciplinary student teams from our School of Cities U of T, Multidisciplinary Urban Capstone Project (MUCP) course under the leadership of Prof. David Roberts.

Each MUCP student team worked closely on understanding the design issues and physical challenges of delivering new affordable housing within the constraints of the City of Toronto's Housing Now program. The students planned and created planning interventions for two different Housing Now site locations:

- **3933 Keele Street**, a Finch West LRT station property at Keele and Finch, and
- **101 Coxwell Avenue**, a Toronto Police Services station, expected to become surplus in 2026.

The students proposed new affordable housing developments for each unique location that are designed to successfully address and balance economic viability, community solidarity, sustainability, and public transportation.

You will find attached individual site-assessment reports for consideration by your committee and city staff. These MUCP reports provide baseline redevelopment direction for each surplus site being reviewed with a focus on sustainable and purpose-built affordable housing development, and the goal of 99-years of rental affordability.

Yours,



David J. Roberts

Director of the Urban Studies Program
Associate Professor, Teaching Stream
Academic Director, [Multidisciplinary Urban Capstone Project](#)
University of Toronto
<https://urban.innis.utoronto.ca/faculty/david-roberts/>

Myhal Centre, 55St. George Street, Suite 853, Toronto, ON M5S 09C Canada
schoolofcities@utoronto.ca • www.schoolofcities.com



[Karen Chapple](#), Ph.D.

Director, [School of Cities](#), University of Toronto

Professor, [Geography & Planning](#), University of Toronto

Professor Emerita, [City & Regional Planning](#), University of California at Berkeley

Appendix A - **HousingNowTO.com - Affordable Housing at 3933 Keele Street**
APRIL 2022

MUCP Team :

Hudson Yuen, Sidney Choi, Madison Lau, Suzie Kim,
Kaitlyn Vanderbiltche, Anoushka Puri

Supervisor :

Professor Petros Babasikas

Appendix B - **HousingNowTO.com – Reimagining Coxwell and Dundas**
APRIL 2023

MUCP Team :

Jiahui Song, Justin Chan, Keyao Liu, Khulan Enkhbold

Supervisor :

Taylor Brydges



MUCP FINAL DESIGN SHOWCASE

2021-2022



METROLINIX



metrolinx.com/finchwestlrt

Gate 3
3933 Keele St



Think Safety... Always

HOUSINGNOWTO - AFFORDABLE HOUSING

Hudson Yuen, Sidney Choi, Madison Lau, Suzie Kim, Kaitlyn Vanderbilche, Anoushka Puri
Team

Professor Petros Babasikas
Supervisor

BACKGROUND

In collaboration with our client, HousingNowTO, our project covers the site of 3933 Keele Street, one of 21 proposed sites for developing purpose-built affordable rental housing under the ongoing #HousingNow Initiative that aims to create mixed-income living on publicly-owned land. 3933 Keele is situated within the Keele-Finch area, of which is home to a population of predominantly lower-income families, citing a special need for community spaces and/or daycare facilities. Additionally, our site stands adjacent to the Finch West LRT Station, where our team has worked to design affordable housing with respect to the City's goals as they pertain to Transit Oriented Development (TOD).

PROBLEM OUTLINE

Affordable housing in Toronto has grown increasingly limited. While the city funds around 9,700 supporting housing units in permanent and transitional housing, the current waitlist for social housing in Toronto is approximately 97,000 people long, with an average wait time between 10-12 years (City of Toronto, 2018). As such, the city is in need of more affordable housing units.

DESIGN CONSIDERATIONS

Following our team's assessment of Metrolinx's existing plans for the LRT station and related architectural drawings regarding the station itself, we have found that the station box does not have the appropriate structure to allow us to build atop it, making this scenario an unviable option. Initially, our client had asked us to attempt to build on only our site, but after consulting with outside parties, issues due to our land constraints meant that it was impossible for us to meet our desired affordable housing unit target. Keeping this obstacle in mind, our team moved to consider a design that aimed to utilize a cantilever above the LRT station. Unfortunately, the cantilever idea proved to be outside of our proposed budget that targeted our goal of being a self-funded affordable housing development project. An expansion in conjunction with the adjacent land owned by Starbank Development proved to be the most viable design option that fulfills our building goals, but this alternative is not guaranteed and is simply a proposed remedy to our space constraints.

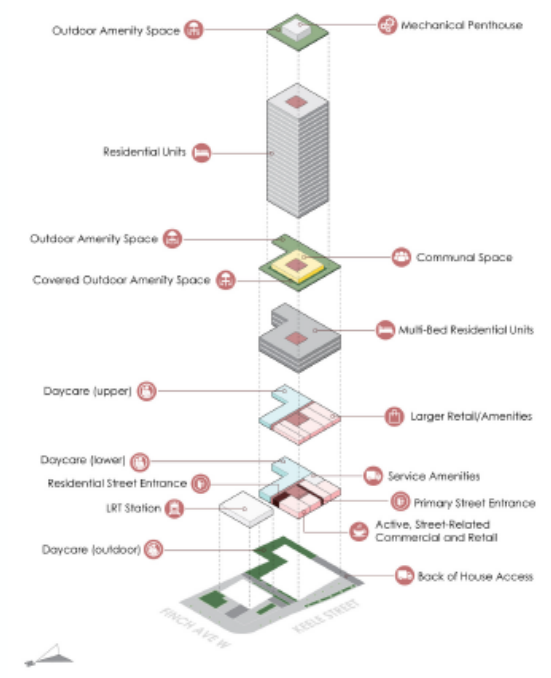
FINAL BUILDING DESIGN

Following our matrix assessment, the design that best fit the project requirements was the tall building, as it surpassed our goal of 190 units with a proposed 213 units – 107 of which would be affordable. Furthermore, this design allowed us to maximize programmatic use to benefit future residents and the contextual urban fabric outlined in the Keele Finch Secondary Plan. The plan outlined a need for retail frontage and civic spaces that created a vibrant public realm. In response to this, our project imagines ground floor retail and commercial space concentrated at the Keele/Finch intersection together with tree planting and landscaping. As per the knowledge and interests of our team, it became a primary goal of our project to embody social, environmental, and economic sustainability. We propose contextualized programming, feasibility for 99 years of afford ability during the lease period, and baseline considerations into architecture, landscape architecture, and management technologies to emphasize further our proposal's relationship to relevant quality of life and environmental reflections.

As per our review of the Toronto Green Standard (TGS), our sustainability considerations sought to maximize soft landscaping as opposed to hard surfaces on site. Furthermore, we recommend that most of this proposed green space utilize systems to help with stormwater infiltration. For the building itself we proposed populating the podium and roof of the building with green roofs. These spaces will be accessible to residents as part of our stormwater management strategy

MOVING FORWARD

As the city moves forward with more transit-oriented development, with reference to this project, it is crucial that transit infrastructure must be planned in conjunction with the surrounding area's developments – most notably for mixed-use and residential developments. Without an appropriate consideration of the area as a totality, future development plans may face constraints that could have been avoidable, an example being our spacing constraints as a result of a failure to consider the option of building atop the LRT station. Going forward, we hope that the City prioritizes appropriate planning for future affordable housing developments in transit-oriented communities in ways that are considerate of the location and its future residents.



Affordable Housing at 3933 Keele Street

Proposing an affordable, self-funded development to serve the Keele-Finch area for 99 years



Google (n.d.) | Google Maps Satellite View of 3933 Keele Street | Retrieved March 21, 2022, from <https://www.google.com/maps/place/3933+Keele+St,+North+York,+ON+M2E+2G6/@43.764106,-79.4933847,800m/data=!3m1!1e3!4m5!3m4!1d48882b3140295491919!1d1790w!42f5965f38m-2!3d43.76301!4d-79.49026>

Site Context

Affordable housing is currently inadequate

87% of Keele-Finch residents spend 30%+ of income on rent

Current options are primarily provided by municipalities or social groups, not the market

Community services will be necessary

High percentage of single-parent households in the area create the need for daycares

Proximity to York University will add to patronage and demand

Transit proximity is a clear strength

The site sits directly on top of the Finch West LRT transit hub

Increased foot traffic and other sustainability benefits can result from this transit accessibility

Key Stakeholders



Supporting the Keele Finch Secondary Plan

Self-funding for 99 years

Goal to build 40,000 new affordable housing units over the next 12 years



Active transport in complete, mixed-use communities

Maximise land value; may require redefining spatial restrictions

Local residents

Childcare services

Heavy industry designated employment area

Meets the ground in a complete manner

Site Challenges

Following our team's assessment of Metrolinx's existing plans for the LRT station and related architectural drawings regarding the station itself, we have found that the station box does not have the appropriate structure to allow us to build atop it, **making this scenario an unviable option**

Initially, our client had asked us to attempt to build on only our site (*Site A*), but after consulting with outside parties, issues were found in regards to our land constraints, where it would make it impossible for us to meet our desired affordable housing unit target

An **expansion in conjunction with the adjacent land** (*Site B*) owned by Starbank Development or the **utilisation of a cantilever** would help us achieve our target number of affordable units

Image courtesy of Metrolinx



Urban Fabric	Circulation	Proximity to Amenities	
Mixed-Use	Major Roads	Daycare Nearest = 900m	Park Nearest = 600m
General Employment Areas	Secondary Roads	Dentist Nearest = 280m	Pharmacy Nearest = 290m
Core Employment Areas	Designated Cycling Routes	Doctor's Office/Walk in Clinic Nearest = 450m	School Nearest = 240m
Neighborhoods	Required Ground Floor Active Retail	Grocery Store Nearest = 1.3km	Public Transportation Nearest = 0m
Apartments			
Green Spaces			

Design Considerations - Cantilevering



Image courtesy of ODA

Decision: No cantilever recommended

Opportunity to build something socially positive and iconic within the community, but we arguably should not be having to consider such options

Cantilever would only add ~10 units, so the cost does not seem justifiable; a cantilever would require specific building techniques to address issues like thermal bridging, adding cost and complexity to the design

Possibilities: be creative with materials / building techniques that go beyond columns and beams

- Vierendeel trusses (rectangular vs. triangular openings)
- Muscular transfer floors; capture load and bring back into shear walls + building core
- Sloped columns running through floors + tensioned columns as "hangers"



Sample of Design Alternatives

Site A: original lands



Site B: original + Starbank lands



Advantages

- Land is already owned
- More feasible construction

- Much more realistic to achieve unit goals
- Larger retail space for increased operational revenue

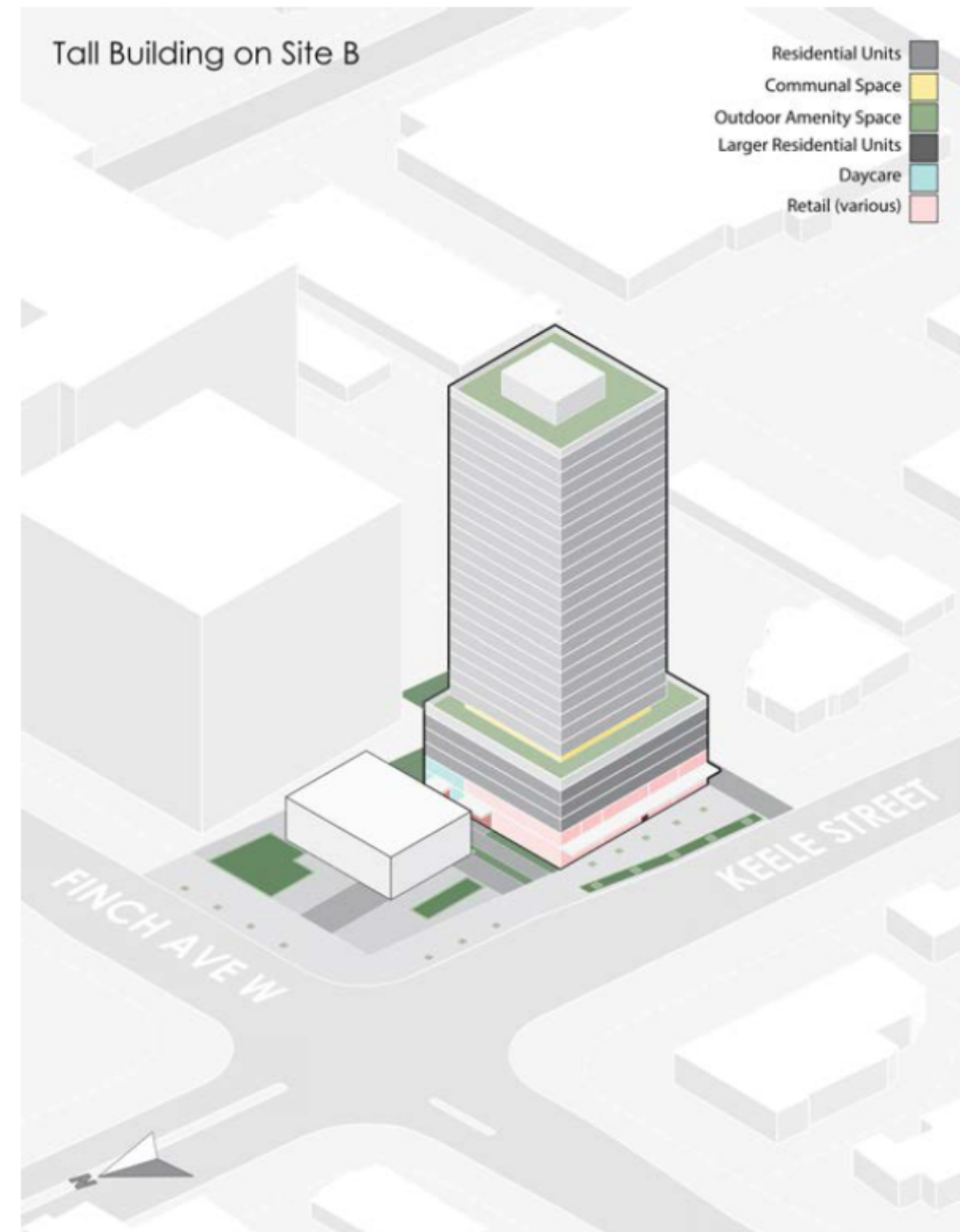
Drawbacks

- Does not achieve unit goals
- Some iterations do not adhere to city guidelines

- Land must be acquired from 3rd party; this is not guaranteed

Final Design: Tall Building on Site B

Tall Building on Site B	
27 Storeys 82.5 m	
Total Units	213
Affordable Units	107
Market Rate Units	106
Net Residential Floor Area	15,486.26 sq m
Communal Amenities (outdoors)	1,375.46 sq m
Communal Amenities (indoors)	501.39 sq m
Daycare (outdoors)	300.00 sq m
Daycare (indoors)	1,029.58 sq m
Retail Space (various)	1,105.14 sq m



Streetscape Considerations



Image courtesy of DTAH

The Keele Finch Secondary Plan calls for retail frontage as **civic spaces that create a vibrant public realm**

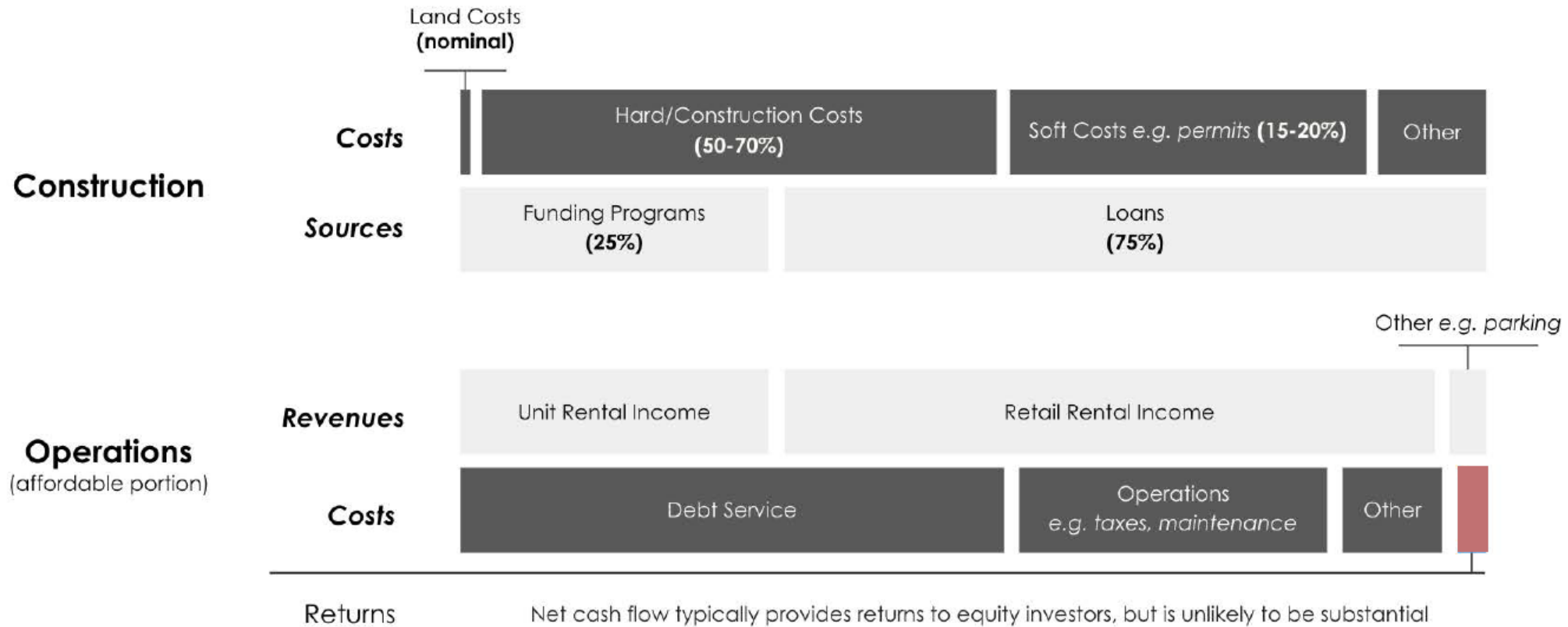
Our project imagines ground floor retail and commercial space concentrated at the Keele/Finch intersection, alongside rigorous **tree planting and landscaping**

Sustainability Considerations

As per our review of the Toronto Green Standard (TGS), we sought to maximize soft landscaping as opposed to hard surfaces on site

- Most of the proposed green space utilize **Bioretention systems** to help with stormwater infiltration
- We propose populating the podium and the roof of the building with **green roofs**.
 - These spaces will be accessible to residents as part of the communal amenities but will also function to collect rainwater as part of our stormwater management strategy.
- If balconies become a critical addition for the later stages of this project, we suggest investment into balconies supported by a steel frame or with structural thermal breaks to **avoid thermal bridging** with the adjacent floor slab.

Business Plan

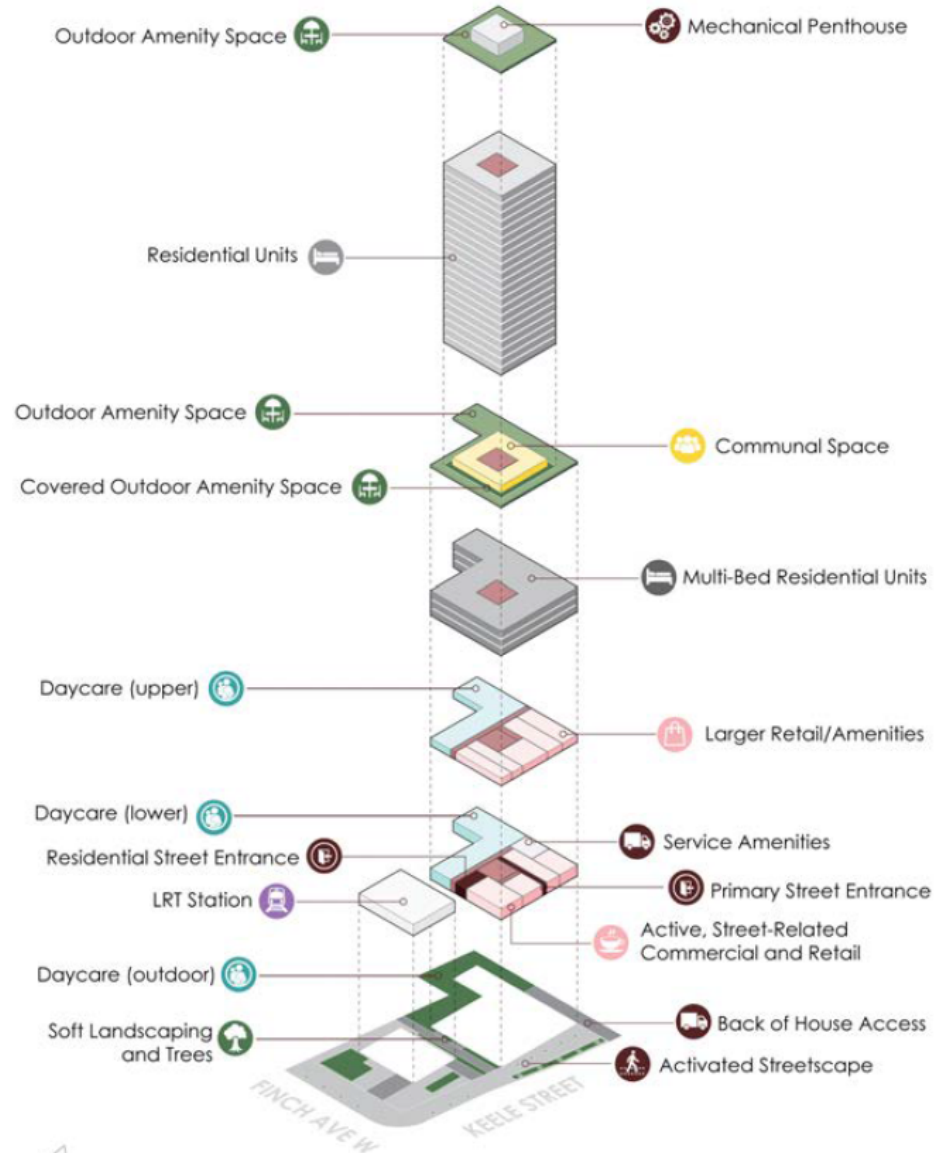


Total Contributions Less Total Project Costs +/- -\$30,849,974

Annual Operating Revenues \$4,656,000

Minimum Payback Period ~7 years





Mechanical Penthouse - Potential opportunity to replace with more residential units and/or amenities



Outdoor Amenities - Access to open, green space and resident-only amenities such as BBQ grills, etc.



Retail/Commercial - Nine available leasable spaces for retail/commercial use (ground level & first floor)



Daycare - Follows the City's public daycare facilities guidelines, offering ample indoor and outdoor space



Ways Forward

- A lack of green space and waste recycling in this specific building suggests there is a need for more green space to be built within the neighbourhood.
- We aim to reduce heating and cooling loads by recommending this building use punch windows with a maximum wall-to-window ratio (WWR) of 40%.
- As the city moves forward with more transit-oriented development, with reference to this project, it is crucial that transit infrastructure is planned in conjunction with the surrounding area's developments. This is especially important for mixed-use and residential developments. Without an appropriate consideration of the area as a totality, future development plans may face constraints that could have been avoidable. An example, in this case, being our spacing constraints as a result of a failure to consider the option of building atop the LRT station.

Sidney Choi, Madison Lau, Kaitlyn Vandenbilche, Hudson Yuen, Suzie Kim, Anoushka Puri

Other Developments

Toronto is seeing more affordable housing developments employ exciting construction and financing techniques.



Image courtesy of Adjaye Associates

Timber House, Quayside

Mass timber with 5 towers, green space, cultural buildings.



Rendering courtesy of the City of Toronto

Regent Park Revitalization

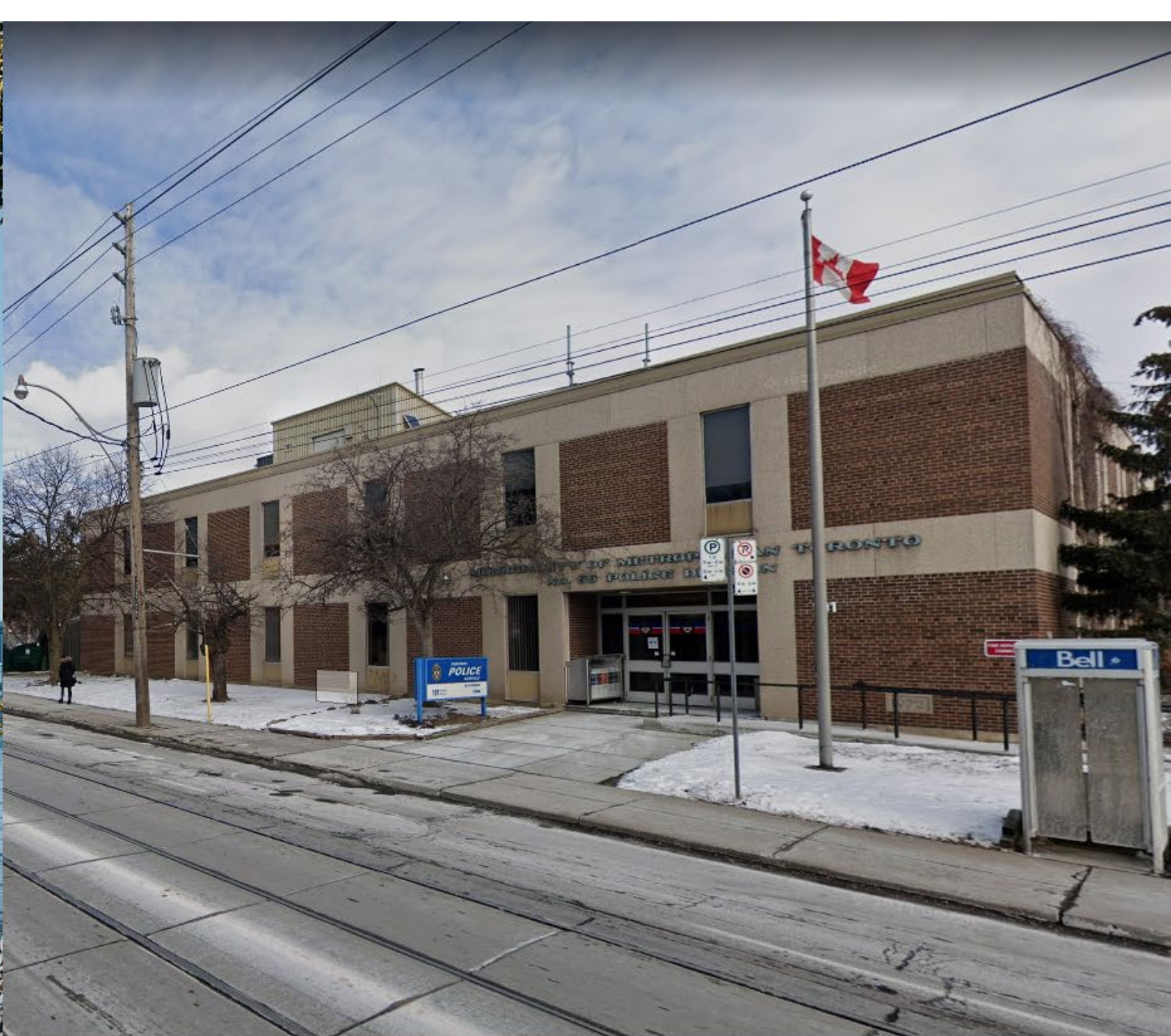
An ambitious 5-phase plan that began in 2005, kickstarting large-scale urban revitalization plans in Toronto.

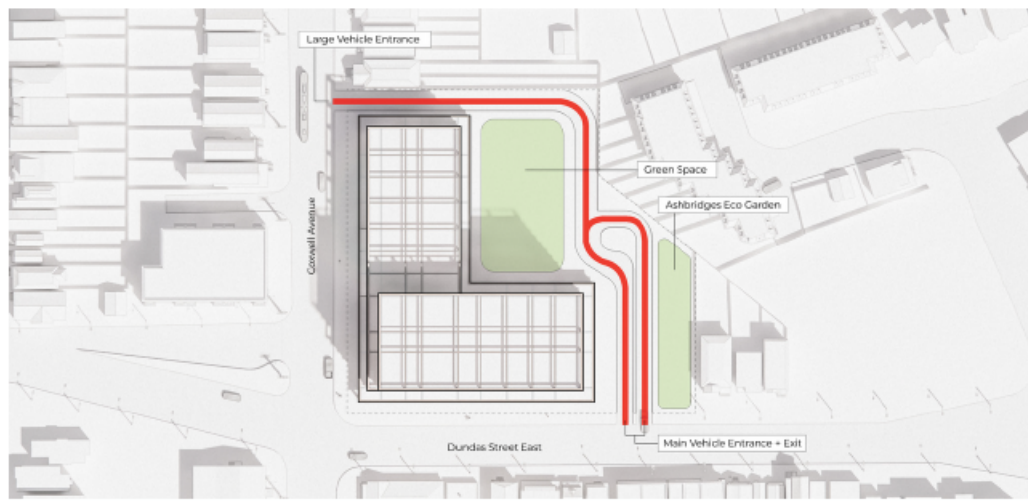


UNIVERSITY OF TORONTO | SCHOOL OF CITIES | Innis College Urban Studies Program

MUCP FINAL DESIGN SHOWCASE

2022-2023





REIMAGINING COXWELL AND DUNDAS

Jiahui Song, Justin Chan, Keyao Liu, Khulan Enkhbold

Team

Taylor Brydges

Supervisor

AN URBAN CHALLENGE

The City of Toronto has initiated the 'HousingNowTO 2030' action plan to construct 40,000 units of affordable housing on underutilized city-owned sites. '101 Coxwell Avenue' has been identified to be part of the Housing Now program for providing new affordable housing in the neighbourhood. Our project team is tasked to

- Conduct background analyses of the catchment site
- Devise multiple development alternatives that include planning justification for massing

Political, Social and Economic Contexts The team took on extensive processes to understand the challenge comprehensively and mobilize resources efficiently in the solution proposal. Geographic and demographic analyses enabled knowledge of the site nexus with the City and the needs of prospective residents. Further contextualizing the social, political and economic realities of the challenge, the team researched policy initiatives, funding programs and the interrelations between housing with other contemporary urban challenges. These processes enabled effective, efficient solutions. Finally, the team presented a proposal to diverse groups of stakeholders, including management and architectural experts, local politicians and an Aboriginal organization.

IMPACT DESIGN: A Holistic Design with Purposes

The design is a thoughtful approach to addressing various challenges that can arise in urban development projects. By prioritizing economic viability, community solidarity, sustainability, and transportation, the project offers a blueprint for future housing developments to follow.

Economic viability is achieved through the inclusion of 232 units, ensuring a sufficient number of residents to support the complex's operation and maintenance costs. Onto aesthetics, the grid facade and set-back cascading form also create an aesthetically pleasing environment that appeals to potential residents and blends well with the surrounding community. Community solidarity is maintained by minimizing the visual impact of the complex and incorporating design elements that promote social interactions. The community garden, large open green space, retail spaces, cafes and planned residential amenities encourage socialization and foster a sense of belonging among residents and neighbours. Inclusive design is achieved through planning a diverse array of bedroom units to accommodate varied household needs.

Environmental sustainability is a core focus of the design, with the use of CLT for construction, reducing the project's overall carbon footprint. Additionally, the 250-bike storage design encourages more eco-friendly transportation options. Retaining the original community gardens and designing the site's public spaces with landscaping, such as lawns, can add permeable surfaces to the site to reduce the urban heat island effect. Specifically, plants and vegetation absorb GHG emissions from the city to mitigate the pollution. Closely related to environmental sustainability, transportation interventions, such as the simple u-turn exit on Dundas Street, help to minimize traffic congestion, noise pollution and air pollution; these interventions improve the livability and enjoyability of the neighbourhood.

Overall, the design takes on a holistic approach to urban development, showcasing how thoughtful interventions can successfully address and balance economic viability, community solidarity, sustainability and transportation.



HOUSINGNOWTO REIMAGINING COXWELL & DUNDAS

GROUP MEMBERS

Jiahui Song, Justin Chan, Keyao Liu, Khulan Enkbold

BREIF

The City of Toronto has initiated the 'HousingNowTO 2030' action-plan to construct 40,000 units of affordable housing on underutilized city-owned sites. '101 Coxwell Avenue' has been identified to be part of the Housing Now program for providing new affordable housing in the neighborhood. Our project team is tasked to conduct background analyses of the catchment site AND devise multiple development alternatives that include planning justification for massing.

Situated at the intersection of Coxwell Avenue and Dundas Street East in Toronto. The project comprises 232 units, including 78 affordable rental units and 154 market-rated condos.



RESEARCH

The team took on extensive processes to understand the challenge comprehensively and mobilize resources efficiently in the solution proposal. Geographic and demographic analyses enabled knowledge of the site nexus with the City and the needs of prospective residents. Further contextualizing the social, political and economic realities of the challenge, the team researched policy initiatives, funding programs and the interrelations between housing with other contemporary urban challenges. These processes enabled effective, efficient solutions. Finally, the team presented a proposal to diverse groups of experts and stakeholders, including management and architectural experts, local politicians and an Aboriginal organization. The ultimate proposal is revised and substantiated by years of experience and diverse voices.



Field Trip and Site Analysis



Site Specific Geographic and Demographic Analyses



Policy Initiatives, Financial Opportunities and Interrelations to Contemporary Challenges



Alternative Assessment



Stakeholders and Experts Consultation

FORM + STRUCTURE



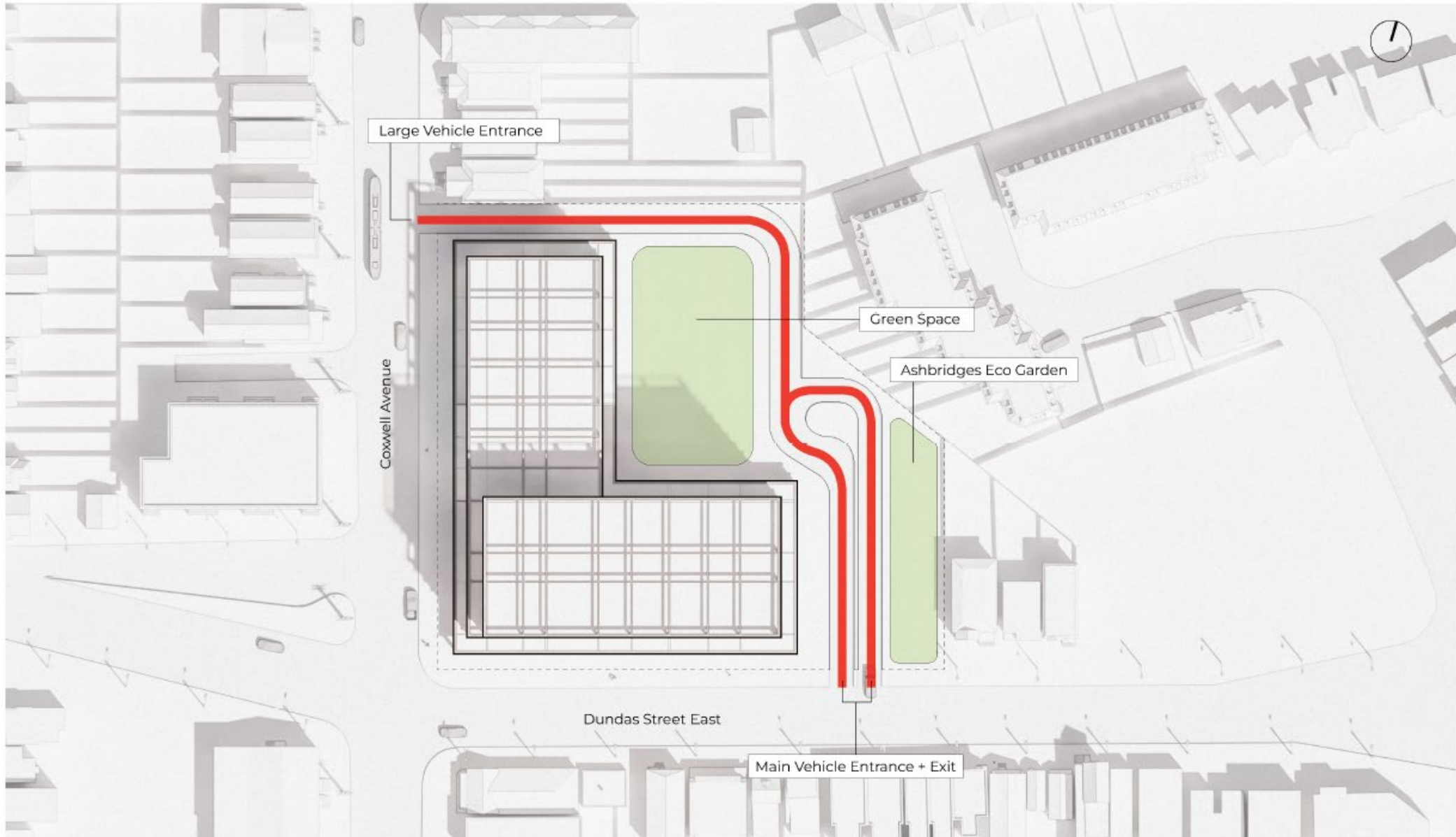
The design features two substantial L-shaped volumes that improve the building's integration with the neighborhood.

The height of the north-west section is reduced to align with neighboring rooflines. In accordance with Toronto's design guidelines, setbacks were implemented to enhance street-level visibility.

Additionally, a public green space, shielded from traffic by the building itself, was incorporated.

To soften the facade, a grid pattern was devised, dividing the large volume into smaller segments.

Constructed with Cross-Laminated Timber (CLT), the building is sustainable and energy-efficient, reducing its carbon footprint compared to traditional steel and concrete structures.



The building offers two entrances on the east and south sides, with the first two levels of residential units featuring direct street access and staircases. A single vehicle entrance is located on Dundas Street East, while Coxwell Avenue accommodates larger vehicles. The design incorporates a drop-off area but opts for bike storage for each unit instead of parking. The main core on the southwest grants access to the residential volumes via a single elevator core design with three elevators and emergency exits.

UNIT TYPES + DISTRIBUTION

The design provides four unit types, ranging from one to four bedrooms, tailored to the area's demographics. 1 bed = 33%, 2 bed = 44%, 3 bed = 17%, and 4 bed = 6%.



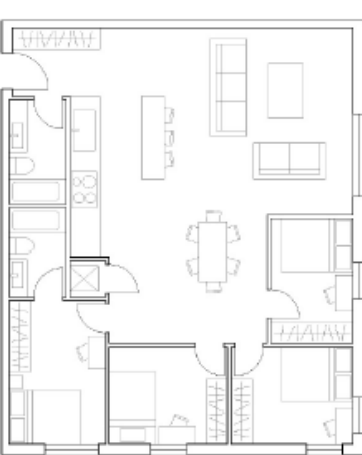
ONE BEDROOM



TWO BEDROOMS



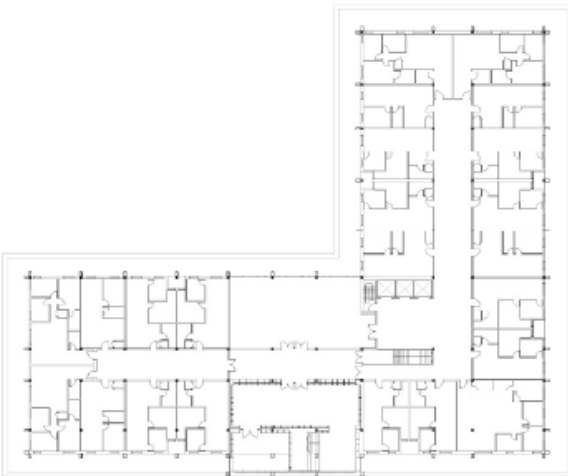
THREE BEDROOMS



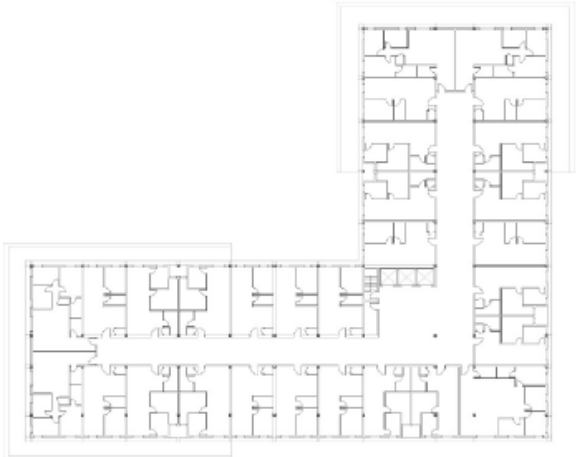
FOUR BEDROOMS



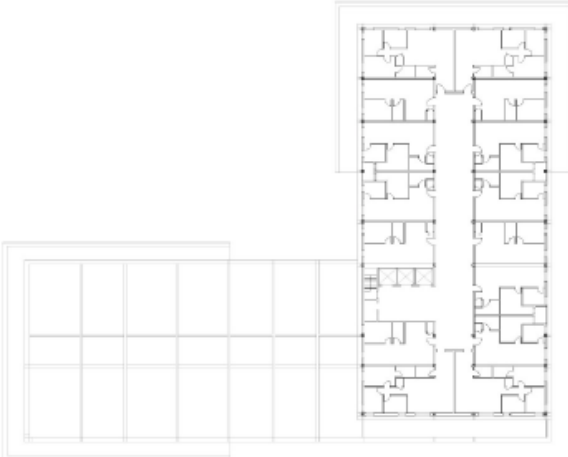
LEVEL 01



LEVEL 03



LEVEL 05 - 07



LEVEL 08 - 12



LOBBY AREA



LIBRARY + COMMON SPACE



COURTYARD SPACE + VEHICLE ENTRANCE



LARGE VEHICLE ENTRANCE