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1.0 / PROJECT BACKGROUND

The CHA desires to explore the possibility of **improving the site at 420-430 W. North Ave to a mixed-use / mixed income development including housing, office and/or retail.**

The purpose of this feasibility **study is to propose options for highest and best use of the site.** This site, owned by the Chicago Housing Authority (CHA) currently features two low rise apartment building structures, with a small parking lot located on the rear north side of the site that is only accessible via an alleyway off of North Hudson Avenue. Existing vegetation consists primarily of lawn, small ornamental trees, and mature shade trees.

This study will outline criteria the CHA will include in a forthcoming RFP for the site. This study does not include design of the development.

In carrying out this study, the study team reviewed and assessed previous planning documents, documented existing site conditions and proposed recommendations and options for the highest and best use of the site for redevelopment determined by key findings.

PROJECT DETAILS

Address	*420-430 West North Avenue, Chicago, Illinois 60610*
Ward	*2 - Alderman Brian Hopkins*
Community Area	*Lincoln Park*
Neighborhood	*Old Town*

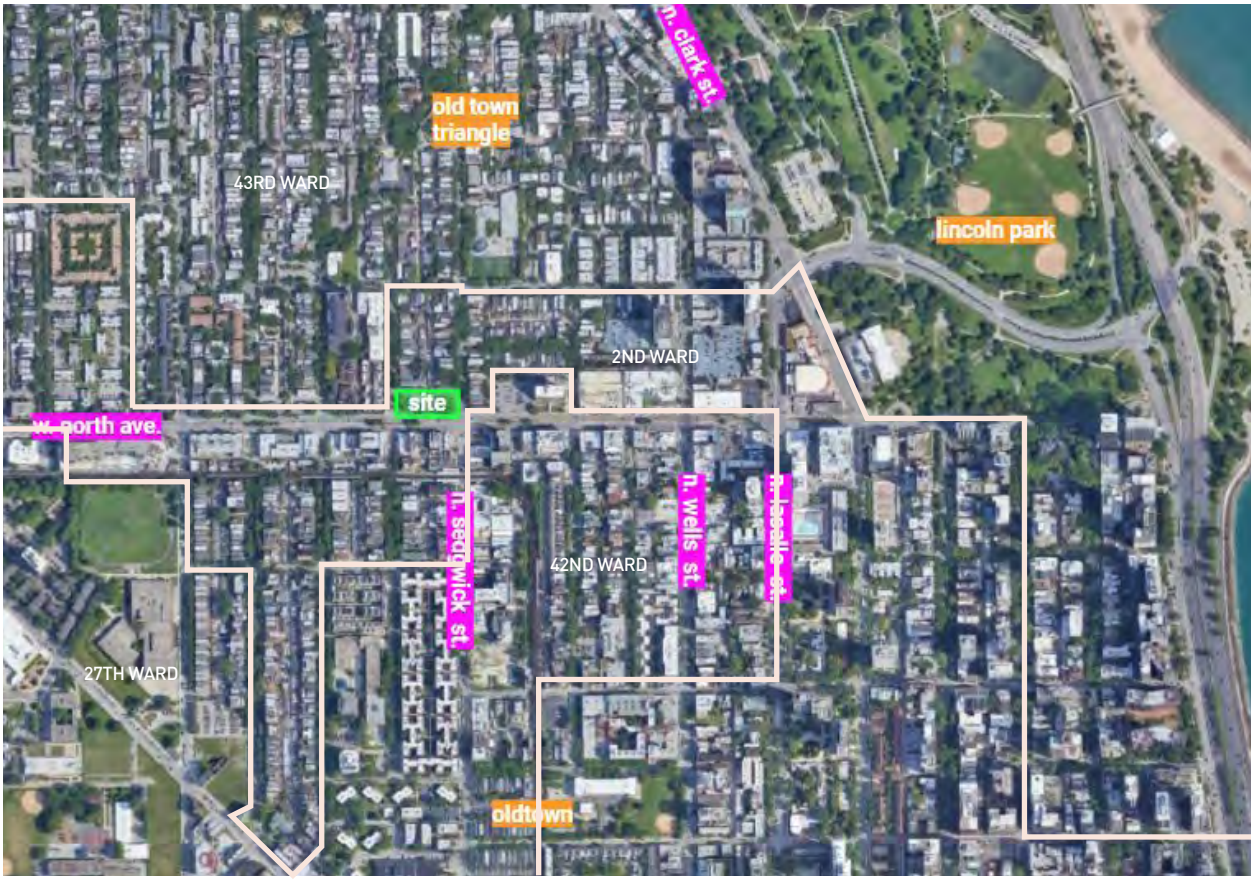


Figure 1.1: Site Location Map




Figure 1.2: Site and Neighborhood Photos

2.0 / NEIGHBORHOOD CONTEXT

The site, 420-430 West North Avenue, is bound by N Sedgwick Street to the east, W North Avenue to the south, N Hudson Avenue to the west, and an Alley to the north. The site is located within the Lincoln Park Community Area and Old Town neighborhood, which has adjacencies to the Gold Coast to the east, Cabrini-Green to the south, and Goose Island to the west. The site is located in Chicago's 2nd Ward (Alderman Brian Hopkins).

The population within ½ mile of the site in 2020 was 23,381 with 13,407 households. In 2020, the population within ½ mile of the site was 73.2% White, 17.1% Black, 6.1% Asian, 2.5% two or more Races, .9% some other Race, .1% Pacific Islander, and .1% American Indian.

LAND USE AND NEIGHBORHOOD CHARACTER

The adjacent land uses consist of residential to the north, east, and west, and mixed-use to the south along W North Avenue. The buildings surrounding the site include two, three, and four story residential buildings, with mixed-use buildings along W North Avenue varying in height, between one and five stories, and some taller buildings within close proximity on W North Avenue.

KEY FINDINGS

The neighborhood includes a wide range of amenities within walking distance including many dining options, with various retail shops offering personal care services, including dental, fitness, and chiropractic services. Service centers available include postal shops, dry cleaners, and realtors. The neighborhood currently consists of both residential and commercial properties, but the site's location lends itself to mixed-use building(s) pending zoning allowances.

Figure 1.3: Adjacent Land Use

The site is situated along the southern boundary of the Old Town Triangle District which consists of narrow tree-lined streets and distinctive architectural character including small frame Worker's-style Cottages, larger brick and stone houses, and rowhouses and apartment buildings along the eastern portion of the district. Additionally, the site is situated near numerous architecturally/historically significant structures inventoried under the Survey's Orange Category, which means those properties possess some architectural feature or historical association that made

Figure 1.4: Old Town Triangle District

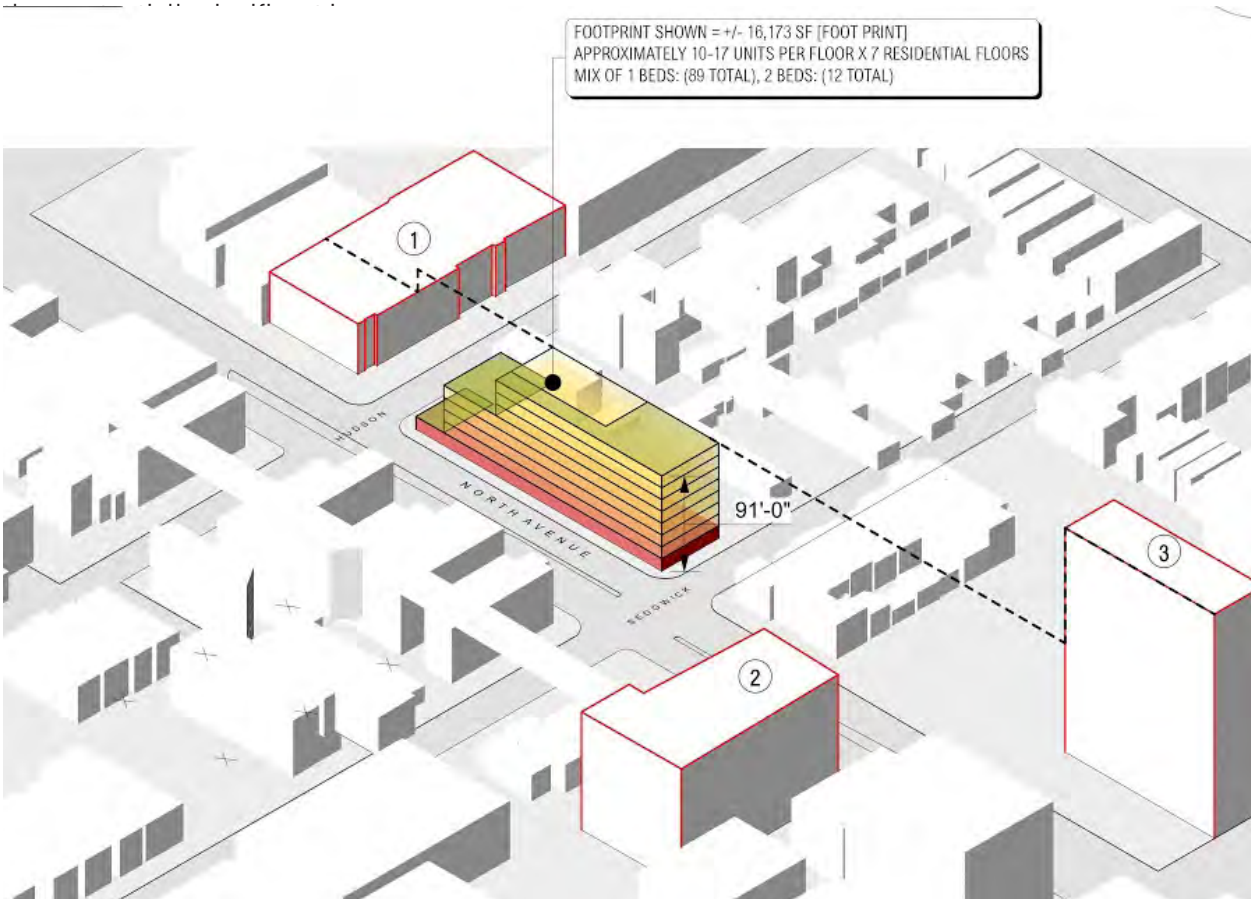


Figure 1.5: Neighborhood Context - Height

SITE ACCESS AND CONNECTIVITY

The site is extremely accessible and is adjacent to multiple public transportation routes, including CTA bus stops for Routes 9, 72, and 37 along W North Avenue, and is located less than 400 feet from the CTA Brown and Purple Line "L" Sedgwick Station, just south of W North Avenue along N Sedgwick Street. Major vehicular routes include East/West access on W North Avenue, and North/South access on N Sedgwick Street and N Wells Street. The site is accessible via pedestrian crossings on the W North Avenue / N Sedgwick Street intersection, but N Hudson Avenue does not have direct access across W North Avenue due to the raised center median in W North Avenue.

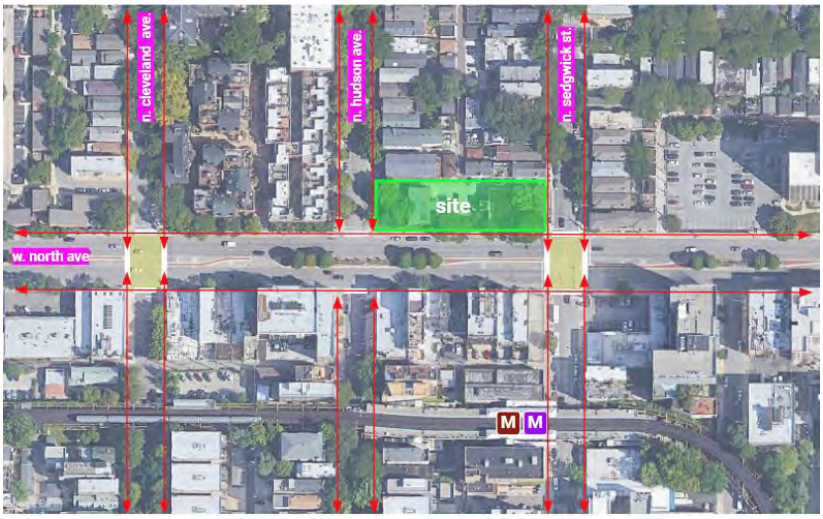


Figure 1.6: Pedestrian Connectivity

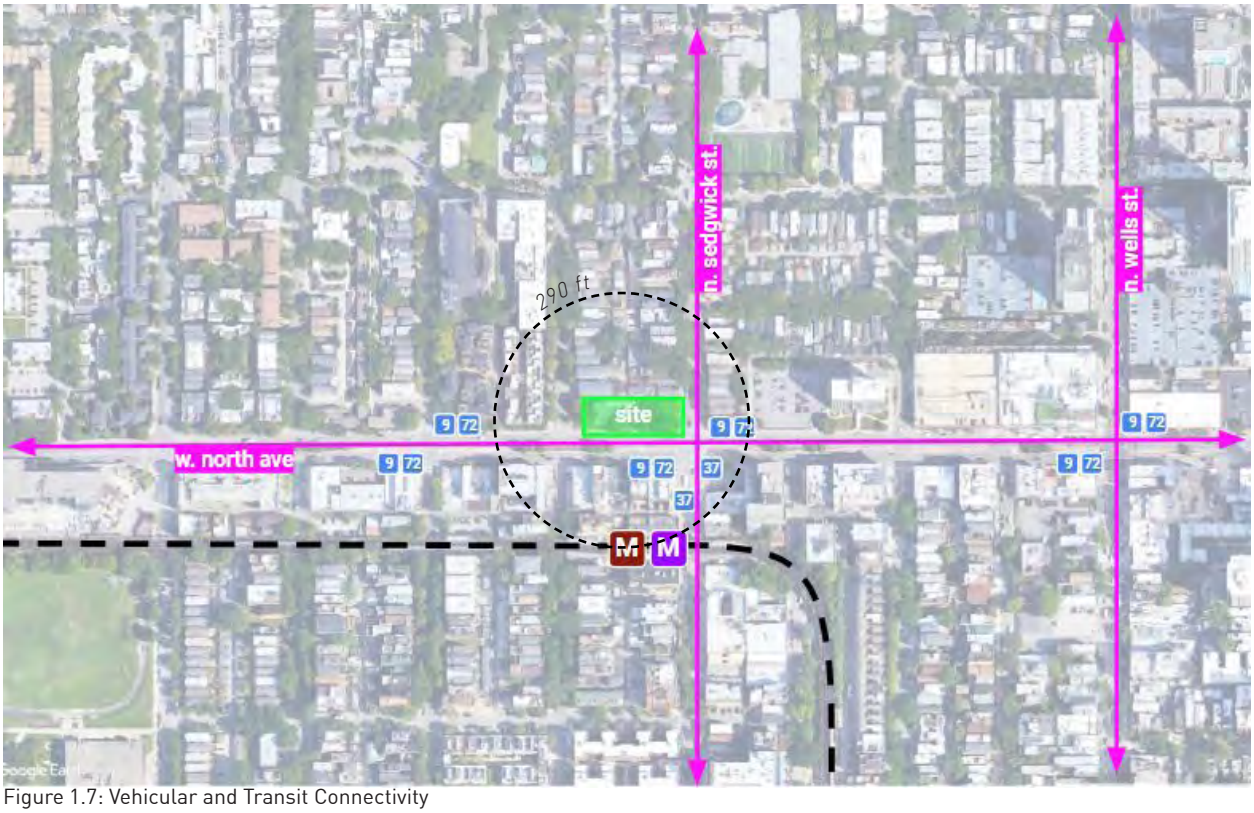


Figure 1.7: Vehicular and Transit Connectivity

COMMUNITY AMENITIES

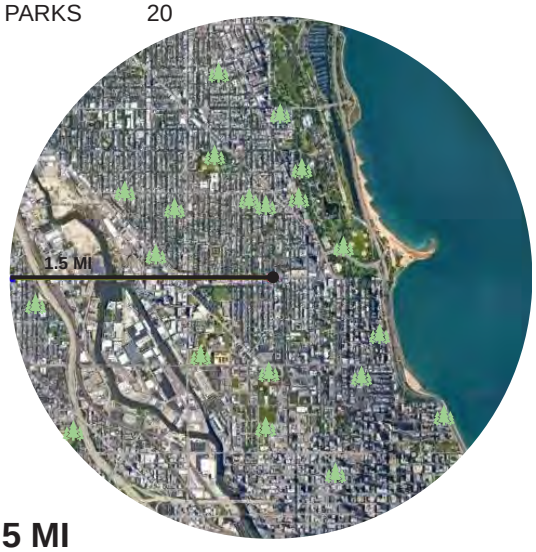
The site is within a 1.5-mile walking radius to many neighborhood areas including the Gold Coast, Near North, Cabrini-Green, Goose Island, Ranch Triangle, and parts of the Mid-North District. There are various community amenities within walking distance, including 19 churches, 18 hospitals, and 20 schools. The schools within closest proximity to the site include LaSalle Language Academy, the Latin School of Chicago, The Catherine Cook School, and Manierre Elementary School. The Near North Branch of the Chicago Public Library is located just over a half mile south, at Division and Orleans.

Additionally, there are 20 parks and open spaces within that 1.5 mile radius, including access to Lincoln Park and Lake Michigan within a half-mile.

RETAIL AND COMMERCIAL DESTINATIONS

The site is located along North Avenue, which is a major commercial corridor in the heart of Old Town. Within a 1.5-mile radius walking distance surrounding the site, there are 15 retail and commercial centers. The major adjacent commercial uses along West North Avenue include restaurants and food stores, financial and personal care stores, and service centers.

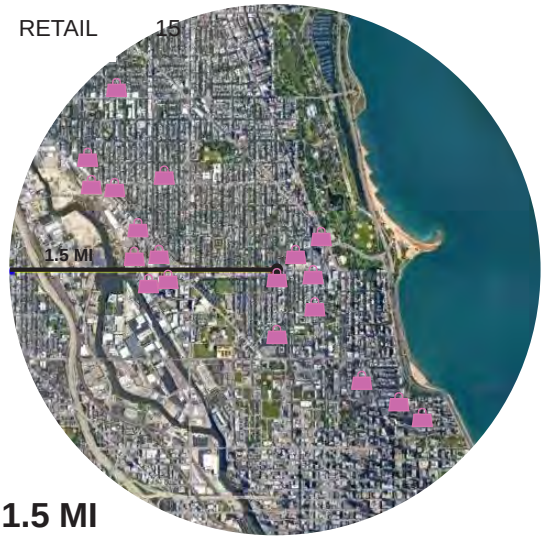
PARKS 20



1.5 MI

I SPACE WITHIN WALKING DISTANCE (1.5 MI)

RETAIL 15



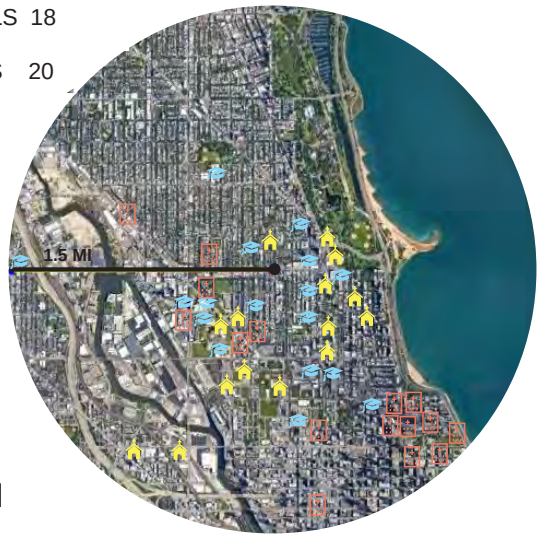
1.5 MI

+ COMMERCIAL WITHIN WALKING DISTANCE (1.5 MI)

CHURCHES 19

HOSPITALS 18

SCHOOLS 20



1.5 MI

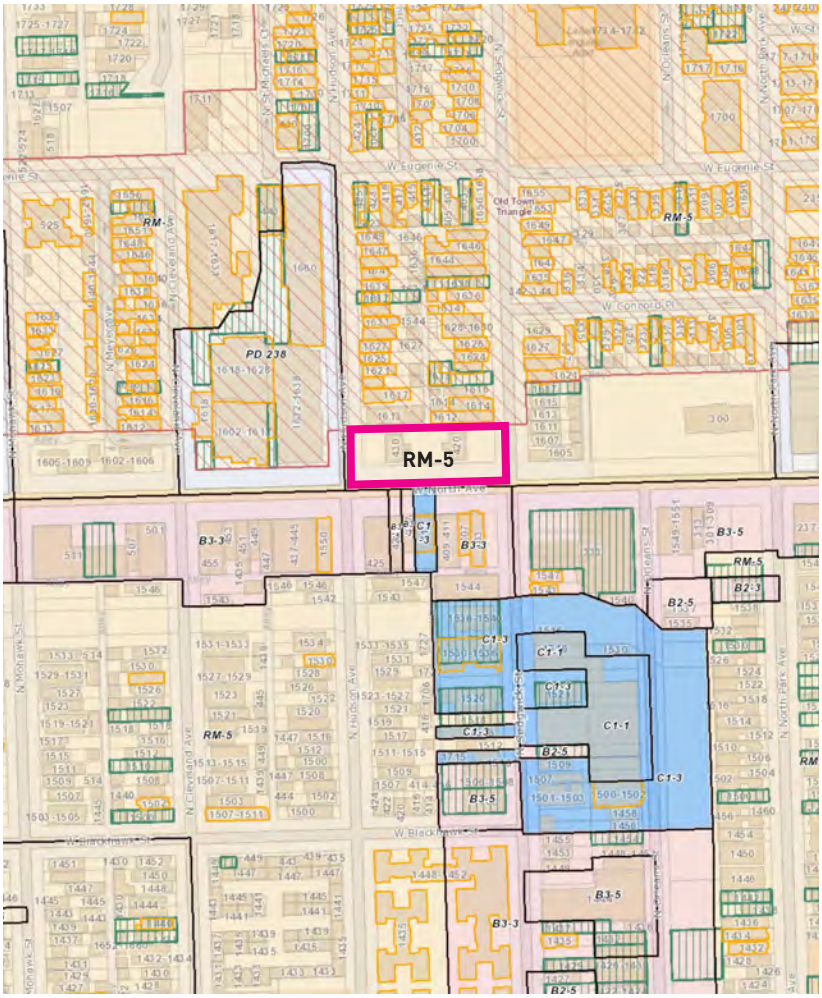
COMMUNITY AMMENITIES WITHIN WALKING DISTANCE (1.5 MI)

3.0 / ZONING AND REGULATORY CONTEXT

ZONING AND REGULATORY

The site is zoned a Residential Multi-Unit District (RM-5), which is intended to accommodate medium to high-density multi-unit residential buildings, with an allowance for two-flats, townhouses, and single family homes, as well. The adjacent areas are zoned RM-5 to the north and west, with areas of B1 (Neighborhood Shopping District) to the east, and large areas of B3-3 and B3-5 (Community Shopping District) to the south along W North Avenue with pockets of C1 (Neighborhood Commercial District). Additionally, the site is a Transit-Served Location due to its close proximity to the CTA Brown and Purple Line "L" Sedgwick Station.

As the site is currently zoned RM-5, the maximum allowable units would be 48, with a maximum Floor Area Ratio (FAR) of 2.0, and a maximum 45' high building height for residential buildings.



	CODE REQUIREMENT	CODE REQUIREMENT	CODE REQUIREMENT
ZONING DISTRICT:	RM - 5 (EXISTING)	B3 - 3 (ZONING CHANGE)	B3 - 5 (ZONING CHANGE)
MINIMUM LOT AREA per UNIT:	400 sq ft/dwelling unit, 300 sq ft/ efficiency unit, 200 sq ft/SRO unit 48 UNITS ALLOWABLE [MLA ONLY]	400 sq ft/dwelling unit, 300 sq ft/ efficiency unit, 200 sq ft/SRO unit 48 UNITS ALLOWABLE [MLA ONLY] *** MLA REDUCTION AVAILABLE:** TRANSIT SERVED LOCATIONS: -300 SF / DWELLING UNIT -*64 UNITS ALLOWABLE [MLA ONLY]	200 sq ft/dwelling unit, 135 sq ft/ efficiency unit, 100 sq ft/SRO unit 97 UNITS ALLOWABLE [MLA ONLY]
MAXIMUM FLOOR AREA RATIO:	2.0 38,882 SF [MAX ALLOWABLE FAR]	3.0 58,323 SF [MAX ALLOWABLE FAR] *** FAR INCREASE AVAILABLE:** TRANSIT SERVED LOCATIONS: -3.50 FAR -68,043.5 SF [MAX ALLOWABLE FAR] 50% ONSITE AFFORDABLE: -3.75 FAR -72,903.75 SF [MAX ALLOWABLE FAR] 100% ONSITE AFFORDABLE: -4.00 FAR -77,764 SF [MAX ALLOWABLE FAR]	5.0 97,205 SF [MAX ALLOWABLE FAR]
FRONT SETBACK:	15ft, or 12% of lot depth, whichever is less. Alternatively, setback can be the average front yard depth of nearest 2 lots.	None, unless property borders an R-zoned lot. Then the front setback must be at least 50% of the R lot's front setback	None, unless property borders an R-zoned lot. Then the front setback must be at least 50% of the R lot's front setback
REAR SETBACK:	50 Ft. or 30% of depth (lesser of)	If property has dwelling units, minimum of 30 ft.	If property has dwelling units, minimum of 30 ft.
REAR YARD OPEN SPACE:	36sf per dwelling uniut or 5.25% of lot area (Whichever is greater) Min. Distance in any Direction = 10 ft	N/A	N/A
SIDE SETBACK:	Combined width of side setbacks must equal 20% of lot width, and neither setback can be less than 2 feet or 8% of lot width (whichever is greater.) But no setback is required to be wider than 5 feet.	None, unless property borders an R-zoned lot. Then the 50% of the R lot's front setback applies.	None, unless property borders an R-zoned lot. Then the 50% of the R lot's front setback applies.
BUILDING HEIGHT:	45 ft for residential buildings with lot frontage of less than 32 ft, 47 ft when lot front is over that	65' (WITH COMMERCIAL SPACE) **BUILDING HEIGHT INCREASES AVAILABLE:** TRANSIT SERVED LOCATIONS: -70' 50% ONSITE AFFORDABLE: -75'	70' (WITH COMMERCIAL SPACE)
PARKING SPACES:	None: Transit Oriented Development + Pedestrian Street	None for Residential: Transit Oriented Development + Pedestrian Street Commercial: None for first 10,000 square feet then 2 spaces per 1,000 square feet	None for Residential: Transit Oriented Development + Pedestrian Street Commercial: None for first 35,000 square feet or 2 × lot area, whichever is greater, then 1.33 spaces per 1,000 square feet
BICYCLE SPACES:	1 per 2 auto spaces	1 per 1 auto spaces (that would otherwise be req'd) *No use is required to provide more than 50 bicycle parking spaces	1 per 1 auto spaces (that would otherwise be req'd) *No use is required to provide more than 50 bicycle parking spaces

4.0 / SITE CONDITIONS

Below is a summary and assessment of various existing site condition findings including structures, topography and drainage patterns, vegetation, and utility and stormwater management considerations.

SITE FEATURES

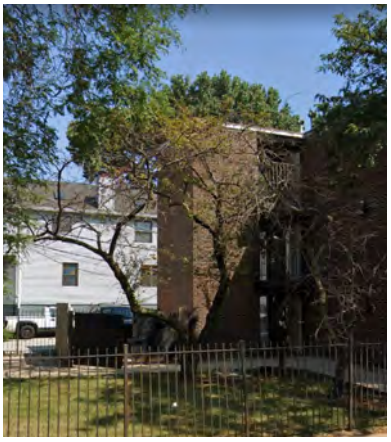
There are two three-story low-rise buildings on the 19,441 square foot site. The buildings include six units each, for 12 total two-bedroom units.

In addition to the buildings, there is a small parking lot on the north, which is accessible via the alley way off Hudson Avenue. The portion of the alley between the north west connection and Sedgwick Street has been vacated and is currently used for utility structures and outdoor seating for an adjacent restaurant.

SITE DETAILS

Property Size	*Approximately 19,441 sf*
Front Setback	*North - 7.5'*
Rear Setback	*Alley 8.5-13.5'*
Side Setbacks	*Hudson - 50.5', Sedgwick - 53.5'*
Total Units	*Six (6) per building, 12 total*
Site Features	*Parking lot for approximately 10 cars.*

Figure 1.9: Site Analysis and Connectivity



TOPOGRAPHY AND DRAINAGE

The site consists of primarily level ground with no discernible slope.

Based on a review of the FEMA Flood Map panel 17031C0417J, the site is located in an area identified as Zone X, an area of minimal flood hazard.

VEGETATION

Existing vegetation consists primarily of lawn, small ornamental trees, and mature deciduous shade trees, with little shrub cover.

Per survey, there are nine (9) 12"+ caliper trees on site, concentrated along the west, south, and east property limits. Pending an Arborist's report, these trees may be suitable for preservation and integration into future site/building design.

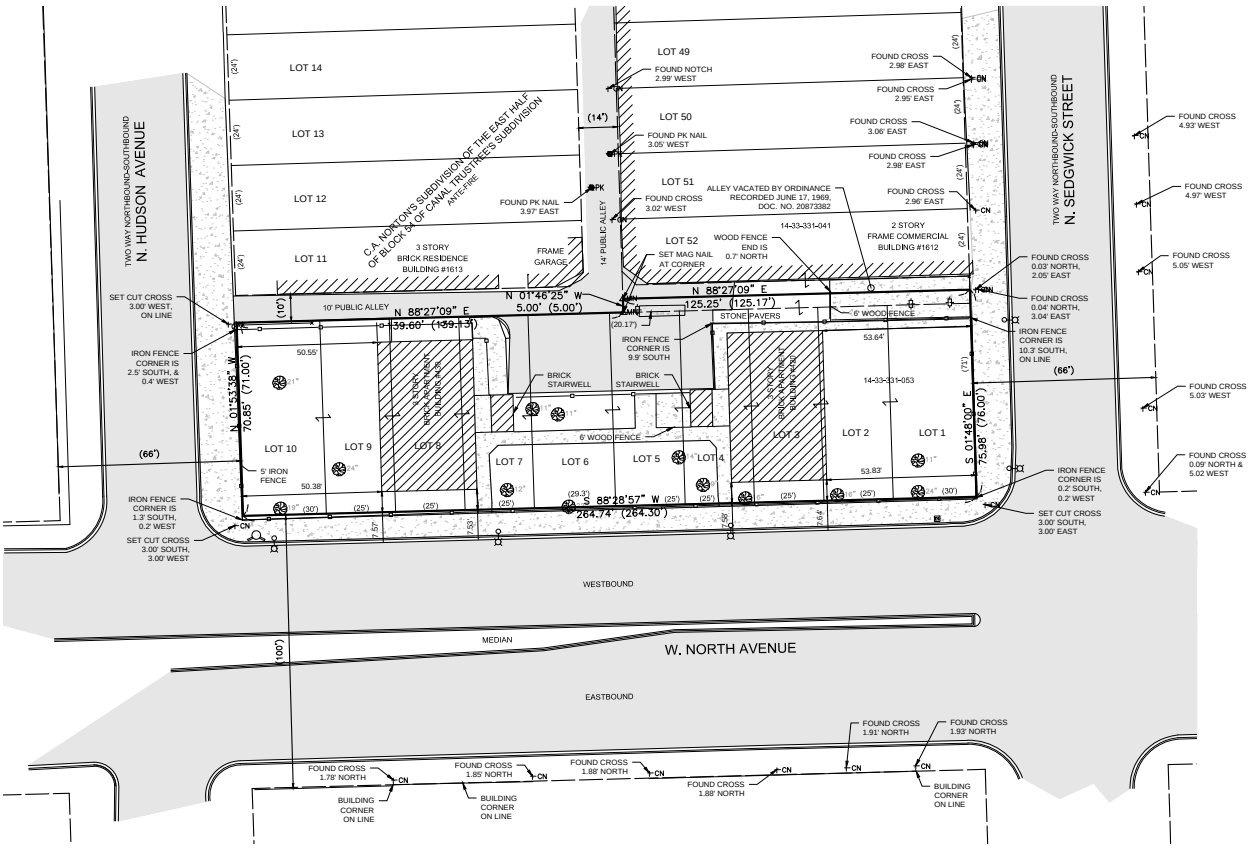


Figure 1.10: Site Analysis and Connectivity

WATER SERVICE

Abandonment of existing water services: Department of Water Management (DWM) records show 3 existing water tap connections from the public city mains into the subject property. All 3 of these existing taps will need to be abandoned (or completely removed) at their point of connection to the City main, in accordance with DWM standards. Two of the existing taps connect to North Hudson Avenue, and one existing tap connects to North Sedgwick Street.

Existing adjacent public water infrastructure: a snapshot of the existing City water infrastructure mapping for the immediate vicinity of the site is below:

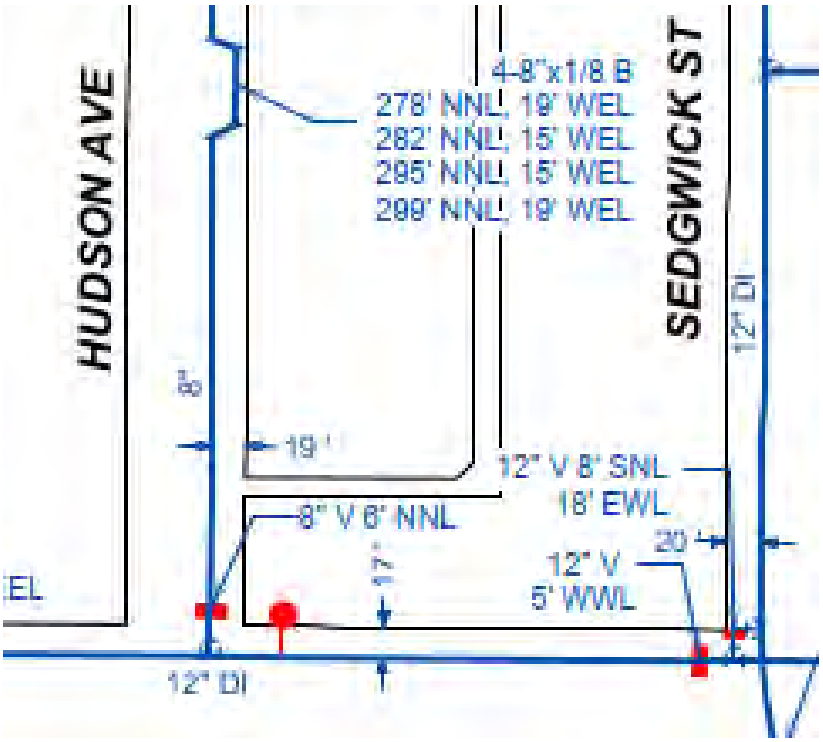


Figure 1.12: Water Service

SANITARY SEWER

Existing sewer service(s): the number and location of existing sanitary sewer service line connection(s) into the City's sewer system is unknown. Each existing sewer service will need to be properly abandoned.

Existing adjacent public sewer infrastructure: a snapshot of the existing City sewer infrastructure mapping for the immediate vicinity of the site is below:

Figure 1.13: Sanitary Sewer

STORM SEWER / STORMWATER MANAGEMENT

The number and location of existing storm sewer service line connection(s) into the City sewer system is unknown. Each existing sewer service will need to be properly abandoned.

Based on the age of the existing development, it is highly unlikely that any stormwater management (rate control detention storage or volume control BMPs) was incorporated into its original design. The existing stormwater system is believed to consist solely of collection (gutters, inlets, catch basins) and conveyance (downspouts, underground piping) measures.

ELECTRICAL

Site Power Distribution:

+ It is presumed that ComEd has sufficient capacity in underground lines in the area adjacent to the site to accommodate the required building load.
+ If ComEd does not have a capacity and will need to expand the infrastructure to accommodate new building loads, ComEd will conduct a study determining expansion requirements and a timeline to fit customer schedules. If necessary, the new medium-voltage lines will be designed and installed by ComEd. The customer will have to bear part of the cost of the utility expansion that will be determined by the agreement with ComEd.

MECHANICAL

All existing Mechanical systems will be demolished/removed with the demolition/removal of the existing buildings.

ACOUSTICS

The overall day/night average sound level (Ldn) recorded was 69, which falls into the "Normally Unacceptable" range (Ldn>65 <75). The full acoustics assessment can be found in the Acoustics Site Assessment (March 2021), located in the Appendix.

5.0 / RECOMMENDATIONS AND FINDINGS

DESIRED SITE PROGRAM

The CHA has indicated that the ideal site program would include a mixed-use building with up to 100+ one- and two-bedroom units on upper floors. The ground floor would include the residential lobby/entrance as well as approximately 10,000 square feet of retail or commercial space. The site is a transit-served location, so while no parking is required, the CHA would like to see between 10 to 15 spaces located on site. To support the residential and commercial uses, the new development would require a loading dock with at least one berth (perhaps more).

VEHICULAR ACCESS / LOADING

The site currently has a small parking lot off the alleyway which provides space for up to 10 cars. The alley is 10 feet wide, which is smaller than the 16-feet CDOT standard.

The CHA requested between 10-15 spaces and a loading dock with at least one berth. Access to the parking spaces and loading dock from the public roadways would need to be through the existing, improved alley or through a new proposed driveway(s). The planning team explored a variety of options for the parking lot locations.

There are two categories of options studied as part of this project: one, with parking accessed off the alley, and two, with parking in a lot within the site.

DESIRED SITE PROGRAM

Residential Units	*Between 80-100 units*
Residential Mix	*One- and Two-bedrooms*
First Floor Uses	*Residential Lobby, Commercial / Retail*
Parking	*10-15 spaces, loading berth*

Access improvements may include (in general order of increasing capacity and complexity):

+ Widening the existing alley (to at least 12 to 14 feet width)
+ Extending the existing alley all the way through to Sedgwick
+ Providing a driveway parallel to and adjacent to the alley, such that two-way traffic could be supported
+ Providing a new driveway to/from either Sedgwick or Hudson
+ Providing a new driveway to/from North Avenue

ALLEY-ACCESSED PARKING OPTIONS

Any parking in excess of five spaces with access to the alley must be approved by the alderman. The intent of this is to prevent excessive or nuisance traffic loading and traffic conflicts in the alley.
The CHA should consult with the alderman's office to discuss potential approval of alley access.

Based on the proposed program (12 parking spaces, loading dock, +/- 100 dwelling units, and commercial space) the existing alley alone would not be sufficient to serve the project's needs.

It is most desirable that the site have vehicular access to/from N Sedgwick Street, because Sedgwick has access to eastbound North Avenue (whereas Hudson Avenue does not). This could be via a new driveway to Sedgwick Street, or at a minimum, by restoring the alley to Sedgwick Street along the north side of the eastern half of the site.

Initial AutoTURN studies indicate that a 16-feet wide alley allows for continuous 90-degree turning of passenger and single-unit trucks off of Hudson Avenue, though depth of loading berths must be coordinated to allow proper clearance along the future building's north face. The full AutoTURN study can be found in the AutoTurn Evaluation (March 2021), located in the Appendix.

Positive features of these concepts include:

+ No curb cuts on North Ave.
+ Widened alley to at least standard width (currently +/- 10' W)
+ Consistent street wall along North Ave. / active ground floor.
+ Could maintain existing easement at eastern portion of alley
+ May provide opportunities to

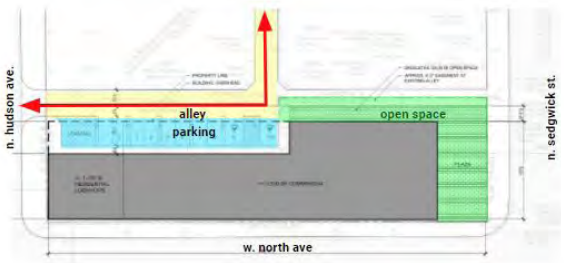
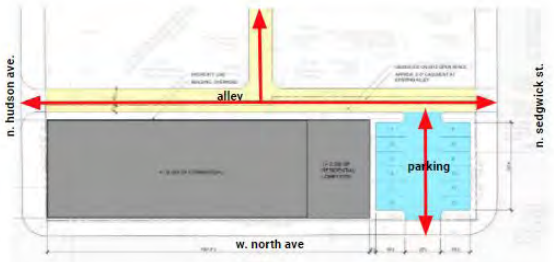
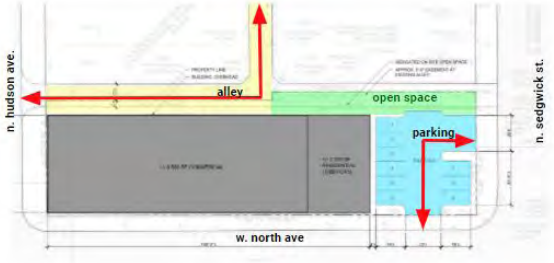


Figure 1.14: Alley Accessed Parking Concepts





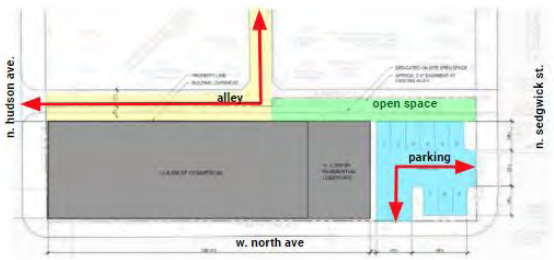


Figure 1.15: Parking Lot Concepts

expand open space on-site

Constraints of the alley-accessed parking options include:

+ Fewer parking spaces
+ May require an adjustment to existing utility poles at east portion of alley

PARKING LOT OPTIONS

The study evaluated three additional options that include parking near the southeast corner of the site, with two access points: a driveway (RIRO) to/from North Avenue, and a driveway to/from Sedgwick Street. Any potential new driveways to/from North Avenue would be limited to right-in-right-out only (RIRO) due to the existing raised center median in North Avenue, and would require a driveway permit from IDOT (in addition to driveway permit from CDOT). While this design would be similar to other nearby properties, it would limit the building size and minimize the active frontage along North Avenue.

Any new driveways into the site from adjacent public roadways (Sedgwick, North, Hudson) would require a driveway permit from CDOT.

Positive features of these three concepts include:

+ Enhanced vehicular circulation to Sedgwick St. & North Ave.
+ There is no break in North Avenue median at Hudson, so circulation to Sedgwick is desirable.

Constraints of the parking lot concepts include:

+ Requires adjustment to existing utility poles at east portion of alley
+ Requires curb cut at North Ave.
+ Limits area for occupiable on-site open space
+ Prioritizes vehicular traffic on a highly visible corner of the site (closest to the transit stop).

RECOMMENDATION

Increase alley width to allow for two-way east-west traffic. Locate new parking spaces off alleyway, with loading near Hudson Avenue.

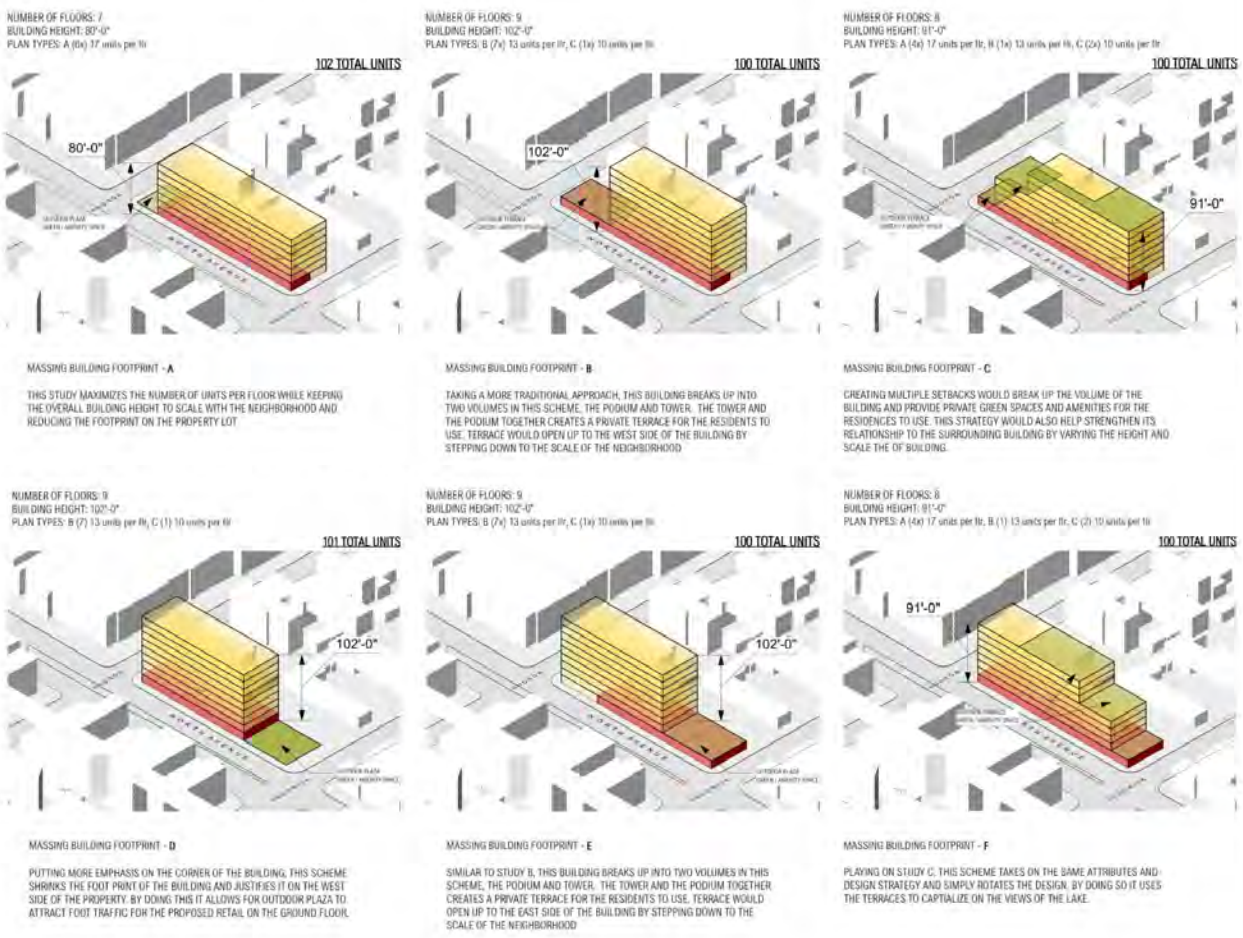
MASSING STUDIES

The planning team evaluated a variety of options for the building massing based on three different approaches: PD, which would achieve the CHA's goal of 100+ units, rezoning to B3-3, or rezoning to B3-5.

RECOMMENDATION

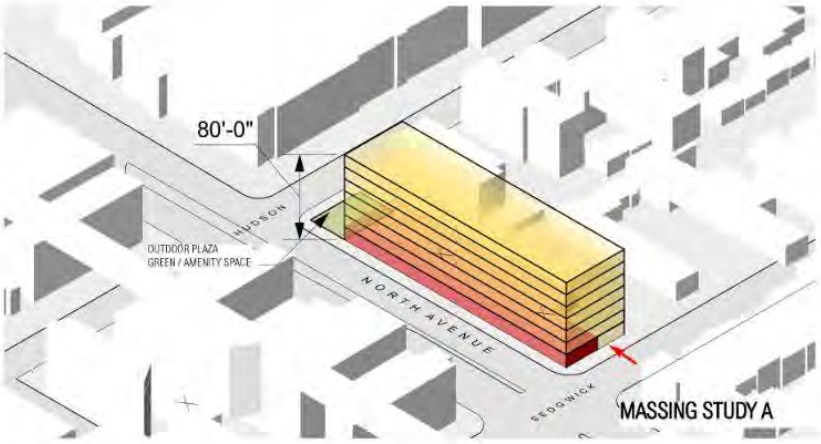
To achieve a minimum of 100 units, a PD will be required. However, if fewer units are acceptable, B3-3 or B3-5 may be feasible for this site.

PLANNED DEVELOPMENT ROUTE - MASSING STUDIES



PD OPTION A

+ Maximizes the number of units per floor
+ Keeps overall building height to scale with adjacen development along North Avenue
+ Reduces building footprint on property lot, providing ground-floor open space along Hudson Avenue frontage
+ Locates residential entry at Sedgwick Street



NUMBER OF FLOORS: 7
PROPOSED TOTAL UNITS: +/- 102 (97 UNITS ALLOWABLE UNDER B3-5)
BUILDING HEIGHT: 90'-0" (70'-0" ZONING HEIGHT LIMIT)

COMMERCIAL FLOOR

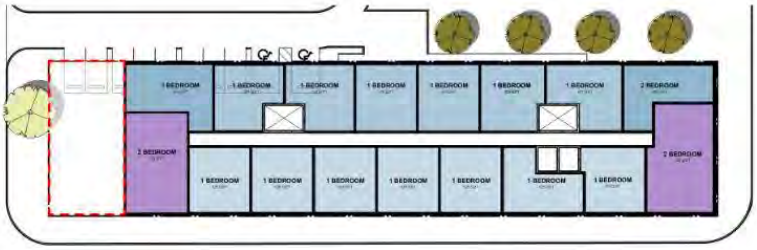
RESIDENTAL FLOOR

30' REAR SETBACK CODE

UNIT MATRIX TOTALS	
90 TOTAL	1BED
12 TOTAL	2BED

March 11, 2021 | Pre-Intake Meeting

15x	1BED
2X	2BED
	17 UNITS

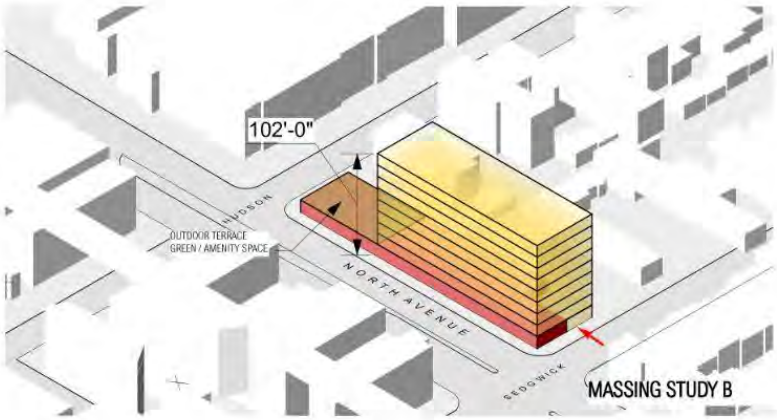


Floor 2-7

Ground

PD OPTION B

+ Podium & Tower approach provides space for an amenity terrace that steps down to the scale of development along Hudson Avenue
+ Ample space for ground-floor commercial
+ Taller building height
+ Little ground-floor open space
+ Locates residential entry at Sedgwick Street



NUMBER OF FLOORS: 9
PROPOSED TOTAL UNITS: +/- 100 (97 UNITS ALLOWABLE UNDER B3-5)
BUILDING HEIGHT: 102'-0" (70'-0" ZONING HEIGHT LIMIT)

COMMERCIAL FLOOR

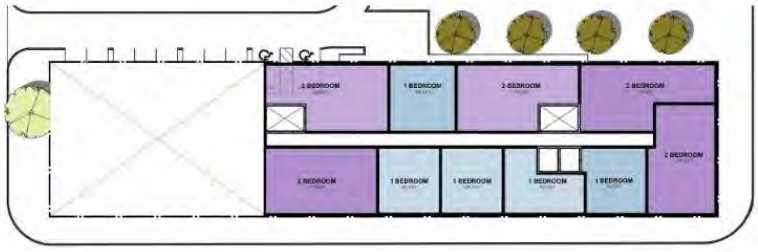
RESIDENTAL FLOOR

30' REAR SETBACK CODE

UNIT MATRIX TOTALS	
88 TOTAL	1BED
12 TOTAL	2BED

100 TOTAL UNITS

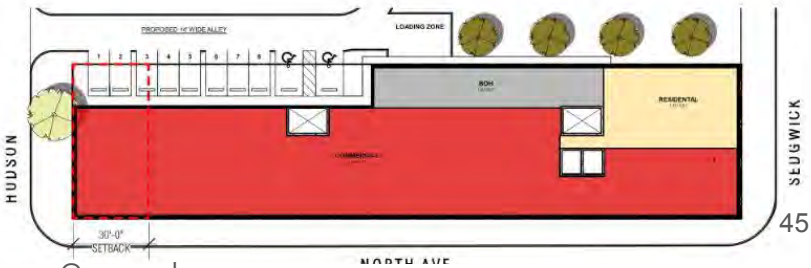
5x	1BED
5X	2BED
10 UNITS	



Floor 9

12x	1BED
1X	2BED
13 UNITS*	

Floor 2-8



Ground

PD OPTION C

+ Multiple setbacks diversify building volume while creating varied amenity terrace spaces that step down to the scale of development along Hudson Avenue
+ Ample space for ground-floor commercial
+ Little ground-floor open space
+ Locates residential entry at Sedgwick Street

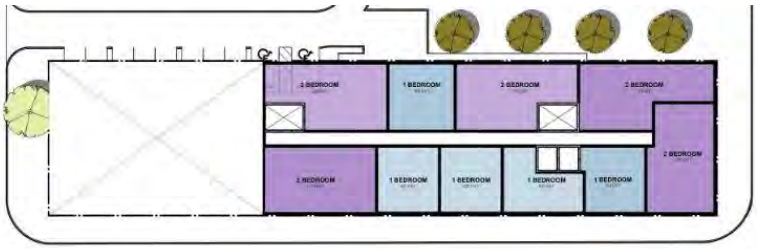
NUMBER OF FLOORS: 8
PROPOSED TOTAL UNITS: +/- 100 (97 UNITS ALLOWABLE UNDER B3-5)
BUILDING HEIGHT: 91'-0" (70'-0" ZONING HEIGHT LIMIT)

COMMERCIAL FLOOR
RESIDENTAL FLOOR
30' REAR SETBACK CODE

UNIT MATRIX TOTALS	
88 TOTAL	1BED
12 TOTAL	2BED

100 TOTAL UNITS

5x 1BED
5X 2BED
10 UNITS

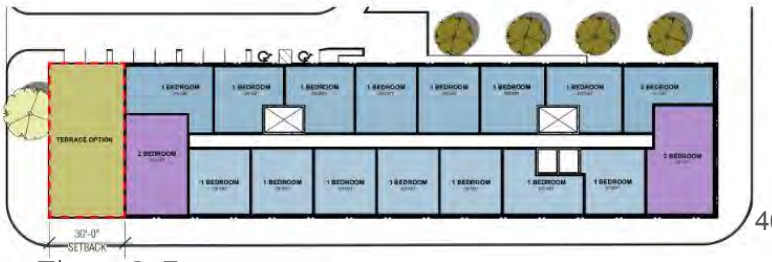


Floor 8

12x 1BED
1X 2BED
13 UNITS*

Floor 6-7

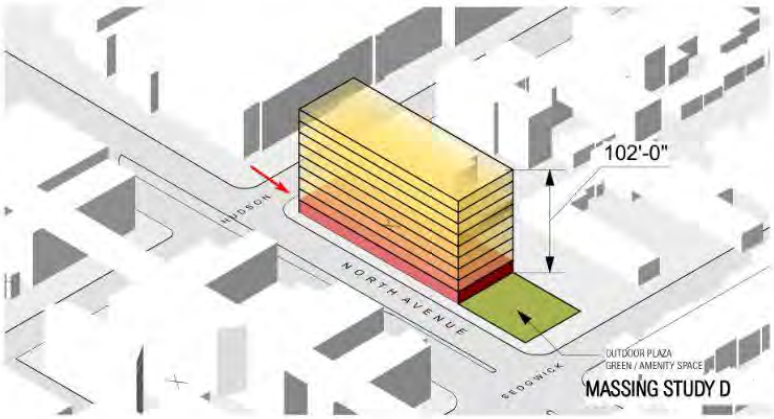
15x 1BED
2X 2BED
17 UNITS



Floor 2-5

PD OPTION D

+ Condensed building footprint creates space for a large outdoor area at the corner of North Avenue and Sedgwick Street, attracting foot traffic to the ground-floor commercial space
+ Taller building height
+ Locates residential entry at Hudson Avenue



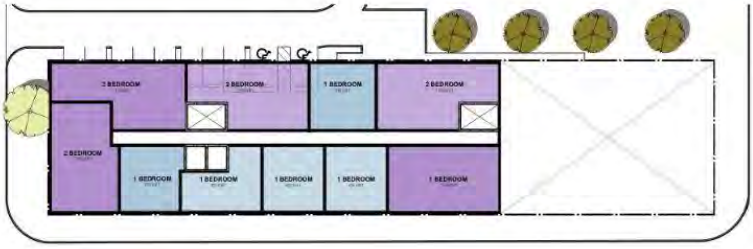
NUMBER OF FLOORS: 9
PROPOSED TOTAL UNITS: +/- 101 (97 UNITS ALLOWABLE UNDER B3-5)
BUILDING HEIGHT: 102'-0" (70'-0" ZONING HEIGHT LIMIT)

* TO ACHIEVE CLOSE TO 100 DWELLING UNIT TARGET, RELIEF IS REQUIRED FOR 30' REAR SETBACK. ADDITIONAL FLOOR AREA BEYOND WHAT'S ALLOWED IN B3-5 MAY ALSO LIKELY BE NEEDED FOR A UNIT MIX OF 1 AND 2 BEDROOMS

COMMERCIAL FLOOR
RESIDENTAL FLOOR
30' REAR SETBACK CODE

UNIT MATRIX TOTALS	
89 TOTAL	1BED
12 TOTAL	2BED

5x 1BED
5X 2BED
10 UNITS



Floor 9

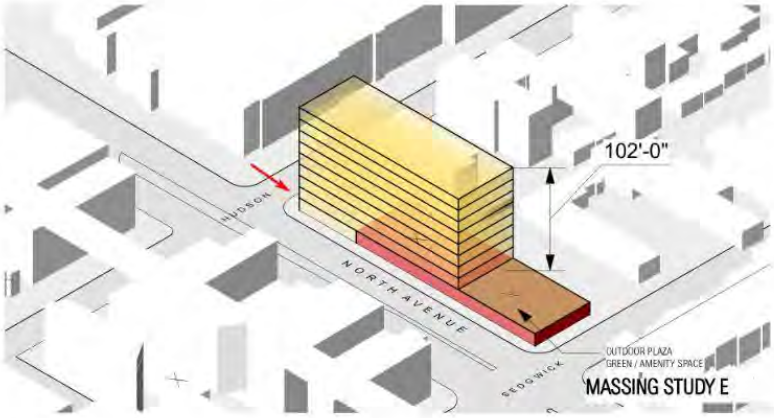
12x 1BED
1X 2BED
13 UNITS

Floor 2-8

Ground

PD OPTION E

+ Podium & Tower approach provides space for an amenity terrace that steps down to the scale of development along Sedgwick Street
+ Ample space for ground-floor commercial
+ Taller building height
+ Little ground-floor open space
+ Locates residential entry at Hudson Avenue



NUMBER OF FLOORS: 9
PROPOSED TOTAL UNITS: +/- 101 (97 UNITS ALLOWABLE UNDER B3-5)
BUILDING HEIGHT: 102'-0" (70'-0" ZONING HEIGHT LIMIT)

COMMERCIAL FLOOR

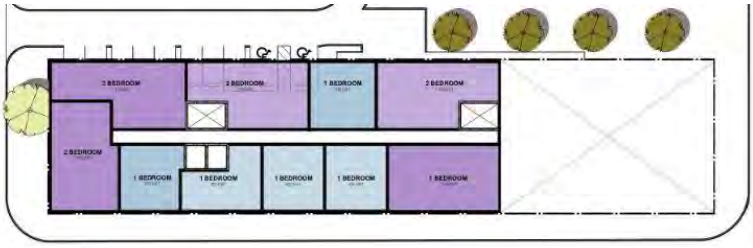
RESIDENTAL FLOOR

30' REAR SETBACK CODE

* TO ACHIEVE CLOSE TO 100 DWELLING UNIT TARGET, RELIEF IS REQUIRED FOR 30' REAR SETBACK. ADDITIONAL FLOOR AREA BEYOND WHAT'S ALLOWED IN B3-5 MAY ALSO LIKELY BE NEEDED FOR A UNIT MIX OF 1 AND 2 BEDROOMS

UNIT MATRIX TOTALS	
88 TOTAL	1BED
12 TOTAL	2BED

5x 1BED
5X 2BED
10 UNITS



Floor 9

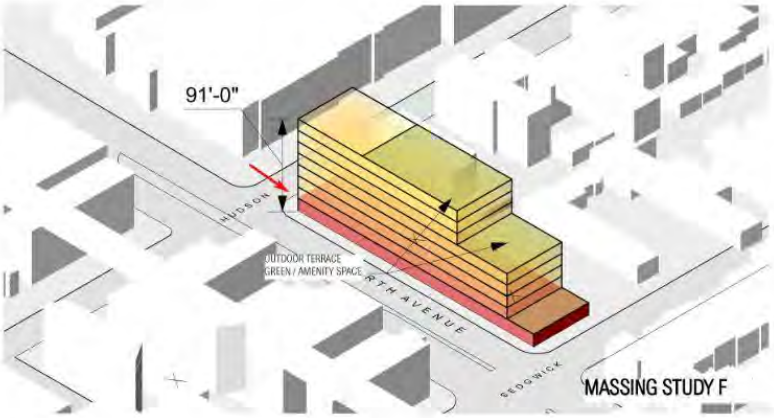
12x 1BED
1X 2BED
13 UNITS*

Floor 2-8

Ground

PD OPTION F

+ Multiple setbacks diversify building volume while creating varied amenity terrace spaces that step down to the scale of development along Sedgwick Street
+ Ample space for ground-floor commercial
+ Little ground-floor open space
+ Locates residential entry at Hudson Avenue



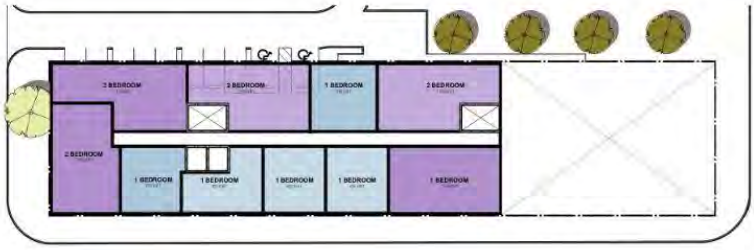
NUMBER OF FLOORS: 8
PROPOSED TOTAL UNITS: +/- 101 (97 UNITS ALLOWABLE UNDER B3-5)
BUILDING HEIGHT: 91'-0" (70'-0" ZONING HEIGHT LIMIT)

* TO ACHIEVE CLOSE TO 100 DWELLING UNIT TARGET, RELIEF IS REQUIRED FOR 30' REAR SETBACK. ADDITIONAL FLOOR AREA BEYOND WHAT'S ALLOWED IN B3-5 MAY ALSO LIKELY BE NEEDED FOR A UNIT MIX OF 1 AND 2 BEDROOMS

COMMERCIAL FLOOR
RESIDENTAL FLOOR
30' REAR SETBACK CODE

UNIT MATRIX TOTALS	
89 TOTAL	1BED
12 TOTAL	2BED

5x 1BED
5X 2BED
10 UNITS

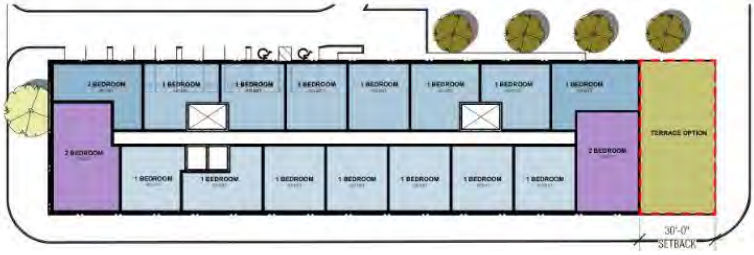


Floor 8

12x 1BED
1X 2BED
13 UNITS*

Floor 6-7

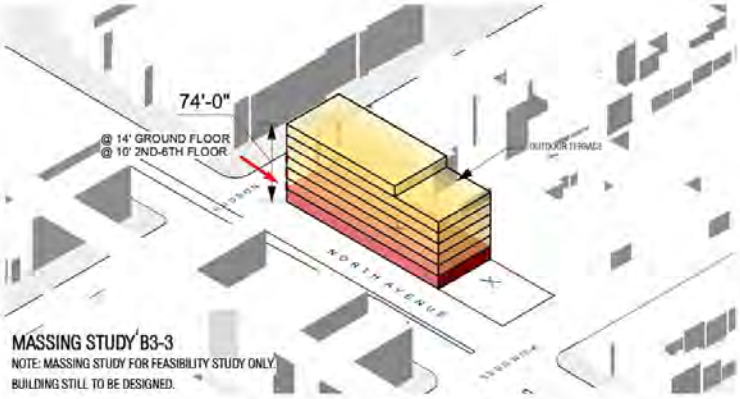
15x 1BED
2X 2BED
17 UNITS



Floor 2-5

B3-3

+ Condensed building footprint creates space for a large outdoor area at the corner of North Avenue and Sedgwick Street, attracting foot traffic to the ground-floor commercial space
+ Stepped massing provides space for private amenity terrace
+ Lower building height.
+ Fewer units
+ Locates residential entry at Hudson Avenue



MASSING STUDY B3-3
NOTE: MASSING STUDY FOR FEASIBILITY STUDY ONLY.
BUILDING STILL TO BE DESIGNED.

NUMBER OF FLOORS: 6 - 7 STORIES
PROPOSED TOTAL UNITS: (64 UNITS ALLOWABLE UNDER B3-3 PER MLA)
+/- 64 UNITS PROPOSED

BUILDING HEIGHT: (75'-0" ZONING HEIGHT LIMIT 50% ONSITE AFFORDABLE)
+/- 74'-0" AT 7 STORIES

TOTAL BUILDING SQUARE FOOTAGE:
72,903.75 ALLOWABLE
[50% ON SITE ALLOWABLE FAR INCREASE 3.75]
NO EFFICIENCY UNITS IN PROJECT
+/-72,900 SF PROPOSED

UNIT MATRIX TOTALS	
41 TOTAL	1BED
23 TOTAL	2BED

COMMERCIAL FLOOR
RESIDENTAL FLOOR
30' REAR SETBACK CODE

6x 1BED
3X 2BED
9 UNITS

7th FLOOR +/-8,360 sq

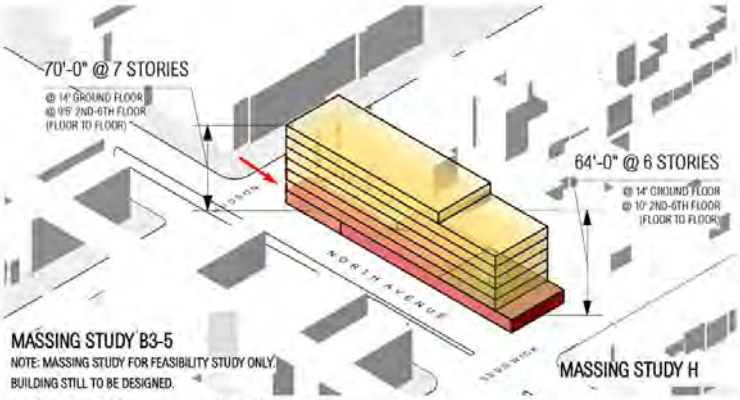
7x 1BED
4X 2BED
11 UNITS PER FLOOR

2nd - 6th FLOORS +/-10,831 sq

GROUND FLOOR +/- 8957 sq

B3-5

+ Stepped massing provides space for private amenity terraces
+ Lower building height
+ Fewer units
+ Ample space for ground-floor commercial
+ Locates residential entry at Hudson Avenue



NUMBER OF FLOORS: 6-7 STORIES
PROPOSED TOTAL UNITS: (97 UNITS ALLOWABLE UNDER B3-5)
+/- 70 UNITS @ 6 STORIES
+/- 82 UNITS @ 7 STORIES

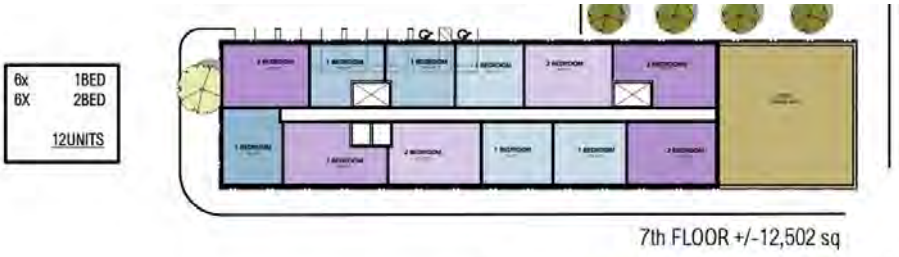
COMMERCIAL FLOOR
RESIDENTAL FLOOR
30' REAR SETBACK CODE

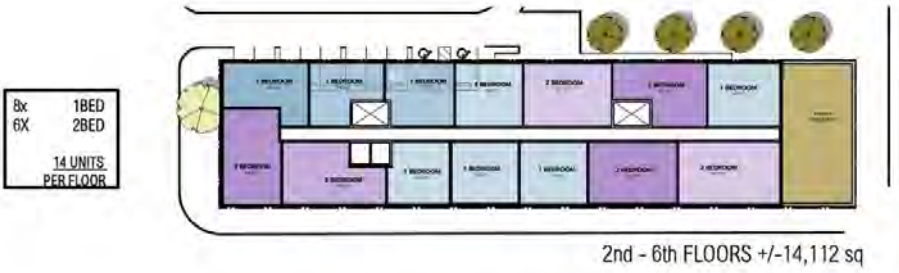
BUILDING HEIGHT: [70'-0" ZONING HEIGHT LIMIT]
64' @ 6 STORIES
70' @ 7 STORIES (NOTE RESTRICTED CEILING HEIGHTS)

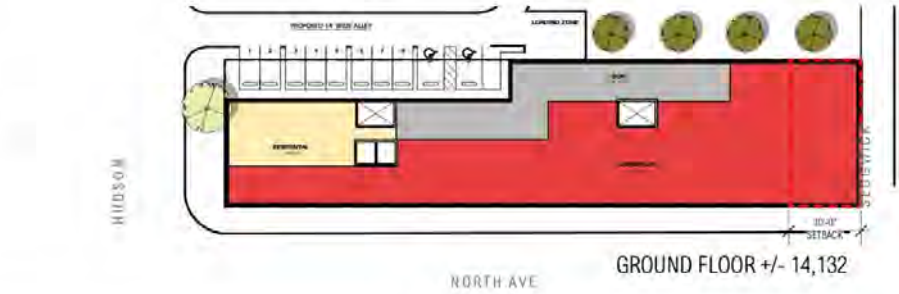
TOTAL BUILDING SQUARE FOOTAGE:
[FAR 97,205 MAX ALLOWABLE SF]
84,692 SF @ 6 STORIES (9' CEILINGS).
97,194 SF @ 7 STORIES (8'6 CEILINGS)

March 11, 2021 | Pre-Intake Meeting

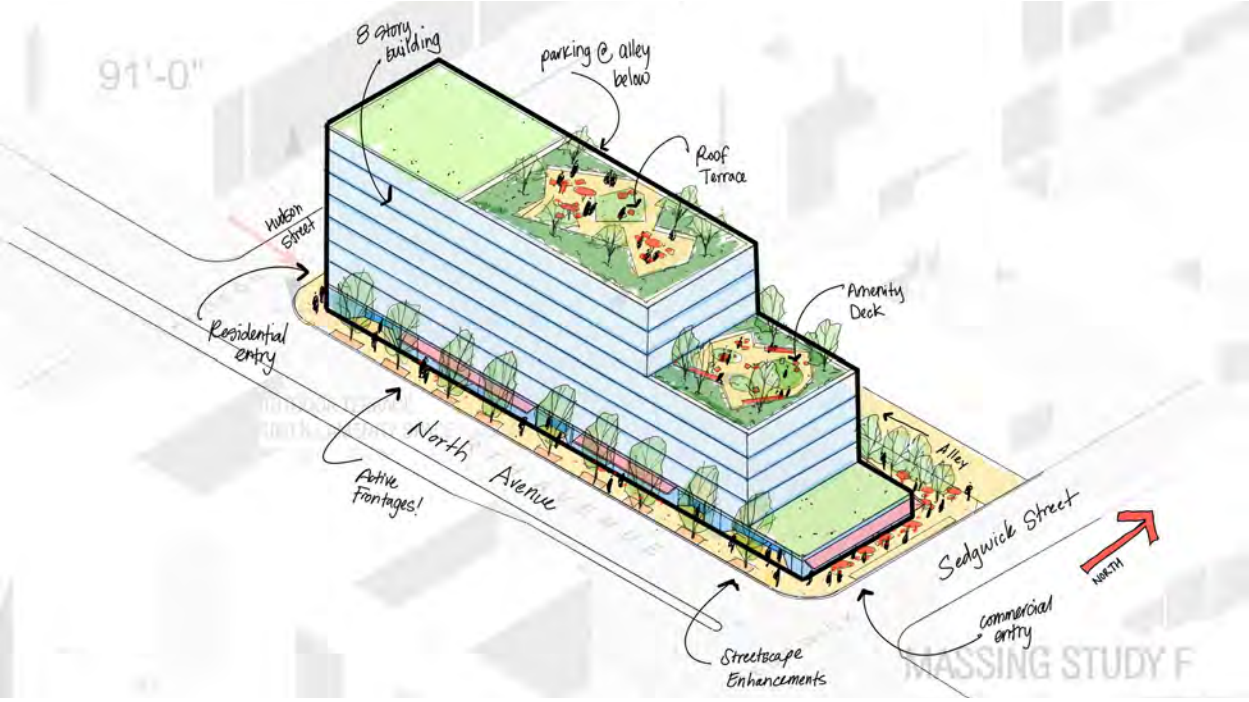
UNIT MATRIX TOTALS @ 6 STORIES	
40 TOTAL	1BED
30 TOTAL	2BED
UNIT MATRIX TOTALS @ 7 STORIES	
46 TOTAL	1BED
38 TOTAL	2BED

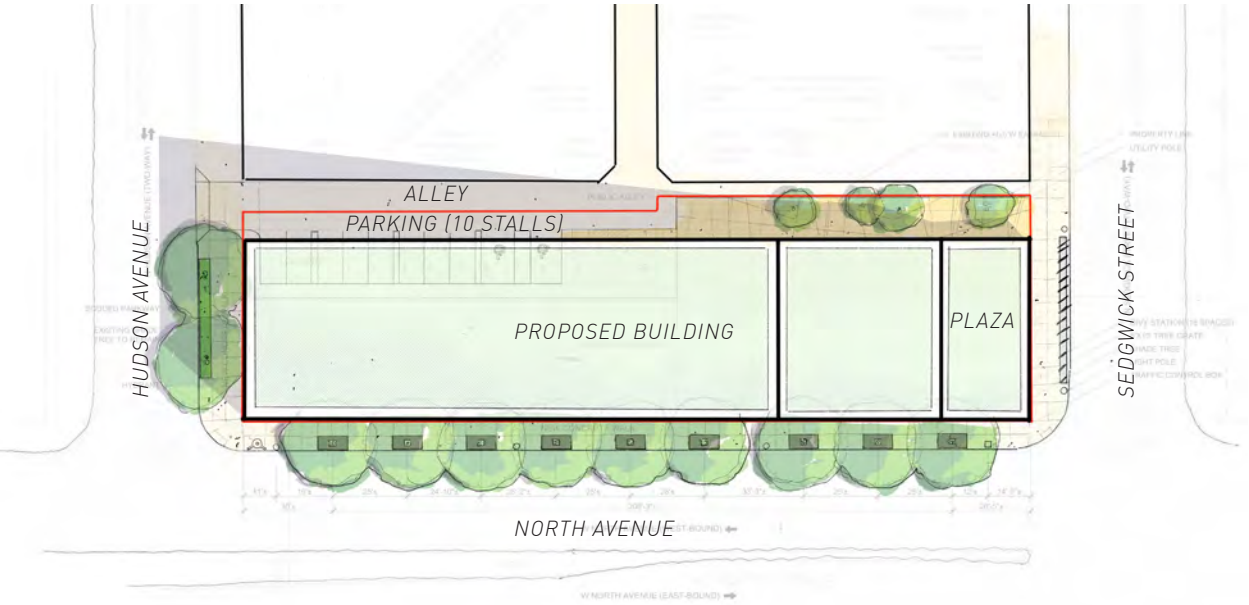




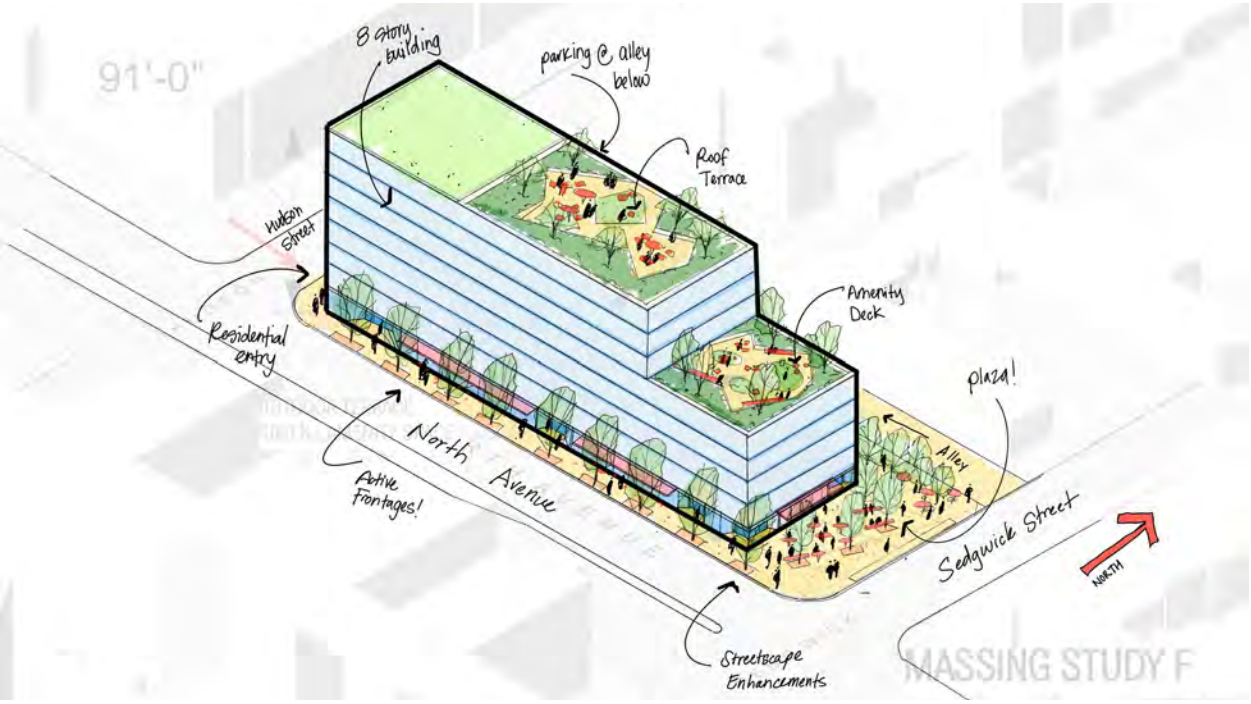


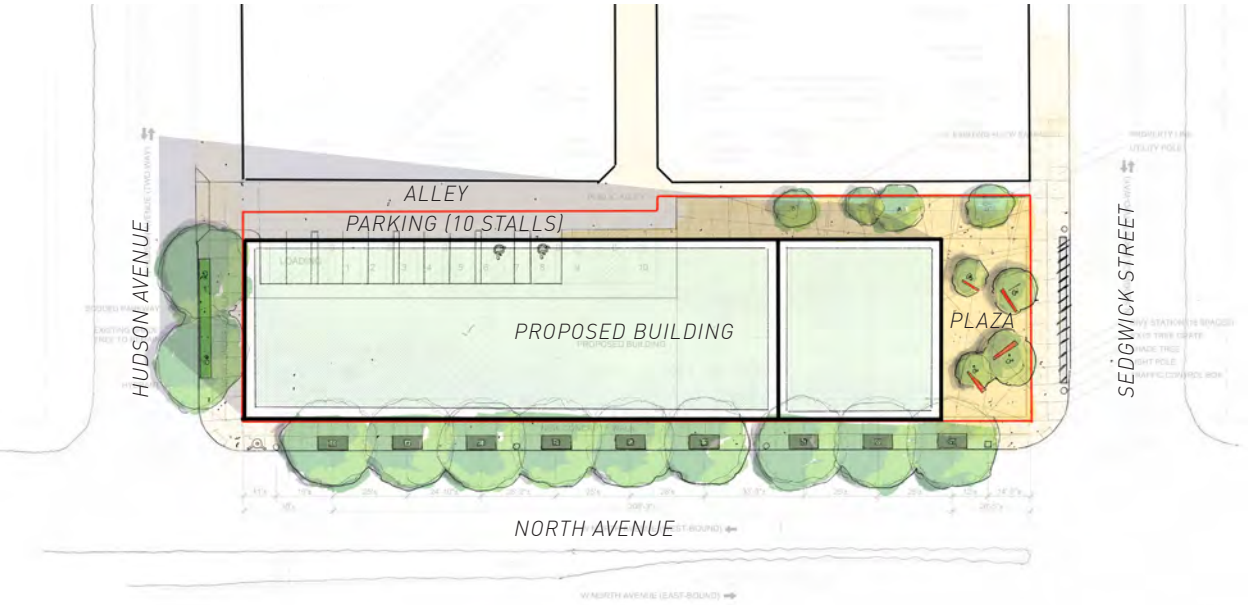
PREFERRED APPROACH: A





PREFERRED APPROACH: B





WATER SERVICE

ABANDONMENT OF EXISTING WATER SERVICES

Department of Water Management (DWM) records show three existing water tap connections from the public city mains into the subject property. All three of these existing taps will need to be abandoned (or completely removed) at their point of connection to the City main, in accordance with DWM standards. Two of the existing taps connect to North Hudson Avenue, and one existing tap connects to North Sedgwick Street.

NEW WATER SERVICE TAP

The project will require a new service tap into the public main system. The project will be limited to one combined (domestic and fire protection) tap. Based on preliminary calculations, a combined service tap of 10" diameter is expected to be required (e.g. 6" domestic & 8" fire service). This sizing is estimated only, and final sizing may vary depending on building layout and zoning criteria.

The new service line will most likely connect to the existing 12" diameter City water main in North Sedgwick Street, adjacent to the site.

If a tap to Sedgwick proves infeasible for any reason, the project could connect to the existing 12" diameter city water main in North Avenue, adjacent to the site. However, this is discouraged because of the traffic volumes in North Avenue, and the increased disruption due to excavation in and closures of North Avenue lanes.

SANITARY SEWER

The project is expected to require a sanitary sewer service line of 8"diameter. Final sizing could vary based on final building footprint and number of dwelling units.

The proposed sanitary service line should connect with the proposed storm sewer service line near the property line, and continue as one combined service into the City main.

The new combined sewer service line will most likely connect into the Sedgwick Street city sewer. Sedgwick city sewer is 30" diameter and flows into the 48" diameter city sewer in North Avenue.

If a connection to the Sedgwick sewer proves infeasible for any reason, the project could connect to the 72" diameter sewer in Hudson Avenue, which flows south and increases to 90" diameter south of North Avenue.

ELECTRICAL

SITE POWER DISTRIBUTION

ComEd will provide new service(s) to the building from existing medium voltage underground lines. The connection point will be determined by ComEd. Step-down transformers will be installed and owned by ComEd. The project will be responsible for the installation of empty conduits for ComEd primary medium voltage cables from the connection point specified by ComEd to the location of step-down transformers. The cables will be installed by ComEd.

A number of services will be determined based on the total anticipated building load. The maximum single service size per Chicago Electrical Code is limited to 3000A. If the calculated design load will exceed 3000A multiple services will be provided. New service(s) to the building will be 480/277V or 208/120V, TBD depending on the load calculations, building configuration, and available space for electrical equipment and feeders. It will be determined in coordination with ComEd, architect, and site planners if there is space on-site for transformers. Otherwise, a ComEd vault will be required inside the building. The vault will be designed per ComEd requirements and be enclosed in a three-hour fire-rated room.

BUILDING POWER DISTRIBUTION

Main switchboard(s) and service entrance feeders will be sized based on connected load with demand factors allowed by CEC for residential and commercial installations. The main electrical room will be required for the main service entrance and distribution switchboard(s). Meter centers will be utilized to provide tenant utility metering and feed tenant power panels. Each

tenant unit will be supplied by a dedicated feeder from the meter center.

The power distribution system requirements will be different depending on the height of the building.

+ Non-high rise (80ft and below per CCBC): Tenant units can be supplied power from the meter centers located in the main electrical room. Auxiliary electrical rooms (or closets) on the floors are desired but not required. Emergency lighting will be provided. Emergency Battery Units can be utilized as a Code-compliant non-utility source of power. No code requirements for emergency power for the fire pump or elevators. The location and number of power receptacles in the units will be as required by Code.
+ Highrise (greater than 80ft per CCBC): Auxiliary electrical rooms will be provided on each floor. Those rooms will be 2-hours fire-rated. Tenant meter centers and equipment serving common building spaces will be located in the rooms on the floors they are serving. Bus ducts will be utilized for vertical distribution if warranted by the calculated load and project conditions. System II emergency power distribution (as defined by the Chicago Electrical Code) will be provided. An emergency generator will be installed as the final reserve source of emergency power. The following building loads will be connected to the generator: emergency lighting, exit signs, fire pump, elevators. Emergency power distribution equipment and feeders will be installed in a continuous two-hour fire-rated building enclosure (shafts, electrical rooms). The generator can be installed either inside the building in a 2-hours fire-rated room or outside (on-site, on the roof). The generator can be either gas driven or diesel, but a gas-driven generator will be selected only if the utility can supply medium or high-pressure gas from the line located in the vicinity of the project site. A separate room will be allocated for emergency power distribution equipment (automatic transfer switches, distribution panels).

INTERIOR AND EXTERIOR LIGHTING

Only LED-based lighting fixtures will be utilized. To comply with IECC 2018 90% of the lighting fixtures specified for residential units will be of high efficacy. Lighting controls will be provided in common building spaces. Lighting controls will comply with IECC 2018. Lighting controls will include timers, occupancy, and vacancy sensors, dimming, photosensors.

GROUNDING

Code-compliant grounding system will be specified.

FIRE ALARM

A complete fire alarm and detection system will be provided in accordance with the City of Chicago Building Code, National Fire Protection Association, Chicago Bureau of Fire Prevention, and ADA requirements whichever is more stringent. The fire alarm system will be designed as stand-alone, fully addressable, zoned, non-coded, UL-certified microprocessor-based, with multiplexed signal transmission, dedicated to fire alarm service only. The system will include detection and alarm notification functions for common building spaces and residential units as applicable. CO detectors will be provided.

Some of the requirements are different for high rise vs a non-high-rise building and include:

+ Non-high rise: Chicago Code compliant Class I system will be provided. The system will provide audio notification (horns). Each tenant unit will be equipped with single-station smoke detectors. The smoke detectors will be hardwired, 120V. The detectors in each unit will be interconnected so that if one detector goes into alarm all detectors in the unit go into alarm. The alarm within the unit does not trigger a general building alarm. The units designated as ADA compliant for the hearing impaired will be provided with extra strobes as required by NFPA 72. Pull stations at the exits will be provided.
+ Highrise:Chicago Code compliant High rise

type fire alarm system will be provided. The system will have a one-way and two-way voice notification system. The tenant units will be equipped with system smoke detectors. The detectors in each unit will be interconnected so that if one detector goes into alarm all detectors in the unit go into alarm. The alarm within the unit does not trigger a general building alarm. The units designated as ADA compliant for the hearing impaired will be provided with extra strobes as required by NFPA 72. Manual pull stations will be provided at all exits, stairwell doors on all floors other than the ground floor, doors exiting through fire-rated doors, in kitchen areas, and other locations as required. Main fire alarm risers will be installed in 2-hours fire-rated shafts or building enclosures. Fire Command center will be provided within 20 feet and in direct view from the main entrance to the building. Two ways communication systems shall be provided, and communication stations shall be located in elevator lobbies.

LOW VOLTAGE SYSTEMS

The following low voltage systems shall be specified:

+ Tenant units: Internet, Master Antenna TV, Door entry and tenant intercom system.
+ Common Building Spaces: Intrusion detection, CCTV, Wireless Communications, Master Antenna TV, Internet. Space shall be allocated in the building on the lower or ground level for Internet and TV provider equipment and demarcation point and MDF room. Telecommunication closets shall be located on selected floors to house auxiliary telecommunication, MATV, and security equipment.

MECHANICAL

UTILITY / SERVICE PROVIDERS FOR NATURAL GAS

+ Peoples Gas, 2 psig downstream of the meter/ regulator.
+ Makeup air units, commercial water heaters are required 7 to 14" w.c.
+ The size and the number of meters will be determined based on building size and load requirements. Typically separate distribution and meter required for common spaces (estimated 15,000 CFH) and residential units (9,000 CFH)
+ Meters shall be located in the building.
+ It is presumed that Peoples gas has available 2 psig distribution in the area adjacent to the building site to accommodate the required building load.

ACOUSTICS

The project will require appropriate sound attenuation measures to be deployed during design & construction phases, such as construction enclosures and three-panel glazing.

STORMWATER

The project will need roughly 1,500 square feet of space for underground stormwater storage, which would presumably be under the parking area. This underground storage will then need a route or corridor for piping to the City sewer.

The proposed project will constitute a Regulated Development under the Chicago Stormwater Ordinance, and will be subject to the requirements of the Ordinance.

It is expected that the stormwater storage required by the Ordinance will be provided through underground detention, based on the desired density of the site development. Precast concrete modular chambers are anticipated to be the most feasible means of providing the required storage. All runoff from the building and site must be routed into and through this required storage.

Based on preliminary massing studies, the project is expected to qualify as a 'lot-to-lot' building under the Ordinance, and so will need to provide Rate Control storage for only the 10-year storm (rather than 100-year) before overflowing to the City system. As a 'lot-to-lot' building, the project

can meet its Volume Control requirements through oversized detention.

Based on preliminary calculations, the total combined storage (Rate Control and Volume Control) for the project is expected to be roughly 6,000 cubic feet (final volume may vary based on final building and site design).

Assuming no underground obstructions, the anticipated 6,000 cubic feet of required storage could be provided underground within a footprint area of roughly 1,500 square feet. This footprint area would ideally consist of one contiguous area within open site, with no overhead restrictions, but could potentially be distributed within the building footprint, assuming the building uses a deep foundation system, if the structural foundation and underground storage designs are very carefully coordinated, and proper provisions are provided for future maintenance.

The proposed underground stormwater storage will need a feasible pathway to install outlet piping to the city sewer main (in Sedgwick or, alternatively, Hudson).

Building Storm service size is expected to be 10", final sizing per final building footprint and additional loads.

GREEN ROOF

If the project includes a green roof to help meet Sustainable Development Policy requirements, this would also provide some benefit/relief in the amount of stormwater storage required. Using permeable pavements for at-grade hardscape surfacing is another potential option to increase sustainability of the project with respect to stormwater management.

Additional stormwater storage would be feasible to provide if desired to achieve several of the Stormwater Options of the Sustainable Development Policy. Additional storage would entail marginal additional costs and additional space requirements beyond those stated in this report. Providing additional stormwater storage should be considered amongst other options.

RECOMMENDATION

With no major service and utility implications to consider at the time of study, the project should strive to meet all applicable code and regulatory requirements. Additional energy and sustainability metric standards should be considered, as should alternative and innovative measures to meet the Chicago Stormwater Ordinance.