

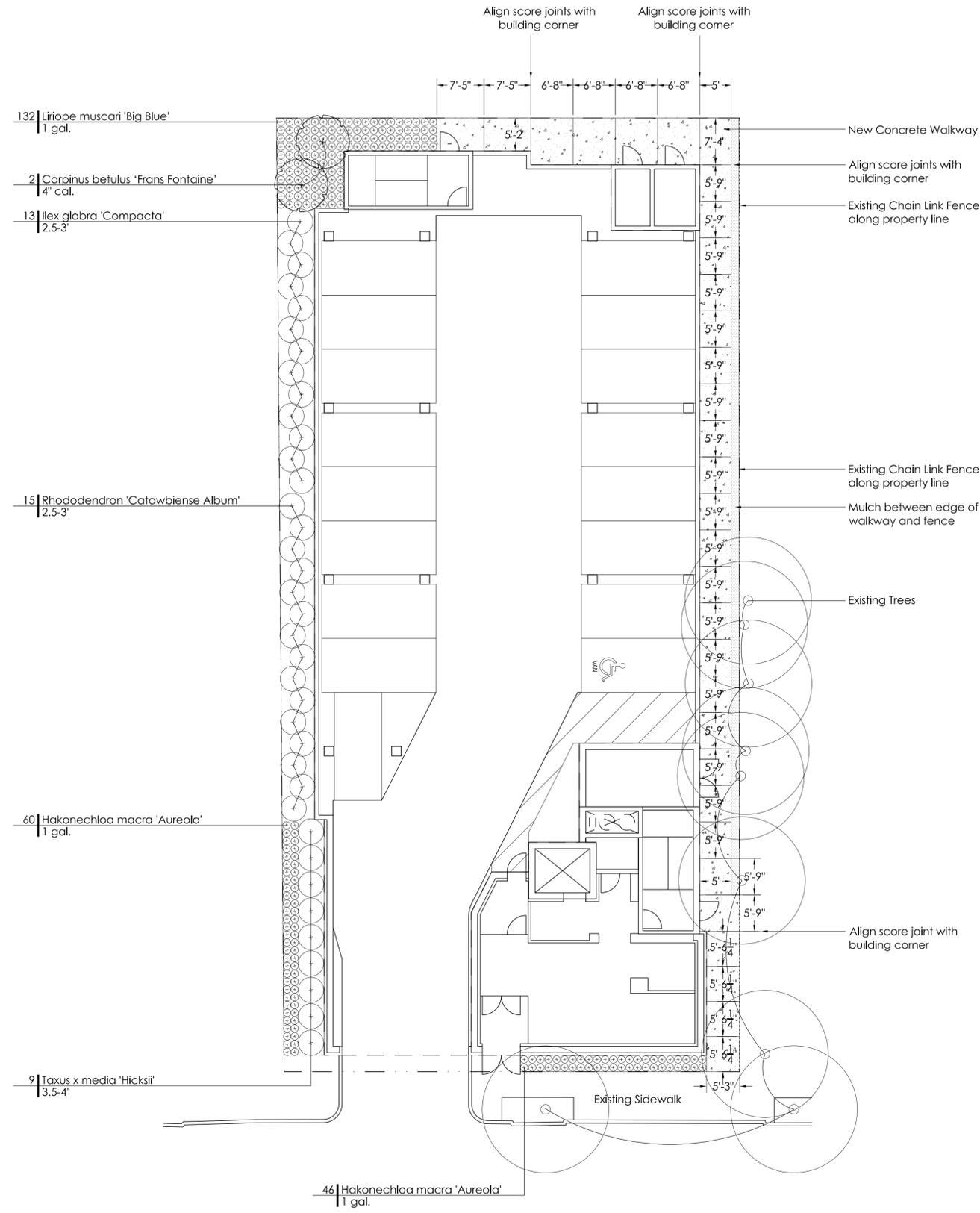


S T U D I O

architecture
interiors
planning

40 Centre Street Brookline, MA

Supplemental Information
06 June 2016



40 CENTRE STREET

40 CENTRE STREET - PLANT LIST			
Qty.	Botanical Name	Common Name	Size
TREES			
2	<i>Carpinus betulus</i> 'Frans Fontaine'	Frans Fontaine Hornbeam	4" cal.
SHRUBS			
13	<i>Ilex glabra</i> 'Compacta'	Inkberry	2.5-3'
15	<i>Rhododendron catawbiense</i> 'Album'	Catawba Rhododendron	2.5-3'
9	<i>Taxus x media</i> 'Hicksii'	Hick's Upright Yew	3-4.5'
PERENNIALS AND GRASSES			
104	<i>Hakonechloa macro</i> 'Aureola'	Japanese Forest Grass	1 gal.
132	<i>Liriope muscari</i> 'Big Blue'	Lilyturf	1 gal.

RYAN ASSOCIATES
 LANDSCAPE ARCHITECTURE AND PLANNING
 Building 4
 144 Moody Street
 Waltham, MA 02453
 ph: 781.314.0401
 fx: 781.314.0150

40 CENTRE STREET
 BROOKLINE, MA

LANDSCAPE PLAN
 1" = 10'-0"

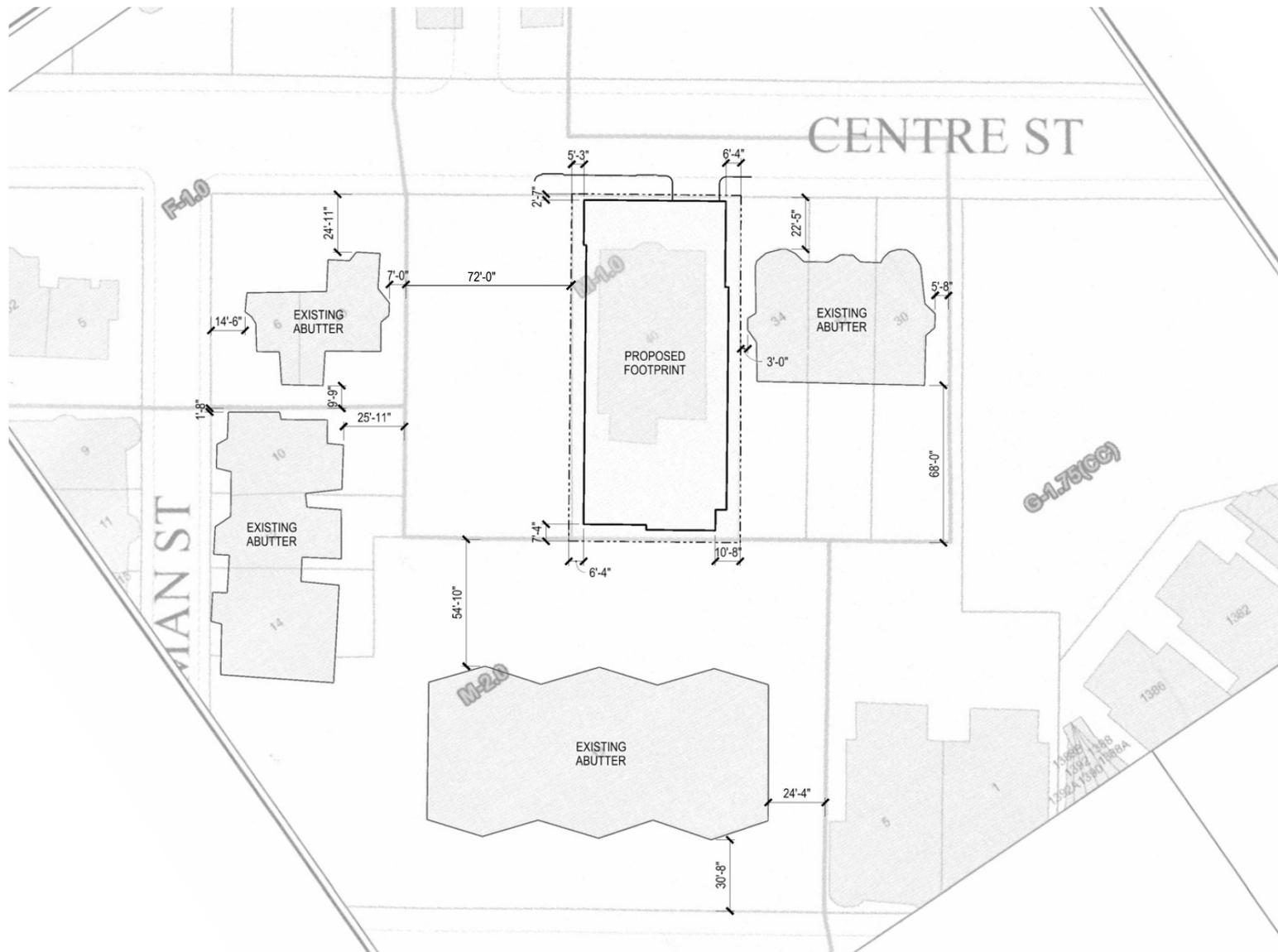
ISSUED	DATE	DESCRIPTION
1	May 3, 2016	Landscape Plan
2		
3		
4		
5		
6		

L1.0



NORTH

(b) – Abutting Parcels

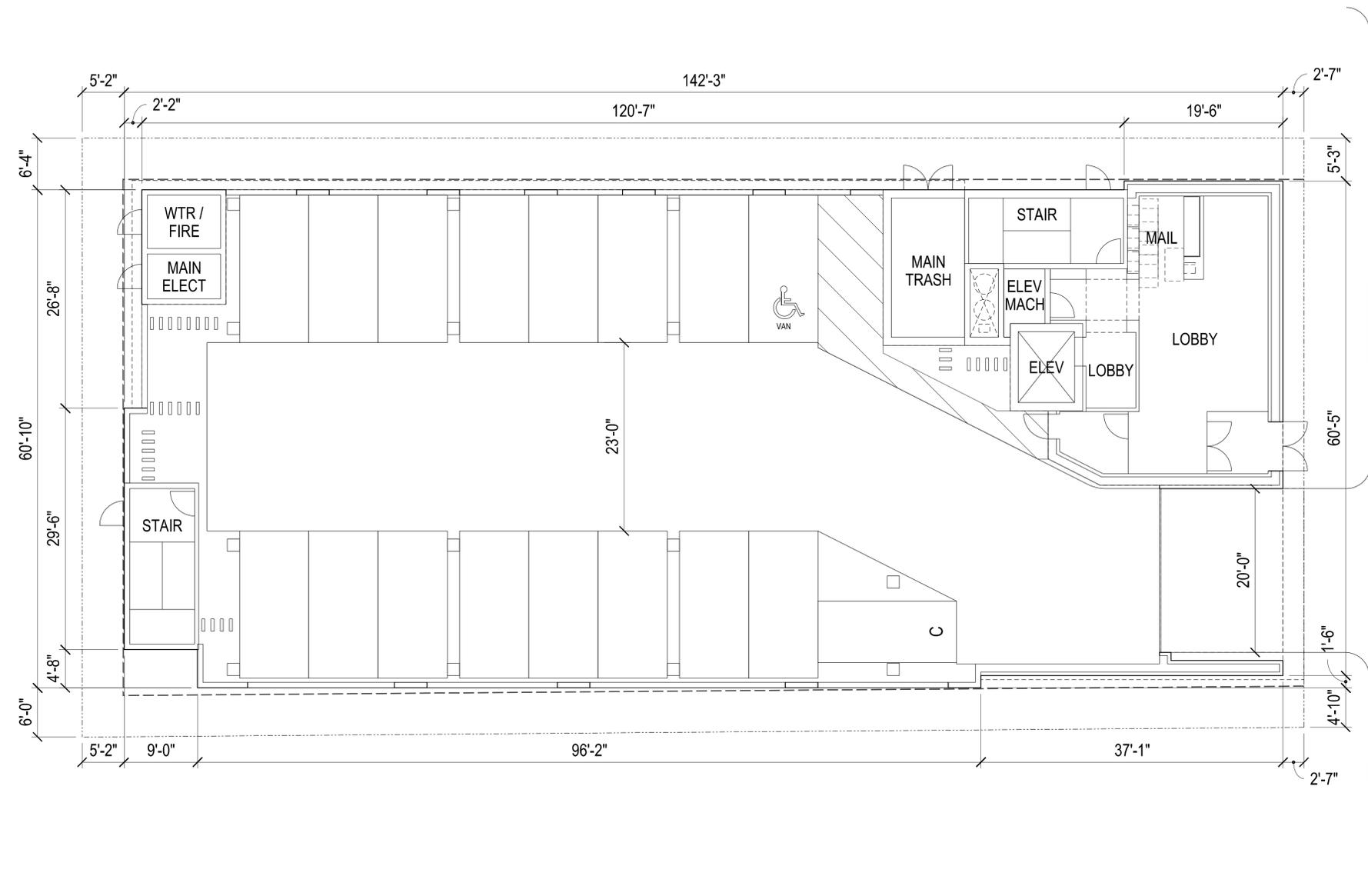


project information:
40 Centre Street Residential

Brookline, MA

client information:
Roth Family LLC

172 Dean Road
Brookline, MA



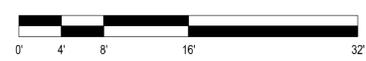
drawing information:
drawing by: _____
drawing checked by: _____
drawing scale: As Noted
drawing date: 03 June 2016

drawing revisions:
project number: 15108.00

rev.	description	date

registration:
drawing name:
Ground Floor Plan

drawing number:
A-101

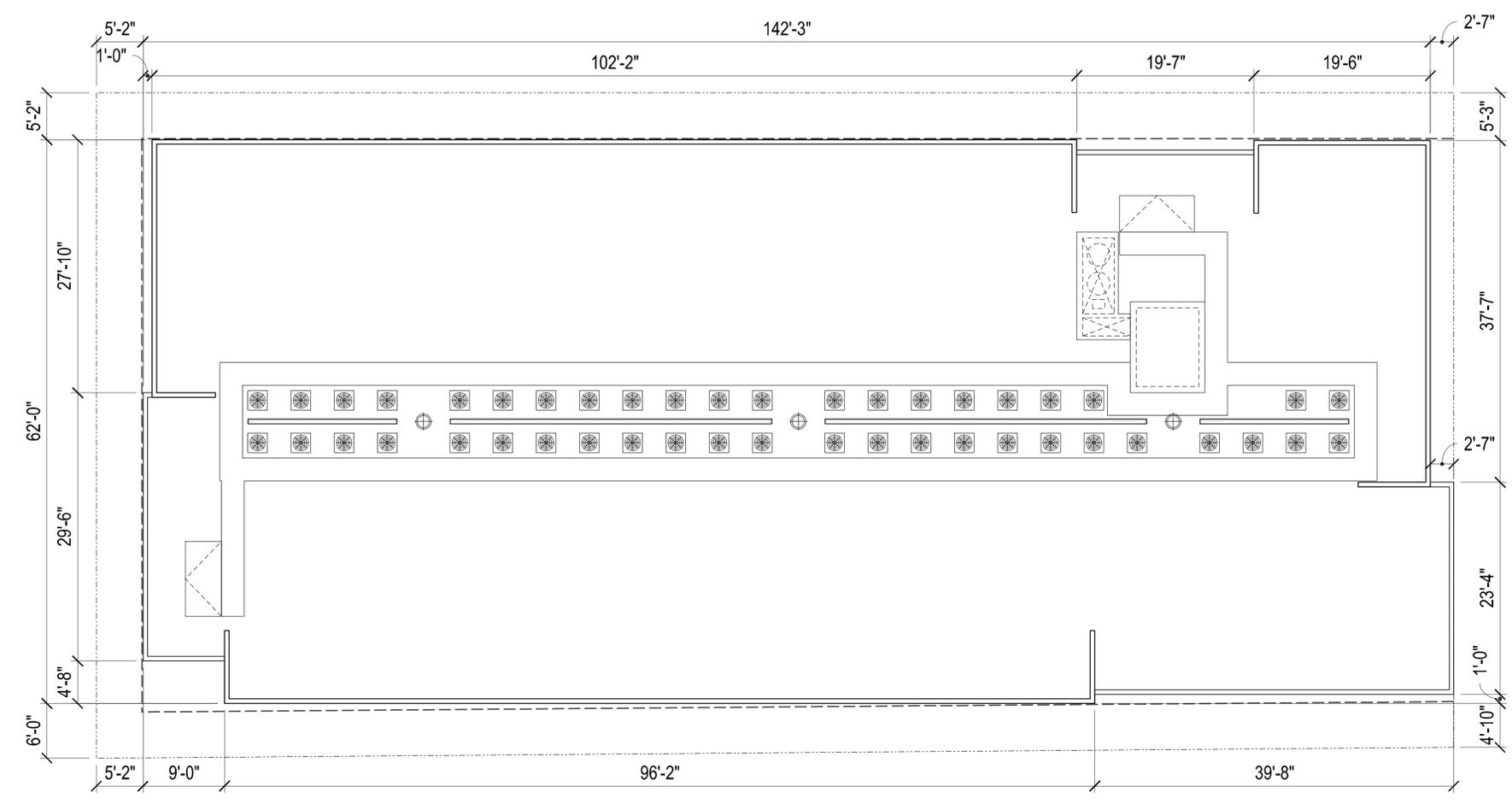


Ground Floor Plan
SCALE: 1/8" = 1'-0"



40 Centre Street Residential
Brookline, MA

Roth Family LLC
172 Dean Road
Brookline, MA



drawing by: _____
drawing checked by: _____
drawing scale: As Noted
drawing date: 03 June 2016

drawing revisions:
project number: 15108.00

rev.	description	date

Roof Plan

A-104

40 Centre Street Residential
Brookline, MA

Roth Family LLC
172 Dean Road
Brookline, MA

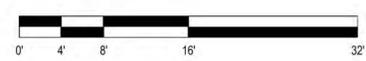
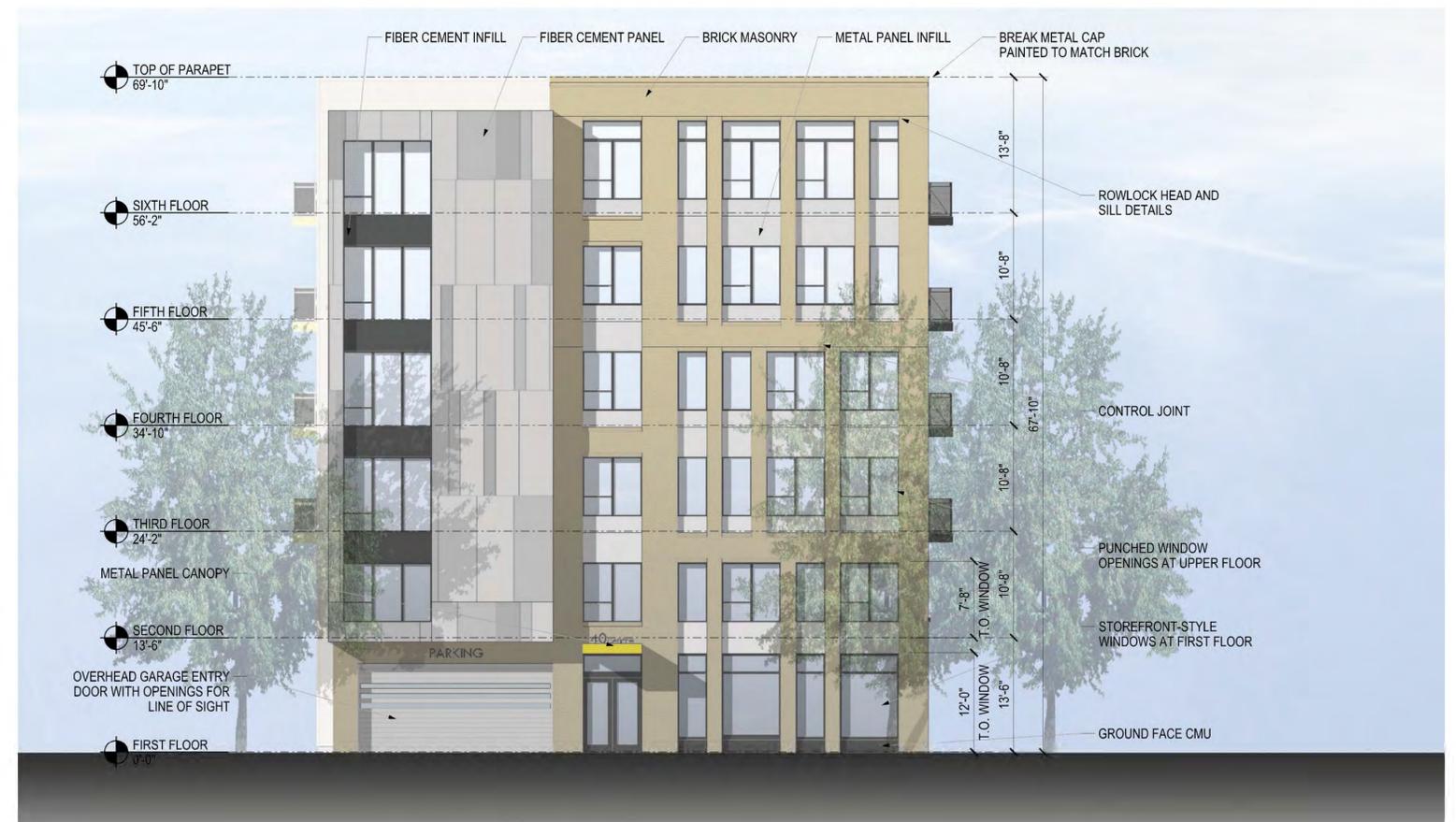
Drawing by:
Drawing checked by:
Drawing scale: **As Noted**
Drawing date: **03 June 2016**

Drawing revisions:
project number: **15108.00**

rev.	description	date

Elevation - Northeast (Front)

A-201



Elevation - NE (Front)
SCALE: 1/8" = 1'-0"



project information: 40 Centre Street Residential
 client information: Roth Family LLC
 consultant information:
 drawing information:
 registration:
 drawing name: Elevation - Northeast (Front)
 drawing number: A-201

40 Centre Street Residential
Brookline, MA

Roth Family LLC
172 Dean Road
Brookline, MA



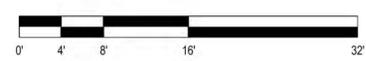
drawing information:
drawing by:
drawing checked by:
drawing scale: As Noted
drawing date: 03 June 2016

drawing revision:
project number: 15108.00

rev.	description	date

registration:
drawing name: Elevation - Northwest (Right)

Elevation - Northwest (Right)



Elevation - NW (Right)
SCALE: 1/8" = 1'-0"



drawing number: **A-202**

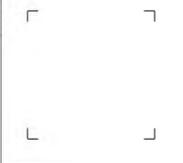
40 Centre Street Residential
Brookline, MA

Roth Family LLC
172 Dean Road
Brookline, MA

drawing information:
drawing checked by:
drawing scale: **As Noted**
drawing date: **03 June 2016**

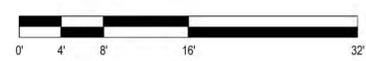
drawing revisions:
project number: **15108.00**

rev.	description	date



drawing name:
Elevation - Southwest (Back)

drawing number:
A-203



Elevation - SW (Back)
SCALE: 1/8" = 1'-0"



project information:
40 Centre Street Residential
Brookline, MA

client information:
Roth Family LLC
172 Dean Road
Brookline, MA

consultant information:

drawing information:
drawing by:
drawing checked by:
drawing scale: **As Noted**
drawing date: **03 June 2016**
drawing revisions:

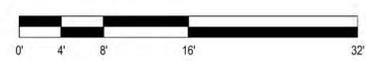
project number: **15108.00**

rev.	description	date

registration:

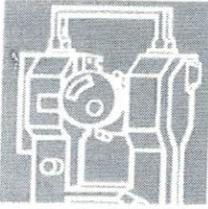
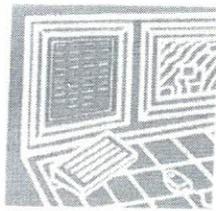
drawing name:
Elevation - Southeast (Left)

drawing number:
A-204



Elevation - SE (Left)
SCALE: 1/8" = 1'-0"





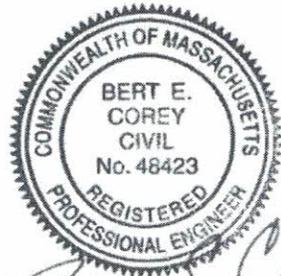
STORMWATER MANAGEMENT NARRATIVE

for

**40 Centre Street
Brookline, Massachusetts**

Prepared by:

Schofield Brothers LLC
A Wholly Owned Subsidiary of Digital Geographic Technologies, Inc.
1071 Worcester Road
Framingham, MA. 01701
(508) 879-0030



Bert E. Corey 4/15/16

April 15, 2016

40 CENTRE STREET, BROOKLINE

Stormwater Standards Summary

MassDEP Stormwater Management Standards:

Standard 1: (Untreated Discharges)

There are no new stormwater conveyances proposed that discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

Prior to discharge to the public drainage system, stormwater runoff from the roof is passed through a subsurface infiltration system. Parking is located under the building; there are no proposed paved parking areas outside the footprint of the building.

Standard 2: (Peak rate control and flood protection)

Under proposed conditions, there is a decrease in impervious area. Stormwater runoff peak flows and volume following redevelopment will be less than the existing conditions. There will be no increases from any storm event up to and including the 100 year storm. The computations have been made for the 2, 10, 25 and 100-year design storm events, and are included.

TABLE 1 - Existing vs. Proposed Peak Flows and Volumes

		DP#1 (Centre Street)			
Storm Event	24 hr Rainfall	Peak Flow (cfs)		Volume (Acre feet)	
		Existing	Proposed	Existing	Proposed
2 year	3.2 in	0.72	0.65	0.051	0.031
10 year	4.6 in	1.09	0.97	0.079	0.057
25 year	5.5 in	1.33	1.18	0.098	0.074
100 year	6.5 in	1.59	1.41	0.118	0.093

Standard 3: (Recharge to Groundwater)

Under existing developed conditions, there are no known infiltration BMP's. Published NRCS soil data indicates "Urban land." For sizing purposes, the soil is conservatively considered HSG "A" and the permeability rate is based on a Rawl's rate of 1.02 inches/hour (sandy loam). Soil testing will be performed at the site and at the location of the proposed infiltration system to confirm these assumptions and to determine the permeability, soil texture, and depth to ground water.

The required recharge volume based on an HSG "A" soil with a target factor of 0.6" is 430 cubic feet. This proposed infiltration Best Management Practice (BMP) consists of underground concrete leaching chambers surrounded with stone. Roof runoff will be directed to a subsurface infiltration system, where the capture volume meets the required recharge volume. A storage table of the infiltration system is included. The infiltration system consists of two (2) rows of four (4) underground concrete chambers which are four (4) feet wide by four (4) feet long by three (3) feet high. An outlet control structure, with a concrete weir, controls the retained water within the infiltration system. The proposed infiltration BMP will drain within 72 hours.

Note that item 6b of the Town of Brookline Site Plan Review Checklist requires onsite infiltration structures to be designed to retain 5.5" of rain. As a redevelopment project, coupled with a reduction in impervious area, the applicant is proposing that the infiltration facility be sized in accordance with the MassDEP Stormwater Management Regulations.

Standard 4: (80% TSS Removal)

Non-contaminated runoff (roof area) is routed directly to the subsurface infiltration system to provide 80% TSS removal for that treatment train. The entrance driveway is untreated.

A Long-Term Pollution Prevention Plan (LTPPP) will be prepared.

Standard 5: (Land Use with Higher Potential Pollutant Load)

Not Applicable.

Standard 6: (Critical Areas)

Stormwater does not discharge near or to a Critical Area (such as a Zone II, Interim Wellhead Protection Areas, Shellfish Growing Areas, Bathing Beaches, Outstanding Resource Waters, Special Resource Waters, or Cold-Water Fisheries).

Standard 7: (Redevelopment)

The project is a redevelopment project. The project fully complies with Standard 1, 2, and 3 and meets to the maximum extent practicable Standard 4. The project reduces impervious cover by 640 square feet, reduces the peak flows and volume to the existing drain in Centre Street. A long term pollution plan, a stormwater operation plan, an erosion control plan, and an illicit discharge statement will be prepared when submitting for Site Plan Review.

Standard 8: (Erosion, Sediment Control)

Erosion and sediment control BMPs will be included in the Erosion and Sediment Control Plan as part of the Site Plan set.

Standard 9: (Operation & Maintenance)

An Operation and Maintenance Plan for the stormwater system (infiltration) will be prepared.

Standard 10: (Illicit Discharges)

The proposed building design will be in compliance with state and local building codes. There are no illicit discharges designed or proposed. An Illicit Discharge Statement will be prepared.

24766-40 Centre Street-Existing Conditions

Prepared by Schofield Brothers LLC

HydroCAD® 10.00-15 s/n 01078 © 2015 HydroCAD Software Solutions LLC

40 Centre Street, Brookline
Type III 24-hr 100 yr Rainfall=6.50"

Summary for Subcatchment E-1: 40 Centre Street

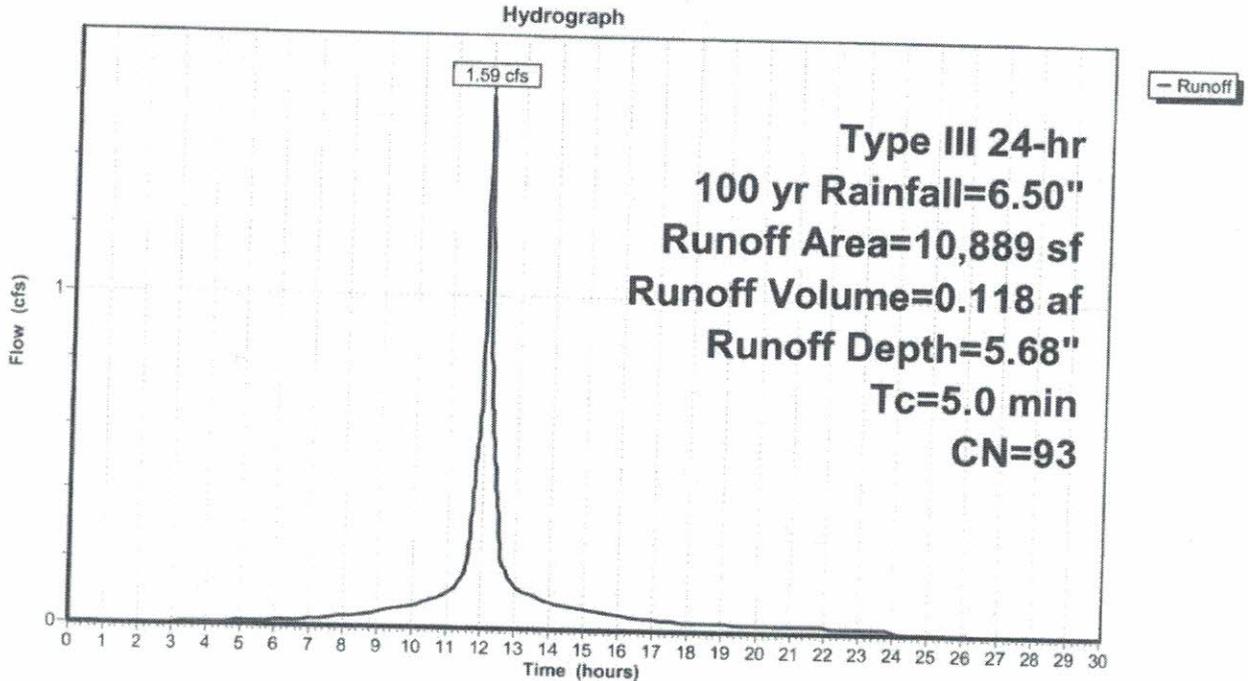
Runoff = 1.59 cfs @ 12.07 hrs, Volume= 0.118 af, Depth= 5.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.50"

Area (sf)	CN	Description
3,426	98	Roofs, HSG B
5,846	98	Paved parking, HSG B
1,617	61	>75% Grass cover, Good, HSG B
10,889	93	Weighted Average
1,617		14.85% Pervious Area
9,272		85.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment E-1: 40 Centre Street



24766-40 Centre Street-Proposed Conditions

Prepared by Schofield Brothers LLC

HydroCAD® 10.00-15 s/n 01078 © 2015 HydroCAD Software Solutions LLC

40 Centre Street, Brookline
Type III 24-hr 10 yr Rainfall=4.60"

Page 4

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment P-1a: Building

Runoff Area=8,591 sf 100.00% Impervious Runoff Depth=4.36"
Tc=5.0 min CN=98 Runoff=0.92 cfs 0.072 af

Subcatchment P-1b: Remainder of Lot

Runoff Area=2,298 sf 1.78% Impervious Runoff Depth=1.20"
Tc=0.0 min CN=62 Runoff=0.08 cfs 0.005 af

Reach DP-1: Centre Street

Inflow=0.97 cfs 0.057 af
Outflow=0.97 cfs 0.057 af

Pond Pd-1: Recharger #1

Peak Elev=66.19' Storage=447 cf Inflow=0.92 cfs 0.072 af
Discarded=0.01 cfs 0.013 af Primary=0.91 cfs 0.051 af Outflow=0.92 cfs 0.064 af

Total Runoff Area = 0.250 ac Runoff Volume = 0.077 af Average Runoff Depth = 3.70"
20.73% Pervious = 0.052 ac 79.27% Impervious = 0.198 ac

-
- “The location of this project in the heart of Coolidge Corner meets most of the tenets of SMART growth. The site is proximate to rapid transit on Beacon Street and bus service on Harvard Street and is on the cusp of the largest commercial area in Brookline.”
 - Neil A. Wishinsky, Chairman of the Board of Selectman (in a letter dated March 8, 2016)
 - “The proposed building meets The Fire Department requirements for building access and we do not have any concerns at this time.”
 - Deputy Chief Kyle McEachern, Brookline Fire Department (in an email dated April 27, 2016)
 - “Safe traffic operations will exist at the new site driveway onto Centre Street. Overall, the project can safely be accommodated in the area.”
 - F. Giles Ham, P.E., Managing Principal, Vanhassel & Associates, Inc. (in a letter dated April 15, 2016)



Existing Building



Existing Building



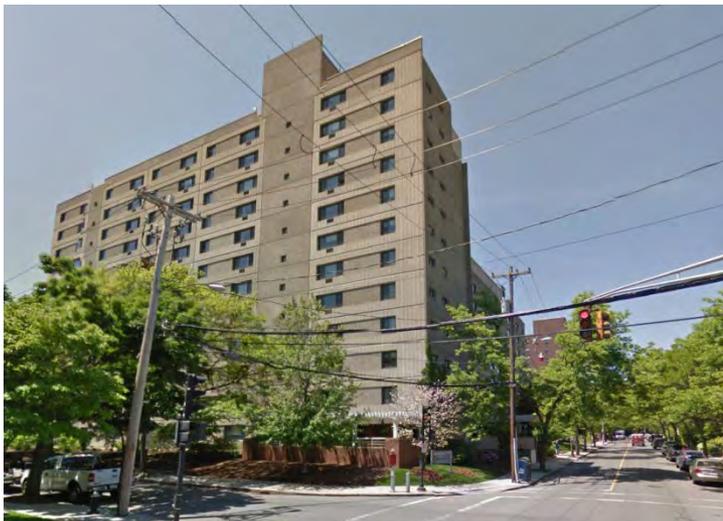
Neighborhood Building Height



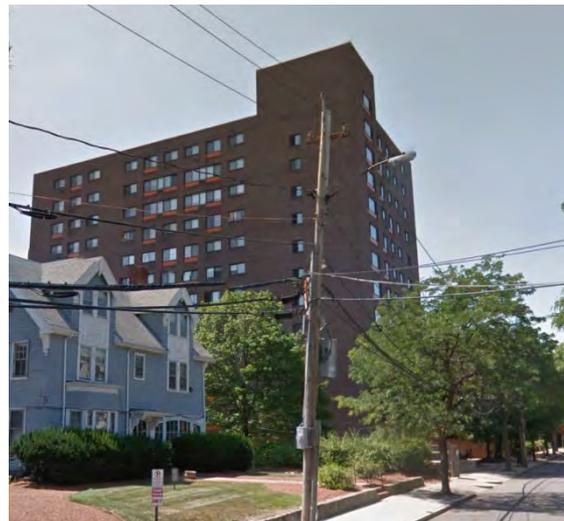
30-34 Centre Street (45')



70 Centre Street (80')



100 Centre Street (150')



112 Centre Street (150')

Neighborhood Building Height



Winchester Street & Beacon Street (60')



19 Winchester Street (100')

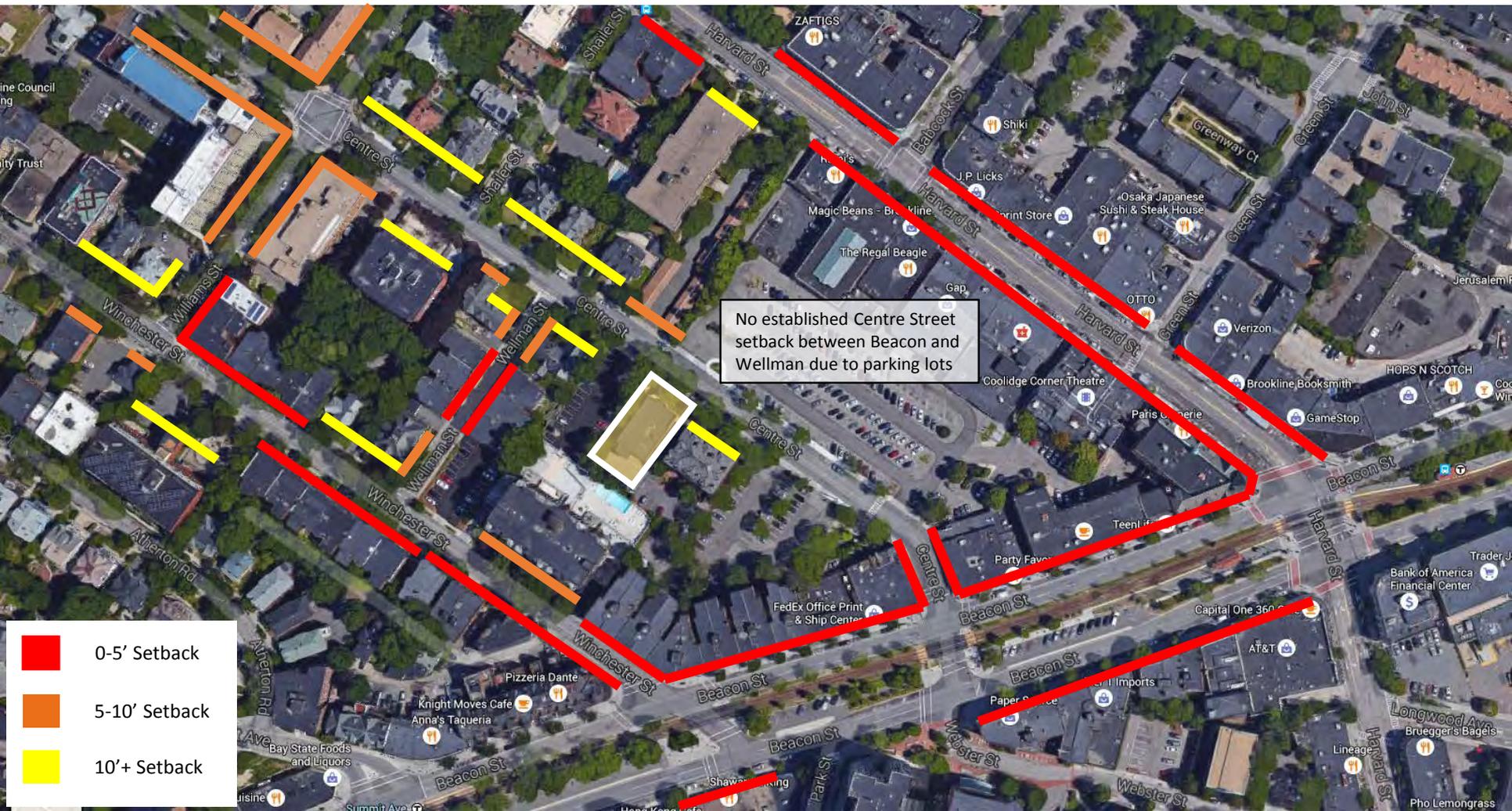


30-40 Winchester Street (45')

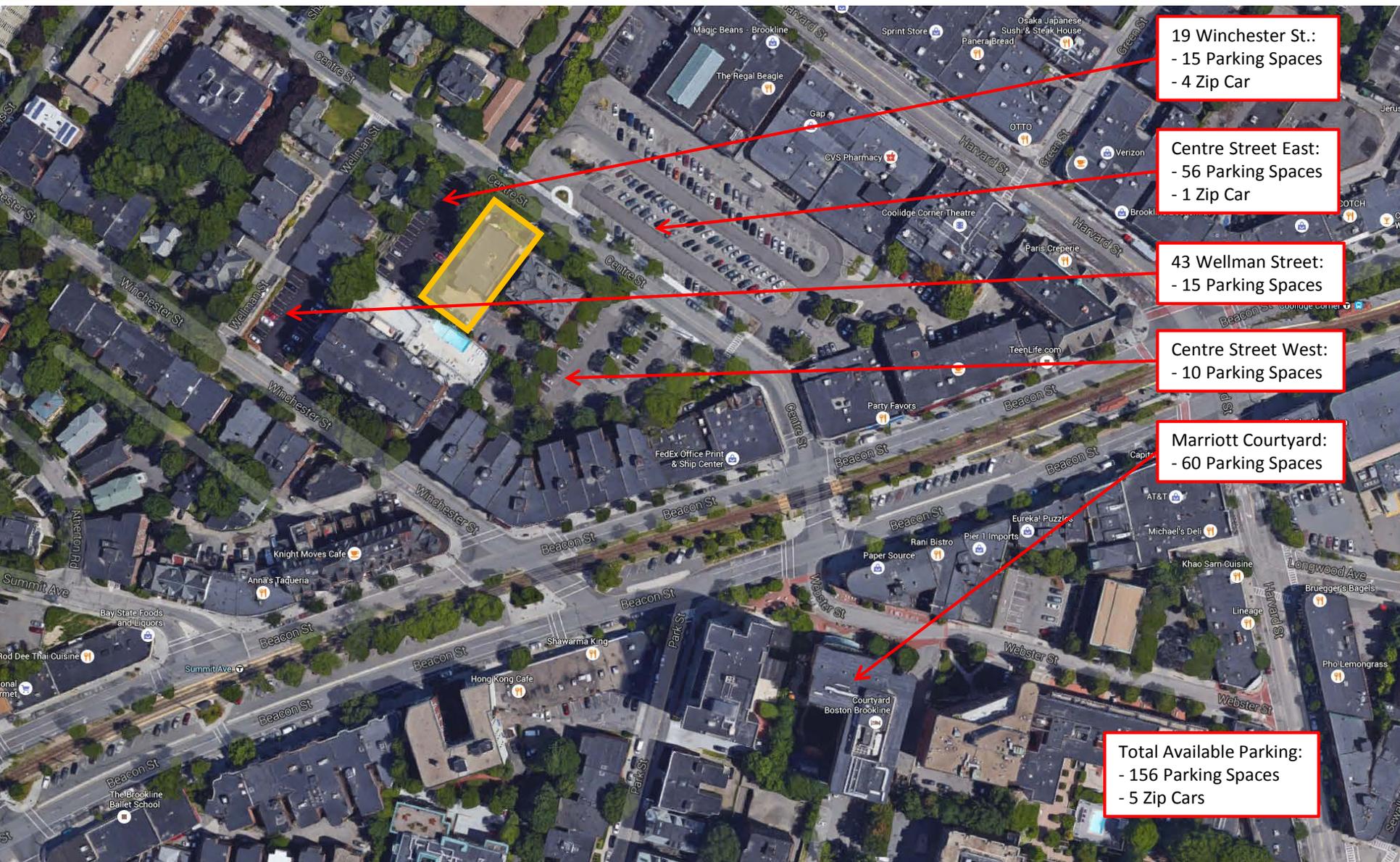


6 & 15 Wellman Street (45')

Neighborhood Edge Conditions



Neighborhood Parking Availability





19 Winchester St.

Project Site
40 Centre St.

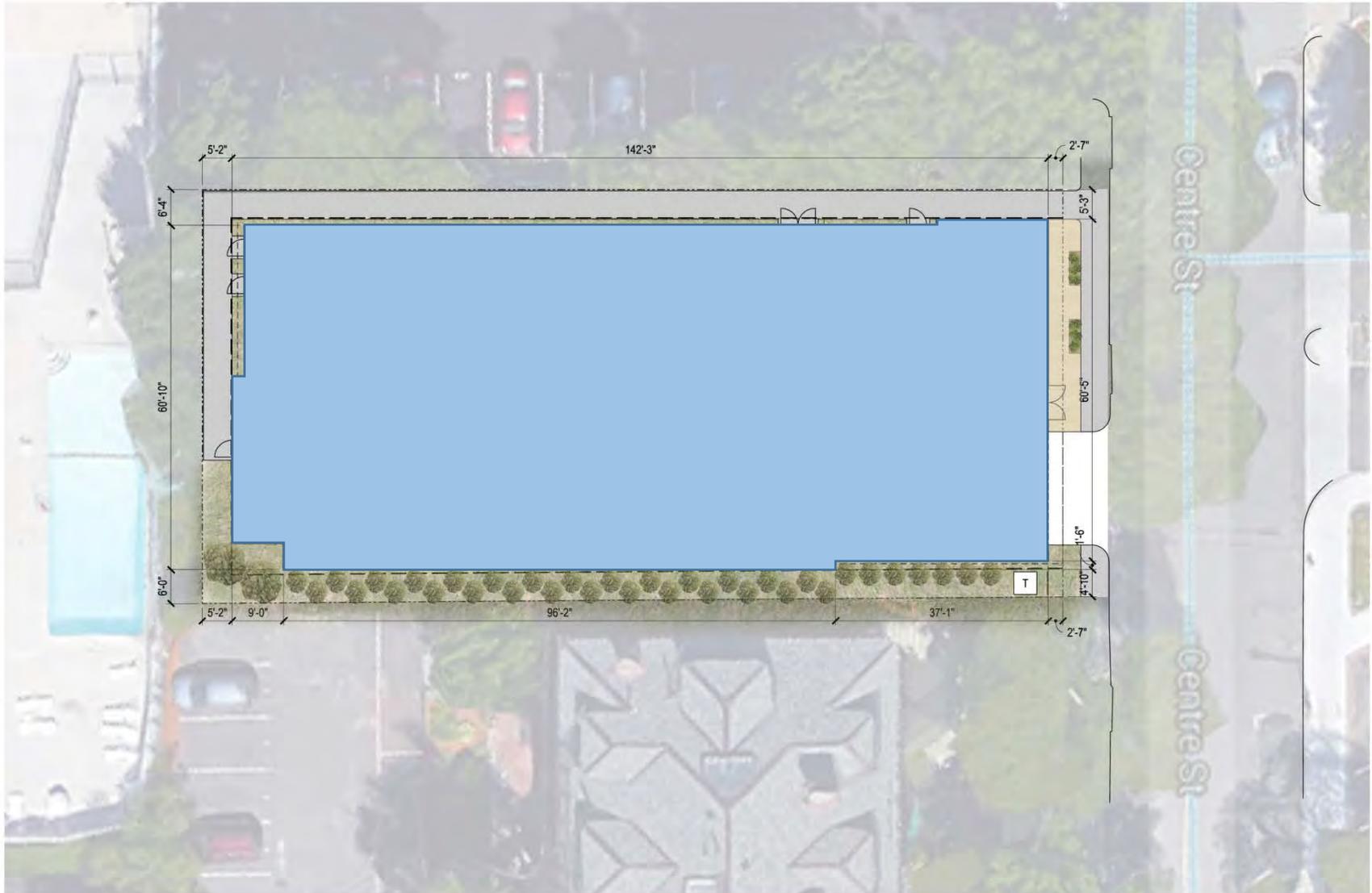
Centre Street

30-34 Centre St.

1 Winchester St.



Proposed Building



Shadow Study



Shadow Studies - March 21st, 9:00am



Shadow Studies - March 21st, 12:00pm



Shadow Studies - March 21st, 3:00pm

Shadow Study



Shadow Studies - March 21st, 6:00pm



Shadow Studies - June 21st, 9:00am

Shadow Study



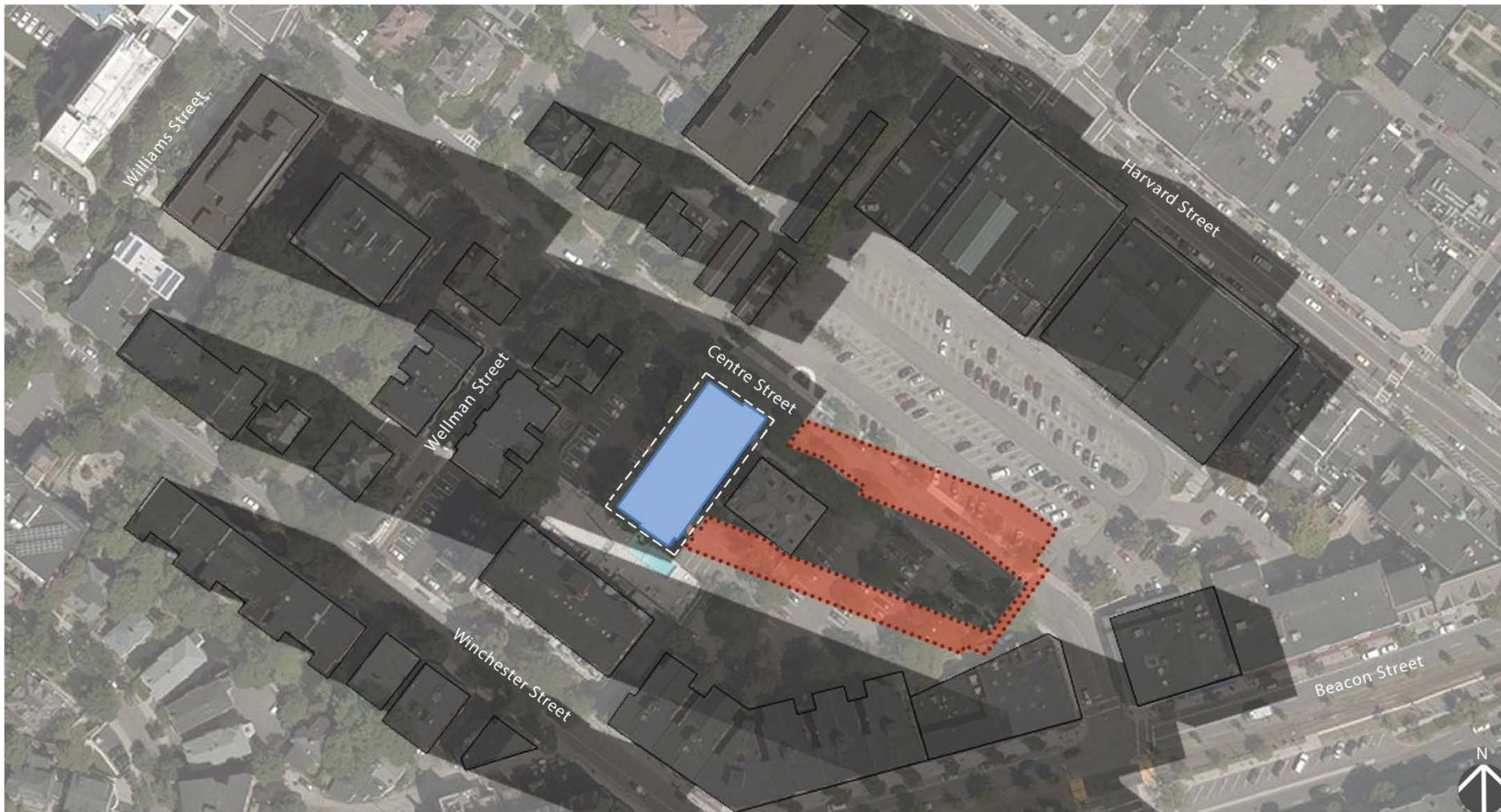
Shadow Studies - June 21st, 12:00pm

Shadow Study



Shadow Studies - June 21st, 3:00pm

Shadow Study



Shadow Studies - June 21st, 6:00pm



Shadow Studies - September 21st, 9:00am

Shadow Study



Shadow Studies - September 21st, 12:00pm

Shadow Study



Shadow Studies - September 21st, 3:00pm

Shadow Study



Shadow Studies - September 21st, 6:00pm

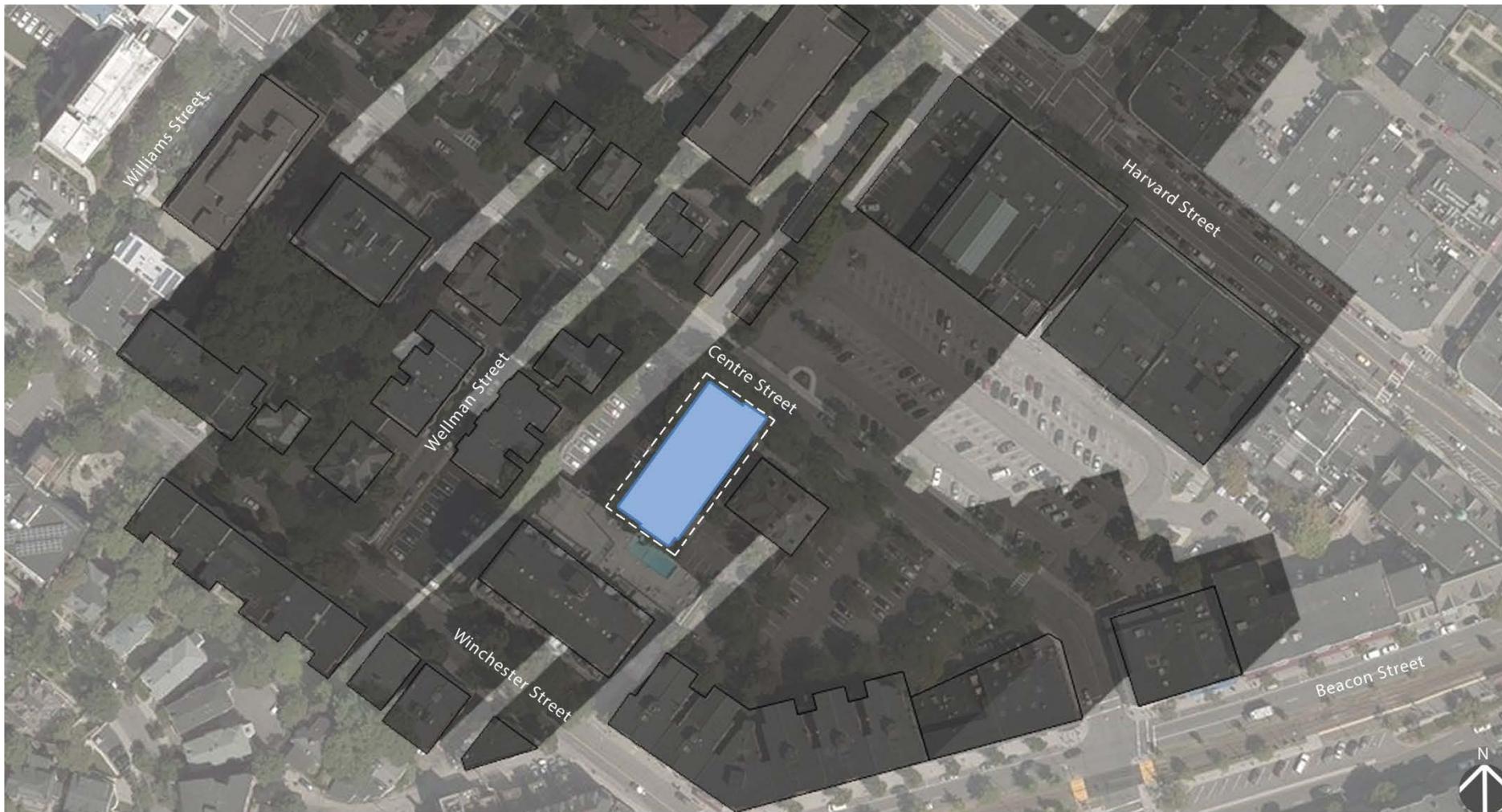
Shadow Study



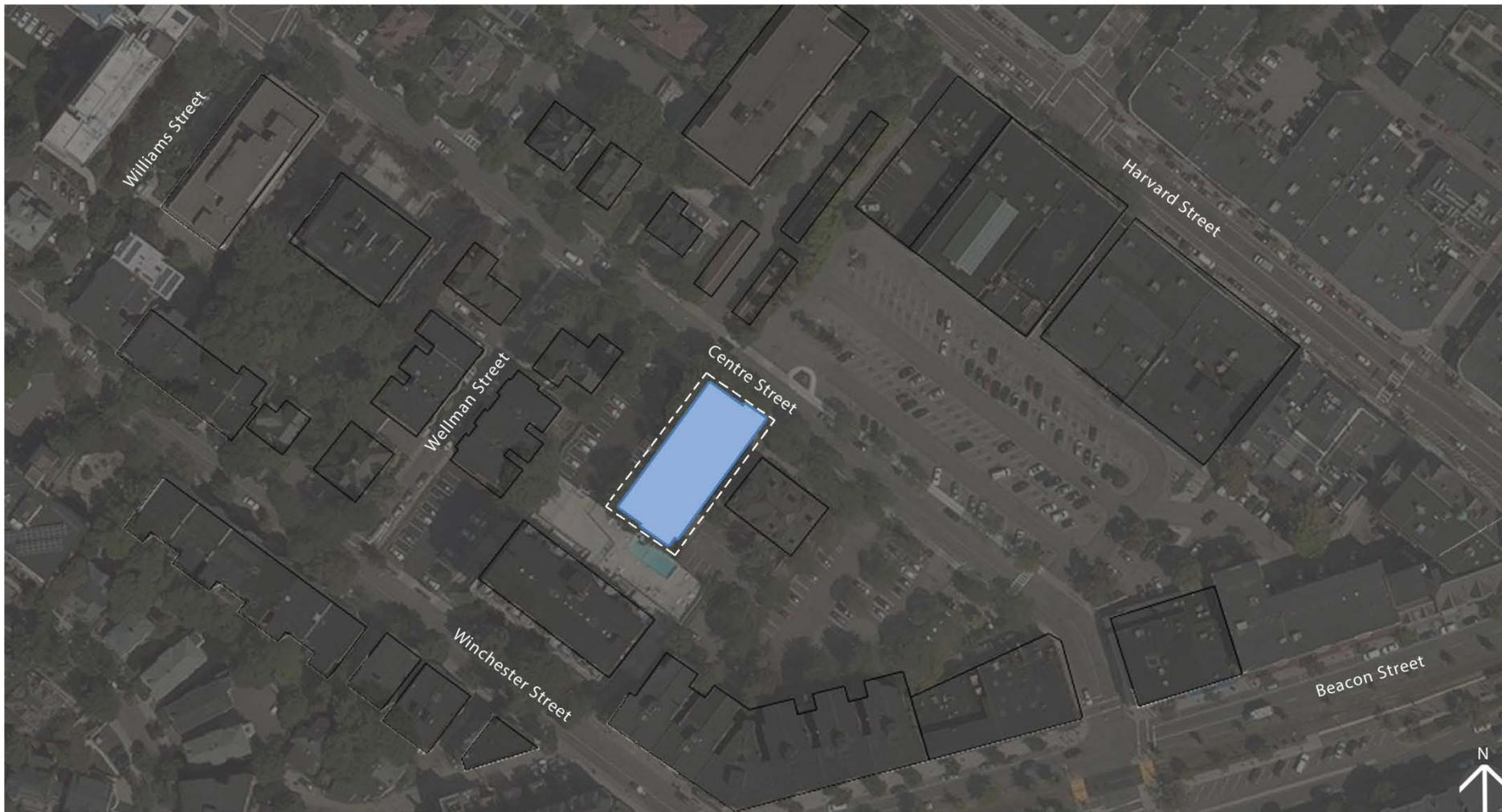
Shadow Studies - December 21st, 9:00am



Shadow Studies - December 21st, 12:00pm



Shadow Studies - December 21st, 3:00pm



Shadow Studies - December 21st, 6:00pm

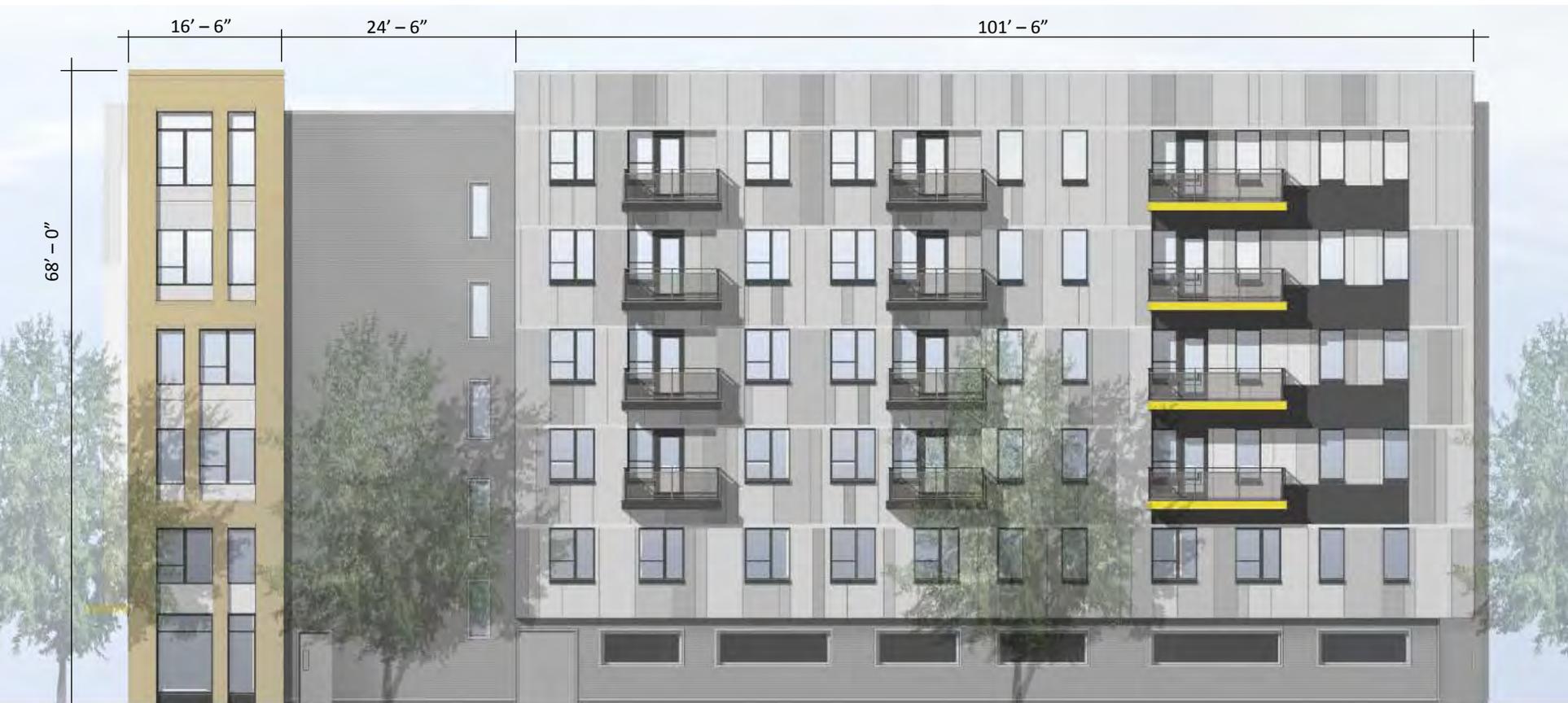
Proposed Building Rendering



Conceptual Building Elevation – Northeast (Front)



Conceptual Building Elevation – Northwest (Parking Lot)



Conceptual Building Elevation – Southwest (Rear / 19 Winchester St.)



Conceptual Building Elevation – Southeast (30-34 Centre St.)



Proposed Unit Mix

RESIDENTIAL UNIT MIX

5/23/2016

Roth Family, LLC
40 Centre Street, Brookline MA
5 Floors of Wood Construction over Podium Parking

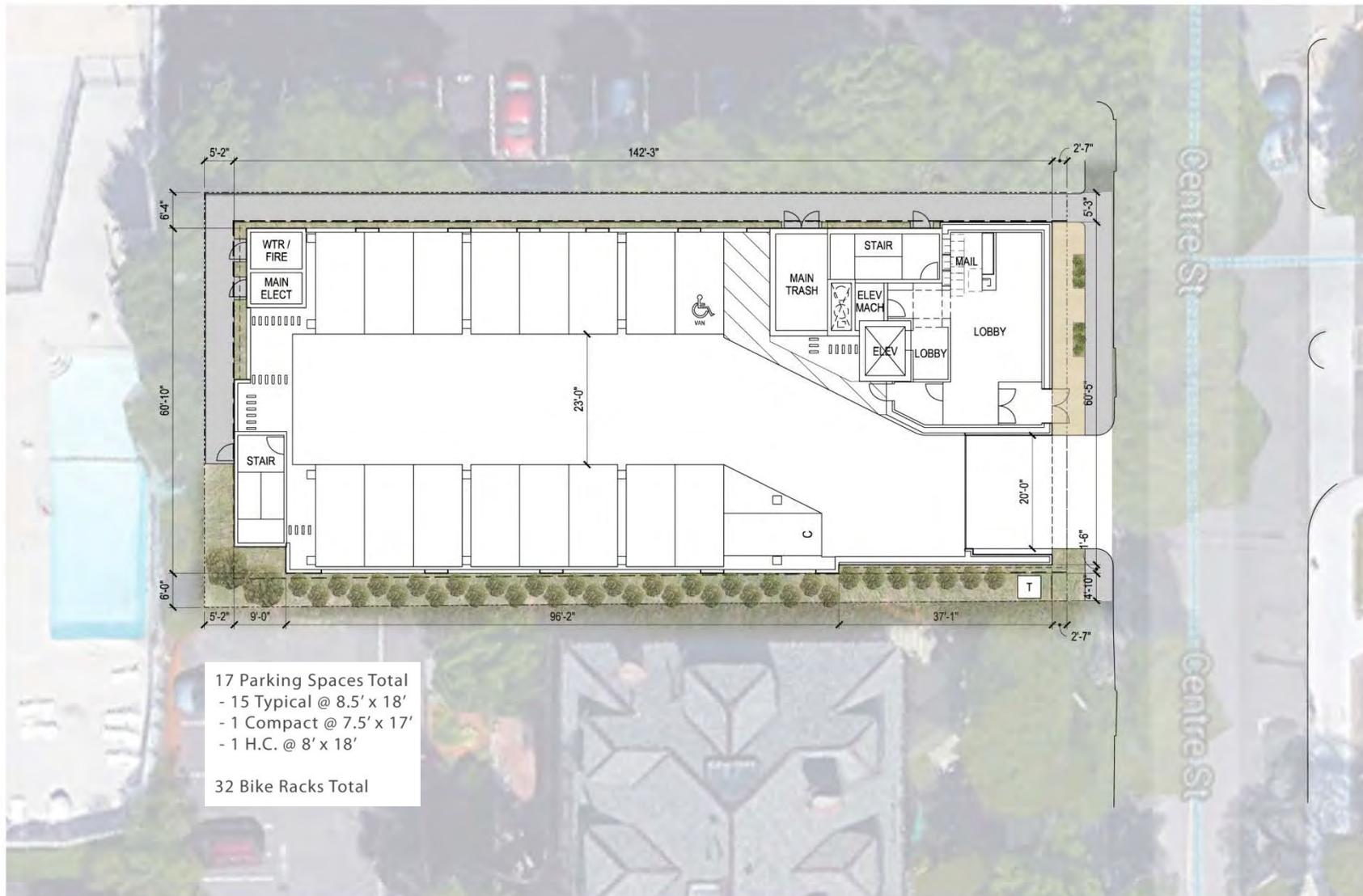
UNIT TYPE	BEDS / UNIT	UNIT NRSF	P1	P2	P3	P4	P5	TOTAL UNITS	TOTAL NRSF	MIX	
Studio, One Bath	S1	0	494	1	1	1	1	1	5	2,470	11.1%
			494						5	2,470	11%
One Bed, One Bath	A1	1	684	3	2	2	2	2	11	7,524	24.4%
One Bed, One Bath	A2	1	685	1	1	1	1	1	5	3,425	11.1%
One Bed, One Bath	A3	1	672	0	1	1	1	1	4	2,688	8.9%
			682						20	13,637	44%
Two Bed, Two Bath	B1	2	960	0	2	2	2	2	8	7,680	17.8%
Two Bed, Two Bath	B2	2	946	0	1	1	1	1	4	3,784	8.9%
Two Bed, Two Bath	B3	2	969	2	0	0	0	0	2	1,938	4.4%
Two Bed, Two Bath	B4	2	974	1	0	0	0	0	1	974	2.2%
			958						15	14,376	33%
Three Bed, Two Bath	C1	3	1,204	1	1	1	1	1	5	6,020	11.1%
			1,204						5	6,020	11%
TOTALS	Average NRSF	811	9	5	5	5	5	45	36,503	100%	

Garage Floor Entry Lobby (GSF)

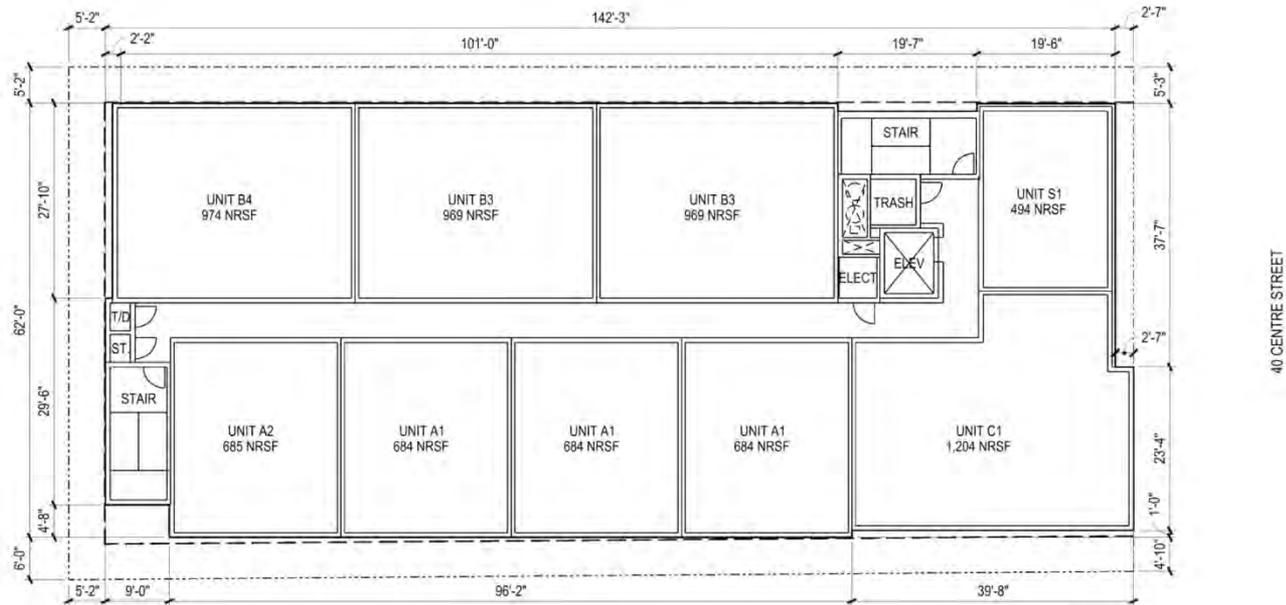
1,805

8,748	GSF - 2nd Floor
8,679	GSF - 3rd, 4th, 5th, & 6th Floors
45,269	Total Residential GSF (Includes Lobby)
6,714	GSF - Parking Level P0 (Does not include Lobby)
6,714	Total Parking GSF
51,983	Total Project GSF
81%	Project Building Efficiency
4.25	FAR

Proposed Building – Ground Floor Plan

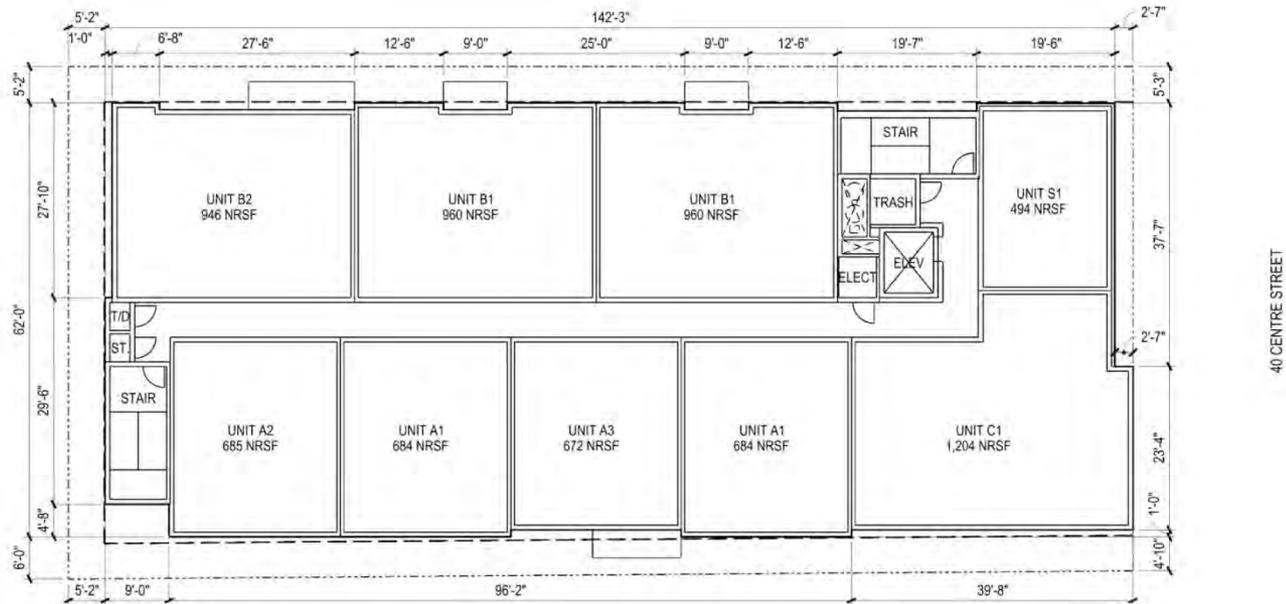


Proposed Building – Second Floor Plan



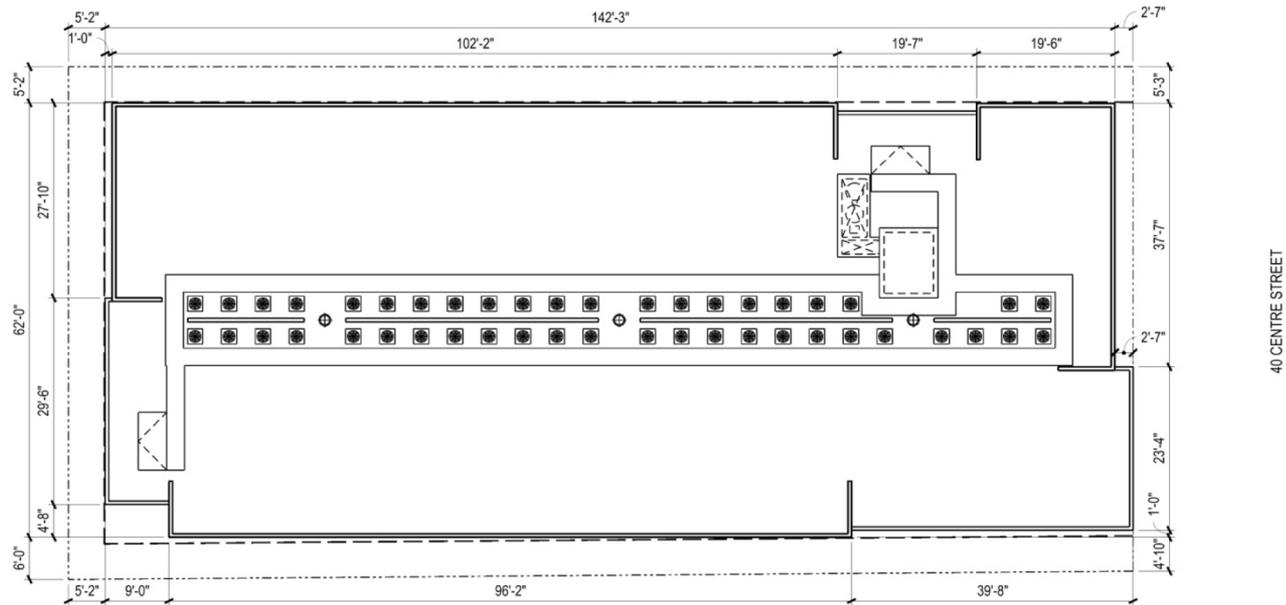
Level 2 Plan
 8,748 GSF / Floor
 7,347 NRSF / Floor
 9 Units / Floor
 84.0% Efficiency

Proposed Building – Typical Floor Plan (3-6)



Levels 3-6 Plan
 8,679 GSF / Floor
 7,289 NRSF / Floor
 9 Units / Floor
 84.0% Efficiency

Proposed Building – Roof Plan



Conceptual Building Section

