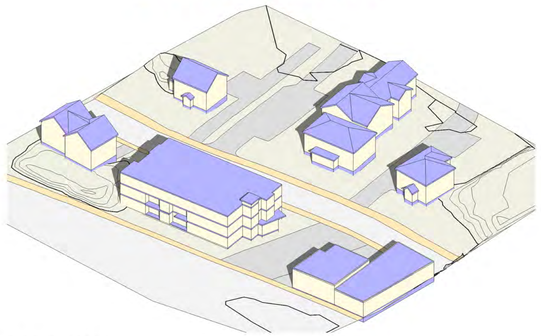
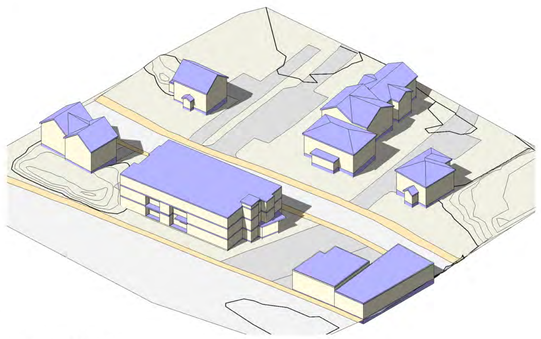
21 MARCH



10 21March-900AM

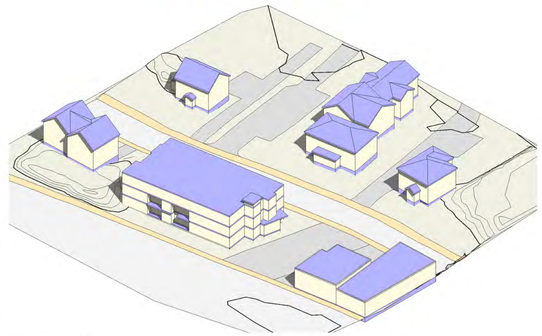


11 21March-1200PM

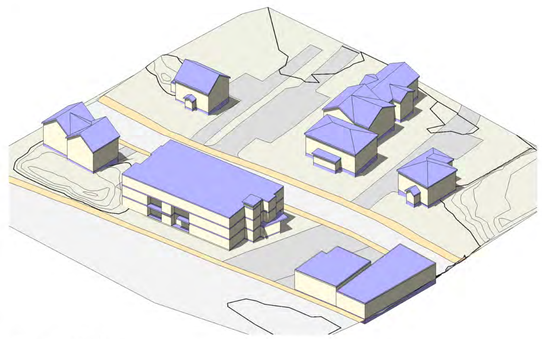
12 21March-300PM

Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
6:45am	**6:58pm**	9:00 am	23.46°	112.52°	2.30 m
		12:00 pm	46.60°	160.97°	0.95 m
		3:00 pm	39.29°	223.29°	1.22 m

21 JUNE



7 21June-900AM

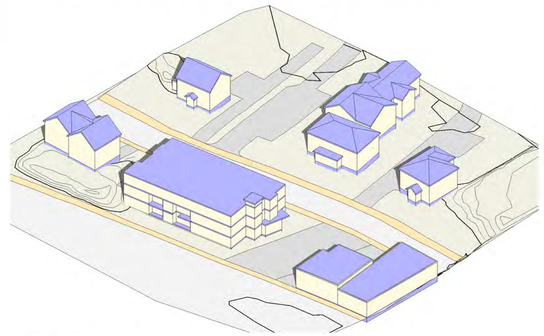


8 21June-1200PM

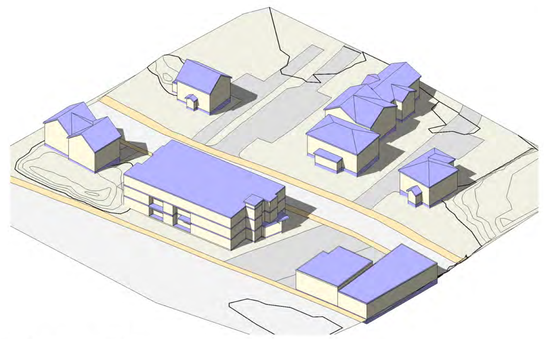
9 21June-300PM

Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
5:07am	**8:25pm**	9:00 am	39.86°	93.40°	1.20 m
		12:00 pm	68.78°	149.19°	0.39 m
		3:00 pm	56.58°	246.24°	0.66 m

21 SEPTEMBER



4 21September-900AM

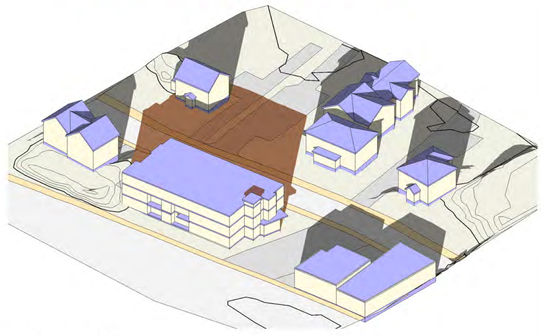


5 21September-1200PM

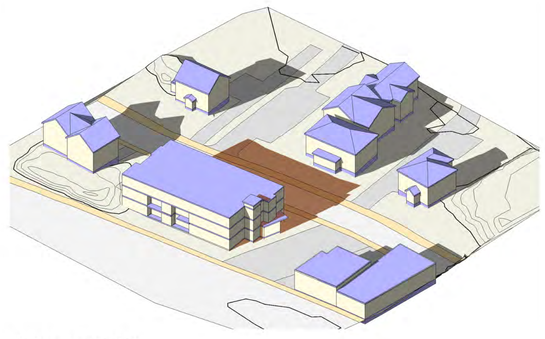
6 21September-300PM

Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
6:31am	**6:43pm**	9:00 am	25.87°	115.35°	2.06 m
		12:00 pm	47.29°	166.04°	0.92 m
		3:00 pm	37.31°	227.02°	1.31 m

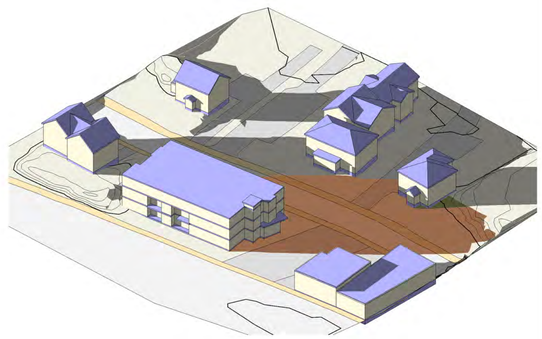
21 DECEMBER



3 21December-900AM



14 21December-1200PM



2 21December-300PM

Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
7:10am	**4:15pm**	9:00 am	14.31°	141.84°	3.92 m
		12:00 pm	24.16°	184.27°	2.23 m
		3:00 pm	10.18°	224.89°	5.57 m

I am a registered Architect in Massachusetts and New York and I have directly supervised the preparation of the Shadow Studies for the 50 Jackson St. Project here in Newton. To the best of my knowledge, information, and belief, the Shadow Studies meet the professional standards established for such work.

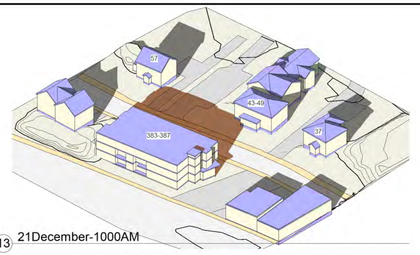
Mark Dooling, AIA

Typical standard dates and times were selected for the shadow study.
Solstices & Equinoxes. 9:00am, 12:00pm, and 3:00pm.

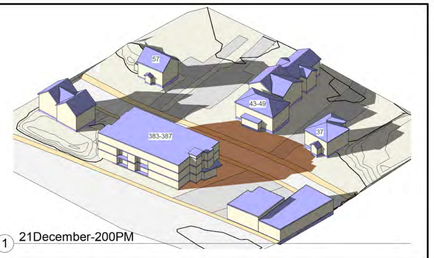
Overall, the length of the shadow of the proposed structure is not different compared to the length shadows of the surrounding neighbors.

December 21st. is close to the shortest day of the year with the longer shadow. On that day at 3:00 p.m. (one hour before to the sunset) the solar angle is very low around 10 degrees plus/minus. However, the 3d massing shadows shown, that the shadows reaches only a small portion of the first floor front exterior wall of the structures at 43-49. Similar situation happens in the morning around 9:00am at the property on 57 Jackson St.

From 10 to 2p.m. on December 21st. the building's shadows does not affect the surrounding buildings. See graphics beside this note from 10am to 2pm on December 21st.



13 21December-1000AM



1 21December-200PM

Dooling & Company Architects

84 Bowers Street - Newton, MA 02460
T: (617) 212 4037
www.doolingcoarchitects.com

Residential Building @
383-387 Boylston St
Newton MA

SHEET TITLE:
Solar Shadow Study
3D Views

DATE: 12/06/2021

REVISIONS

No	DATE	DESCRIPTION

SCALE:

DRAWN BY: FA

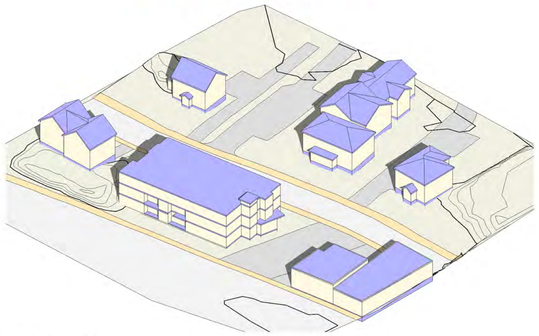
PROJECT No: Project Number

CADD FILE: -

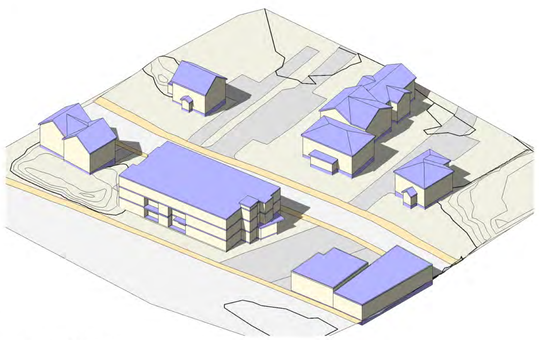
DWG No:

SL-02

21 MARCH



10 21March-900AM

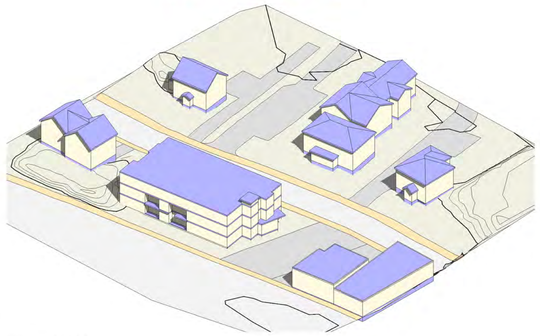


11 21March-1200PM

12 21March-300PM

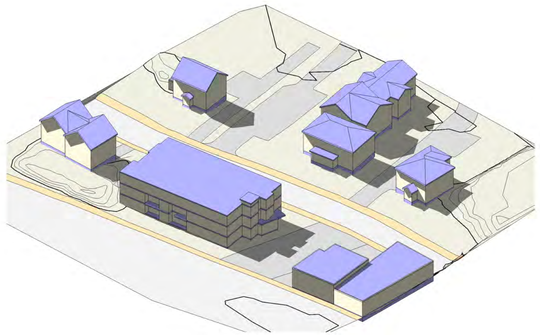
Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
6:45am	**6:58pm**	9:00 am	23.46°	112.52°	2.30 m
		12:00 pm	46.60°	160.97°	0.95 m
		3:00 pm	39.29°	223.29°	1.22 m

21 JUNE



7 21June-900AM

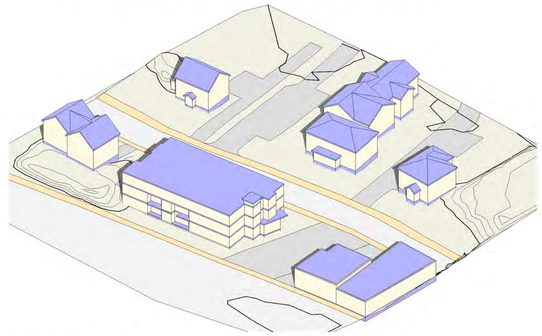
8 21June-1200PM



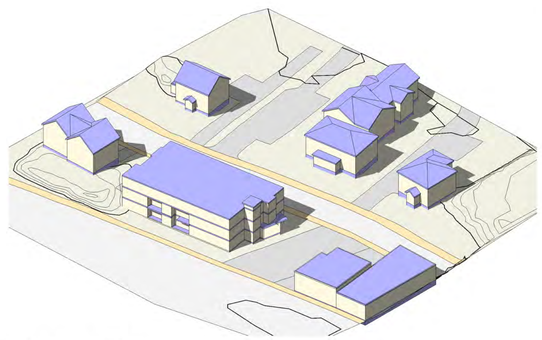
9 21June-300PM

Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
5:07am	**8:25pm**	9:00 am	39.86°	93.40°	1.20 m
		12:00 pm	68.78°	149.19°	0.39 m
		3:00 pm	56.58°	246.24°	0.66 m

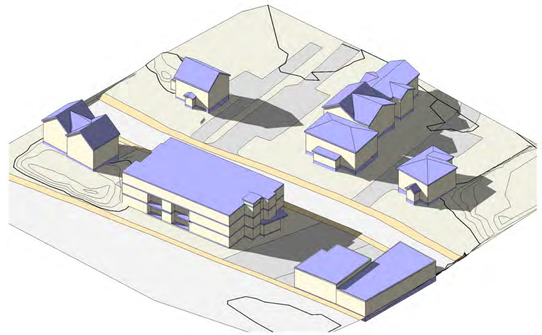
21 SEPTEMBER



4 21September-900AM



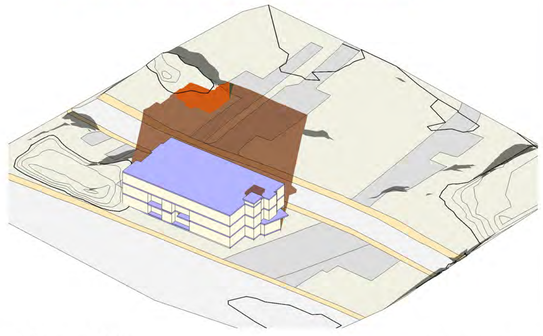
5 21September-1200PM



6 21September-300PM

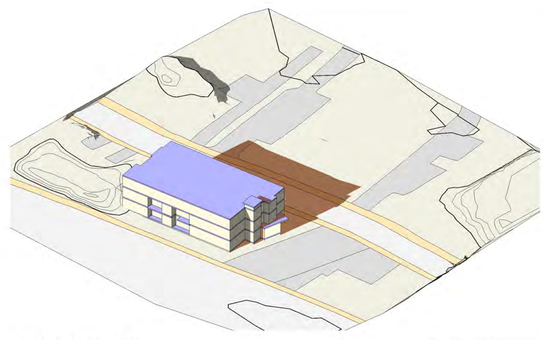
Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
6:31am	**6:43pm**	9:00 am	25.87°	115.35°	2.06 m
		12:00 pm	47.29°	166.04°	0.92 m
		3:00 pm	37.31°	227.02°	1.31 m

21 DECEMBER



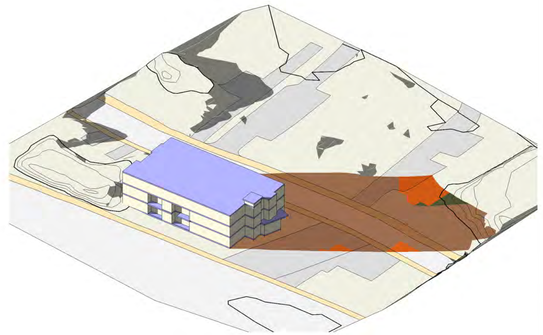
3 21December-900AM

383-387 SHADOWS ONLY SHOWN



14 21December-1200PM

383-387 SHADOWS ONLY SHOWN



2 21December-300PM

383-387 SHADOWS ONLY SHOWN

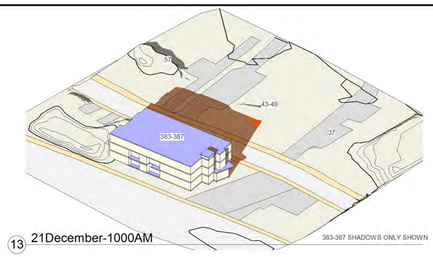
Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
7:10am	**4:15pm**	9:00 am	14.31°	141.84°	3.92 m
		12:00 pm	24.16°	184.27°	2.23 m
		3:00 pm	10.18°	224.89°	5.57 m

Typical standard dates and times were selected for the shadow study.
Solstices & Equinoxes. 9:00am, 12:00pm, and 3:00pm.

Overall, the length of the shadow of the proposed structure is not different compared to the length shadows of the surrounding neighbors.

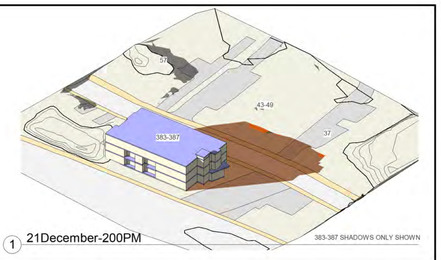
December 21st. is close to the shortest day of the year with the longer shadow. On that day at 3:00 p.m. (one hour before to the sunset) the solar angle is very low around 10 degrees plus/minus. However, the 3d massing shadows shown, that the shadows reaches only a small portion of the first floor front exterior wall of the structures at 43-49. Similar situation happens in the morning around 9:00am at the property on 57 Jackson St.

From 10 to 2p.m. on December 21st. the building's shadows does not affect the surrounding buildings. See graphics beside this note from 10am to 2pm on December 21st.



13 21December-1000AM

383-387 SHADOWS ONLY SHOWN



1 21December-200PM

383-387 SHADOWS ONLY SHOWN

Dooling & Company Architects

84 Bowers Street - Newton, MA 02460
T: (617) 212 4037
www.doolingcoarchitects.com

Residential Building @
383-387 Boylston St
Newton MA

SHEET TITLE:
Solar Shadow Study
3D Views

DATE: 12/06/2021

REVISIONS

No	DATE	DESCRIPTION

SCALE:

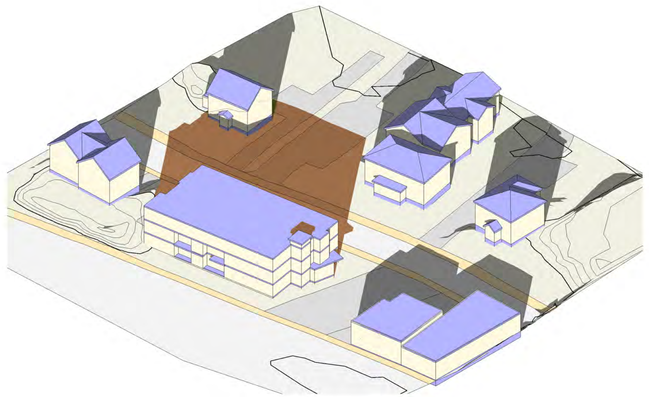
DRAWN BY: FA

PROJECT No: Project Number

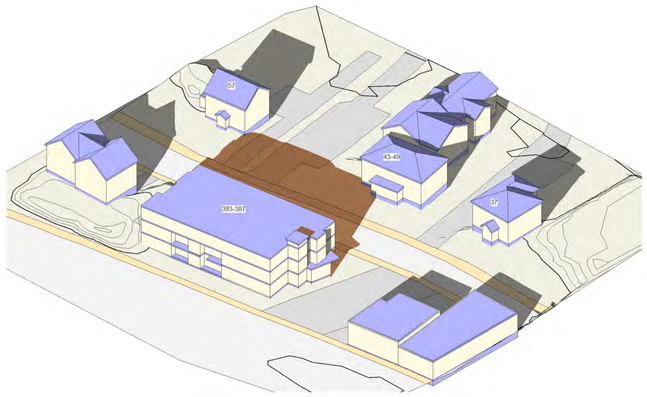
CADD FILE: -

DWG No:

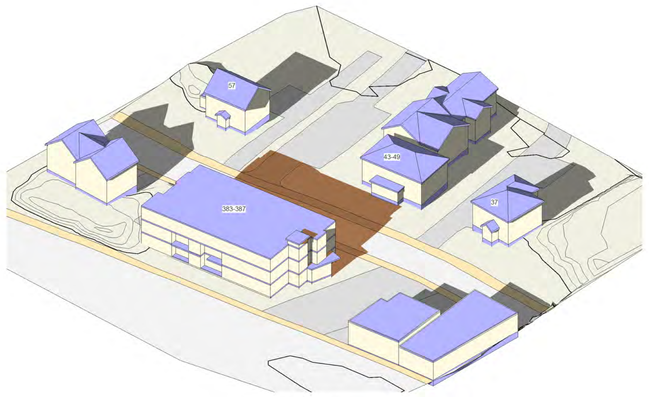
SL-02



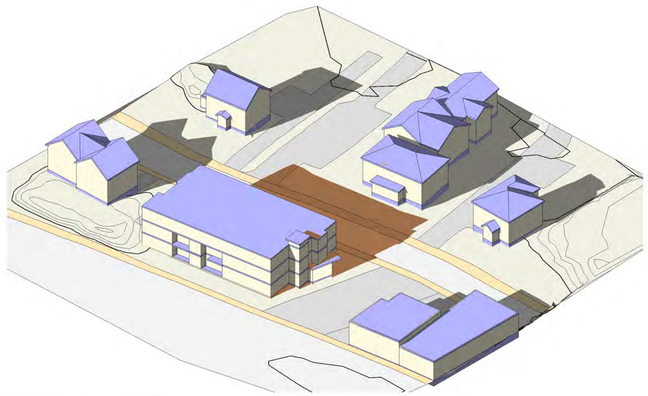
1 A_21December-900AM



2 B_21December-1000AM



3 C_21December-1100AM



4 D_21December-1200PM

5 E_21December-100PM

6 F_21December-200PM

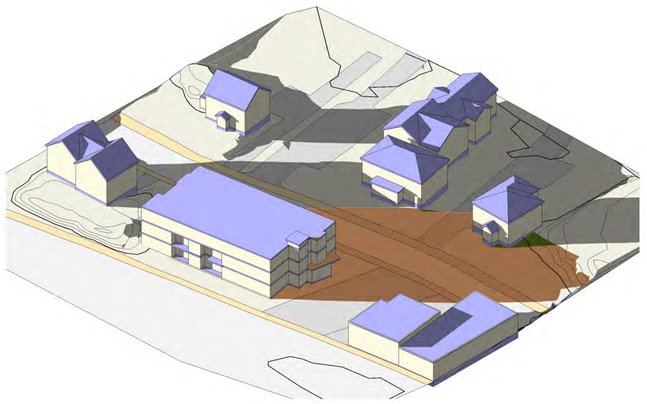
Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
7:10am	**4:15pm**	9:00 am	14.31º	141.84º	3.92 m
		12:00 pm	24.16º	184.27º	2.23 m
		3:00 pm	10.18º	224.89º	5.57 m

Typical standard dates and times were selected for the shadow study.
Solstices & Equinoxes. 9:00am,12:00pm, and 3:00pm. For December 21st times were added (10:00am, 11:00am, 1:00pm, and 2:00pm).

Overall, the length of the shadow of the proposed structure is not different compared to the length shadows of the surrounding neighbors.

December 21st. is close to the shortest day of the year with the longer shadow. On that day at 3:00 p.m. (one hour before to the sunset) the solar angle is very low around 10 degrees plus/minus. However, the 3d massing shadows shown, that the shadows reaches only a small portion of the first floor front exterior wall of the structures at 43-49. Similar situation happens in the morning around 9:00am at the property on 57 Jackson St.

From 10 to 2p.m. on December 21st. the building's shadows does not affect the surrounding buildings. See graphics beside this note from 10am to 2pm on December 21st.



7 G_21December-300PM

Dooling & Company Architects

84 Bowers Street - Newton, MA 02460
T- (617) 212 4037
www.doolingcoarchitects.com

Residential Building @
383-387 Boylston St
Newton MA

SHEET TITLE:
Solar Shadow Study 12/21
3D Views

DATE: 12/06/2021

REVISIONS

No	DATE	DESCRIPTION

SCALE:

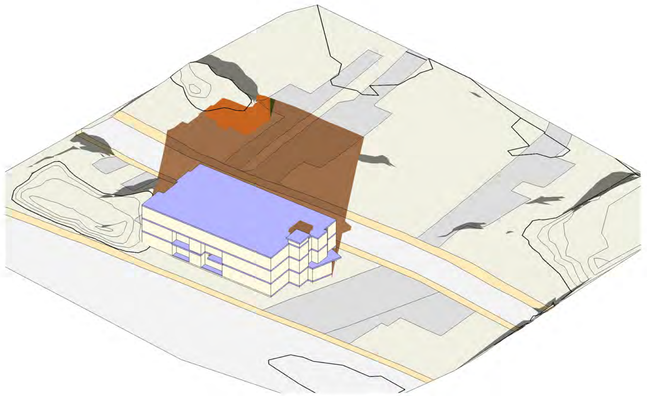
DRAWN BY: Author

PROJECT No: Project Number

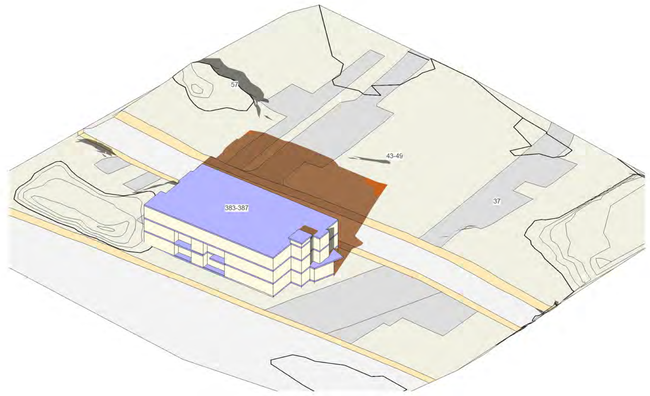
CADD FILE: -

DWG No:

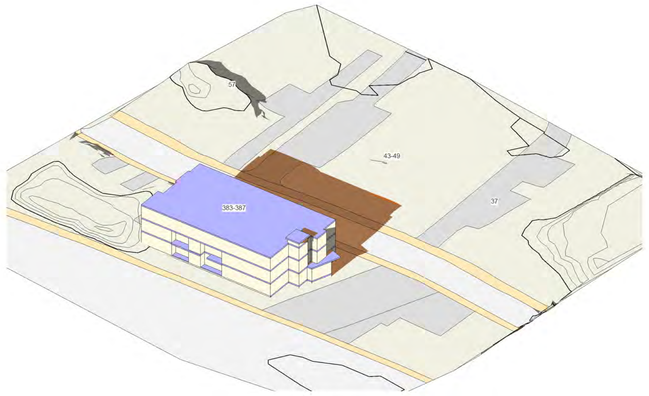
SL-03



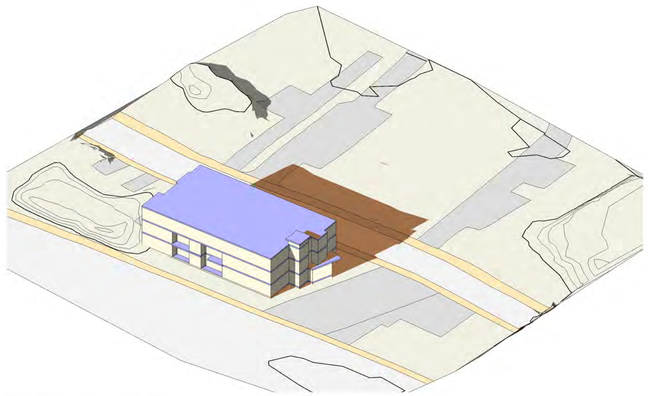
1 A_21December-900AM



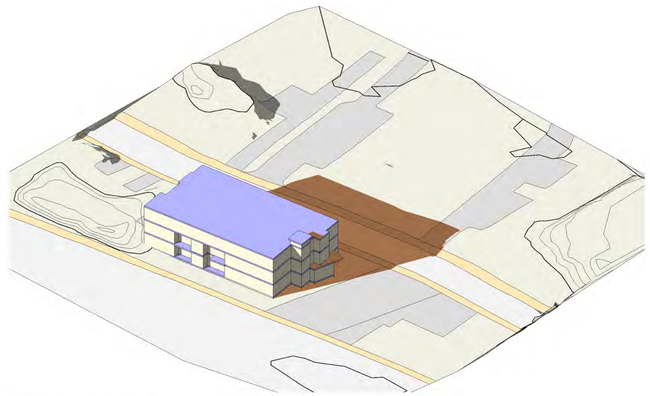
2 B_21December-1000AM



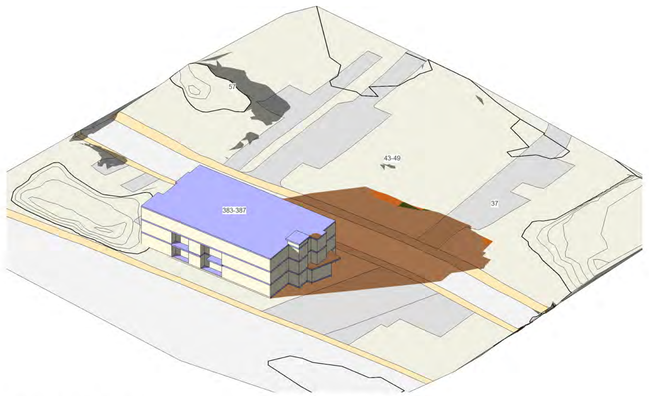
3 C_21December-1100AM



4 D_21December-1200PM



5 E_21December-100PM



6 F_21December-200PM

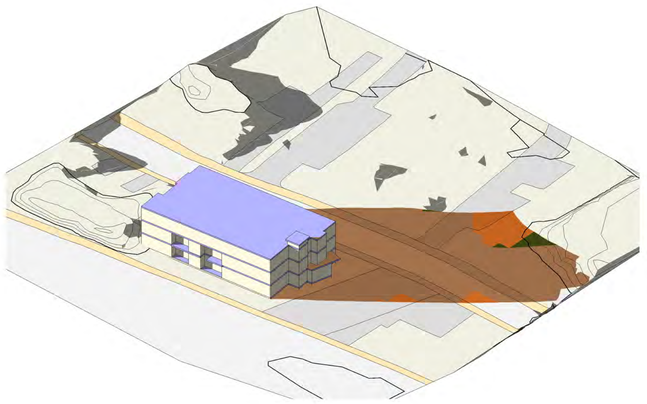
Sunrise	Sunset	Time	Altitud	Azimut	Shadow (1m)
7:10am	**4:15pm**	9:00 am	14.31º	141.84º	3.92 m
		12:00 pm	24.16º	184.27º	2.23 m
		3:00 pm	10.18º	224.89º	5.57 m

Typical standard dates and times were selected for the shadow study.
Solstices & Equinoxes. 9:00am,12:00pm, and 3:00pm. For December 21st times were added (10:00am, 11:00am, 1:00pm, and 2:00pm).

Overall, the length of the shadow of the proposed structure is not different compared to the length shadows of the surrounding neighbors.

December 21st. is close to the shortest day of the year with the longer shadow. On that day at 3:00 p.m. (one hour before to the sunset) the solar angle is very low around 10 degrees plus/minus. However, the 3d massing shadows shown, that the shadows reaches only a small portion of the first floor front exterior wall of the structures at 43-49. Similar situation happens in the morning around 9:00am at the property on 57 Jackson St.

From 10 to 2p.m. on December 21st. the building's shadows does not affect the surrounding buildings. See graphics beside this note from 10am to 2pm on December 21st.



7 G_21December-300PM

Dooling & Company Architects

84 Bowers Street - Newton, MA 02460
T: (617) 212 4037
www.doolingcoarchitects.com

Residential Building @
383-387 Boylston St
Newton MA

SHEET TITLE:
Solar Shadow Study 12/21
3D Views

DATE: 12/06/2021

REVISIONS

No	DATE	DESCRIPTION

SCALE:

DRAWN BY: Author

PROJECT No: Project Number

CADD FILE: -

DWG No:

SL-03