

CLARENDON HILL: **WORKSHOP #4**

March 29, 2017

Agenda

- 1) Welcome and Updates
- 2) Urban Design – feedback from Duplos
- 3) Traffic
- 4) Parking
- 5) Transit
- 6) Construction Mitigation
- 7) Stormwater
- 8) Community Programming

URBAN DESIGN

Group A

- Smaller building footprints help to break down massing
- Less vehicular circulation thru the site enables larger open space
- Pedestrian connections through to Dilboy and North St. Playground



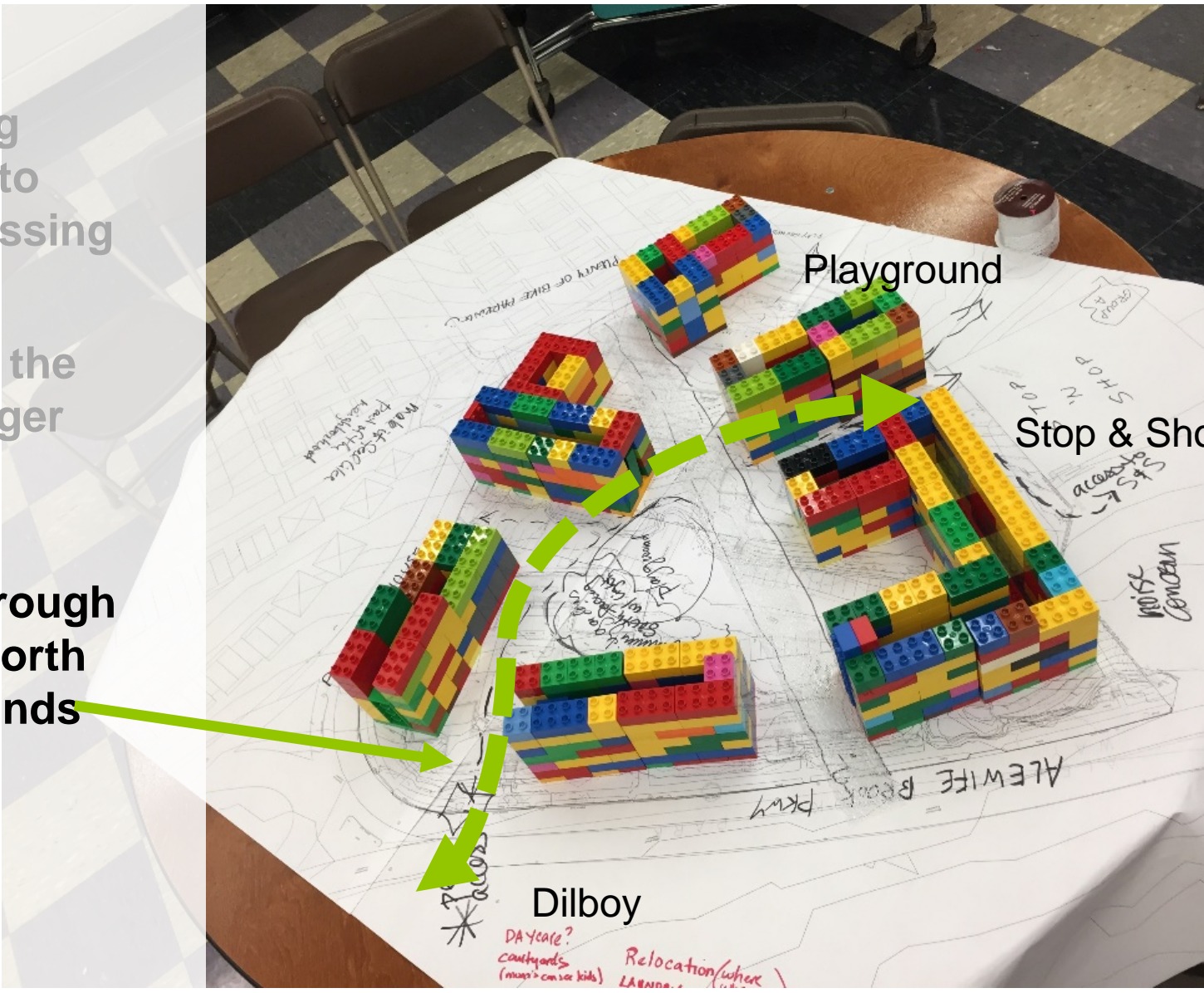
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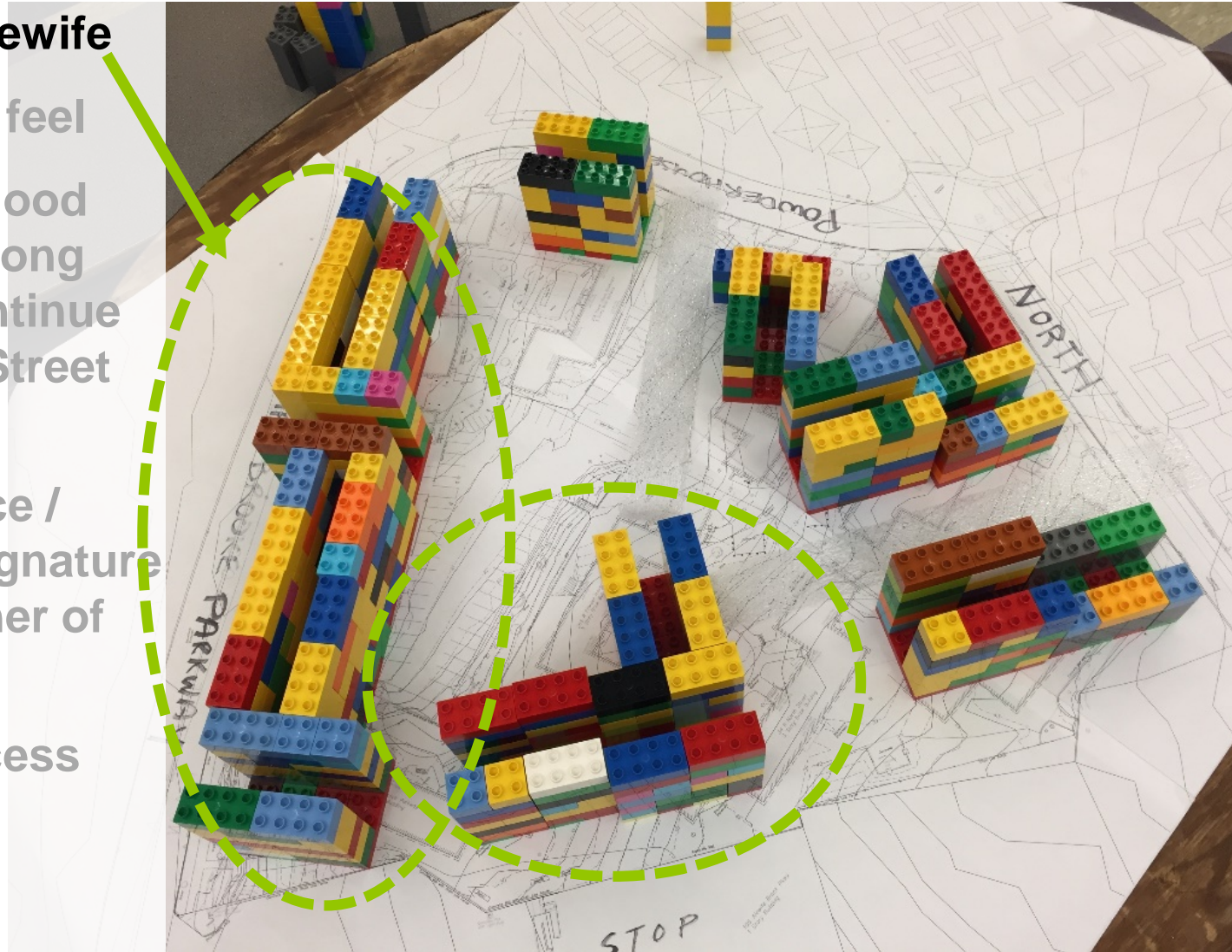
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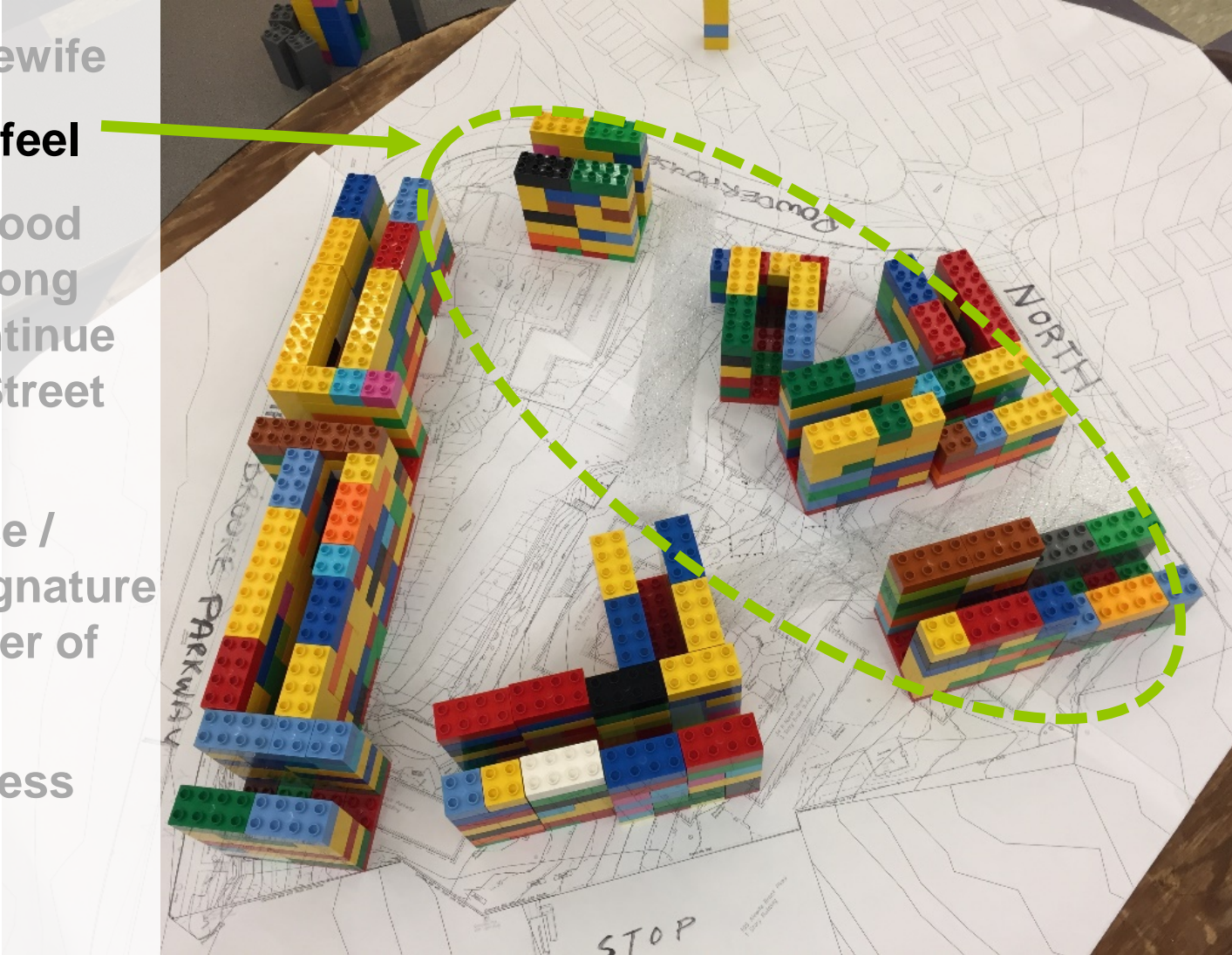
Group B:

- **Density along Alewife**
- Avoid “fortress” feel
- Blend neighborhood height & scale along North Street, continue down Hamilton Street extension.
- Either open space / public art or a signature move at the corner of PHB and ABP
- No vehicular access through to ABP



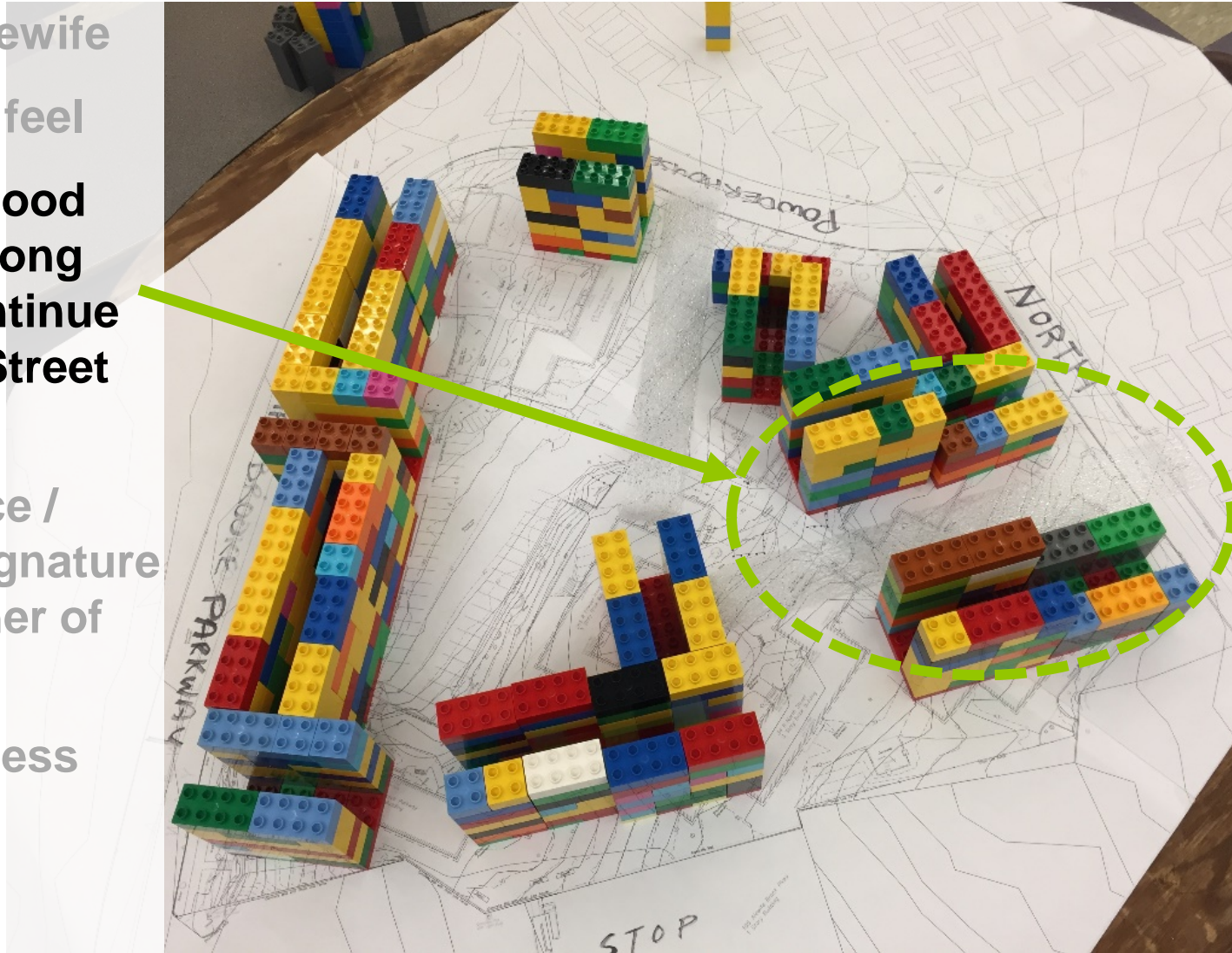
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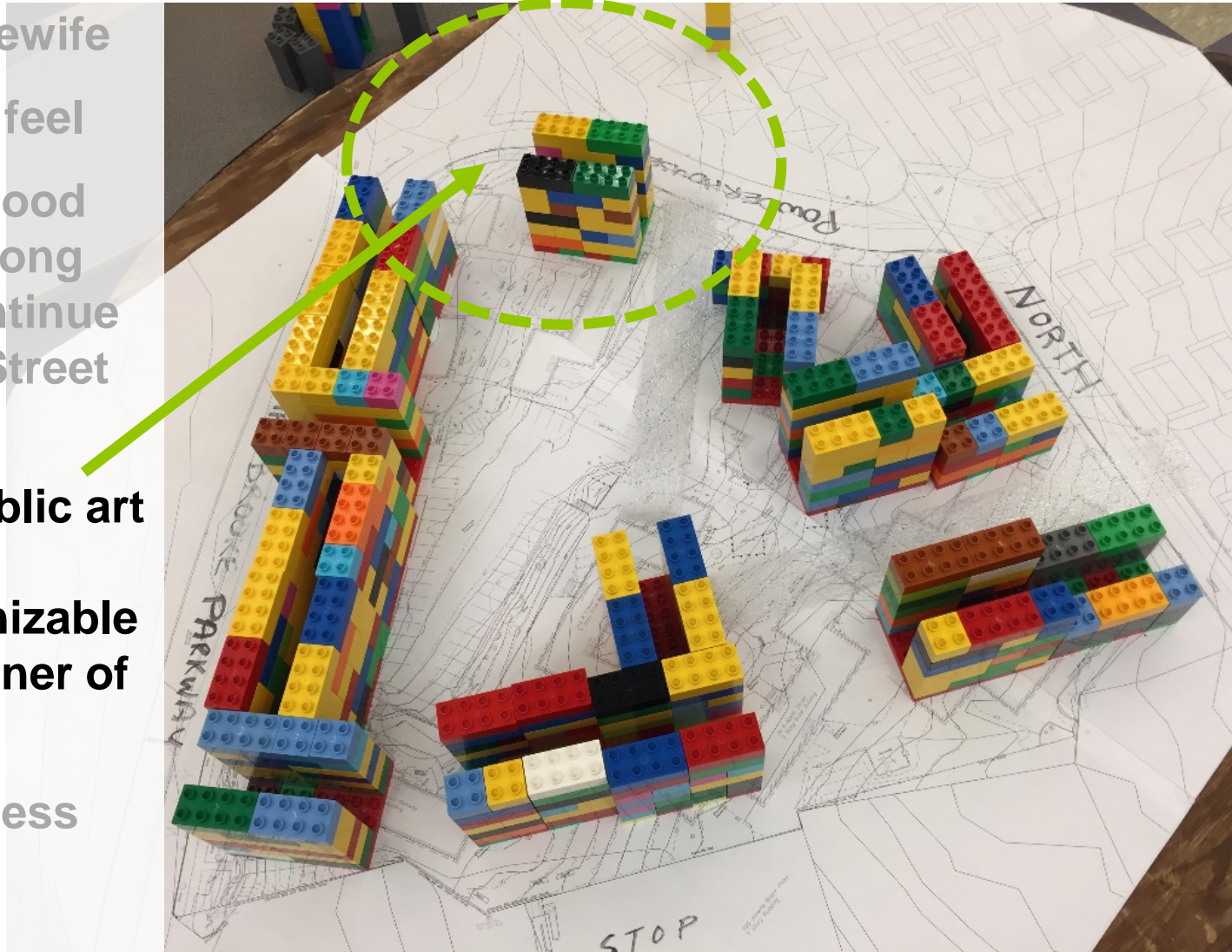
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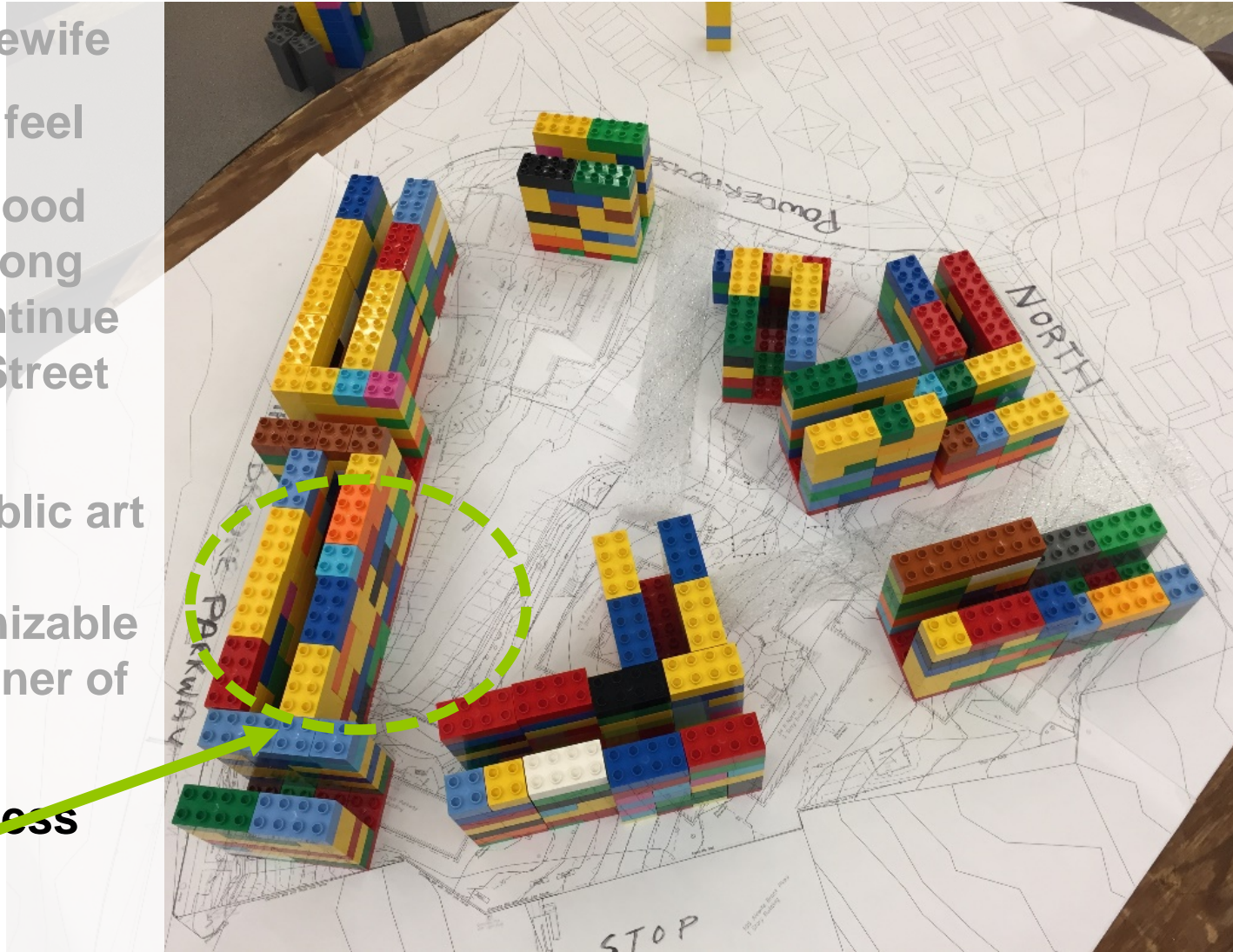
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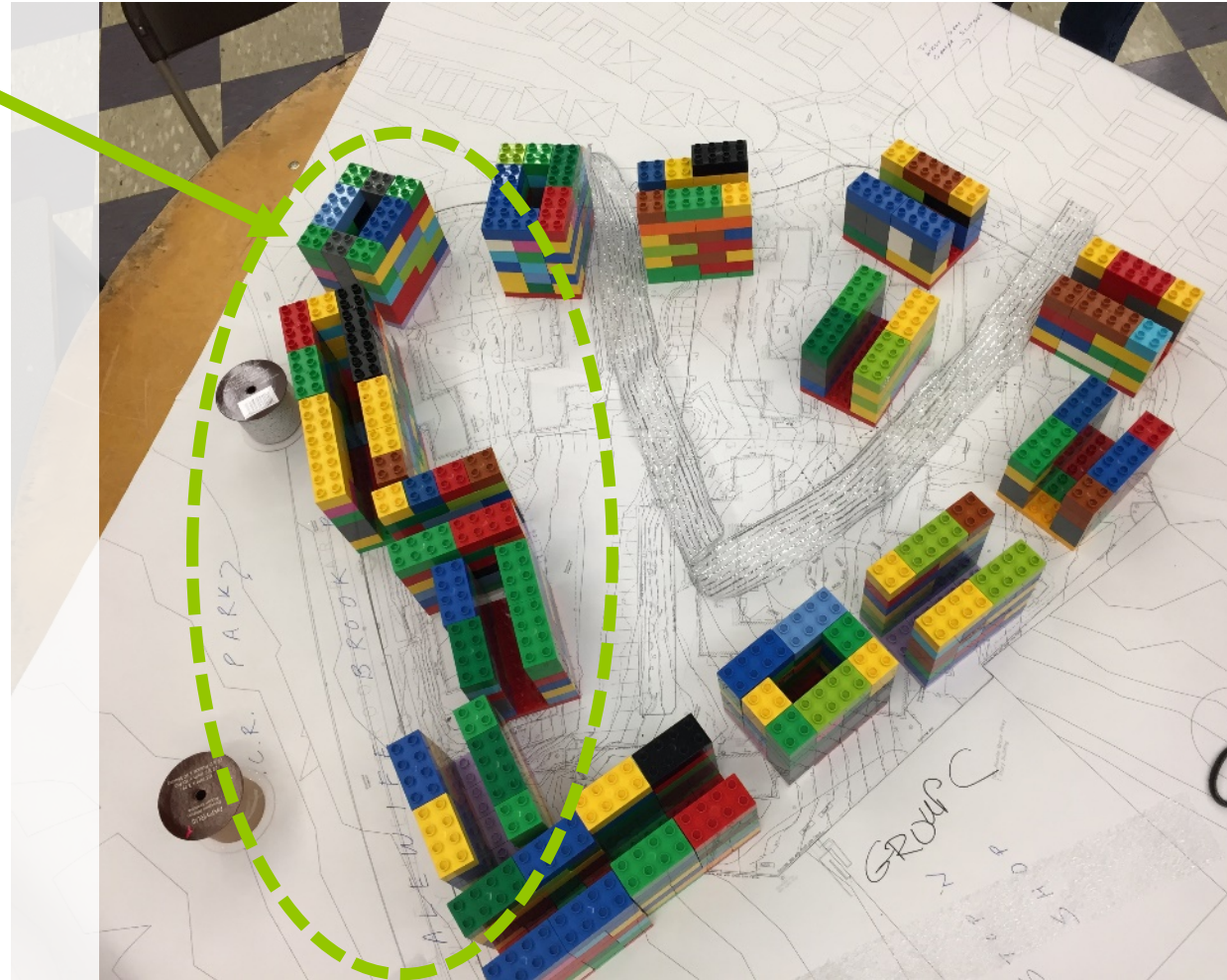
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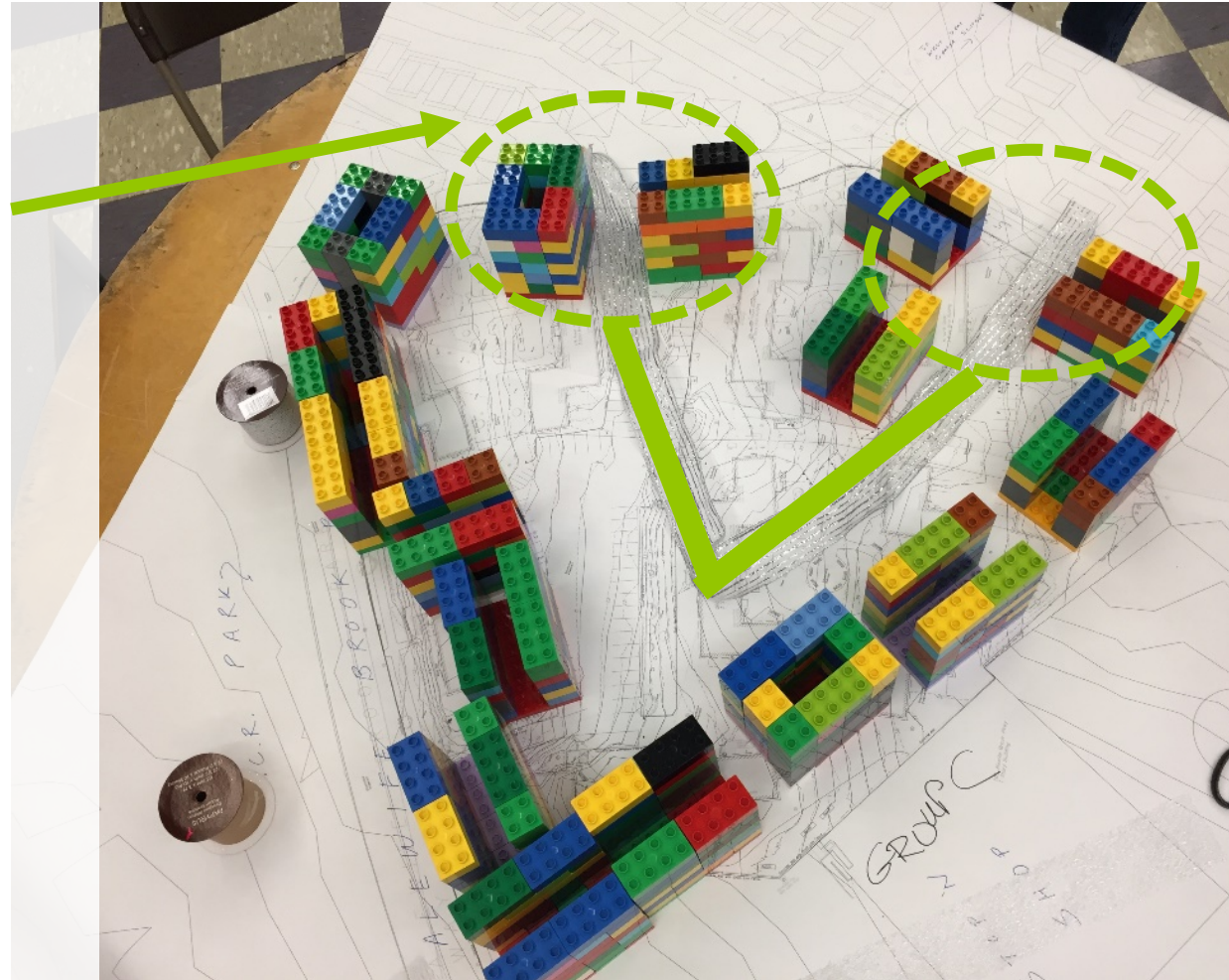
Group C

- **Height and Mass along ABP**
- Connect to existing roads and curb cuts on PHB and North St.
- Connection at corner to the park
- Openings all along the edges (except ABP) to let light in



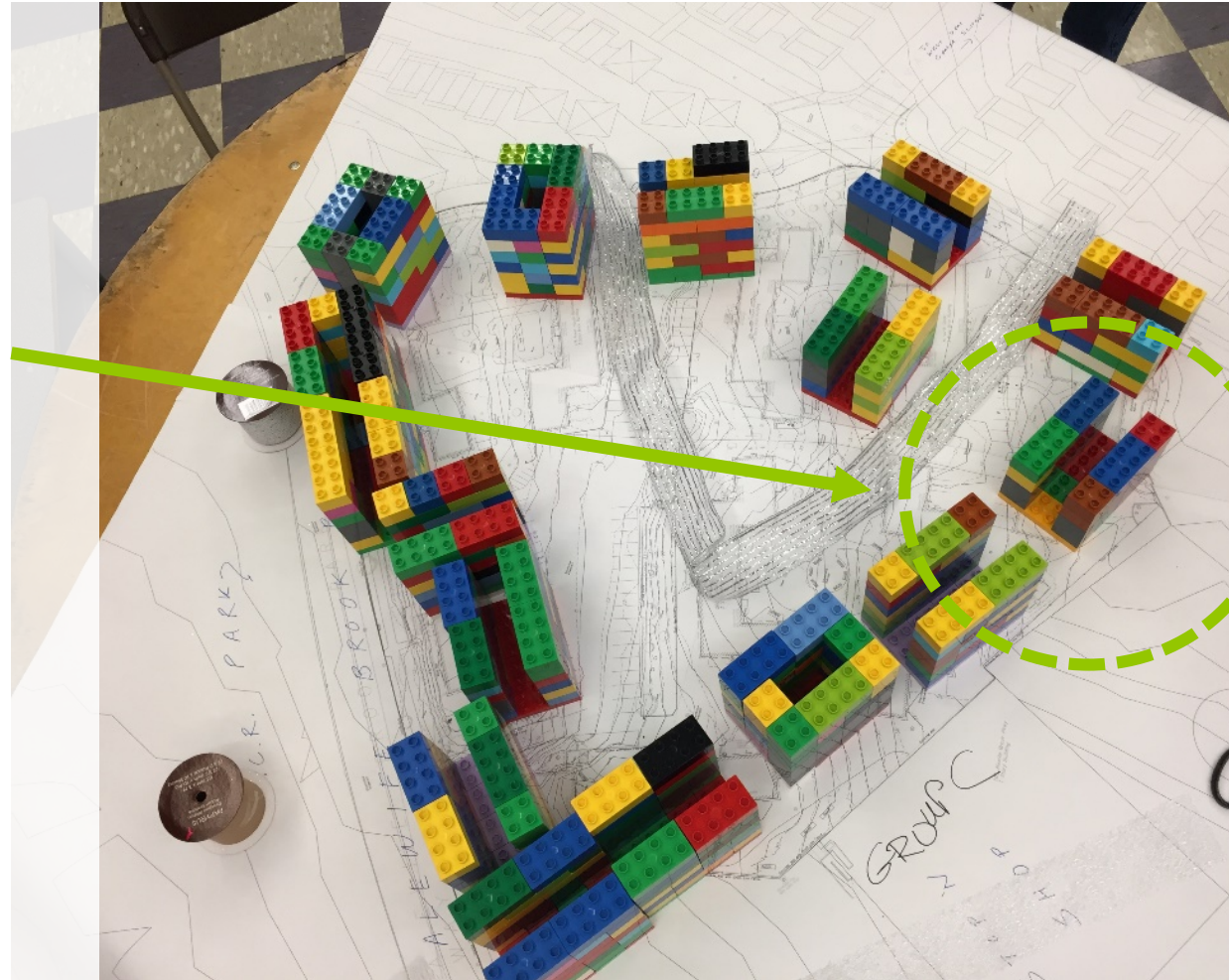
Group C

- Height and Mass along ABP
- **Connect to existing roads and curb cuts on Powderhouse and North Street**
- Connection at corner to the park
- Openings all along the edges (except ABP) to let light in



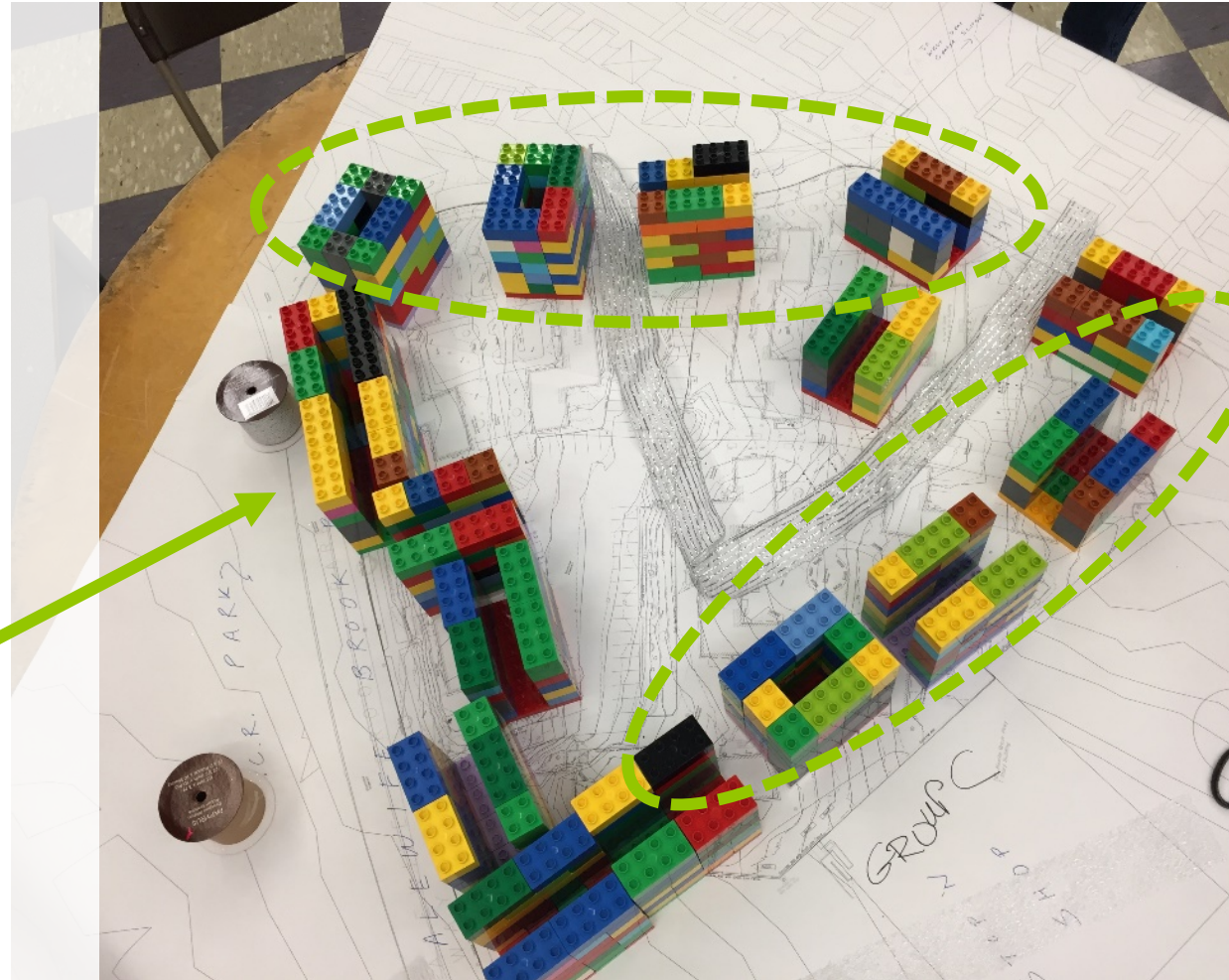
Group C

- Height and Mass along ABP
- Connect to existing roads and curb cuts on Powderhouse & North Street
- **Connection at corner to the park**
- Openings all along the edges (except ABP) to let light in



Group C

- Height and Mass along Alewife
- Connect to existing roads and curb cuts on Powderhouse & North Street
- Connection at corner to the park
- **Openings along the edges (except Alewife) to let light in**



The design team created a number of options to address the following priorities:

1. Density & height moved away from Powder House and North St toward Alewife Brook Parkway
2. Improved pedestrian connection to Dilboy, Playground, Stop & Shop
3. Avoid “fortress” feel
4. Maximize green space
5. Minimize traffic impact on neighborhood streets



OPTION 1

- Height and Mass along Alewife Brook Parkway
- Connect to existing roads and curb cuts on Powderhouse and North Street
- Realign Hamilton St Extension – smaller buildings and more pedestrian connections
- Strong Public Connection thru site to Dilboy Field
- Strong Connection to Stop & Shop



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BUILDING B
6 stories residential
+ 1 story parking

BUILDING C
4 stories residential
+ 1 story parking

BUILDING A
6 stories residential
+ 1 story parking

BUILDING E
6 stories residential
+ 1 story parking

BUILDING D
6 stories residential
+ 1 story parking



OPTION 2

- Height and Mass along Alewife Brook Parkway
- Connect to existing roads and curb cuts on Powderhouse and North Street
- Strong Connection to North St Playground – AND Open Space moved to North Street
- Strong Public Connection thru site to Dilboy Field
- Strong Connection to Stop & Shop



OPTION 2

- Height and Mass along Alewife Brook Parkway
- **Connect to existing roads and curb cuts on Powderhouse and North Street**
- Strong Connection to North St Playground – AND Open Space moved to North Street
- Strong Public Connection thru site to Dilboy Field
- Strong Connection to Stop & Shop



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BUILDING B
6 stories residential
+ 1 story parking

BUILDING C
4 stories residential
+ 1 story parking

BUILDING A
6 stories residential
+ 1 story parking

BUILDING D
6 stories residential
+ 1 story parking

LOBBY/STORAGE
1,000 SF

COURTYARD

COMMUNITY
8,877 SF

LOBBY
315 SF

LOBBY
607 SF





OPTION 1:

- ***5 Smaller Buildings***
- ***Central Interconnected Open Space***
- ***Buildings edge the streets/site***
- ***Strong Connections between buildings***



OPTION 2:

- ***4 Larger Buildings***
- ***Multiple Open Spaces***
- ***Buildings sit back from North Street***
- ***Open Space connection to surrounding neighborhood***

TRAFFIC

Traffic

A quick update:

- **Terry Smith (City of Somerville Traffic Engineering) reviewed traffic study data and supports the collection and the analysis**

Study Intersections



Study at St Polycarp confirms data collected

Step 2: Count Empirical Data and Generate Trip Generation Rates for St. Polycarps

Empirical Trip Generation for St. Polycarps	AM Peak Hour	PM Peak Hour
Dwelling Units	84	84
Empirical Trip Generation Rate	0.21	0.35
Total Vehicle-Trips	18	29
Entering%	44%	55%
Exiting%	56%	45%
Entering Trips	8	16
Exiting Trips	10	13

Step 3: Apply St. Polycarps Trip Generation Rates to Proposed Clarendon Hills

Proposed Empirical Trip Generation for Clarendon Hills	AM Peak Hour	PM Peak Hour
Dwelling Units	315	315
Empirical Trip Generation Rate	0.21	0.35
Total Vehicle-Trips	68	109
Entering%	44%	55%
Exiting%	56%	45%
Entering Trips	30	60
Exiting Trips	38	49

Step 4: Calculate the Difference between ITE Rates and Empirical Rates for Clarendon Hills

	AM Peak Hour	PM Peak Hour
ITE Vehicle-Trips	96	108
Empirical Vehicle-Trips	68	109
Difference in Trips (ITE minus Empirical)	28	-1
Percent Difference between ITE and Empirical	29%	-1%

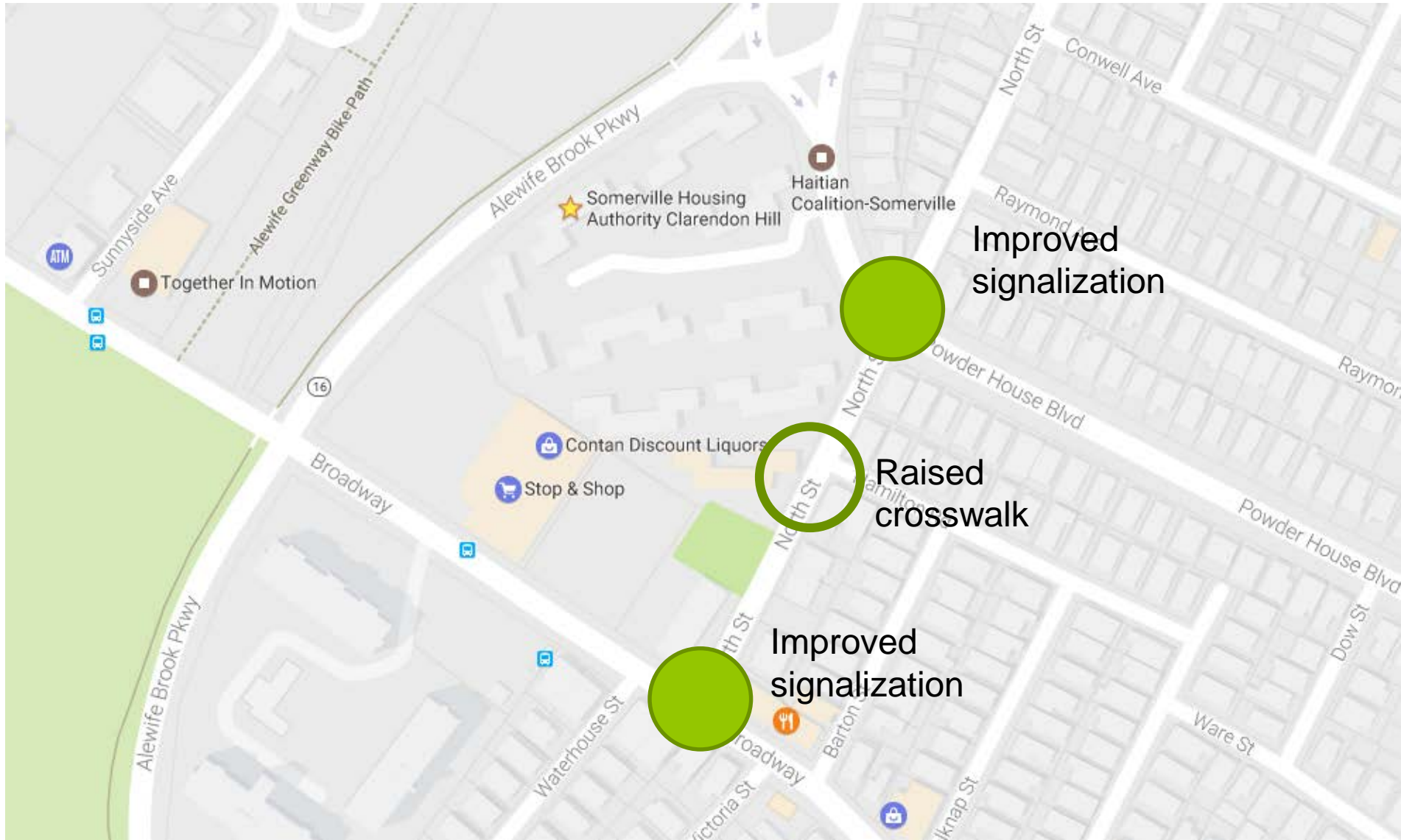
Level of Service Summary – Signalized Intersections

Building without any mitigation, we would make a negative impact on 2 intersections.

Alewife Brook and Broadway would continue to be level of service F.

	East-West Road	North-South Road	Lane	No-Build		Build w/out Mitigation	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1	Broadway	Alewife Brook Parkway	EB LTR	F	F	F	F
			WB LTR	F	F	F	F
			NB LTR	F	F	F	F
			SB LTR	F	F	F	F
			Overall	F	F	F	F
3	Powder House Boulevard	North Street	EB LTR	F	F	F	F
			WB LTR	C	D	C	D
			NB LTR	D	D	D	D
			SB LTR	E	D	E	D
			Overall	E	E	F	F
4	Broadway	North Street	EB LT	C	C	C	C
			WB TR	B	B	B	B
			SB LR	F	D	F	D
			Overall	E	C	E	C
5	Powder House Boulevard	Curtis Street	WB TR	C	E	C	F
			NB LTR	C	C	C	C
			SB LR	D	D	D	D
			EB LT	D	D	D	E
			Overall	C	D	C	E
6	Broadway	Curtis Street and Holland Street	EB LT	C	C	C	C
			EB R	B	A	B	A
			WB TR	C	C	C	C
			NB LT	D	F	D	F
			NB R	A	A	A	A
			Overall	C	E	C	E

Proposed mitigation locations



Level of Service Summary – Signalized Intersections

With mitigation, improvements at all intersections.

Average reduction of delay with improved signals in AM: **12 seconds**
PM: **16 seconds**

AWB improves at certain times of the day.

Significant gains along North St.

	East-West Road	North-South Road	Lane	No-Build		Build w/out Mitigation		Build w/mitigation	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1	Broadway	Alewife Brook Parkway	EB LTR	F	F	F	F	F	E
			WB LTR	F	F	F	F	F	E
			NB LTR	F	F	F	F	D	F
			SB LTR	F	F	F	F	F	F
			Overall	F	F	F	F	F	F
3	Powder House Boulevard	North Street	EB LTR	F	F	F	F	F	E
			WB LTR	C	D	C	D	B	D
			NB LTR	D	D	D	D	D	D
			SB LTR	E	D	E	D	E	D
			Overall	E	E	F	F	E	D
4	Broadway	North Street	EB LT	C	C	C	C	C	B
			WB TR	B	B	B	B	B	B
			SB LR	F	D	F	D	E	D
			Overall	E	C	E	C	C	B
5	Powder House Boulevard	Curtis Street	WB TR	C	E	C	F	A	D
			NB LTR	C	C	C	C	B	C
			SB LR	D	D	D	D	B	D
			EB LT	D	D	D	E	B	C
			Overall	C	D	C	E	B	D
6	Broadway	Curtis Street and Holland Street	EB LT	C	C	C	C	B	C
			EB R	B	A	B	A	A	A
			WB TR	C	C	C	C	C	C
			NB LT	D	F	D	F	C	E
			NB R	A	A	A	A	A	A
			Overall	C	E	C	E	B	C

TRANSIT

Transit

Projected Additional Ridership

	AM peak hrs	PM peak hrs	Total
Total Public Transportation Trips	43	48	540

- 43 new riders on the bus during AM Peak Hour
- 48 new riders on the bus during PM Peak Hour
- There are currently 13 buses per hour at Clarendon Hills during both AM and PM Peak Hours. Averaged across all buses, this is less than 4 people per bus (total capacity of 13 buses is 910).

Transit

87 – Weekday Inbound

06:30			06:52			07:14			07:36			07:58			08:20			08:42					
On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load
8.7	0.7	32.1	17.1	0.8	43.9	6.8	1.1	24.8	10.2	0.2	40.8	4	0.7	21.3	7.5	0	14.5	3.7	0	22.3			

88 – Weekday Inbound

06:50			07:06			07:17			07:22			07:38			07:40			07:54			08:00			08:10					
On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load
10.7	0	10.7	30.2	0	30.2	17	0	17	42.3	0	42.3	16	0	16	9.3	0	9.3	14	0	14	7.8	0	7.8	19	0	19			

- Busses have seated capacity of 36-40, total capacity of 72-77

Transit

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06:30			06:52			07:14			07:36			07:58			08:20			08:42					
On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load
8.7	0.7	32.1	17.1	0.8	43.9	6.8	1.1	24.8	10.2	0.2	40.8	4	0.7	21.3	7.5	0	14.5	3.7	0	22.3			

88 – Weekday Inbound

06:50			07:06			07:17			07:22			07:38			07:40			07:54			08:00			08:10					
On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load	On	Off	Load
10.7	0	10.7	30.2	0	30.2	17	0	17	42.3	0	42.3	16	0	16	9.3	0	9.3	14	0	14	7.8	0	7.8	19	0	19			

- Talking to MBTA about increasing frequency of service (esp. 87 at 6:52 - 7:36 and 88 at 7:22)

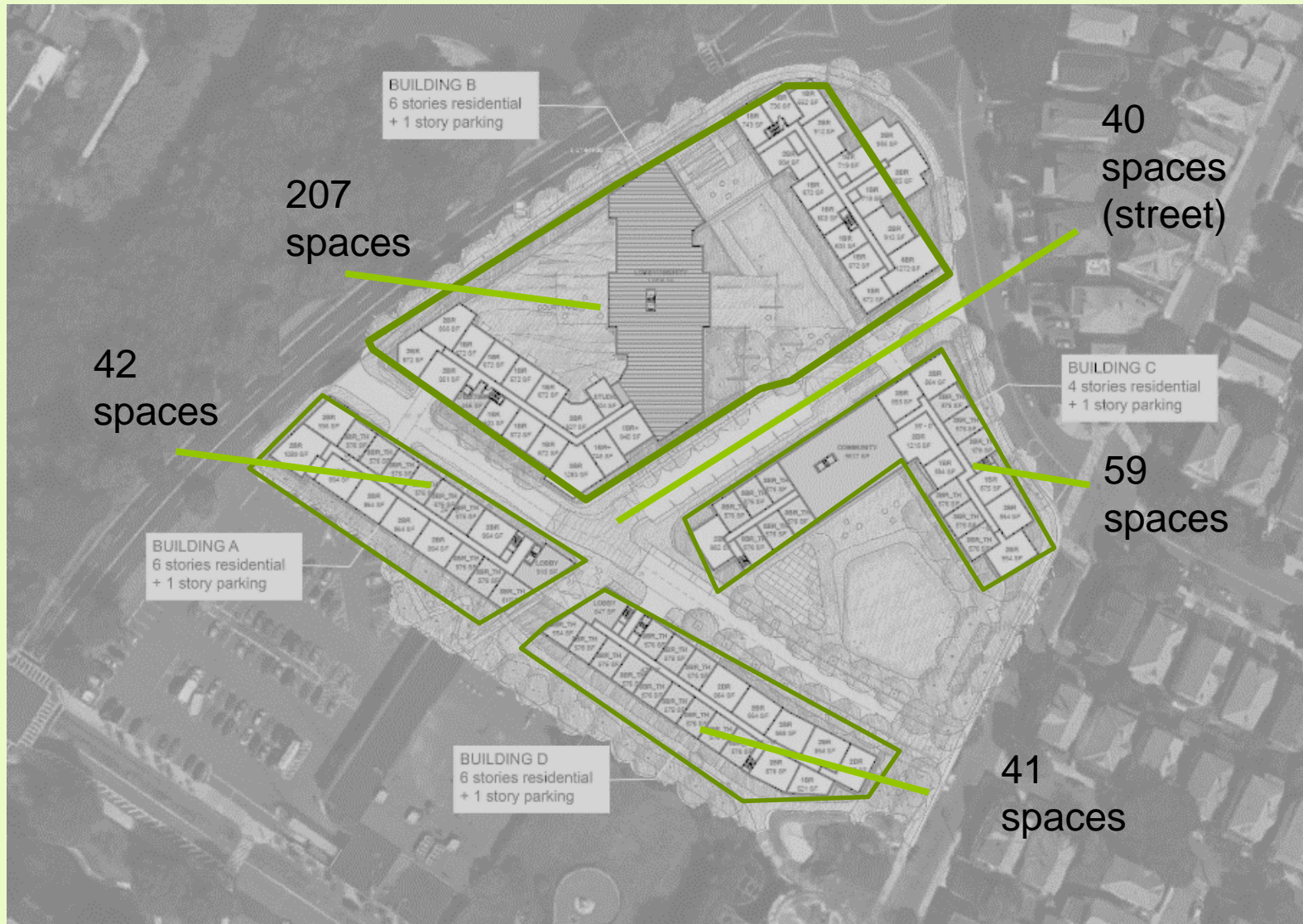
PARKING

Parking

- **Updated plans maximize structured parking under buildings**
 - **349 spaces**
 - **Plus 40 new on-street parking spaces**
 - **389 total parking spaces**

Parking

Design maximizes the structured parking footprint:



CONSTRUCTION MITIGATION

4. Construction Mitigation

- **Construction will occur within agreed upon hours – generally no work during evenings and weekends**
- **During demolition, careful mitigation and containment protocols**
- **Extensive pest and rodent control procedures**
- **Staging and equipment will be onsite and away from public streets or neighboring residents**

STORMWATER MANAGEMENT

5. Stormwater Management

- **The site is fully above flood level (flood line ends at Alewife Brook Parkway)**
- **Site will be carefully analyzed for runoff (steep grade)**
- **Best practices will be deployed for stormwater management:**
 - **Reducing quantity (permeable surfaces, grading, etc)**
 - **Managing quality (filtration)**

COMMUNITY PROGRAMMING

6. Community Programming

- In discussions with CRU (residents council) about possible shared use of indoor and outdoor spaces
- Any wants or needs of community for onsite use?

Projected Timeline

Event	Date
Community Workshops	Throughout February & March
Large Community Meeting – Report back on topics	March 2017
Submission of Zoning applications	June/July 2017
Zoning approvals	Aug 2017
Work towards a financial closing	Summer and Fall 2017
Close on project	Late 2017, Early 2018
Relocation starts	Nov 2017 (at the earliest)
Construction Start	Jan – March 2018

Questions