PROJECT:
McGrath Residences

PROJECT ADDRESS:
394 McGRATH HIGHWAY
SOMERVILLE, MA

PLANNING BOARD SUBMISSION
03-02-2022

ARCHITECT
KHALSA DESIGN INC.
17 IVALOO STREET, SUITE 400
SOMERVILLE, MA 02143
T:(617) 591-8682
www.tkgeast.com

CLIENT
CONTEMPO BUILDERS
100 TRADECENTER, SUITE G-700
WOBURN, MA 01801
T:(617) 610-0880

CIVIL
PETER NOLAN & ASSOCIATES LLC
697 CAMBRIDGE STREET, SUITE 103
BRIGHTON, MA 02135
T:(857) 891-7478

LANDSCAPE ARCHITECT
VERDANT
318 HARVARD ST, SUITE 25
BROOKLINE, MA 02446
T:(617) 735-1180

LOCUS PLAN

PROJECT NAME
McGrath Residences

PROJECT ADDRESS
394 McGrath Highway
Somerville, MA

CLIENT
Mike Tokatlyan

ARCHITECT

17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-8682 FAX: 617-591-2086

CONSULTANTS:

REGISTRATION

Project number	19055
Date	12/01/21
Drawn by	WC
Checked by	JSK
Scale	6" = 1'-0"

REVISIONS

No.	Description	Date

Cover Sheet

A-000

McGrath Residences

\\TKG-SERVER\Data\19\19055-Mike-T-394 McGrath\03 Drawings\00_ARCH_SD_DD\394 McGrath Highway_post UDC_9.7.21.rvt

3/2/2022 4:10:46 PM

EXISTING LEGEND

	TREE
	SIGN
S	SEWER MANHOLE
WV	WATER VALVE
GV	GAS VALVE
	UTILITY POLE
M	MANHOLE
37.00	SPOT GRADE
	EXISTING BUILDING
	FENCE
SS	SEWER LINE
W	WATER LINE
OHW	OVERHEAD WIRES
35	CONTOUR LINE (MJR)
37	CONTOUR LINE (MNR)

NOTES:

1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 3/26/2019.

2. DEED REFERENCE: BOOK 30670, PAGE 390
PLAN REFERENCE: END OF BOOK 2938
MIDDLESEX COUNTY SOUTH DISTRICT REGISTRY OF DEEDS.

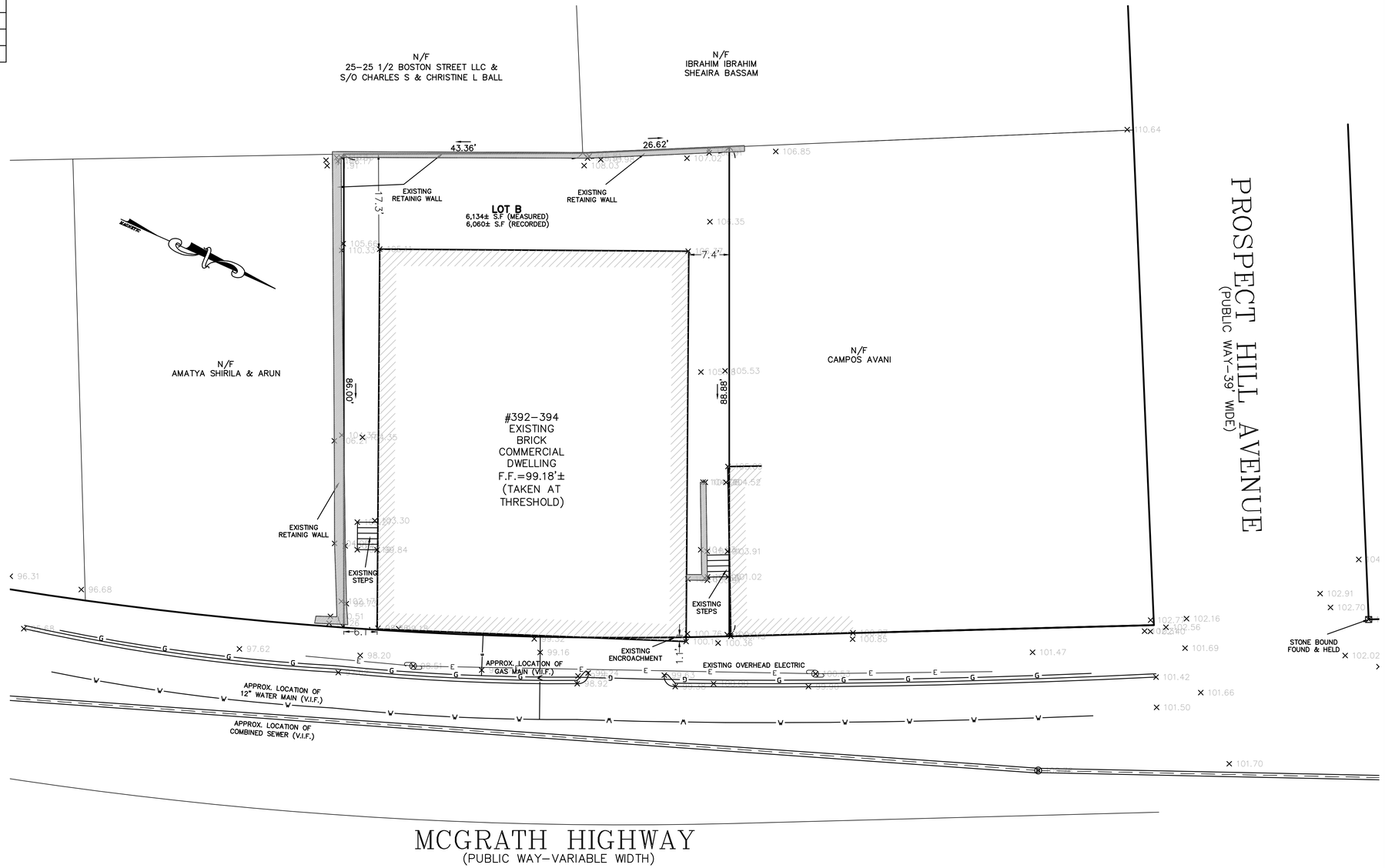
3. THIS PLAN IS NOT INTENDED TO BE RECORDED.

4. I CERTIFY THAT THE DWELLING SHOWN IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE X, ON FLOOD HAZARD BOUNDARY MAP NUMBER 25017C0439E, IN COMMUNITY NUMBER: 250214, DATED 6/4/2010.

5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND; HOWEVER THIS NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.

6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.

7. NO RESPONSIBILITY IS TAKEN FOR ZONING TABLE AS PETER NOLAN & ASSOCIATES LLC ARE NOT ZONING EXPERTS. TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE. CLIENT AND/OR ARCHITECT TO VERIFY THE ACCURACY OF ZONING ANALYSIS.



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

PETER NOLAN & ASSOCIATES, LLC

LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS
697 CAMBRIDGE STREET, (SUITE103),
BRIGHTON, MA 02135
Tel:857-891-7478
617-782-1533
Fax:617-2025691

SPRUHAN ENGINEERING, P.C.

80 JEWETT ST, (SUITE 1)
NEWTON, MA 02458
Tel: 617-816-0722
Email:edmond@spruhaneng.com

COMMONWEALTH OF MASSACHUSETTS
PETER J. NOLAN
49185
REGISTERED PROFESSIONAL LAND SURVEYOR

394 MCGRATH HIGHWAY, SOMERVILLE, MASSACHUSETTS

REVISION BLOCK

DESCRIPTION	DATE

EXISTING CONDITIONS SITE PLAN

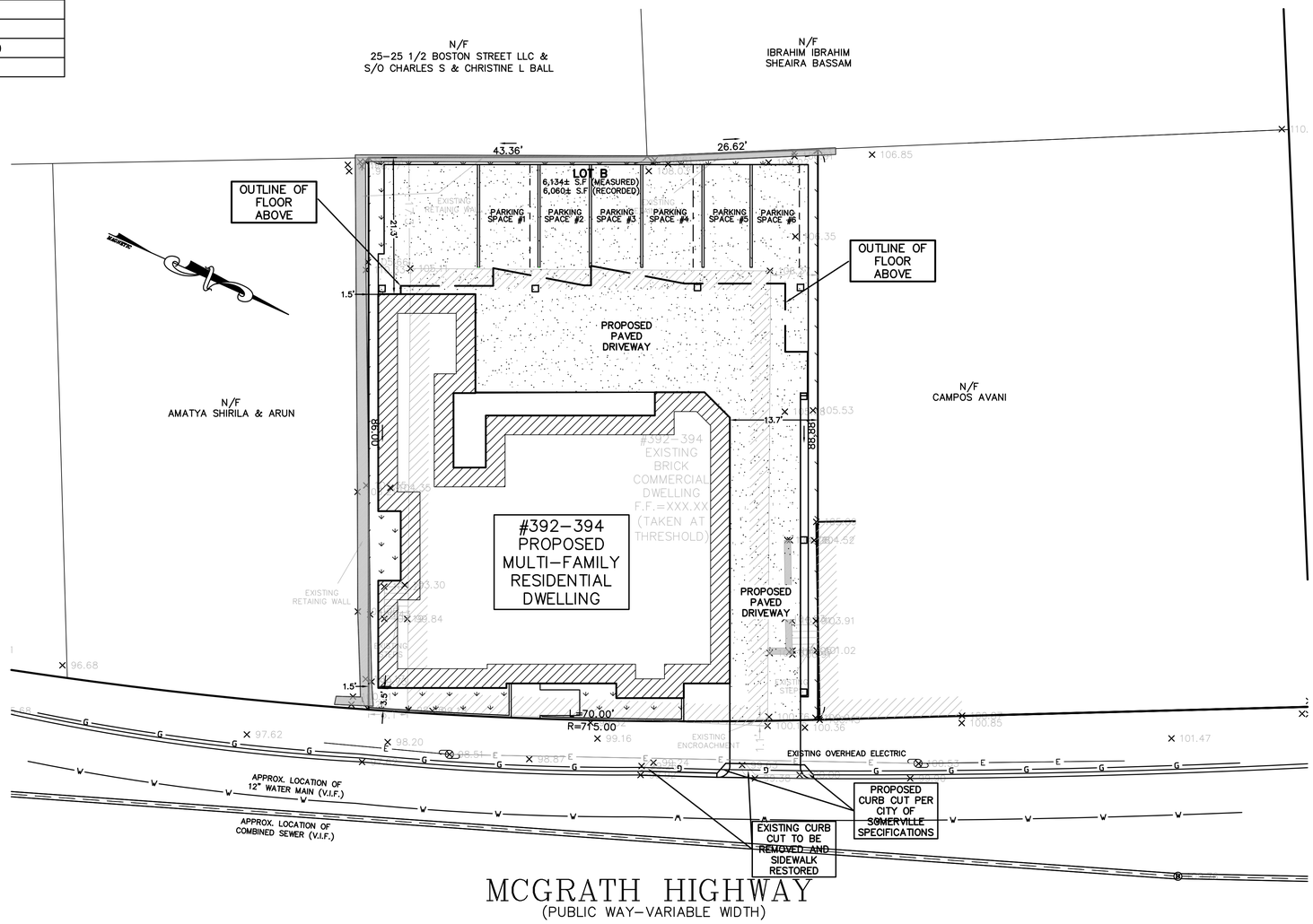
SCALE:	1" = 10'
DATE:	08-15-19
DRAWN BY:	AU
CHECKED BY:	PJN
APPROVED BY:	PJN

SHEET:

001

EXISTING LEGEND

	TREE
	SIGN
S	SEWER MANHOLE
WV	WATER VALVE
GV	GAS VALVE
	UTILITY POLE
M	MANHOLE
37.00	SPOT GRADE
	EXISTING BUILDING
	FENCE
SS	SEWER LINE
W	WATER LINE
OHW	OVERHEAD WIRES
35	CONTOUR LINE (MJR)
37	CONTOUR LINE (MNR)



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(IN FEET)
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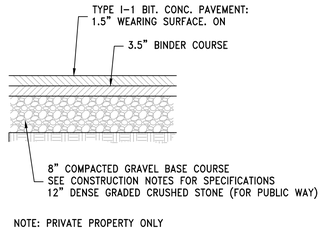
SCALE 1"=10'				
DATE 03/09/2020	REV	DATE	REVISION	BY
SHEET 1	394 MCGRATH HIGHWAY SOMERVILLE MASSACHUSETTS			
PLAN NO. 1 OF 1				
CLIENT:	PROPOSED PLOT PLAN			
DRAWN BY GP				
CHKD BY ETS				
APPD BY PJN				

COMMONWEALTH OF MASSACHUSETTS PETER J. NOLAN 49186 REGISTERED PROFESSIONAL LAND SURVEYOR

SHEET NO.

002

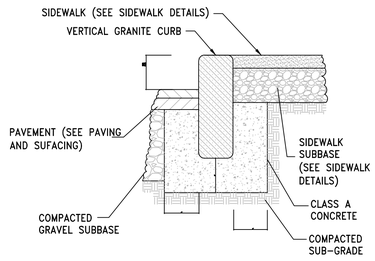
PETER NOLAN & ASSOCIATES LLC
LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS
697 CAMBRIDGE STREET, SUITE 103 BRIGHTON MA 02135
PHONE: 857 891 7478/617 782 1533 FAX: 617 202 5691
EMAIL: pnolan@pnasurveyors.com



NOTE: PRIVATE PROPERTY ONLY

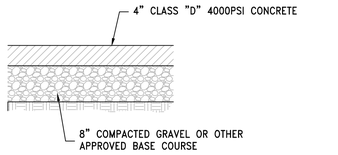
BITUMINOUS CONCRETRE PAVEMENT/ PROPOSED DRIVEWAY

N.T.S.



VERTICAL GRANITE CURB DETAIL

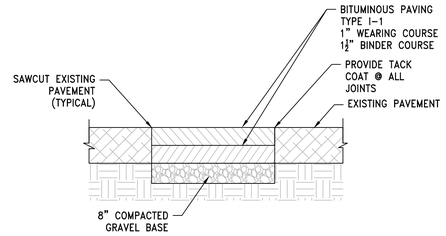
N.T.S



NOTE: ALL SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH TRWN OF BROOKLINE SPECIFICATIONS, SECTION 701: SIDEWALKS, WHEELCHAIR RAMPS, AND DRIVEWAYS UNDER THE INSPECTION OF THE DEPARTMENT OF PUBLIC WORKS.

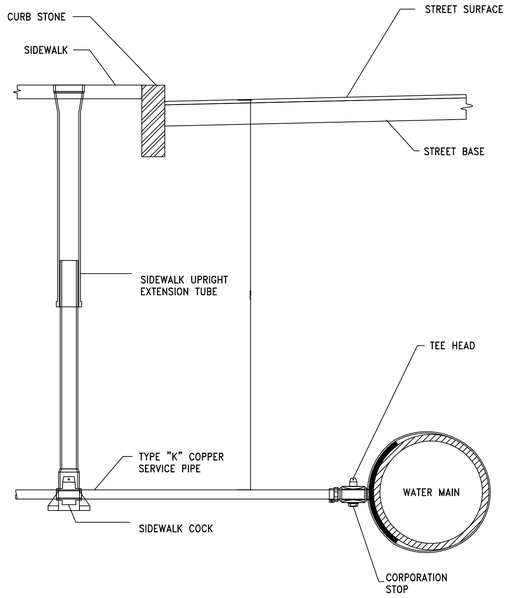
CONCRETE SIDEWALK DETAIL

N.T.S.



PAVEMENT MATCH SAWCUT DETAIL

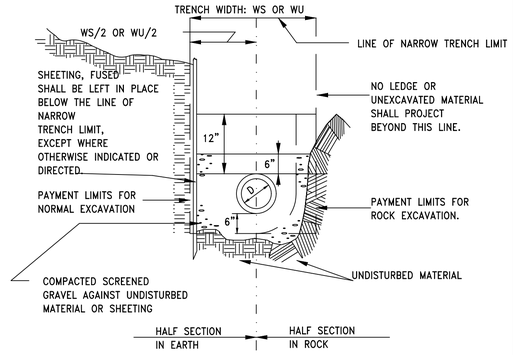
N.T.S.



NEW WATER CONNECTION DETAIL

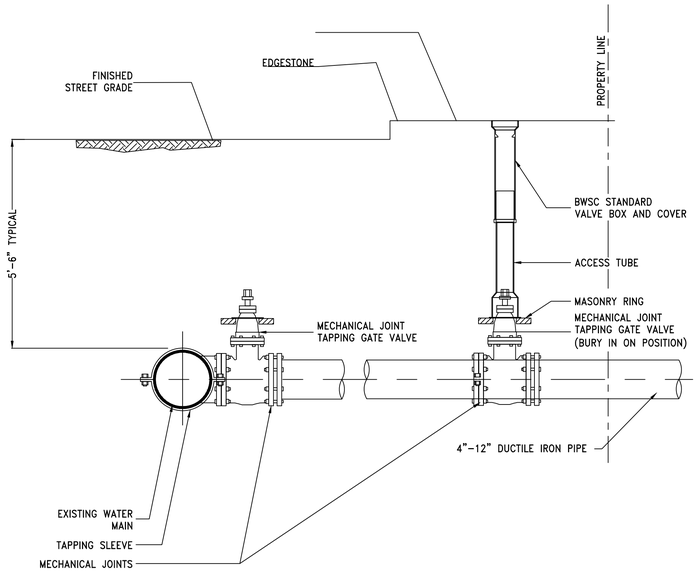
SCALE: NOT TO SCALE

TRENCH WIDTH WS OR WU		
DIAM. OF PIPE	WU UNSHEETED	WS SHEETED
12" AND SMALLER	3'-0"	4'-2"
15" AND LARGER	O.D.+20"	O.D.+36"



WATER TRENCH SECTION

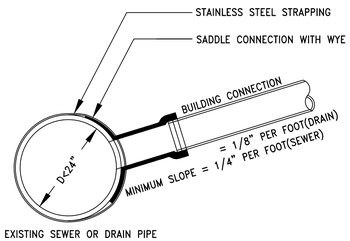
NOT TO SCALE



NOTES:
1. CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH
2. USE RESTRAINED JOINT FITTINGS OR TIE RODS WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE
3. SIZE OF BLOCK OR MEGALUG TO BE DESIGNED FOR SPECIFIC CONDITIONS

TYPICAL FIRE PROTECTION CONNECTION DETAIL

SCALE: NOT TO SCALE



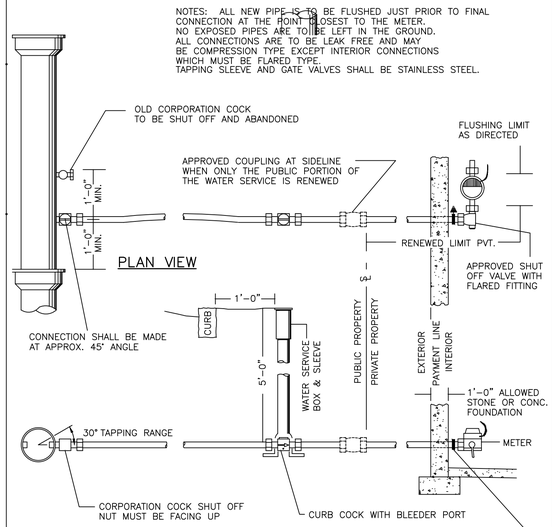
NOTES:

1. FULL PVC OR IRON SADDLE MAY BE USED TO CONNECT TO EXISTING PVC, CLAY, CONCRETE, OR IRON PIPE.
2. SADDLES MUST HAVE RUBBER GASKETS AND SHALL BE TIGHTENED WITH STRAPS. SADDLES WILL NOT BE CEMENTED ONTO THE PIPE.
3. FULL WYE CONNECTION FITTINGS MAY BE USED
4. PIPE SHALL BE CUT TO CONFORM TO THE OPENING IN THE SADDLE.
5. CONNECTIONS DIRECTLY INTO THE EXISTING PIPE WITHOUT A SADDLE OR A FULL WYE FITTING ARE NOT ALLOWED.

TYPICAL SADDLE CONNECTION TO EXISTING SEWER OR DRAIN

SCALE: NOT TO SCALE

NOTES: ALL NEW PIPE IS TO BE FLUSHED JUST PRIOR TO FINAL CONNECTION AT THE POINT CLOSEST TO THE METER.
NO EXPOSED PIPES ARE TO BE LEFT IN THE GROUND.
ALL CONNECTIONS ARE TO BE LEAK FREE AND MAY BE COMPRESSION TYPE EXCEPT INTERIOR CONNECTIONS WHICH MUST BE FLARED TYPE.
TAPPING SLEEVE AND GATE VALVES SHALL BE STAINLESS STEEL.



ELEVATION VIEW

TYPICAL WATER SERVICE CONFIGURATIONS

SCALE: NOT TO SCALE

PETER NOLAN & ASSOCIATES, LLC
LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS
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Fax:617-2025691

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COMMONWEALTH OF MASSACHUSETTS
EDMOND SPRUHAN
CIVIL
No. 43318
REGISTERED PROFESSIONAL ENGINEER

394 MCGRATH HIGHWAY, SOMERVILLE, MASSACHUSETTS

REVISION BLOCK

DESCRIPTION	DATE

DETAILS

SCALE:	1" = 10'
DATE:	08-15-19
DRAWN BY:	AU
CHECKED BY:	ES
APPROVED BY:	ES

SHEET:

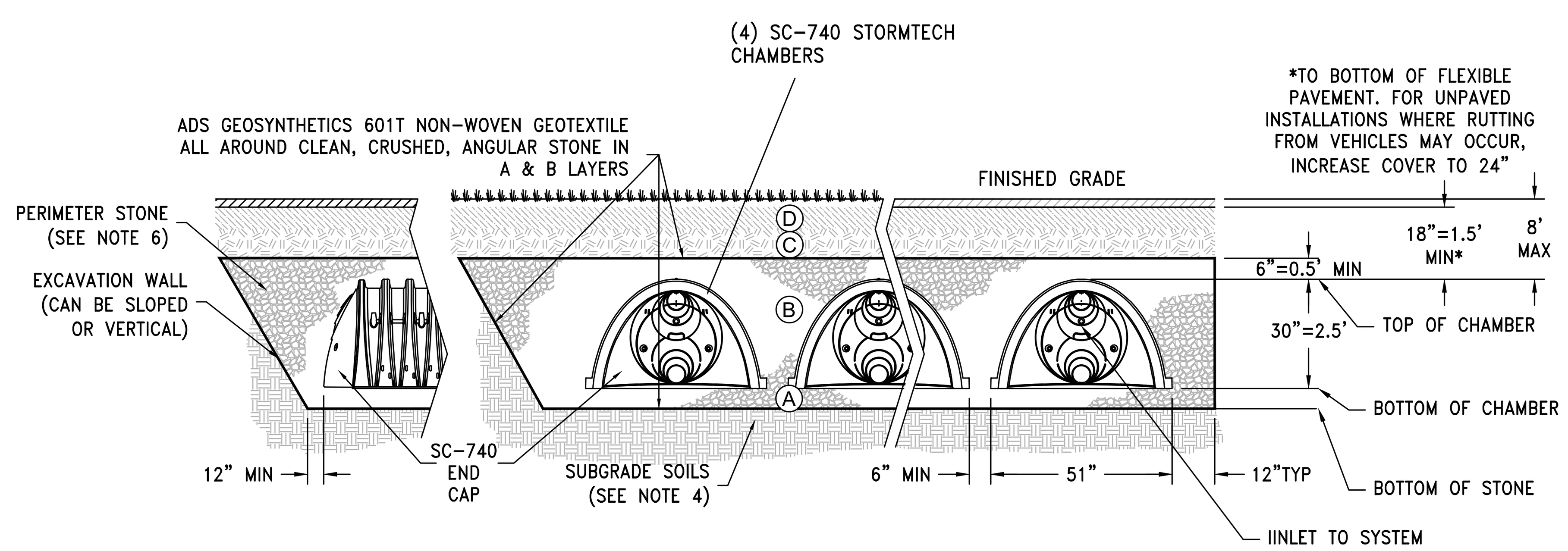
003

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. [2] [3]

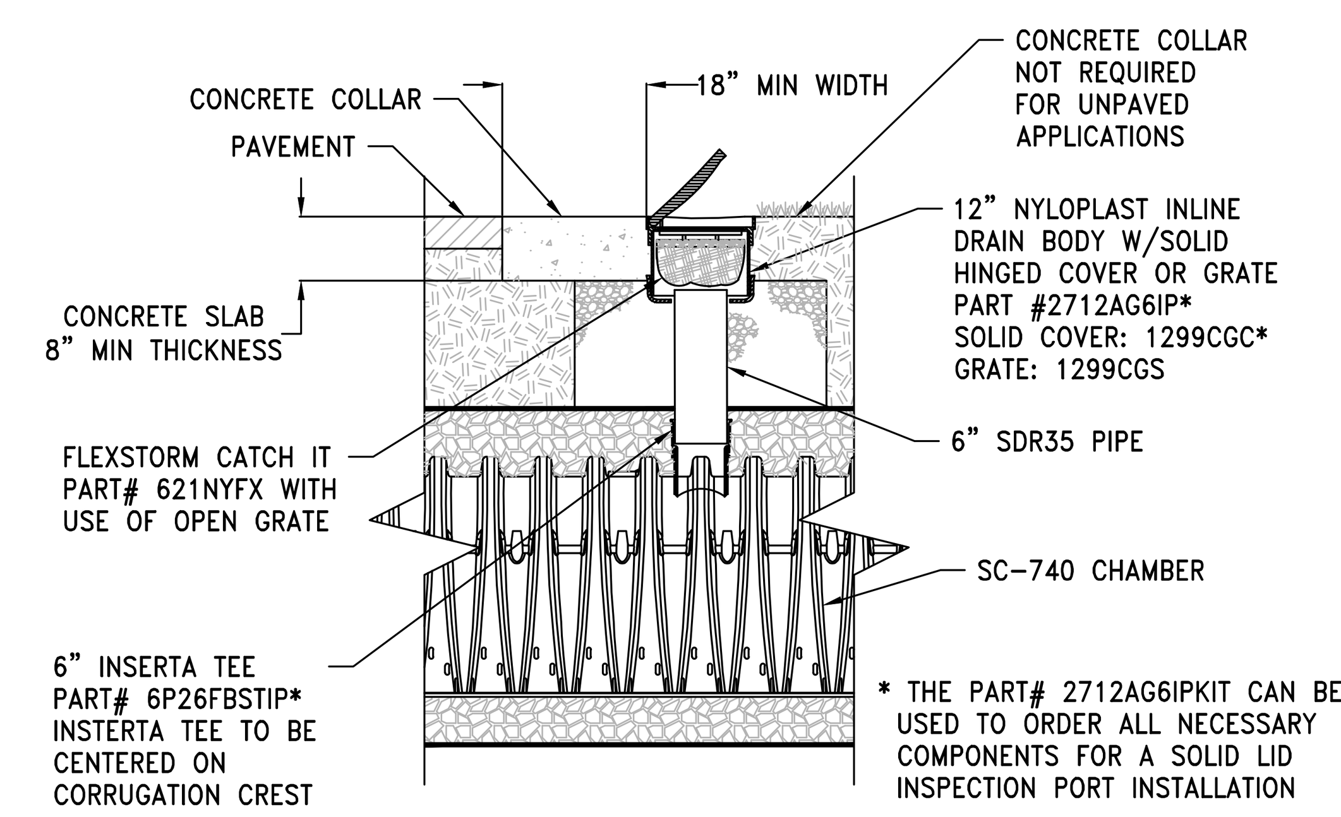
PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

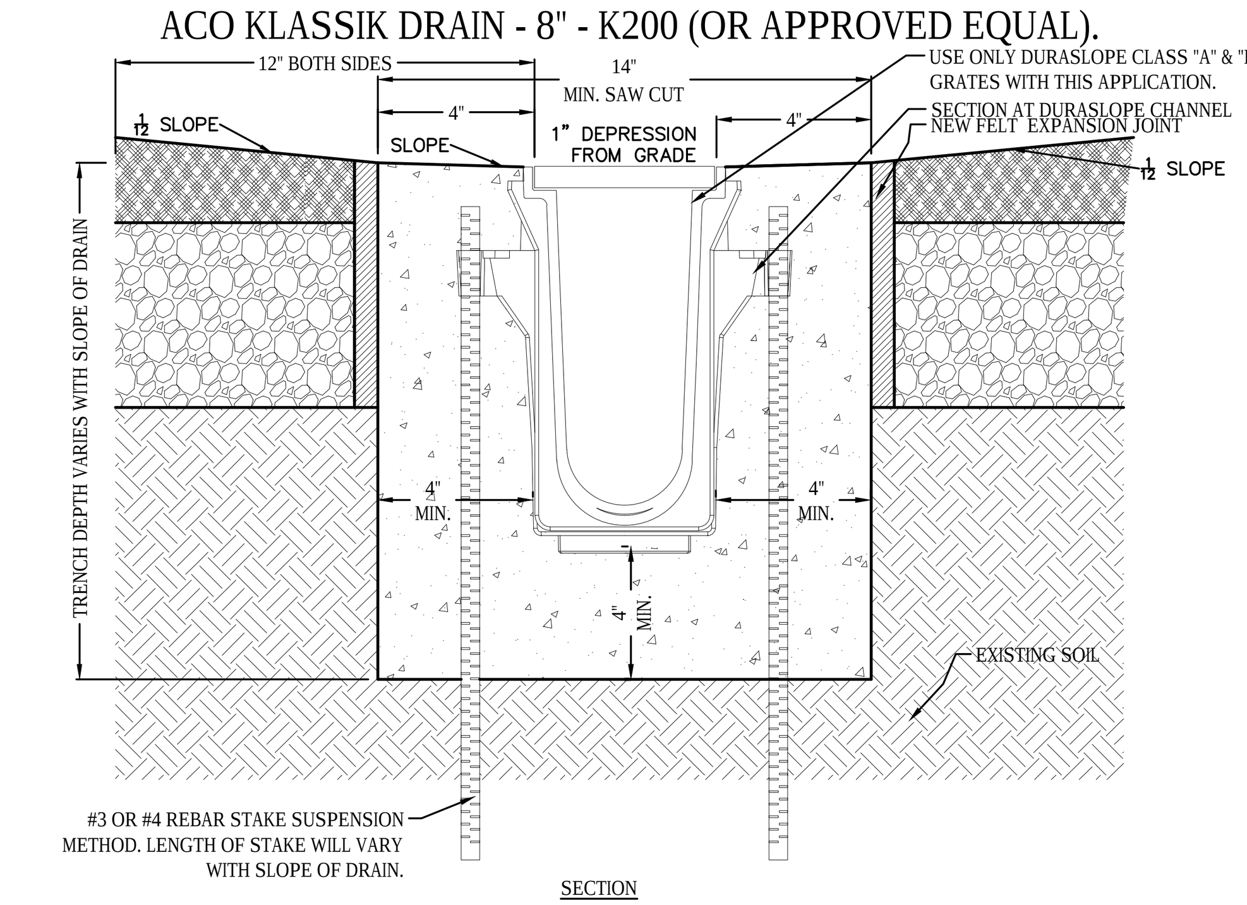
1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
6. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



SC-740 6" INSPECTION PORT DETAIL

N.T.S.

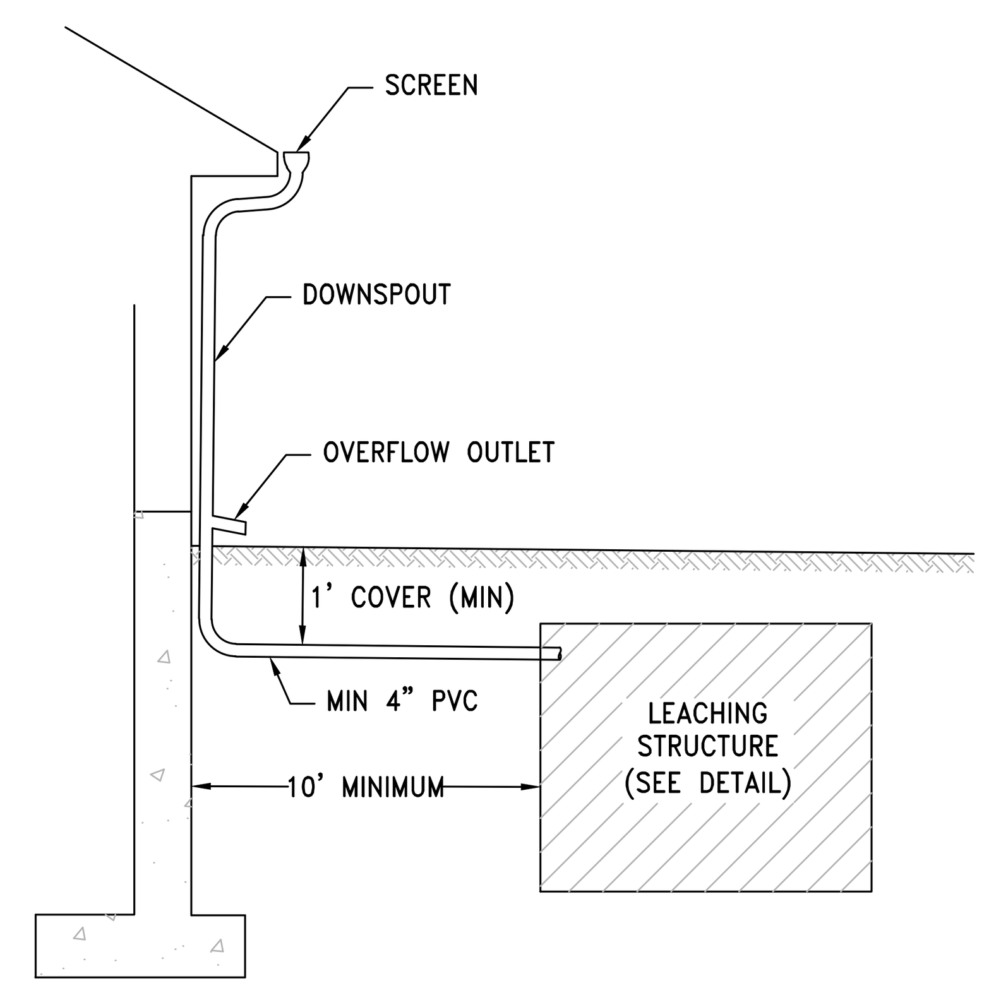
ACO KLASSIK DRAIN - 8" - K200 (OR APPROVED EQUAL).



NOTES:
1. CHANNELS TO BE INSTALLED WITH BLANK GRATE. GRATE TO BE PROTECTED FROM CONCRETE POUR (COVER HOLES WITH TAPE).
2.INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3.USE DS-340 UNIVERSAL OUTLET FOR 6" PIPE CONNECTION. (IF APPLICABLE)

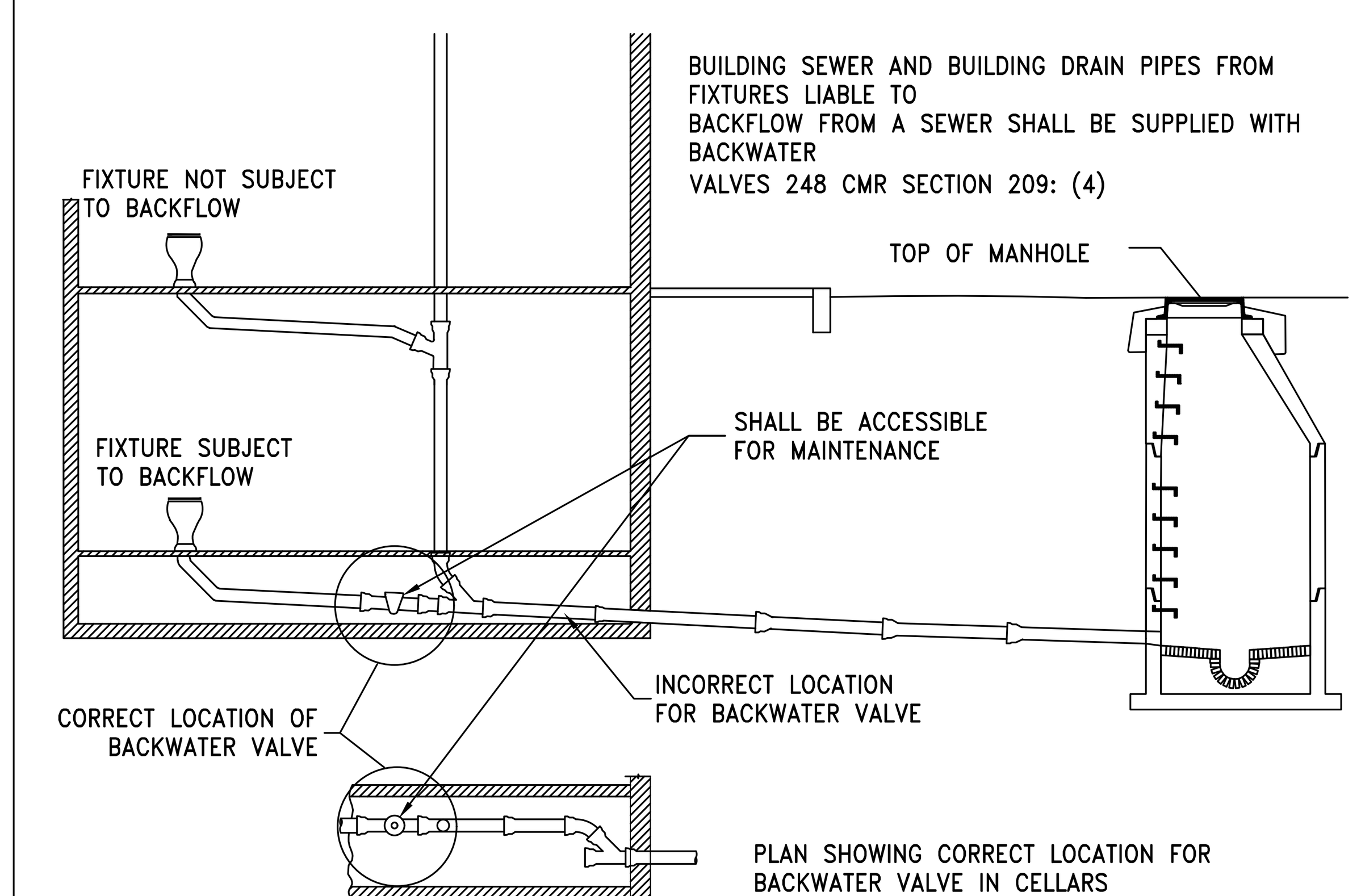
TRENCH DRAIN DETAIL

N.T.S.



TYPICAL DOWNSPOUT DETAIL

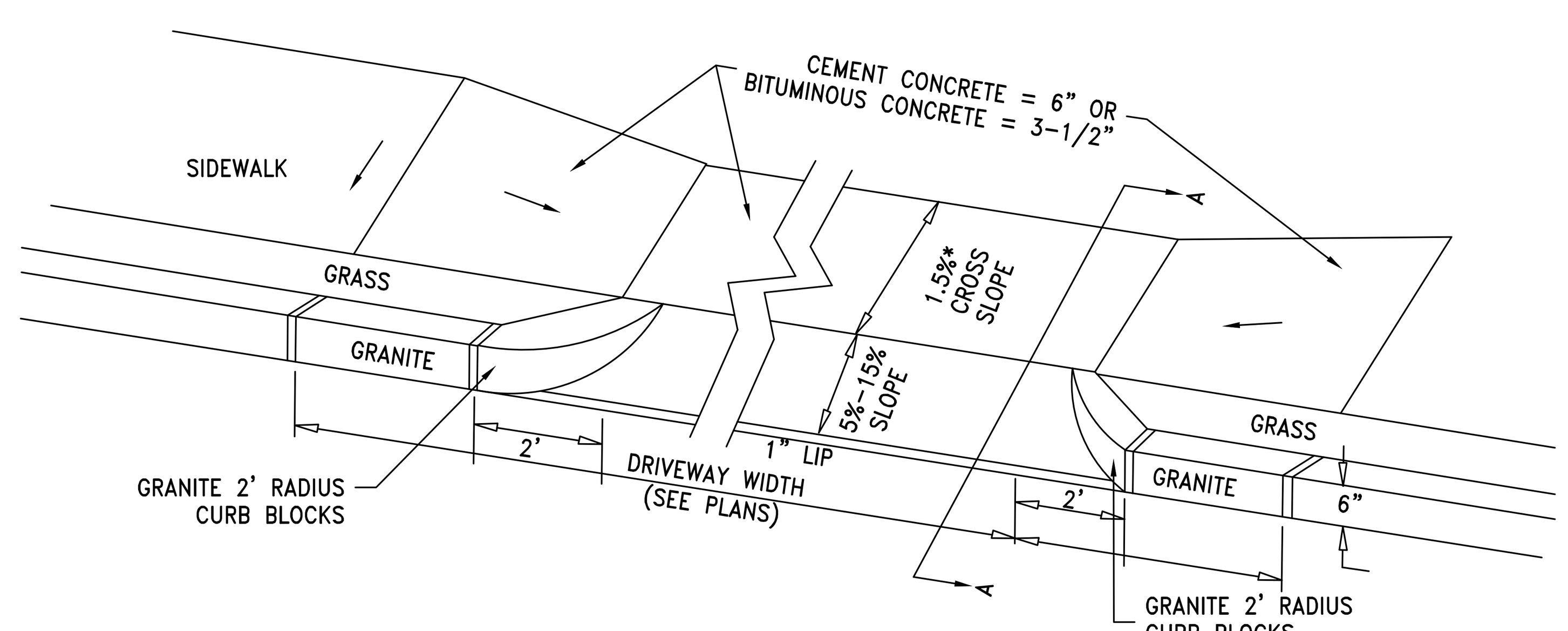
N.T.S.

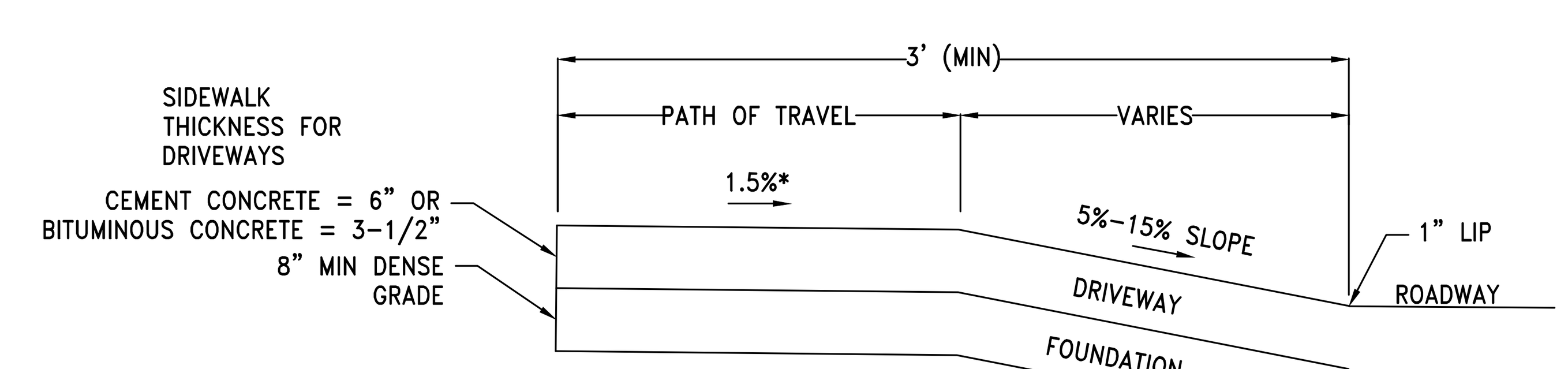


NOTE:
ALL PLUMBING FIXTURES BELOW THE LEVEL OF THE TOP OF THE MANHOLE OF THE SEWER SERVICING THE FIXTURE(S) SHALL BE CONSIDERED AS BEING SUBJECT TO BACKFLOW AND SHALL BE SUPPLIED WITH BACKWATER VALVES.

LOCATION OF BACKWATER VALVES

SCALE: NOT TO SCALE





SECTION A-A

* TOLERANCE FOR CONSTRUCTION +/- 0.5%

DRIVEWAY APRON WITH CORNER BLOCKS

PETER NOLAN & ASSOCIATES, LLC

LAND SURVEYORS/CIVIL ENGINEERING CONSULTANTS
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COMMONWEALTH OF MASSACHUSETTS
EDMOND T. SPRUHAN
CIVIL
53316
REGISTERED
PROFESSIONAL ENGINEER

394 MCGRATH HIGHWAY, SOMERVILLE, MASSACHUSETTS

REVISION BLOCK

DESCRIPTION	DATE

DETAILS

SCALE:	1" = 10'
DATE:	08-15-19
DRAWN BY:	AU
CHECKED BY:	ES
APPROVED BY:	ES

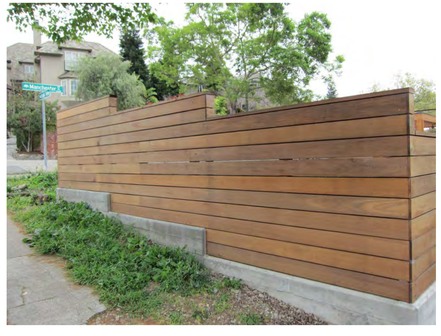
SHEET:

004

SITE PROPOSED PLANT LIST

SYMB	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
UA	1	Ulmus americana 'Princeton'	Princeton Elm	2.5-3" cal.	B&B
LS	3	Liquidambar styraciflua 'Slender Sil'	Fastigiate Sweetgum	2.5-3" cal.	B&B
SHRUBS & VINES					
IG	7	Ilex glabra 'Shamrock'	Inkberry	3 gal.	Pots, one shall be male
PQ	13	Parthenocissus quercifolia	Virginia Creeper	3 gal.	Pots
HERBACEOUS					
cp	30	Carex pensylvanica	Sedge	1 qt.	Pots, 12" o.c.
cx	144	Carex plantaginea and siderosticha 'Variegata'	Two varieties of Sedge	1 qt.	Pots
dp	5	Denstaedstia punctiloba	Hay Scented Fern	2 gal.	Pots, 18" O.C.
ff	3	Filix femina	Lady Fern	2 gal.	Pots, 18" O.C.
ss	10	Schizachyrium scoparim 'The Blues'	Little Bluestem	2 gal.	Pots

In Ground Mounted, Swerve Bike Rack, by Dero.com



Horizontal Board Fence Installed on Walls

Permeable Paver - Unilock Eco-Priora Umbariano Winter Marvel
Reflectance .35

Fastigiate Sweetgum

SCALE: 1/8"=1'-0"
0 2' 4' 8' 20'

VERDANT
LANDSCAPE ARCHITECTURE

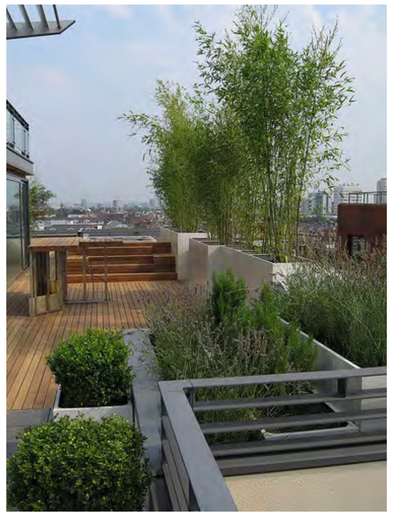
DESIGN KHALSA

LANDSCAPE PLAN
394 McGRATH HWY
SOMERVILLE, MA
MARCH 13, 2020

L1

ROOFDECK PROPOSED PLANT LIST

SYMB	QTY.	LATIN NAME	COMMON NAME	SIZE	NOTES
SHRUBS					
CA	7	Cornus alba 'Elegantissima'	Variegated Red Twigged Dogwood	3 gal.	Pots
HERBACEOUS					
ms	1	Miscanthus sinensis 'Morning Light'	Maiden Grass	3 gal.	
rh	15	Rudbeckia hirta	Black-Eyed Susan	2 gal.	Pots, 18" o.c.



Permeable Vertical Buffer

Sedum Extensive Greenroof

Pedestal Pavers & Intensive Greenroof

SCALE: 1/8"=1'–0"
0 2' 4' 8' 20'

VERDANT LANDSCAPE ARCHITECTURE

DESIGN KHALSA

ROOF DECK PLAN
394 McGRATH HWY
SOMERVILLE, MA
MARCH 13, 2020

L2

10. DEVELOPMENT STANDARDS

Green Score

Table 10.4.1 Green Score Calculation

	Credit	Multiplier
Soils		
Landscaped area with a soil depth < 24 inches	actual sf	0.3
Landscaped area with a soil depth => 24 inches	actual sf	0.6
Pervious Paving with 6 to 24 inches of subsurface soil or gravel	actual sf	0.2
Pervious Paving with more than 24 inches of subsurface soil or gravel	actual sf	0.5
Groundcovers		
Turfgrass, mulch, and inorganic surfacing materials	actual sf	0.1
Plants		
Vegetation less than two (2) feet tall at maturity	actual sf	0.2
Vegetation at least two (2) feet tall at maturity	12 sf.	0.3
Trees		
Small Tree	50 sf.	0.6
Large Tree	450 sf.	0.6
Preserved Tree	65 sf.	0.8
Engineered Landscape		
Vegetated Wall	actual sf	0.1
Rain gardens, bioswales, and stormwater planters.	actual sf	1.0
Green Roof with up to 6" of growth medium	actual sf	0.1
Green Roof with 6"-10" of growth medium	actual sf	0.4
Green Roof of 10"-24" growth medium	actual sf	0.6
Green Roof of over 24" growth medium	–	per individual landscape elements

Green Score is a performance-based environmental landscape standard measured as a ratio of the weighted value of all landscape elements to the total land area of a lot.

394 McGrath Hwy 6,086.73 SF Total

	Multiplier	Bonus	Area in Square Feet	
Soils | Landscaped Area with a soil depth => 24 inches	.6	DP .1	645.70	451.99
Soils | Pervious Paving with 6 to 24 inches of subsurface soil or gravel	.2	DP .1	894.60	268.38
Groundcovers | Turfgrass, mulch, and inorganic surfacing materials	.1	NS .1 DP .1	101.03	30.34
Plants | Vegetation less than two feet tall at maturity	.2	NS .1 PV .1 DP .1	325.76	162.88
Plants | Vegetation at least two feet tall at maturity (per plant)	.3	NS .1 PV .1 DP .1	12 sf. (30)	216.00
Trees | Large Tree (per plant)	.6	NS .1 DP .1	450 sf. (1)	360.00
Trees| Small Tree (per plant)	.6	NS .1 PV .1 DP .1	50 sf. (2)	90.00
Engineered Landscape | Green Roof with up to 6" of growth medium	.1	NS .1	1,470.97	294.19
Engineered Landscape | Green Roof of 10"-24" growth medium	.6	NS .1	110.65	77.46
Total				1,951.24
Green Score Bonus Publicly Visible Landscape = PV = .1 Native Species = NS = .1 De-Paved Lot Area = DP = .1				

1,951.24 / 6,086.73 = .32 Green Score

5. Calculation

a. Green Score is calculated as follows:
   i. Determine total lot area.
   ii. Calculate the area of each proposed landscape element for each category identified in the first column of Table 10.4.1. Certain types of plantings use the number of individual plants multiplied by an equivalent square footage when indicated in the second column of Table 10.4.1.
   iii. Multiply the actual square footage, or the equivalent square footage, of each landscape element by the multiplier specified for each landscape element in the third column of Table 10.4.1 plus any bonus on Table 10.4.2 to determine the weighted score of each element.
   iv. Add the weighted score of all landscape elements together.
   v. Divide the resulting sum by the area of the lot to determine the final Green Score.
   vi. If necessary, redesign the landscape plan to achieve the required Green Score.

b. Bonuses
   i. Review Boards may establish additional bonuses

AT GRADE LANDSCAPE

ROOF TOP

VERDANT LANDSCAPE ARCHITECTURE

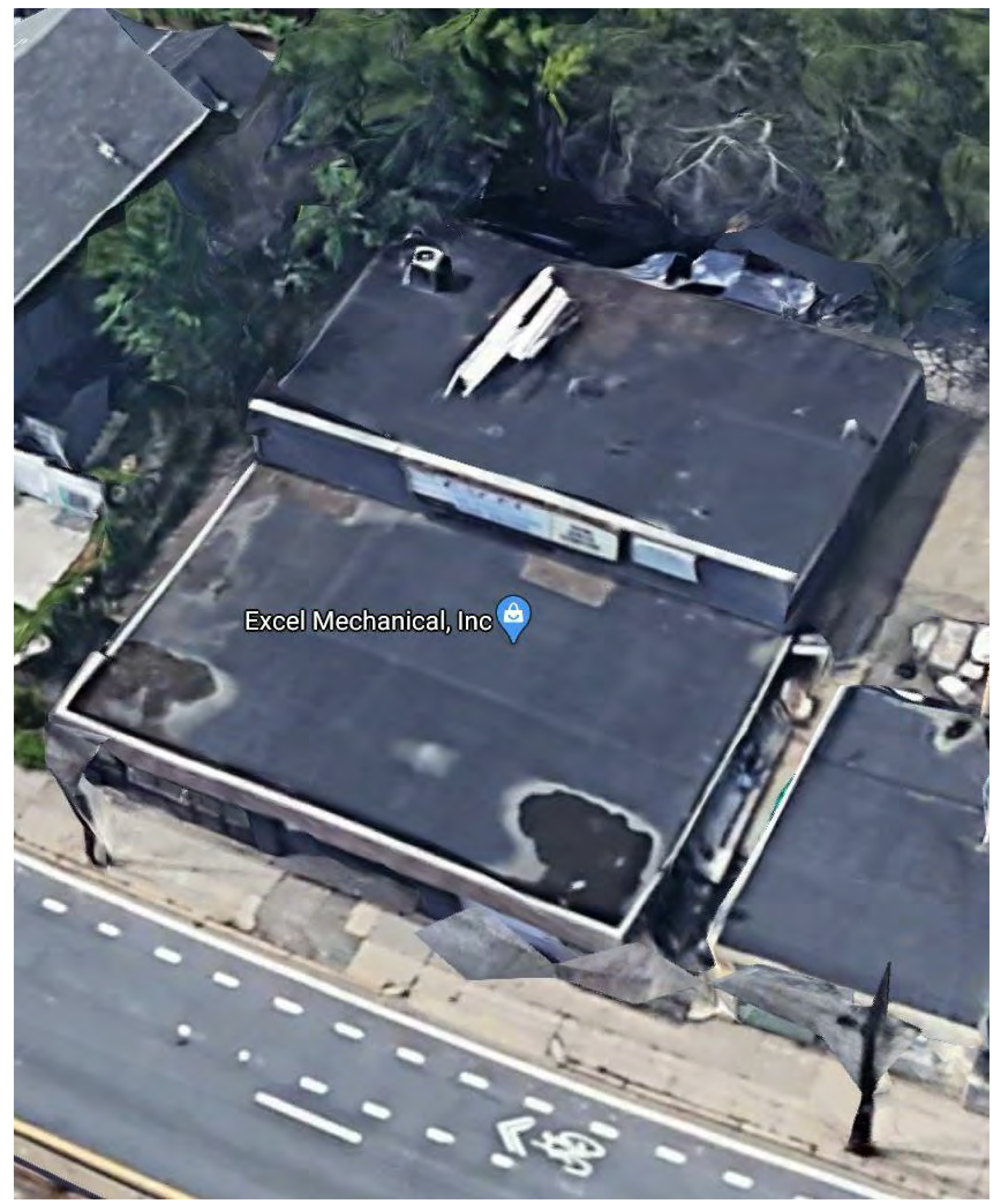
DESIGN KHALSA

LANDSCAPE ILLUSTRATIVES

394 McGRATH HWY

SOMERVILLE, MA

MARCH 13, 2020



PROJECT NAME

McGrath Residences

PROJECT ADDRESS

394 McGrath Highway
Somerville, MA

CLIENT

Mike Tokatlyan

ARCHITECT

DESIGN KHALSA

17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-8682 FAX: 617-591-2086

CONSULTANTS:

REGISTRATION

REGISTERED ARCHITECT
CAMBRIDGE
MA
COMMONWEALTH OF MASSACHUSETTS

Project number	19055
Date	12/01/21
Drawn by	Author
Checked by	Checker
Scale	

REVISIONS

No.	Description	Date

Existing Conditions

EC

McGrath Residences

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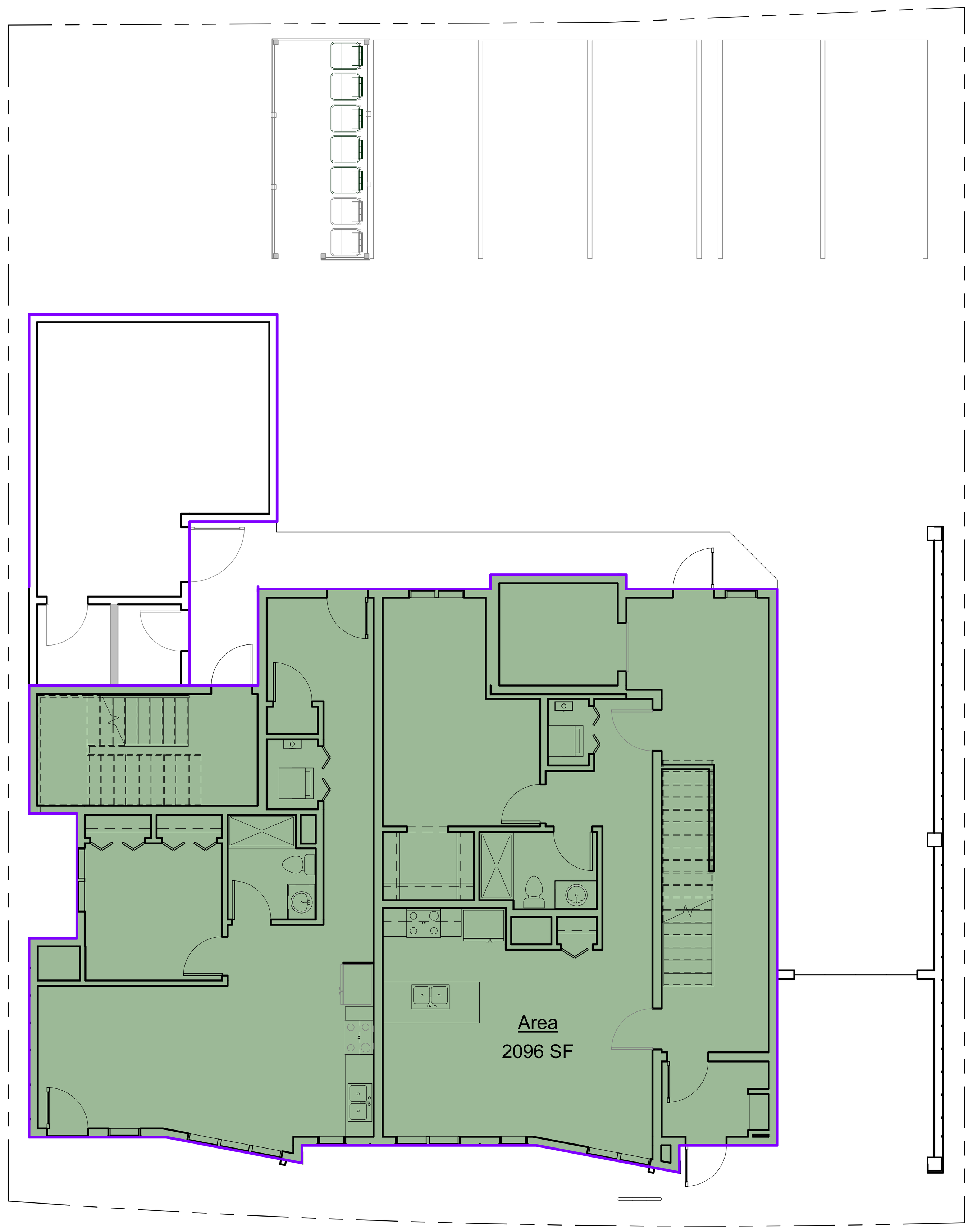
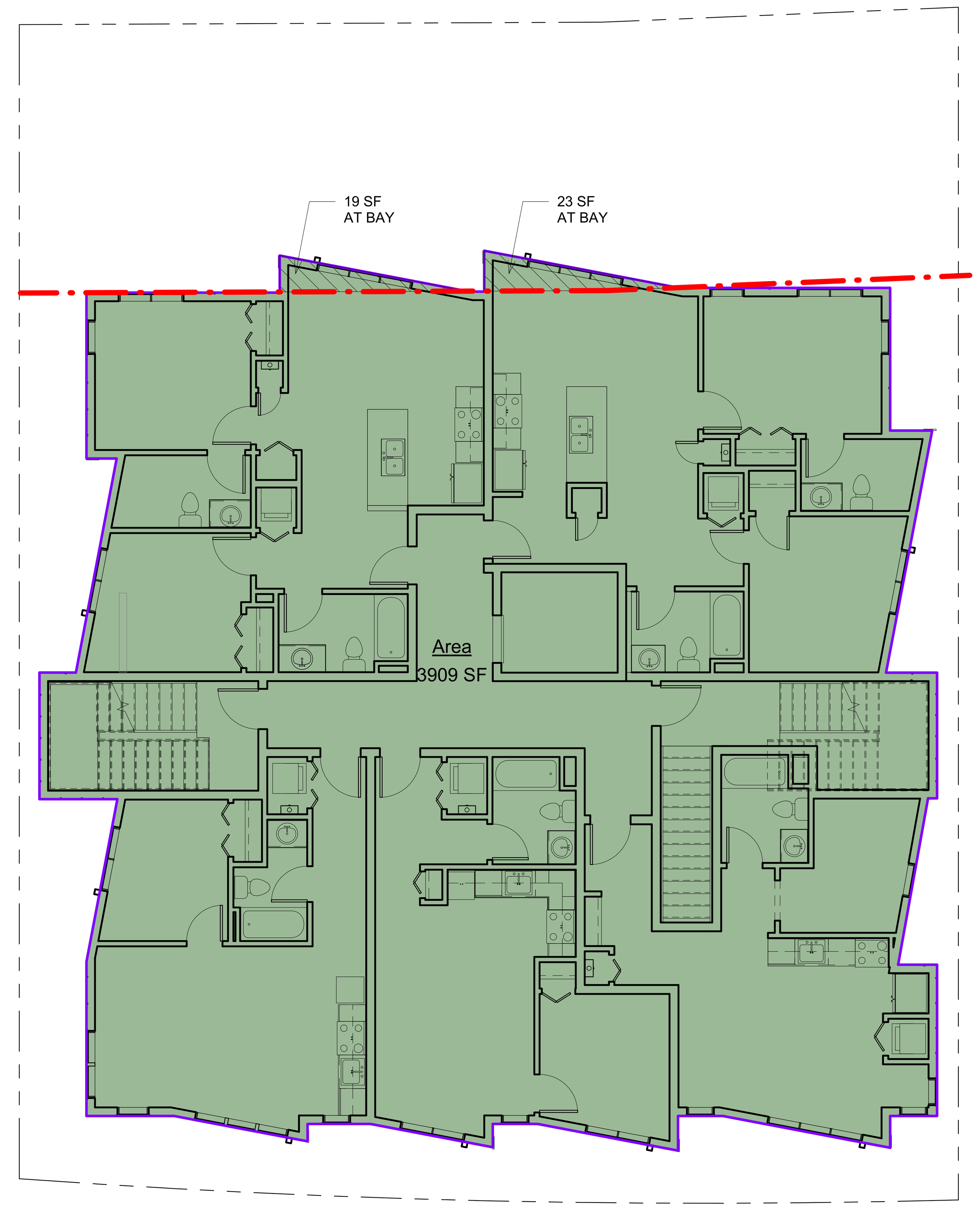


1 1st Floor Level
1/8" = 1'-0"



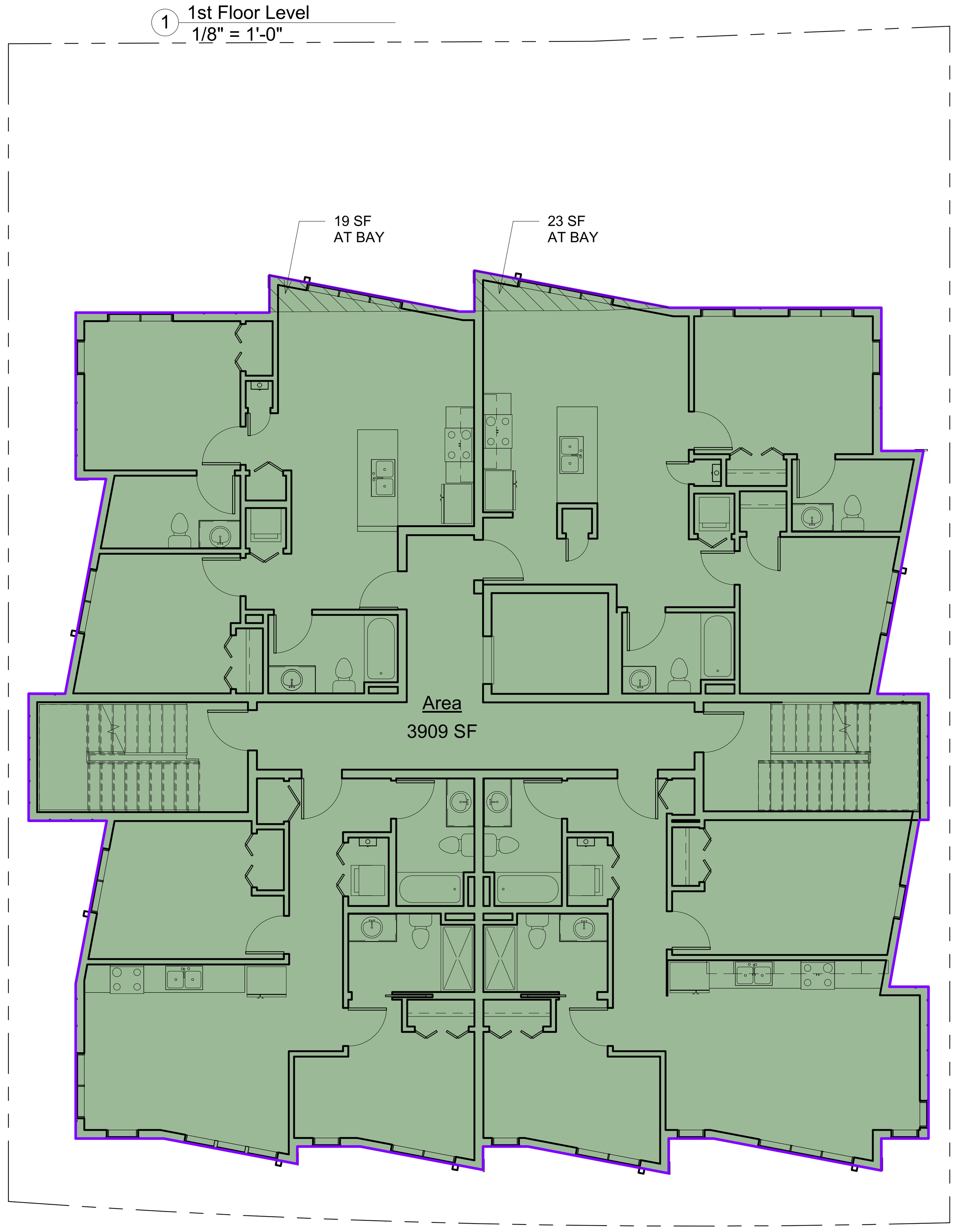
2 2nd Floor Level
1/8" = 1'-0"

Building Area Legend

Gross Building Area

Building Area Legend

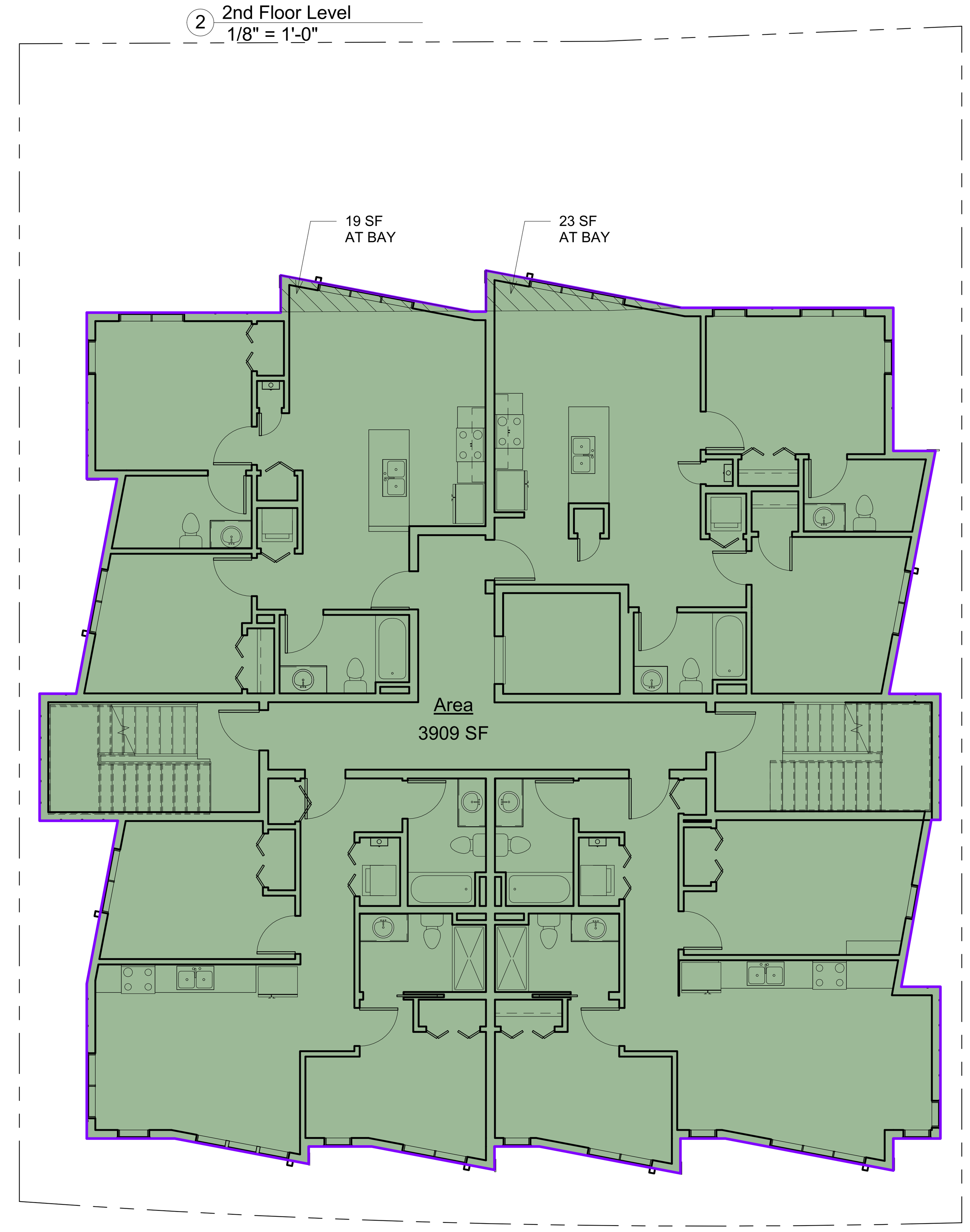
Gross Building Area



3 3rd Floor Level
1/8" = 1'-0"

Building Area Legend

Gross Building Area



4 4th Floor Level
1/8" = 1'-0"

Building Area Legend

Gross Building Area

Area Schedule (Gross Building)

Level	Area
1st Floor Level	2096 SF
2nd Floor Level	3909 SF
3rd Floor Level	3909 SF
4th Floor Level	3909 SF
Roof Level	213 SF
Roof Level	158 SF
	14195 SF

TOTAL GROSS AREA AT BAYS IN REAR SETBACK: 126 SF

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Project number	19055
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REVISIONS

No.	Description	Date

Gross Area Plans

A-018

McGrath Residences

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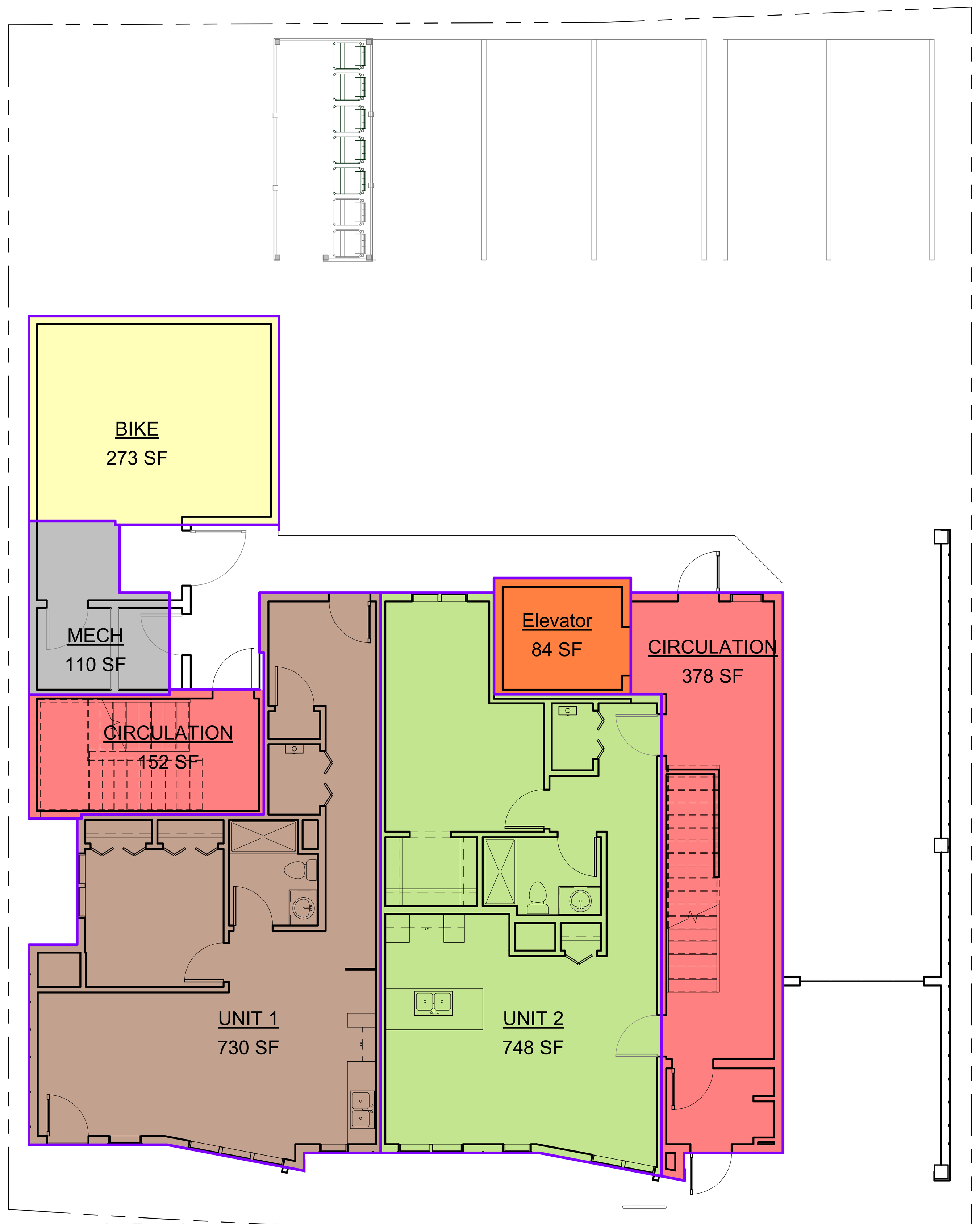
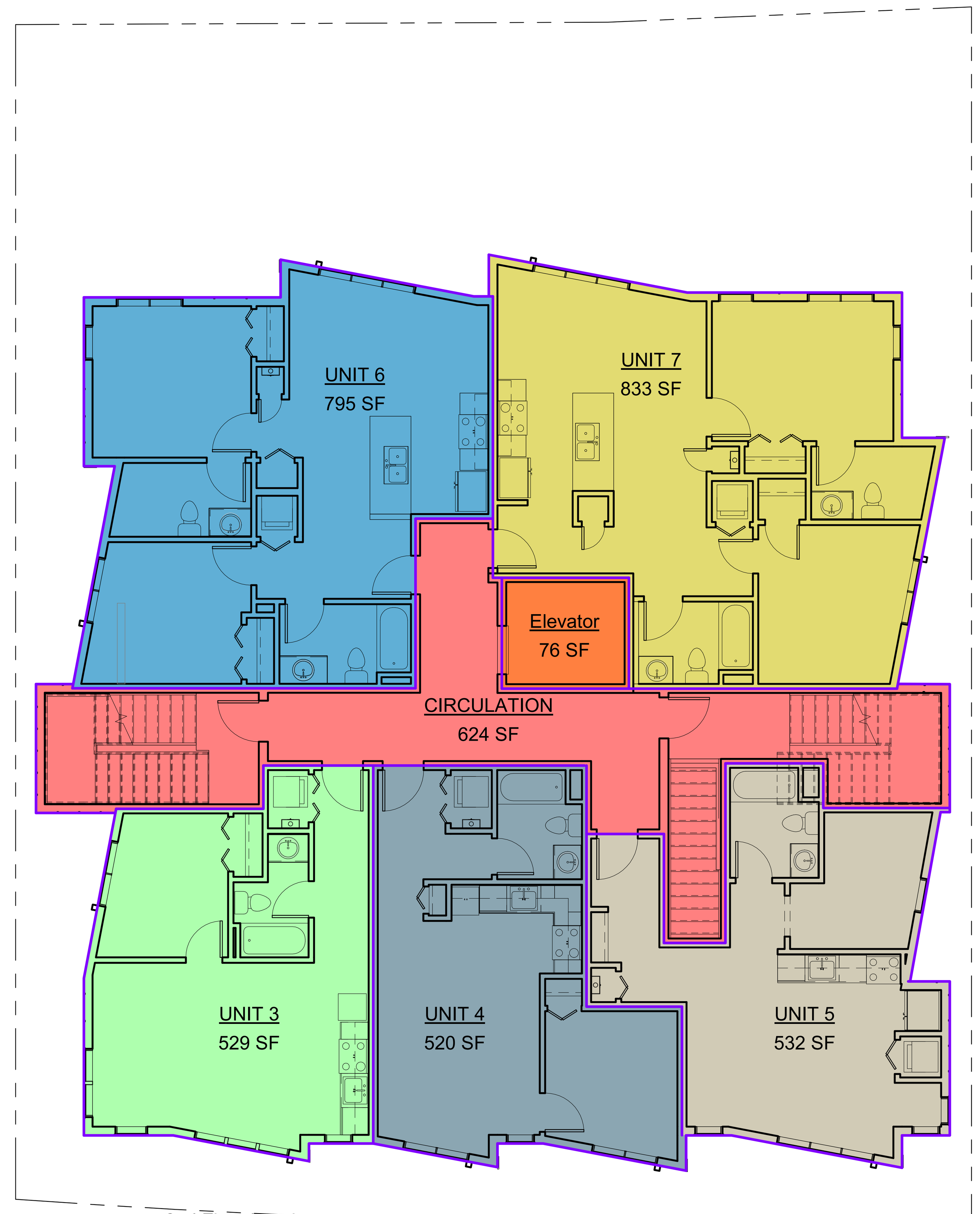


1 1st Floor Level
1/8" = 1'-0"

Rentable Area Legend

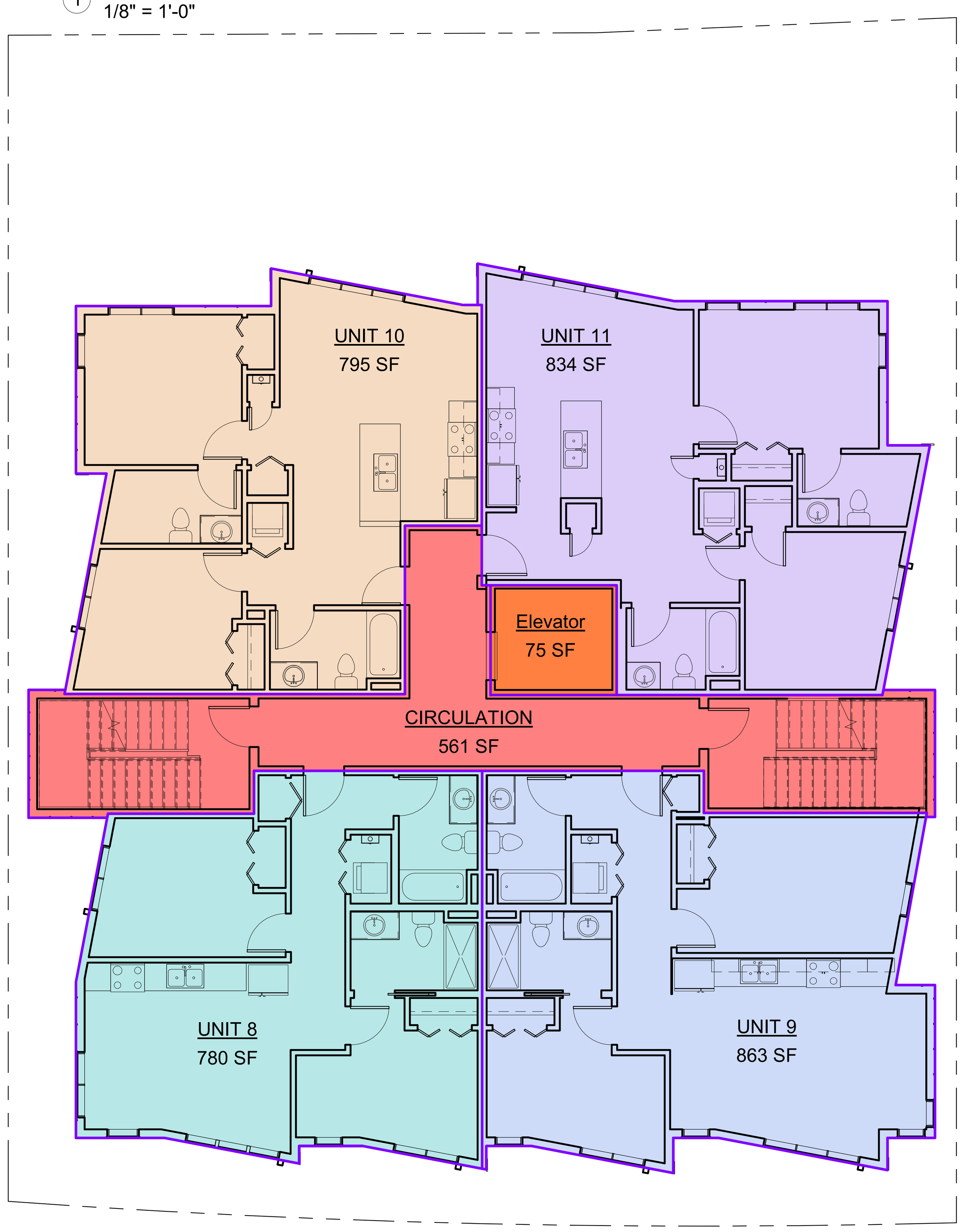
- BIKE
- CIRCULATION
- Elevator
- MECH
- UNIT 1
- UNIT 2



2 2nd Floor Level
1/8" = 1'-0"

Rentable Area Legend

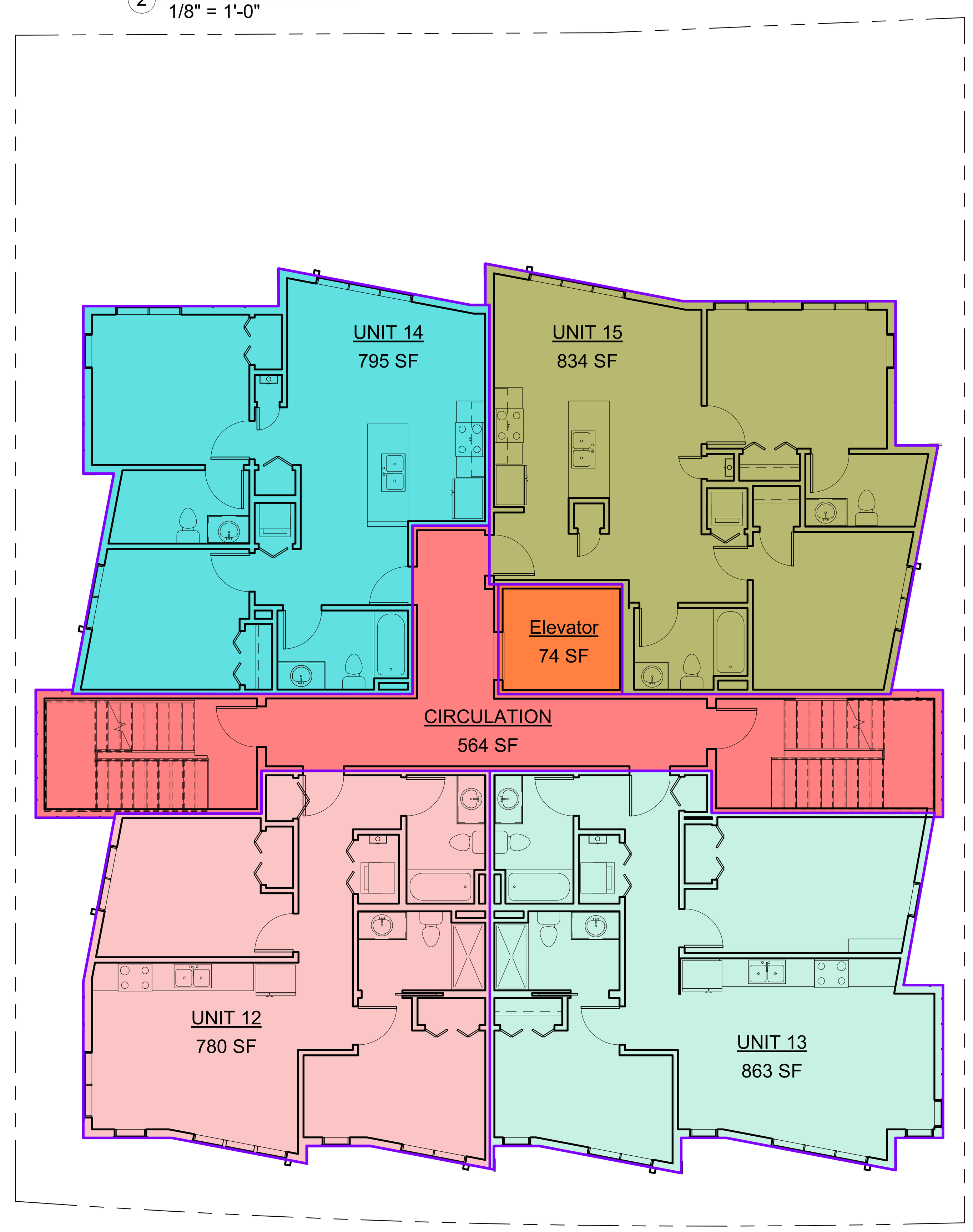
- CIRCULATION
- Elevator
- UNIT 3
- UNIT 4
- UNIT 5
- UNIT 6
- UNIT 7



3 3rd Floor Level
1/8" = 1'-0"

Rentable Area Legend

- CIRCULATION
- Elevator
- UNIT 8
- UNIT 9
- UNIT 10
- UNIT 11



4 4th Floor Level
1/8" = 1'-0"

Rentable Area Legend

- CIRCULATION
- Elevator
- UNIT 12
- UNIT 13
- UNIT 14
- UNIT 15

PROJECT NAME

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No.	Description	Date

Unit Area Plans

A-019

McGrath Residences

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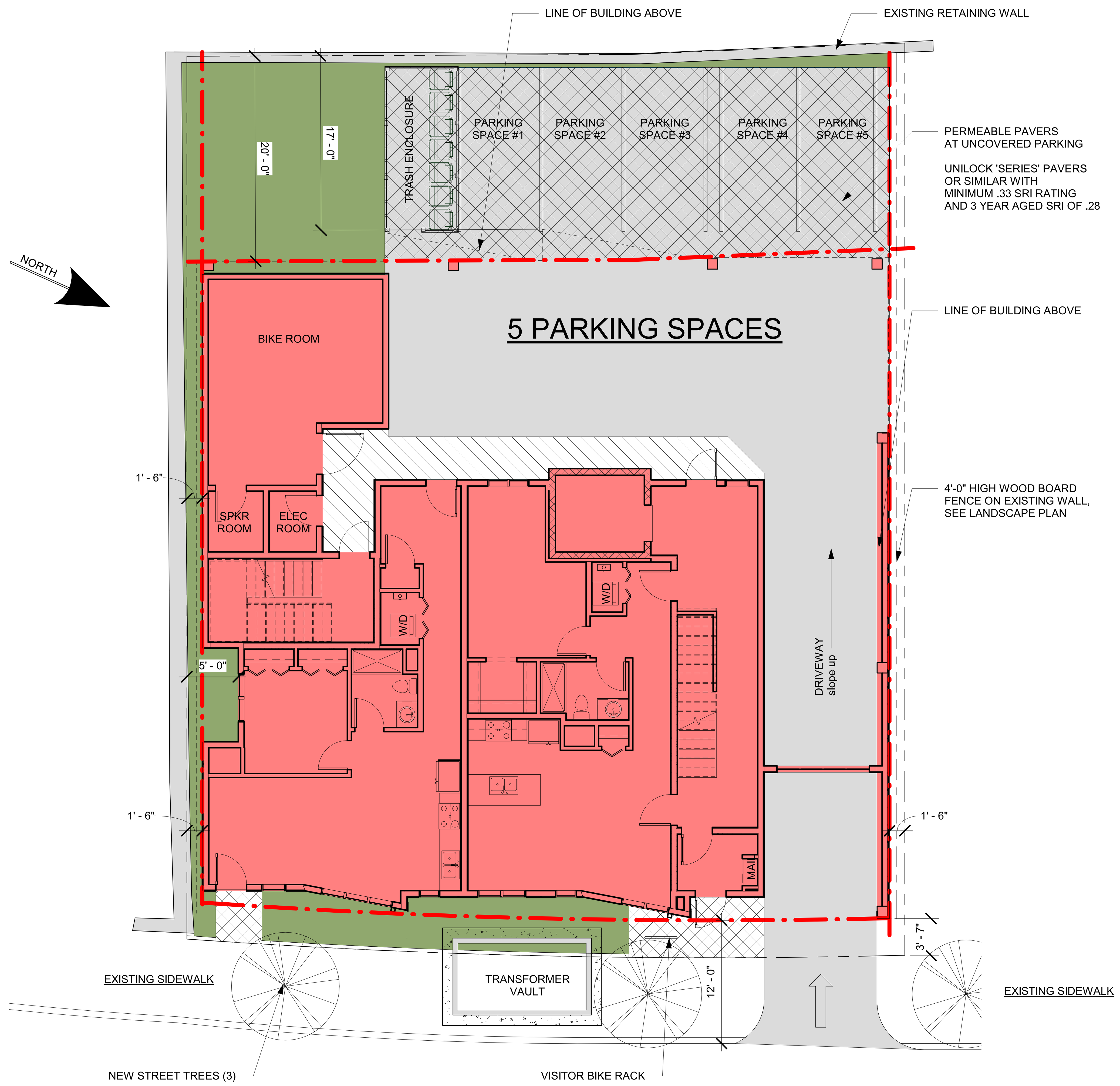


1 SITE PLAN
1/8" = 1'-0"

KEY

USEABLE OPEN SPACE	
PROPOSED BUILDING FOOTPRINT	
PAVED AREA	
SETBACK LINE	
PROPOERTY LINE	

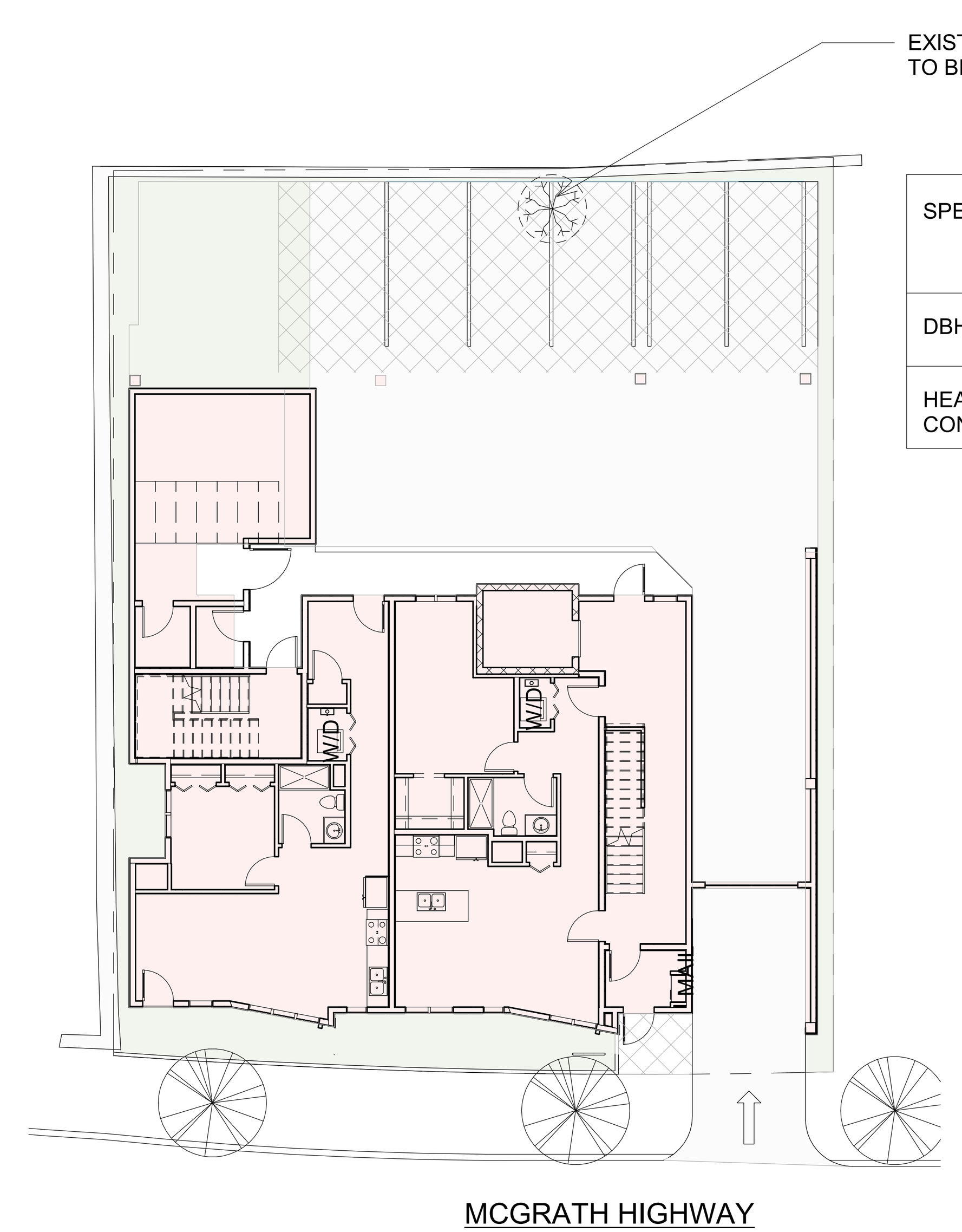
UNIT BREAKDOWN

(5) 1-BEDROOM UNITS
(10) 2-BEDROOM UNITS

15 UNITS TOTAL

ZONING DIMENSIONAL TABLE-PROPOSED ZONING:

LOT SIZE: +/- 6,143 SF	ALLOWED / REQUIRED	PROPOSED	COMMENTS
ZONE	MR4 ZONE		
BUILDING TYPE	GENERAL BUILDING	APT. BUILDING	
LOT DIMENSIONS			
WIDTH (MIN.)	30 FT	70	COMPLIES
LOT DEVELOPMENT			
LOT COVERAGE (MAX)	90 %	65% / 3,987 SF	COMPLIES
GREEN FACTOR (MIN.)	0.25 MIN 0.30 IDEAL	0.32	COMPLIES
BUILDING SETBACKS			
PRIMARY FRONT (MIN/ MAX.)	2 FT / 12 FT	3'-8" FT AT GRADE	COMPLIES
SECONDARY FRONT (MIN/ MAX.)	2 FT / 12 FT		
SIDE (MIN)	@ ALLEY OR ROW: 0 FT @ NR OR LHD: 10'-0"	5 FT (R) / 5 FT (L)	COMPLIES
REAR (MIN)	@ ALLEY OR ROW: 10 FT ABUTTING NR OR LHD: 20 FT	20 FT 17'-0" FT @ BAY	COMPLIES
MAIN BODY			
BUILDING WIDTH (MAX.)	200 FT	59'-10 1/2"	COMPLIES
FACADE BUILD OUT, FRONT STREET (MIN.)	-		
PRIMARY FRONT	80 %	85%	COMPLIES
SECONDARY FRONT	65 %	NOT APPLICABLE	COMPLIES
FLOOR PLATE (MAX.)	15,000 SF	3,498 SF	COMPLIES
BUILDING HEIGHT, STORIES (MIN.)	3 STORIES	4 STORIES	COMPLIES
BUILDING HEIGHT, STORIES (MAX.)	4 STORIES		
GROUND STORY HEIGHT (MIN.)	10 FT	10 FT	COMPLIES
UPPER STORY HEIGHT (MIN.)	10 FT	10 FT	COMPLIES
BUILDING HEIGHT, FEET (MAX.)	50 FT	40 FT	COMPLIES
ROOF TYPE	FLAT	FLAT	COMPLIES
FACADE COMPOSITION			
GROUND STORY FENESTRATION (MIN.)	15% / 50%	41% (141 SF / 466 SF)	COMPLIES
UPPER STORY FENESTRATION (MIN./ MAX.)	15% / 50%	31% (188 SF / 600 SF	COMPLIES
BLANK WALL (MAX.)	20 FT	N/A	COMPLIES
USE & OCCUPANCY			
GROSS FLOOR AREA PER DU	--	--	
LOT AREA < 5,000 SF	1,500	67 FT	COMPLIES
LOT AREA > 5,000 SF	4,366 x 3 / 1,125 (11.6 DU)	--	COMPLIES
NET ZERO BUILDING	4,366 x 3 / 850 (15.4 DU)	15 DU	
100% AFFORDABLE	850		
		936 SF (14 DU)	COMPLIES
OUTDOOR AMENITY SPACE (MIN.)	1/ DU		
PARKING (RESIDENTIAL)			
MIN SHORT TERM BICYCLE PARKING	0.1/DU	1.4 (2) SPACES	COMPLIES
MIN LONG TERM BICYCLE PARKING	1 /DU (15 SPACES)	15 SPACES	COMPLIES
MAXIMUM PARKING (WITHIN TRANSIT AREA)	1/DU (14 SPACES MAX)	5 SPACES	COMPLIES



SPECIES	UNDETERMINED / LACK OF CANOPY TO IDENTIFY
DBH	16"
HEALTH CONDITION	VERY POOR / DEAD

3 SITE PLAN - EXISTING TREE PLAN
1/16" = 1'-0"

PROJECT NAME
McGrath Residences

PROJECT ADDRESS
394 McGrath Highway
Somerville, MA

CLIENT
Mike Tokatlyan

ARCHITECT
DESIGN KHALSA

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CONSULTANTS:

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REGISTERED ARCHITECT JAI SINGH KHALSA No. 6042 CAMBRIDGE MA COMMONWEALTH OF MASSACHUSETTS

Project number	19055
Date	12/01/21
Drawn by	WC
Checked by	JSK
Scale	As indicated

REVISIONS

No.	Description	Date

Architectural Site Plan

A-020

McGrath Residences

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1 FRONT FACADE FENESTRATION
1/8" = 1'-0"

2 SIDE FACADE (North) FENESTRATION
1/8" = 1'-0"

3 SIDE FACADE (South) FENESTRATION
1/8" = 1'-0"

4 REAR FACADE (West) FENESTRATION
1/8" = 1'-0"

WINDOW TOTALS

TYPE A: 31 TOTAL @ 12 SF EACH = 372 SF
TYPE B: 24 TOTAL @ 28 SF EACH = 672 SF
TYPE C: 12 TOTAL @ 42 SF EACH = 504 SF
TYPE D: 1 TOTAL @ 35 SF EACH = 35 SF
TYPE E: 3 TOTAL @ 10 SF EACH = 30 SF
TYPE F: 4 TOTAL @ 23 SF EACH = 92 SF
75 WINDOWS / 1,705 SF OF WINDOWS

PROJECT NAME
McGrath Residences

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CONSULTANTS:

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No.	Description	Date

Fenestration Elevations

A-021

McGrath Residences

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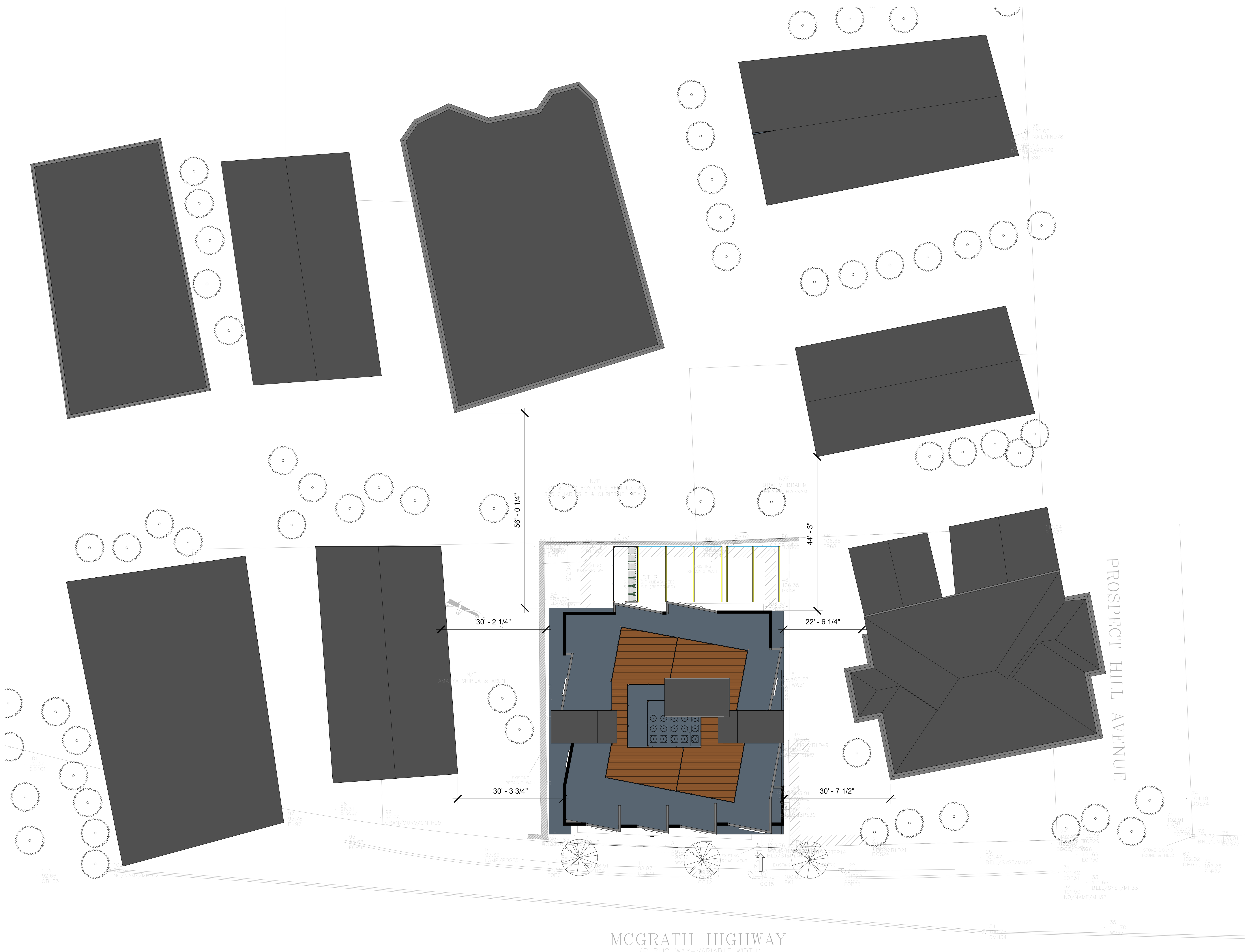

1 Site Plan Neighborhood Buildings
1/16" = 1'-0"

PROJECT NAME

McGrath Residences

PROJECT ADDRESS

394 McGrath Highway
Somerville, MA

CLIENT

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Project number	19055
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No.	Description	Date

Abutting Properties Plan

A-022

McGrath Residences

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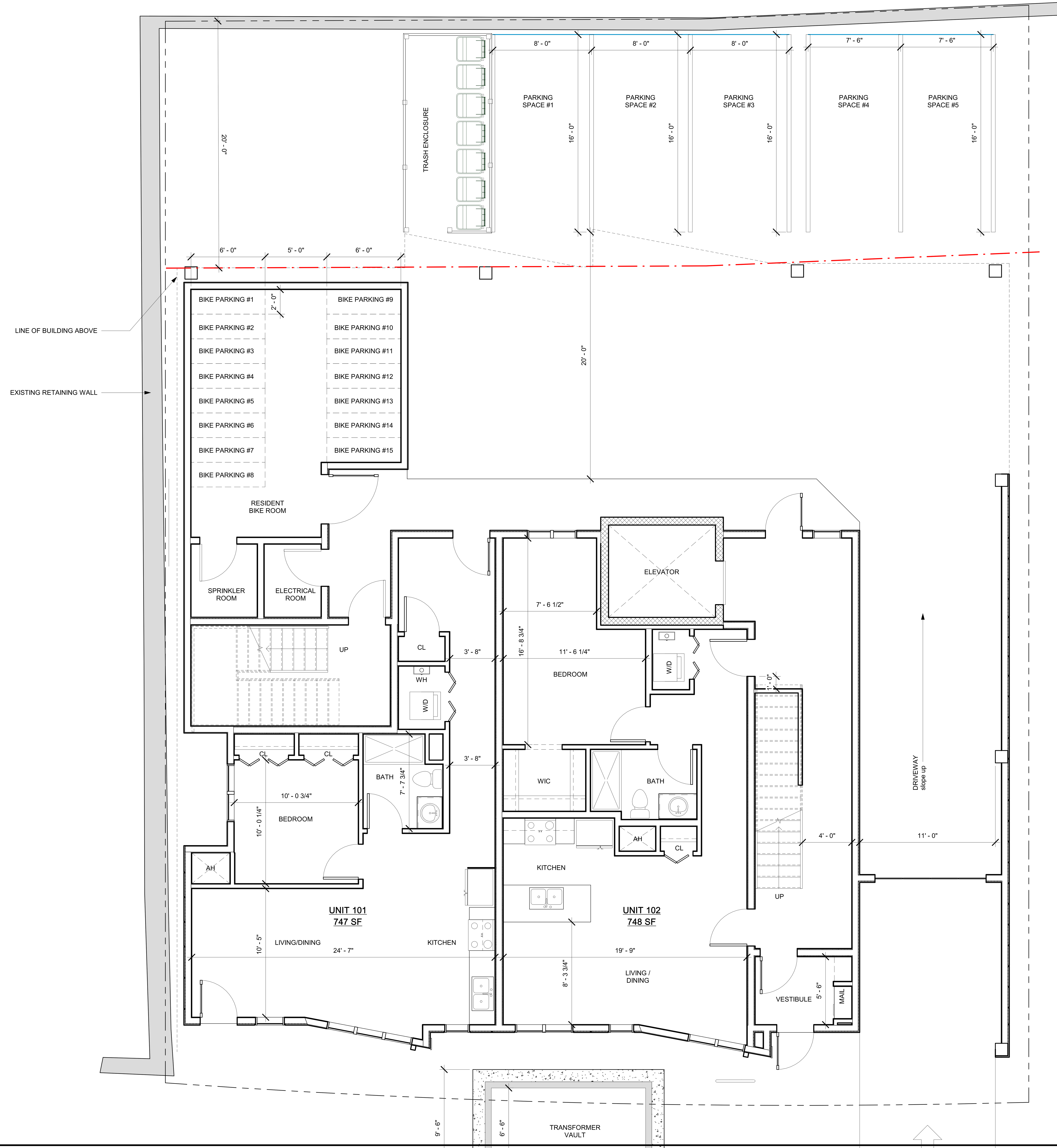

1 1st Floor Level
1/4" = 1'-0"

PROJECT NAME

McGrath Residences

PROJECT ADDRESS

394 McGrath Highway
Somerville, MA

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Mike Tokatlyan

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17 IVALOO STREET SUITE 400
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CONSULTANTS:

REGISTRATION

REGISTERED ARCHITECT — JAI SINGH KHALSA — No. 5042 — CAMBRIDGE MA — COMMONWEALTH OF MASSACHUSETTS

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Date	12/01/21
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Scale	1/4" = 1'-0"

REVISIONS

No.	Description	Date

1st Floor Plan

A-100

McGrath Residences

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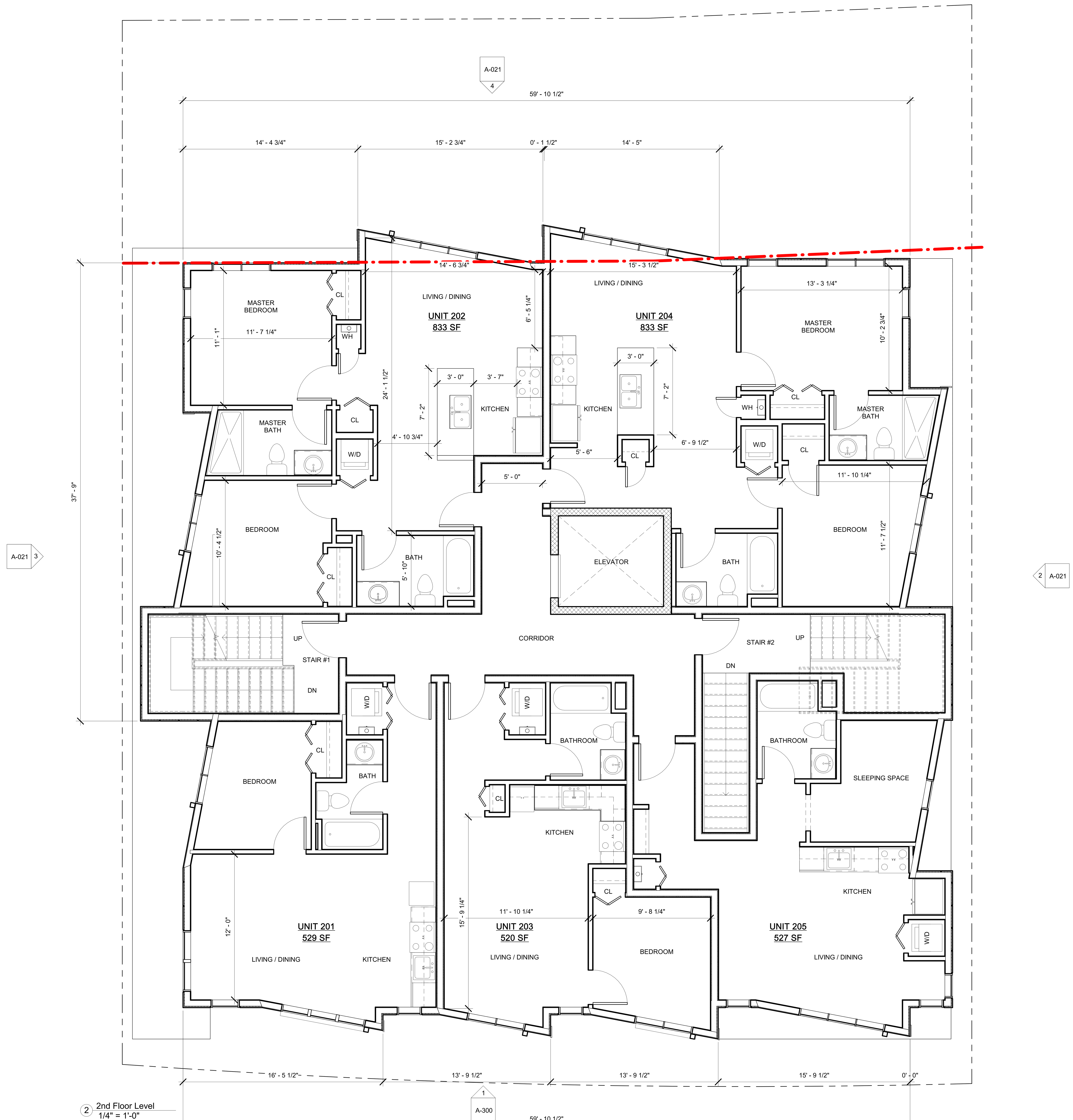

2 2nd Floor Level
1/4" = 1'-0"

PROJECT NAME

McGrath Residences

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Scale	1/4" = 1'-0"

REVISIONS

No.	Description	Date

2nd Floor Plan

A-101

McGrath Residences

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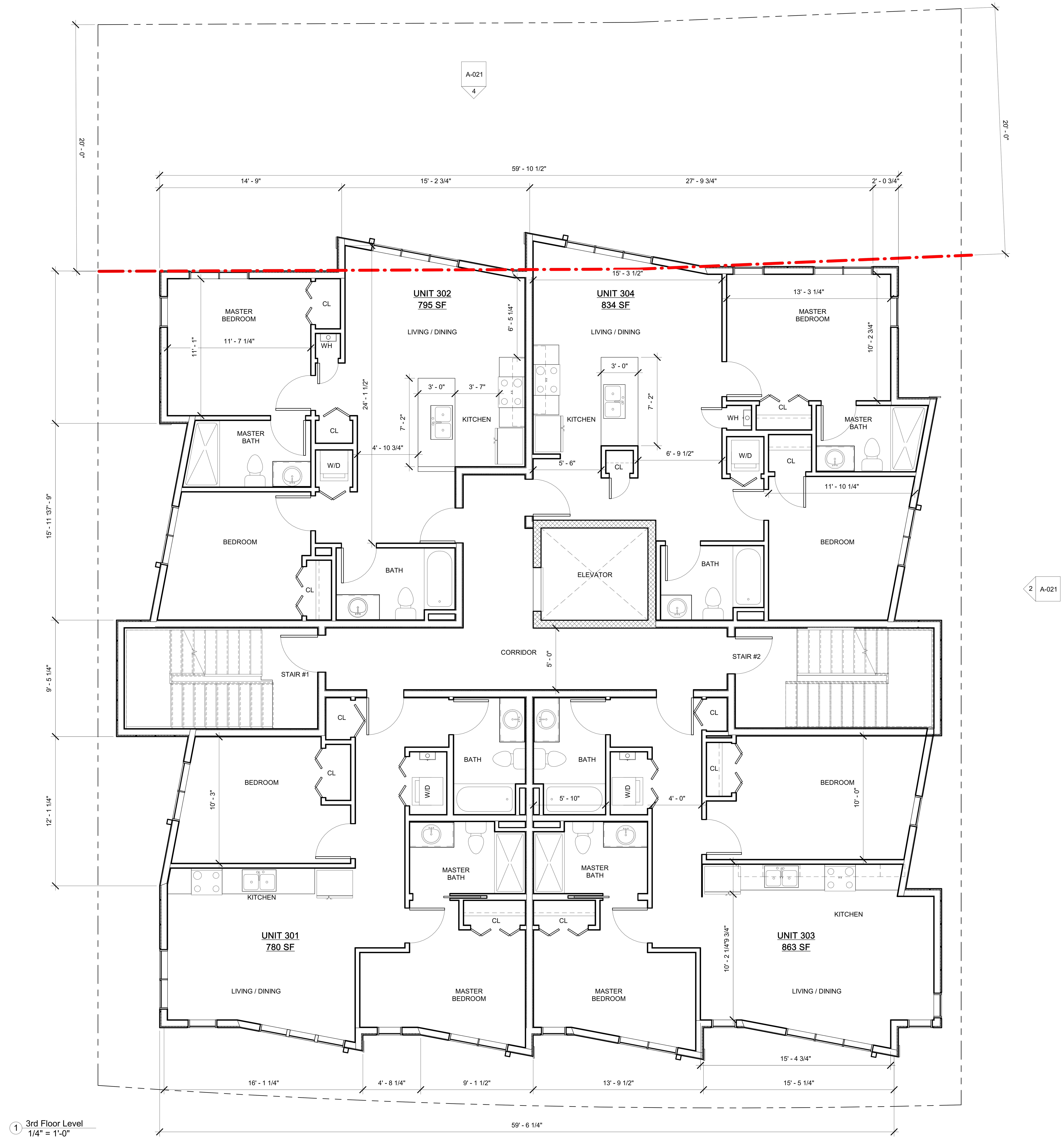

PROJECT NAME

McGrath Residences

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Scale	1/4" = 1'-0"

REVISIONS

No.	Description	Date

3rd Floor Plan

A-102

McGrath Residences

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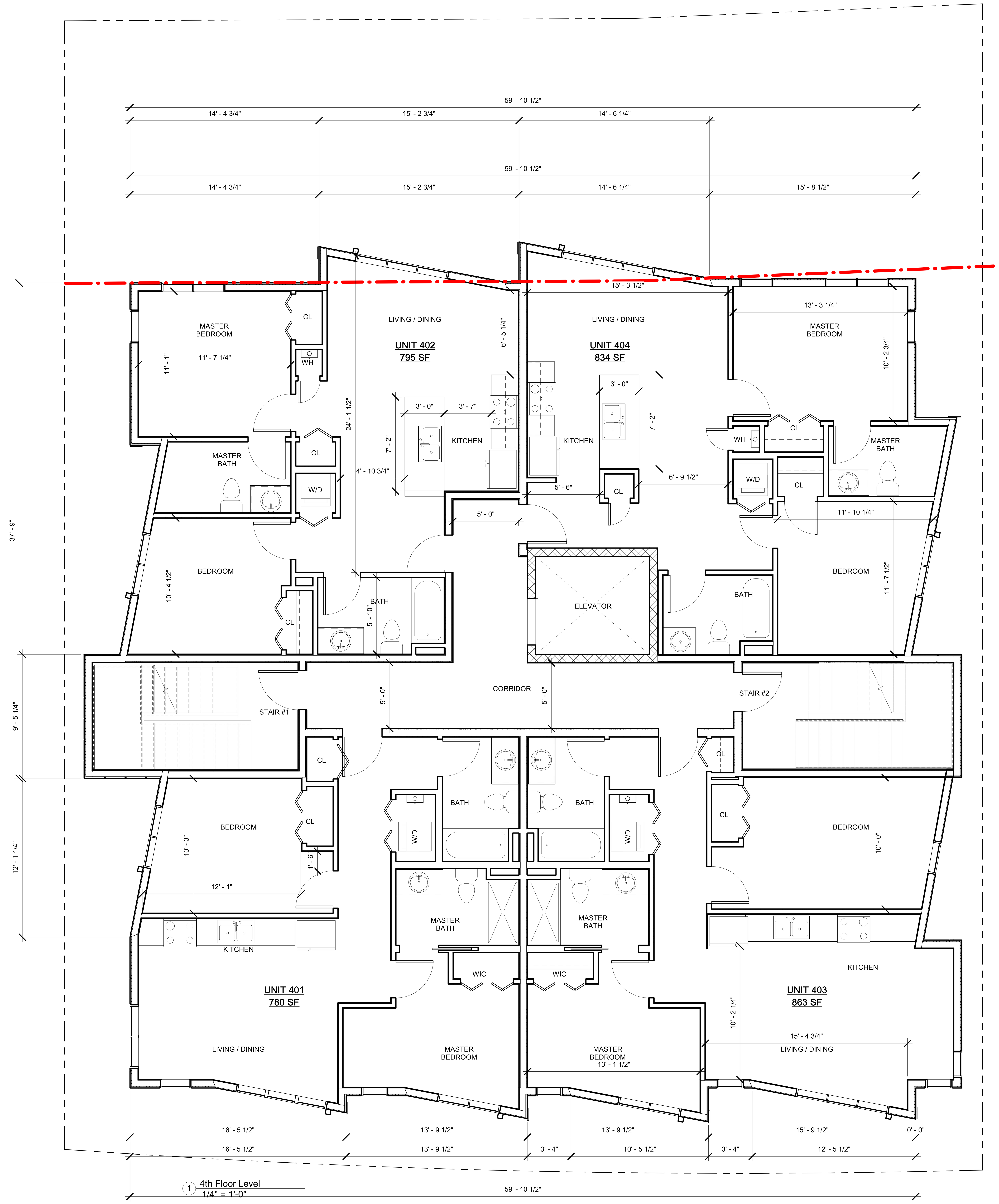

1 4th Floor Level
1/4" = 1'-0"

PROJECT NAME

McGrath Residences

PROJECT ADDRESS

394 McGrath Highway
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CONSULTANTS:

REGISTRATION

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Scale	1/4" = 1'-0"

REVISIONS

No.	Description	Date

4th Floor Plan

A-103

McGrath Residences

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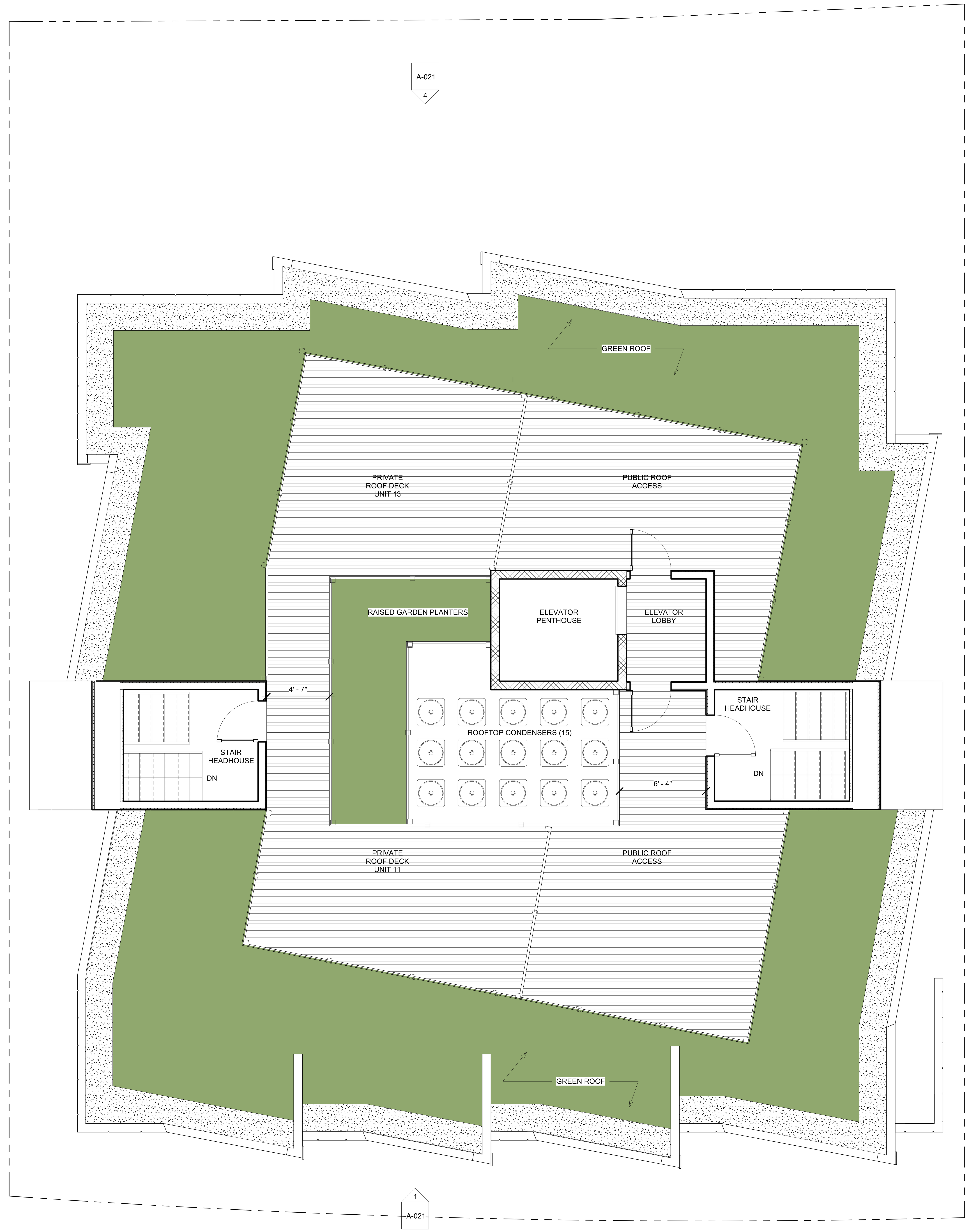

1 Roof Level
1/4" = 1'-0"

PROJECT NAME

McGrath Residences

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CLIENT

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REVISIONS

No.	Description	Date

Roof Plan

A-105

1 McGrath Highway Elevation (East)
1/8" = 1'-0"

2 Side Elevation (North)
1/8" = 1'-0"

3 Rear Elevation (West)
1/8" = 1'-0"

4 Side Elevation (South)
1/8" = 1'-0"

PROJECT NAME

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REVISIONS

No.	Description	Date

Exterior Elevations

A-300

McGrath Residences

\\TKG-SERVER\Data\19\19055-Mike-T-394 McGrath\03 Drawings\00_ARCH_SD_DD\394 McGrath Highway_post UDC_9.7.21.rvt

3/2/2022 4:11:28 PM

(1) McGrath View 1

(2) McGrath View 2

(3) Rear View

(4) Rear View 2

PROJECT NAME

McGrath Residences

PROJECT ADDRESS

394 McGrath Highway
Somerville, MA

CLIENT

Mike Tokatlyan

ARCHITECT

DESIGN KHALSA

17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-8682 FAX: 617-591-2086

CONSULTANTS:

REGISTRATION

REGISTERED ARCHITECT JAI SINGH KHALSA No. 5012 CAMBRIDGE MA COMMONWEALTH OF MASSACHUSETTS

Project number	19055
Date	12/01/21
Drawn by	Author
Checked by	Checker
Scale	

REVISIONS

No.	Description	Date

Exterior Perspectives

A-301

McGrath Residences

\\TKG-SERVER\Data\19\19055-Mike-T-394 McGrath\03 Drawings\00_ARCH_SD_DD\394 McGrath Highway_post UDC_9.7.21.rvt

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RENDERED FRONT ELEVATION

SIDE ELEVATION (SOUTH)

SIDE ELEVATION (NORTH)

SIDE ELEVATION (NORTH)

SUMMARY OF REVISIONS

PROJECT NAME

McGrath Residences

PROJECT ADDRESS

394 McGrath Highway
Somerville, MA

CLIENT

Mike Tokatlyan

ARCHITECT

DESIGN KHALSA

17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-8682 FAX: 617-591-2086

CONSULTANTS:

REGISTRATION

REGISTERED ARCHITECT — JAI SINGH KHALSA — No. [illegible] — CAMBRIDGE MA — COMMONWEALTH OF MASSACHUSETTS

Project number	19055
Date	12/01/21
Drawn by	WC
Checked by	JSK
Scale	

REVISIONS

No.	Description	Date

Rendered Elevations

A-302

McGrath Residences

PROJECT NAME

McGrath Residences

PROJECT ADDRESS

394 McGrath Highway
Somerville, MA

CLIENT

Mike Tokatlyan

ARCHITECT

DESIGN KHALSA

17 IVALOO STREET SUITE 400
SOMERVILLE, MA 02143
TELEPHONE: 617-591-8682 FAX: 617-591-2086

CONSULTANTS:

REGISTRATION

REGISTERED ARCHITECT JAI SINGH KHALSA No. CAMBRIDGE MA COMMONWEALTH OF MASSACHUSETTS

Project number	19055
Date	12/01/21
Drawn by	Author
Checked by	Checker
Scale	

REVISIONS

No.	Description	Date

Street View

AV-1

McGrath Residences

\\TKG-SERVER\Data\19\19055-Mike-T-394 McGrath\03 Drawings\00_ARCH_SD_DD\394 McGrath Highway_post UDC_9.7.21.rvt

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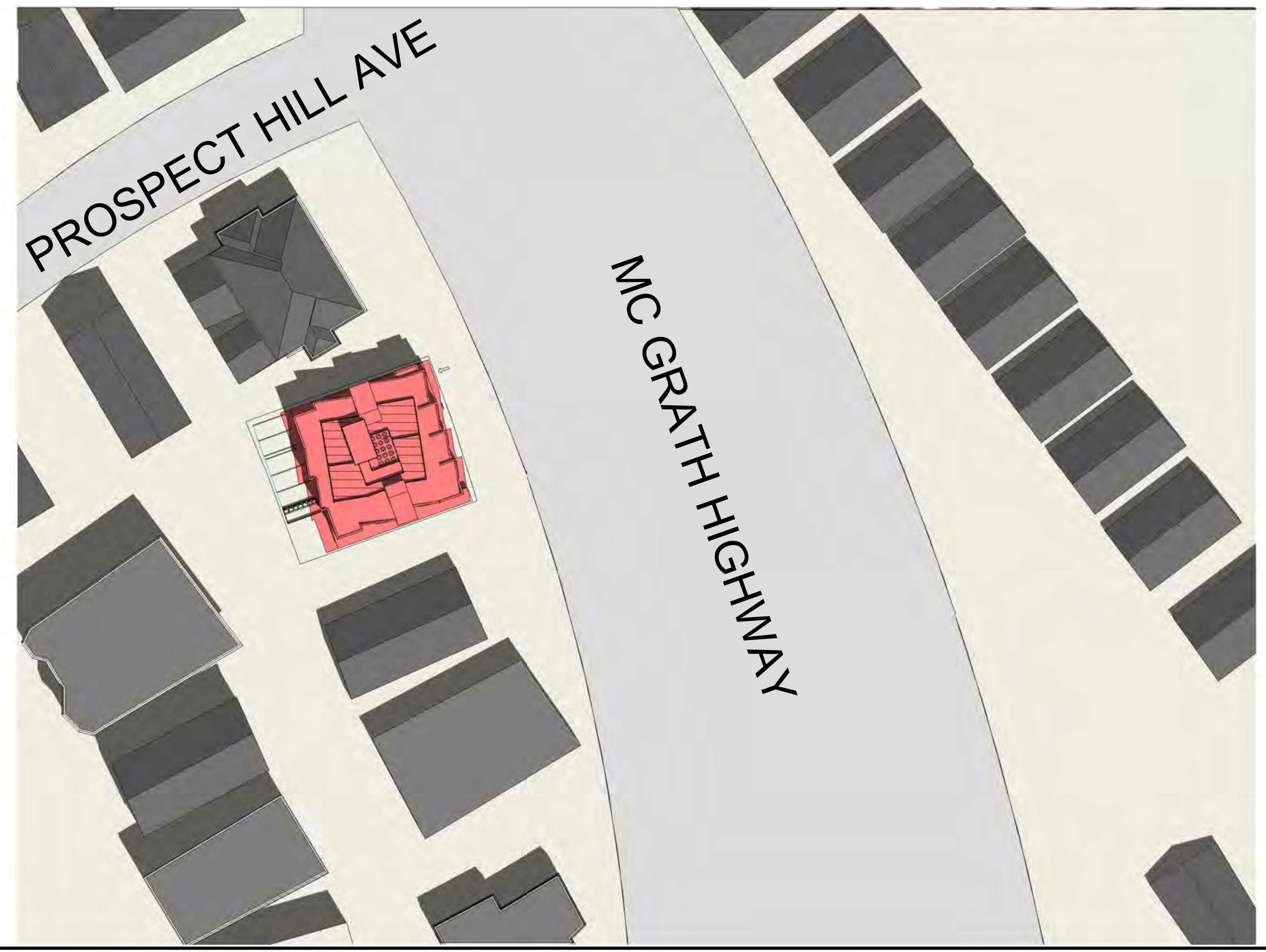
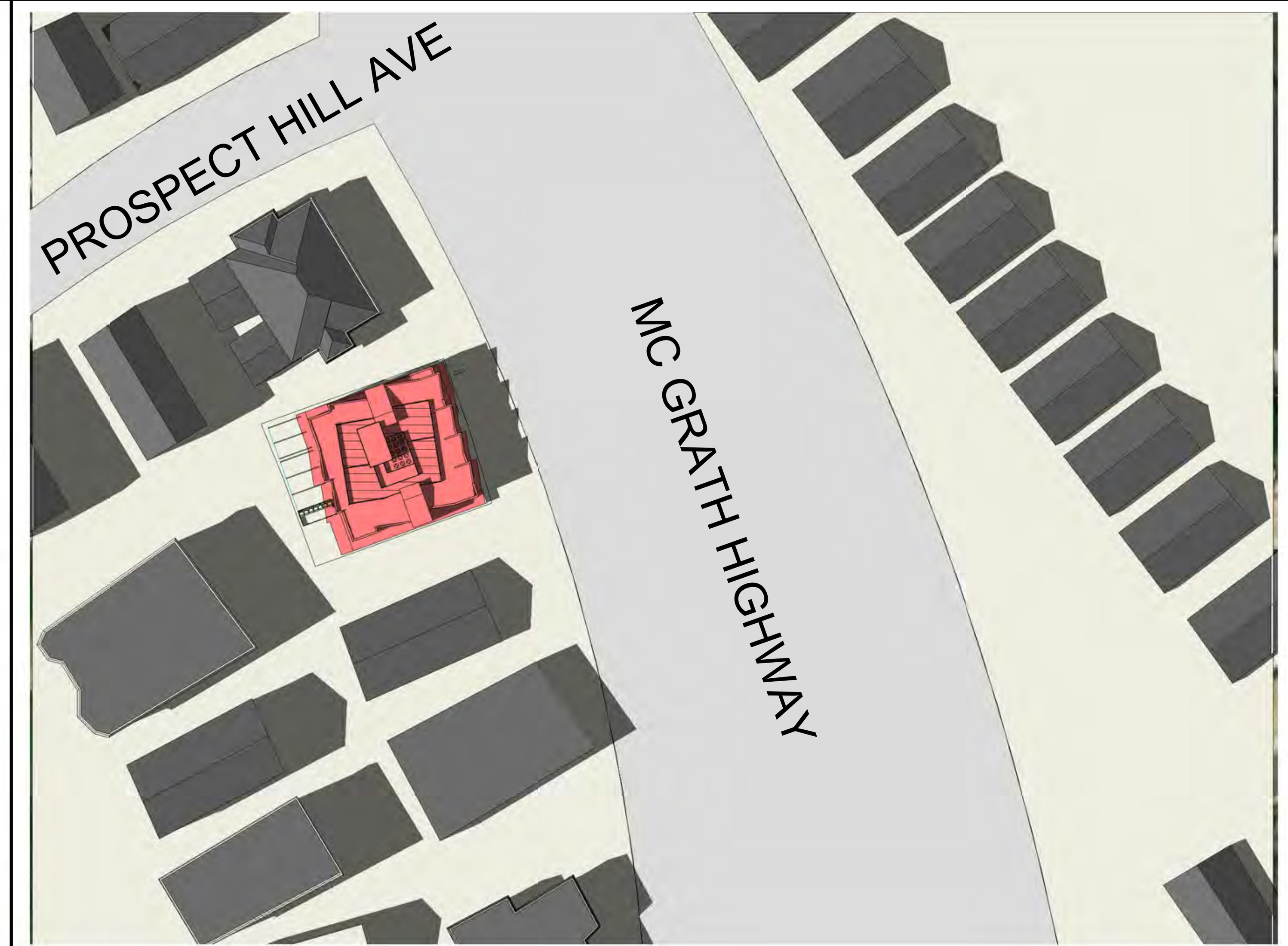
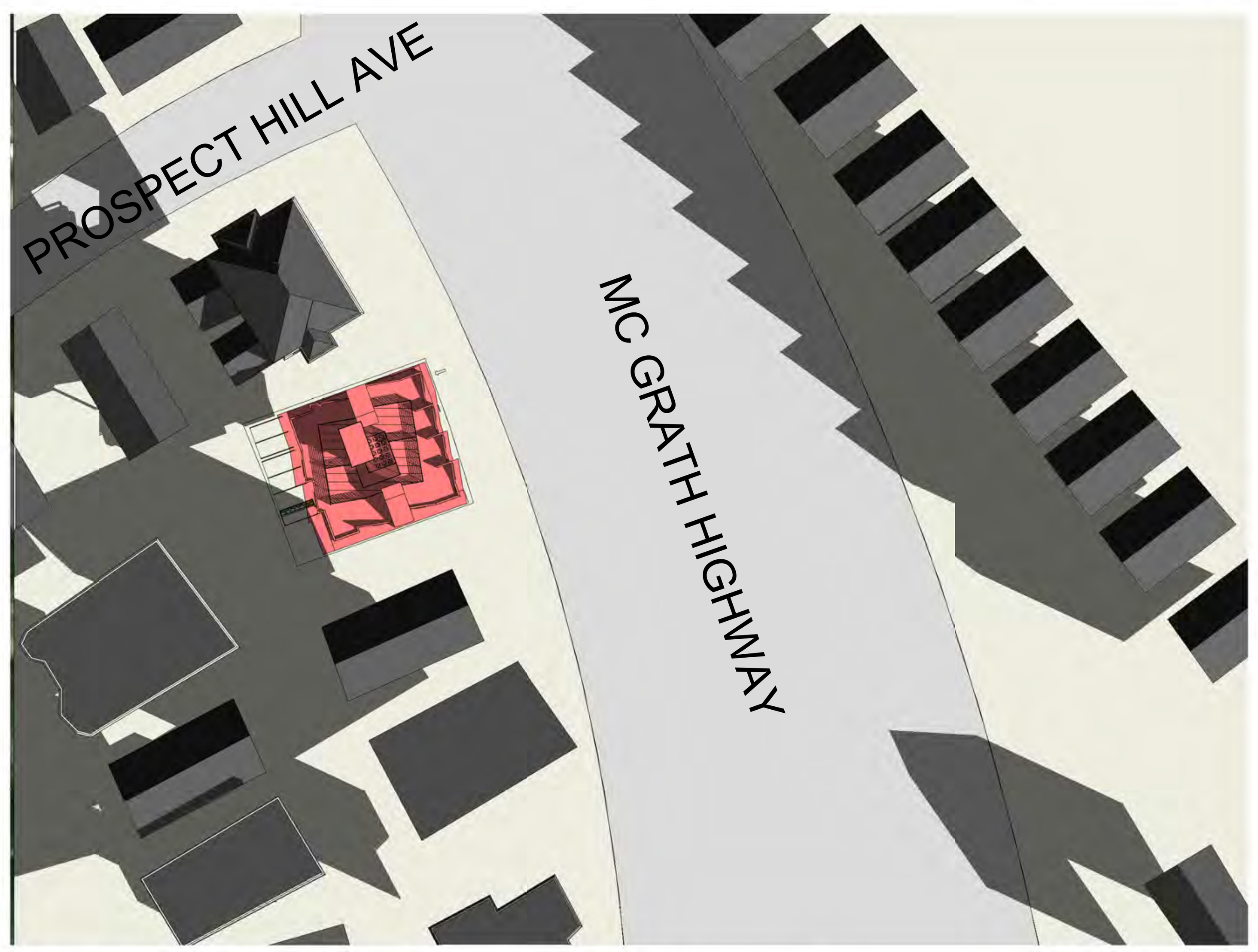
N	MORNING (9 AM - 10 AM)	NOON (12 PM - 1 PM)	AFTERNOON (3PM - 4 PM)

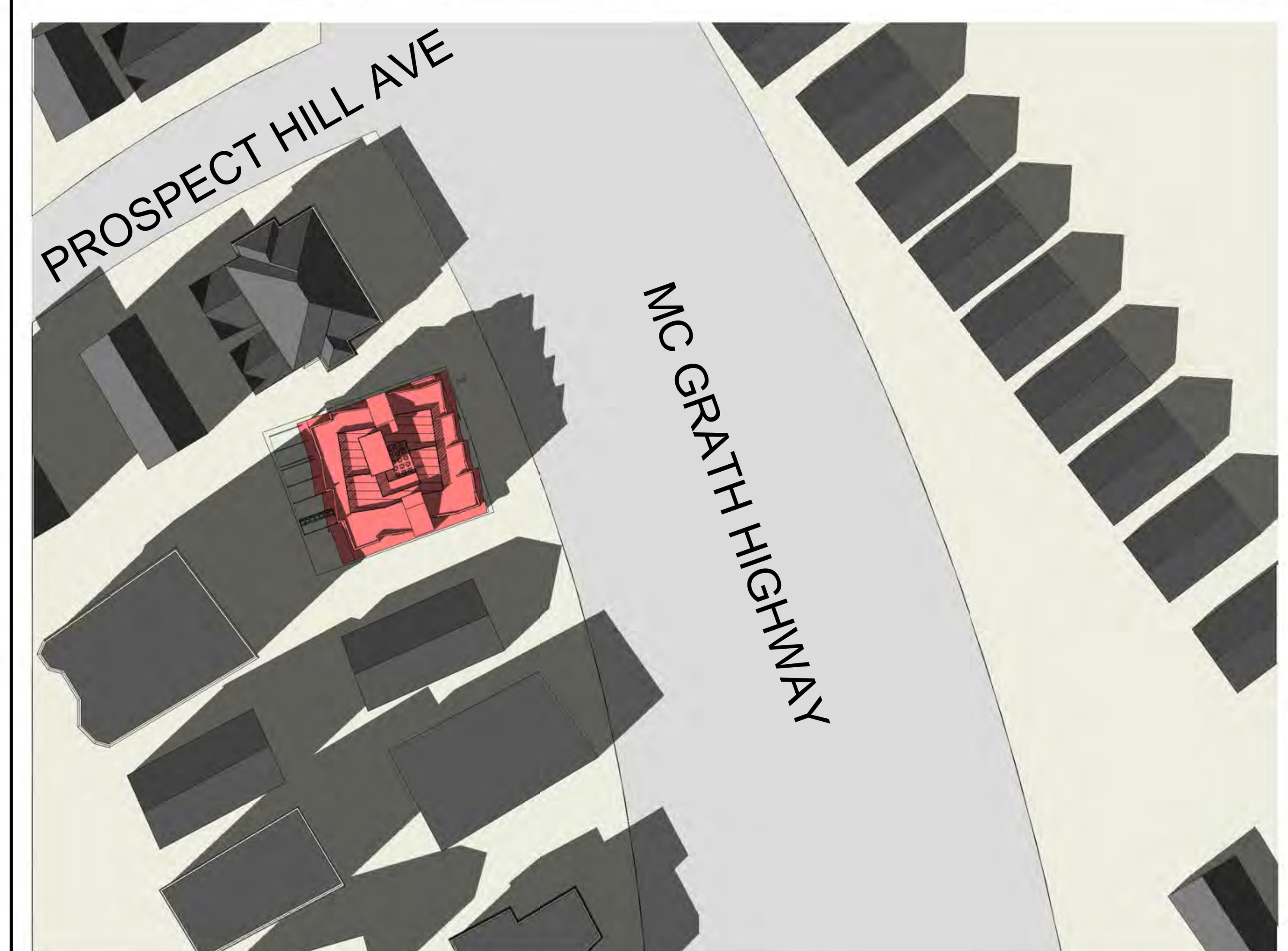
SUMMER SOLSTICE



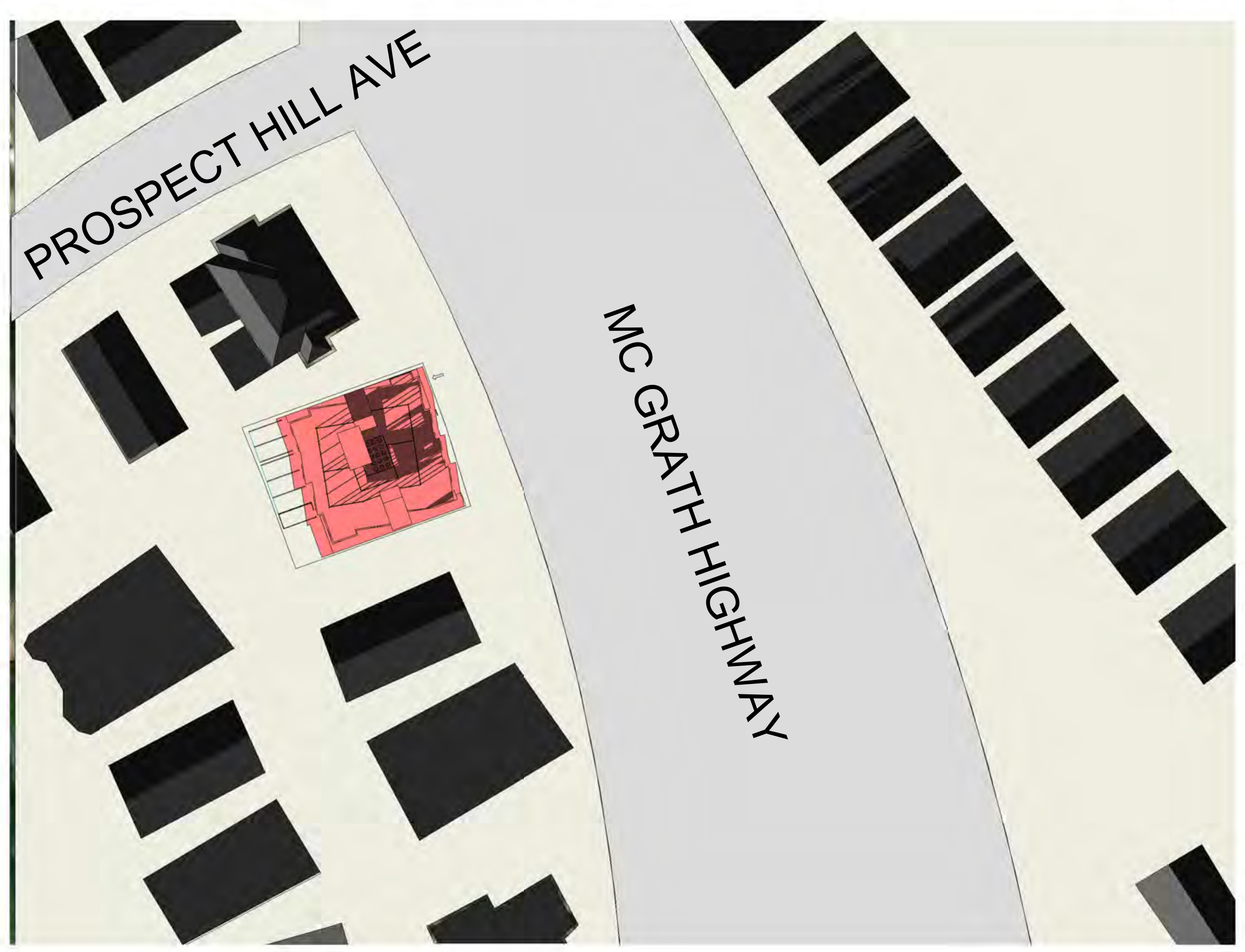


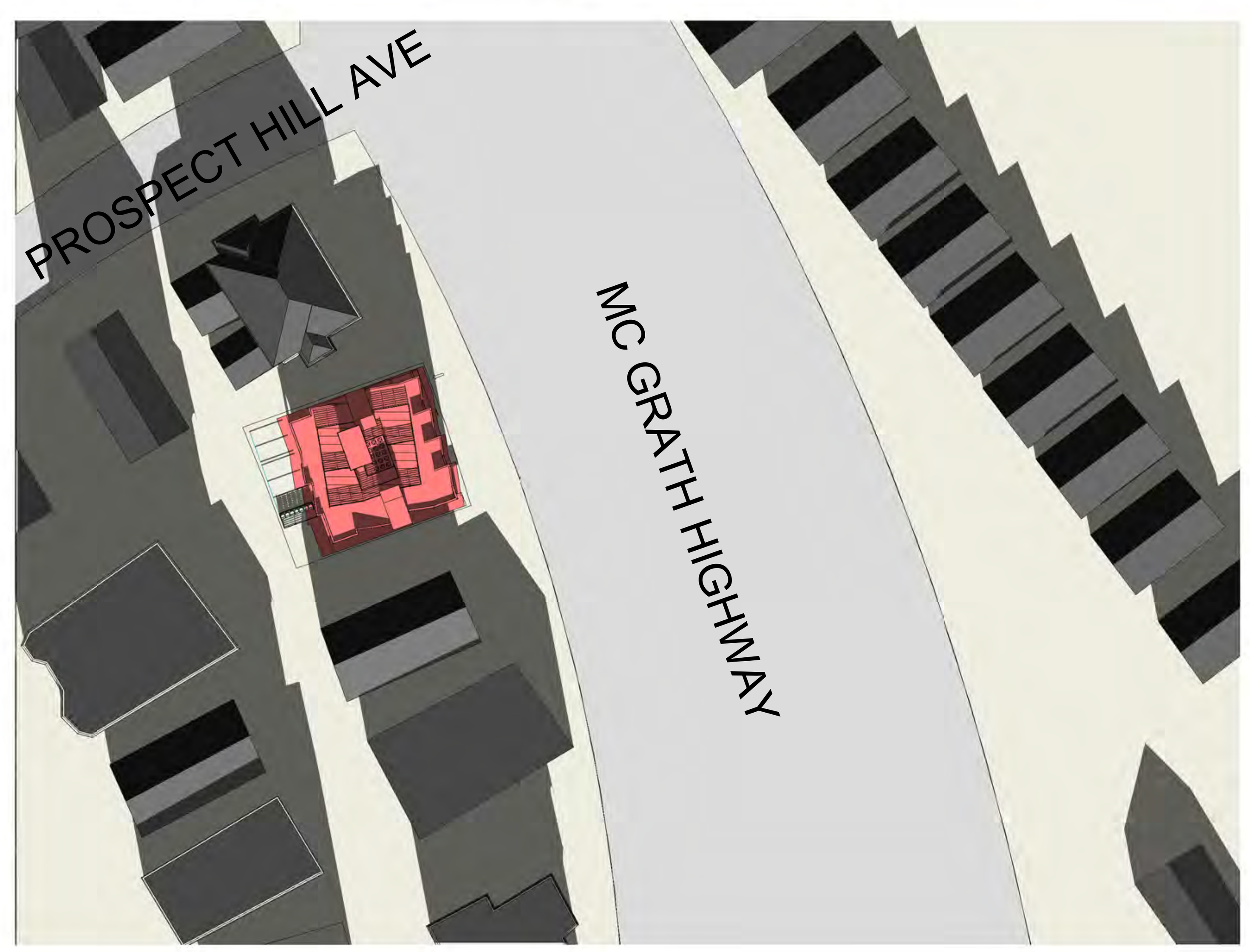
FALL / SPRING EQUINOX

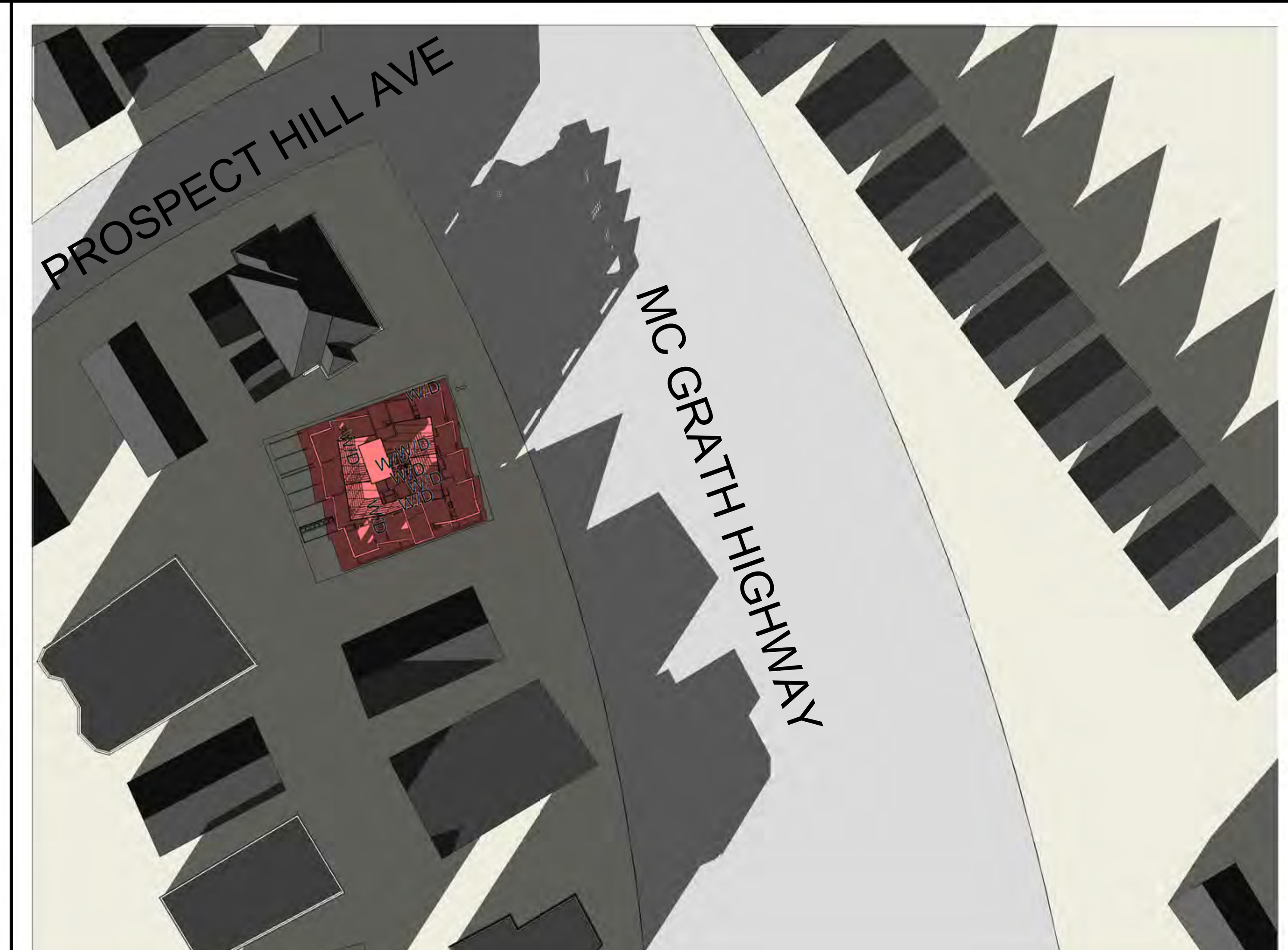




WINTER SOLSTICE







PROJECT NAME

McGrath Residences

PROJECT ADDRESS

394 McGrath Highway
Somerville, MA

CLIENT

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CONSULTANTS:

REGISTRATION

REGISTERED ARCHITECT
CAMBRIDGE MA
COMMONWEALTH OF MASSACHUSETTS

Project number	19055
Date	12/01/21
Drawn by	RB
Checked by	JSK
Scale	1" = 60'-0"

REVISIONS

No.	Description	Date

Shadow Study

AV-2

McGrath Residences

\\TKG-SERVER\Data\19\19055-Mike-T-394 McGrath\03 Drawings\00_ARCH_SD_DD\394 McGrath Highway_post UDC_9.7.21.rvt

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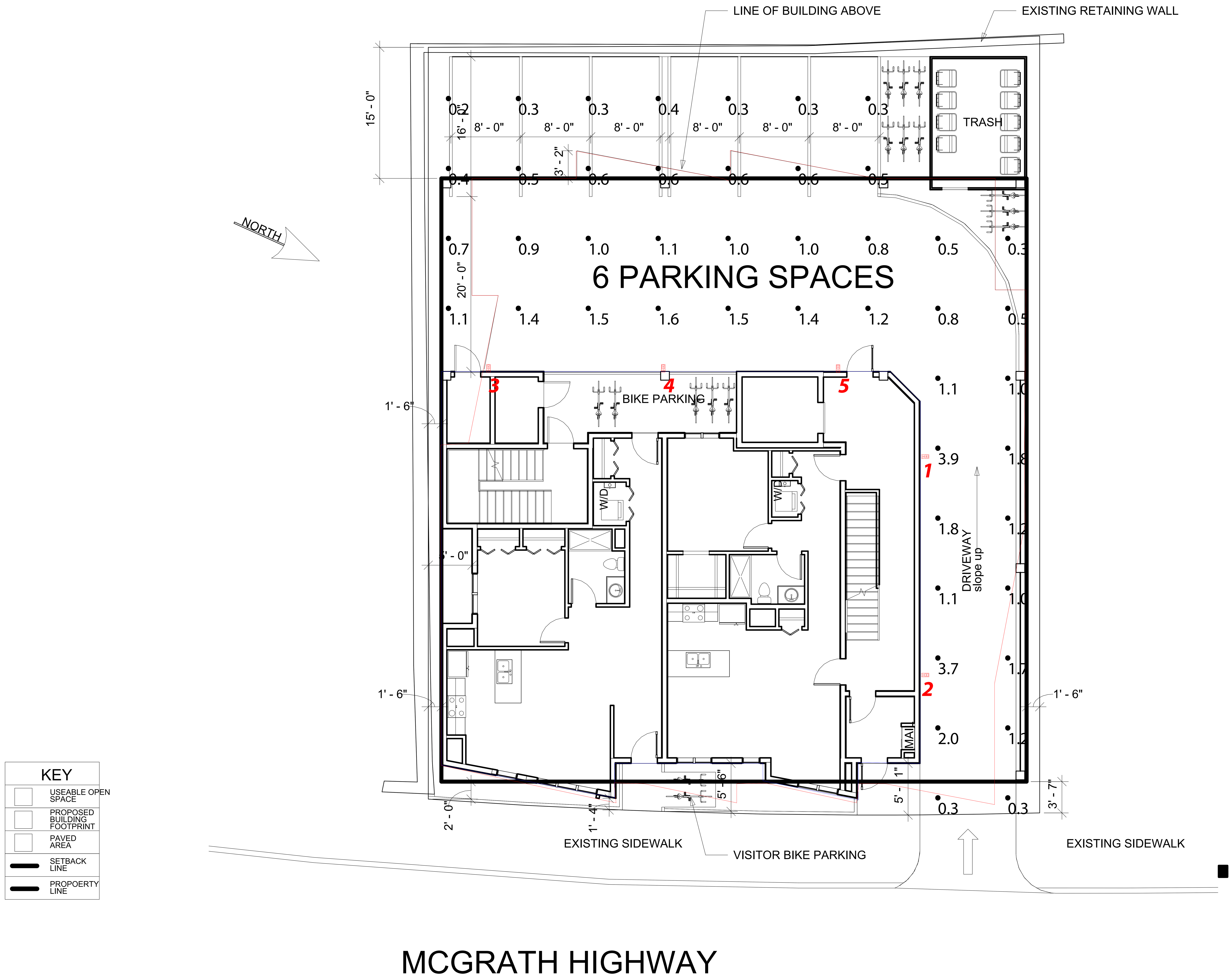


Scale: 1 inch= 6 Ft.

The Lighting Analysis, ezLayout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") represents an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by RAB and therefore actual measured results may vary from the actual field conditions. RAB recommends that design parameters and other information be field verified to reduce variation.

RAB neither warranties, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. RAB neither warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by RAB. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.

PROJECT # 341537

CASE # 341537

Scale: as noted

Date:3/11/2020

Filename: 394 McGrath Hwy Ltg Layout 341537A.AGI

Drawn By: dvento

Job Name:
394 McGrath Hwy
Somerville, MA

Lighting Layout
Version A

Prepared For:
Holbrook Associated
35 Reservoir Park Drive
Rockland, MA 02370
Tel: 781-871-0011

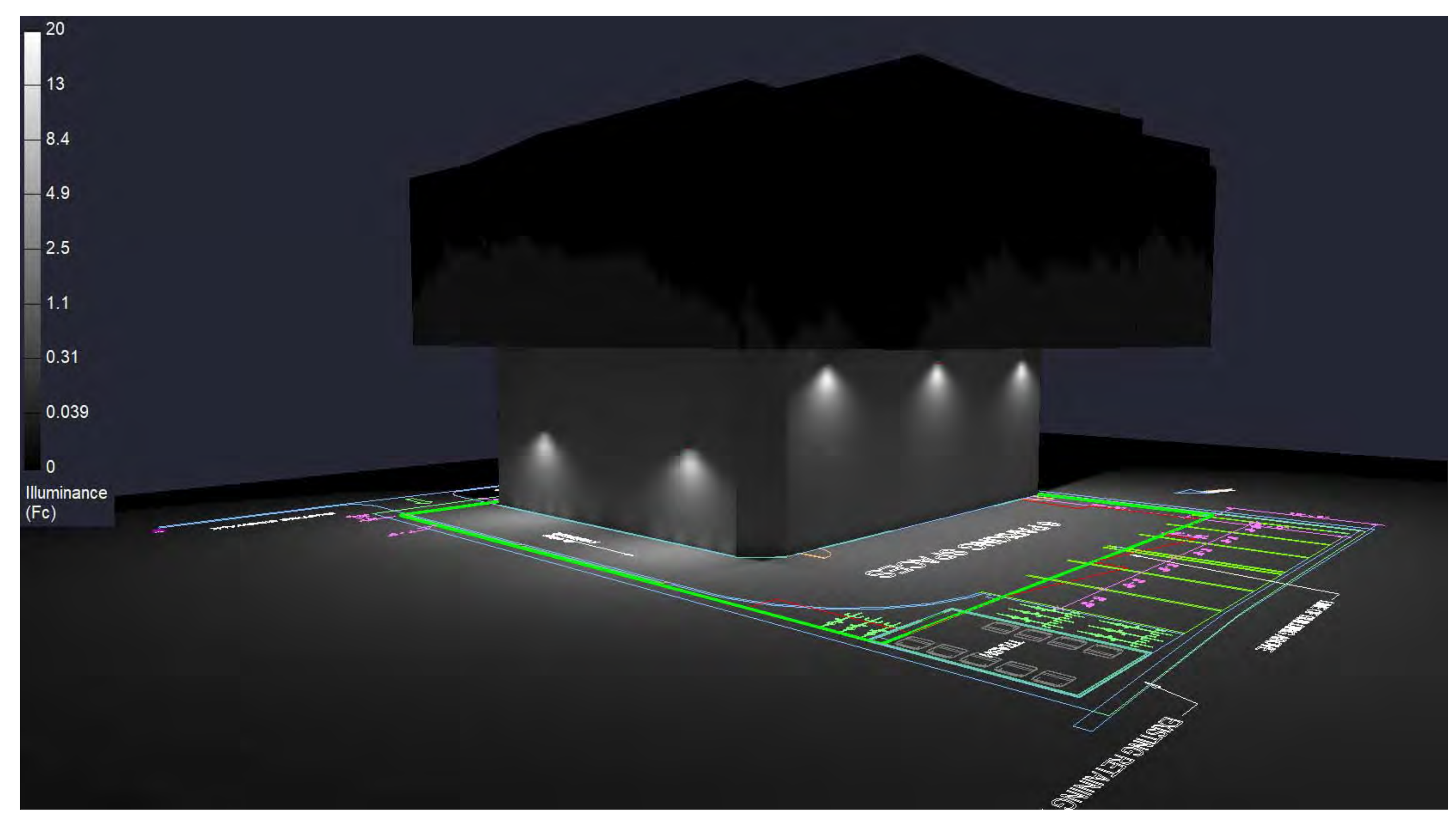
Filename: C:\Users\donna\Desktop\Remote Files\394 McGrath Hwy\394 McGrath Hwy Ltg Layout 341537A.AGI

RAB
170 Ludlow Avenue, Northvale, NJ 07647
888 722-1000 · rablighting.com

Luminaire Schedule		All quotes/orders generated from this layout must be forwarded to the Local Rep Agency					
Symbol	Qty	Tag	Label	Arrangement	LLF	Description	BUG Rating
	5	A	WPLED10Y	SINGLE	1.000	Wallpack	B0-U0-G0

Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
Parking Lot	Illuminance	Fc	1.01	3.9	0.2	5.05	19.50	Readings taken at 0'-0" AFG	8	8	Horizontal

Expanded Luminaire Location Summary						
LumNo	Tag	X	Y	MTG HT	Orient	Tilt
1	A	113.9	55.5	10	0	0
2	A	113.9	30.5	10	0	0
3	A	63.788	65.727	18	90	0
4	A	83.788	65.727	18	90	0
5	A	103.788	65.705	18	90	0
Total Quantity: 5						



NOTES:
* The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.

* Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.

* The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.

* Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.

* It is the Owner's responsibility to confirm the suitability of the existing or proposed poles and bases to support the proposed fixtures, based on the weight and EPA of the proposed fixtures and the owner's site soil conditions and wind zone. It is recommended that a professional engineer licensed to practice in the state the site is located be engaged to assist in this determination.

* The landscape material shown hereon is conceptual, and is not intended to be an accurate representation of any particular plant, shrub, bush, or tree, as these materials are living objects, and subject to constant change. The conceptual objects shown are for illustrative purposes only. The actual illumination values measured in the field will vary.

* Photometric model elements such as buildings, rooms, plants, furnishings or any architectural details which impact the dispersion of light must be detailed by the customer documents for inclusion in the RAB lighting design model. RAB is not responsible for any inaccuracies caused by incomplete information on the part of the customer, and reserves the right to use best judgement when translating customer requests into photometric studies.

* RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.

PROJECT # 341537
CASE # 341537
Scale: as noted
Date:3/11/2020
Filename: 394 McGrath Hwy Ltg Layout 341537A.AGI
Drawn By: dvento

Job Name:
394 McGrath Hwy
Somerville, MA

Lighting Layout
Version A

Prepared For:
Holbrook Associated
35 Reservoir Park Drive
Rockland, MA 02370
Tel: 781-871-0011

Filename: C:\Users\donna\Desktop\Remote Files\394 McGrath Hwy\394 McGrath Hwy Ltg Layout 341537A.AGI

RAB®
170 Ludlow Avenue, Northvale, NJ 07647
888 722-1000 • rablighting.com

WPLED10Y

LED 10W & 13 Wall packs. patent-pending thermal management system. 100,000 hour L70 lifespan. 5-year, no-compromise warranty.

Color: Bronze Weight: 3.3 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	0.1A
208V	0.07A
240V	0.06A
277V	0.05A
Input Watts	12.40W
Efficiency	81%

LED Info

Watts	10W
Color Temp	3000K (Warm)
Color Accuracy	74 CRI
L70 Lifespan	100,000
Lumens	1,198
Efficacy	96.6 LPW

Technical Specifications

Listings

UL Listed:

Suitable for Wet Locations as a Downlight. Suitable for Damp Locations as an Uplight. Wall Mount only. Suitable for Mounting within 4ft. of ground.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities. DLC Product Code: P5NSZ02C

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5-year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for

Lumen Maintenance:

The LED will deliver 70% of its initial lumens at 100,000 hours of operation

Construction

Finish:

Formulated for high durability and long-lasting color

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F)

Housing:

Precision die-cast aluminum housing, lens frame

Mounting:

Surface plate and Junction box

Green Technology:

Mercury and UV free. RoHS-compliant components.

Gaskets:

High-temperature Silicone

Electrical

Driver:

Multi-chip 10W high output long life LED Driver Constant Current, Class II, 120V-240V, 50/60/ Hz, 350mA

THD:

10.8% at 120V, 13.8% at 277V

Power Factor:

98.5% at 120V, 92.1% at 277V

Other

Patents:

The design of the LPACK is protected by U.S. Pat. D604,004 and patents pending in Canada, China and Taiwan.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Technical Specifications (continued)

Other

Equivalency:

Equivalent to 70W Metal Halide

Buy American Act Compliance:

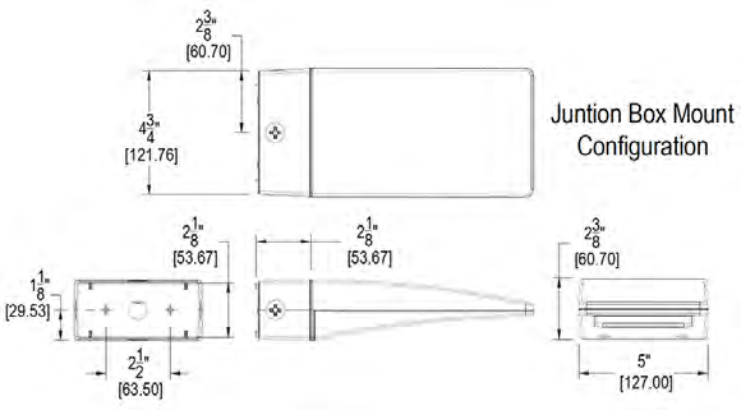
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:

B1 U0 G0

Dimensions



Features

- High performance LED light engine
- Maintains 70% of initial lumens at 100,000-hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- 5-Year, No-Compromise Warranty

WPLED10Y

LED 10W & 13 Wall packs. patent-pending thermal management system. 100,000 hour L70 lifespan. 5-year, no-compromise warranty.

Color: Bronze Weight: 3.3 lbs

Project:	Type:
Prepared By:	Date:

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Type	Constant Current
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240V	0.06A
277V	0.05A
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Efficiency	81%

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Color Temp	3000K (Warm)
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Mounting:

Surface plate and Junction box

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Technical Specifications (continued)

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BUG Rating:

B1 U0 G0

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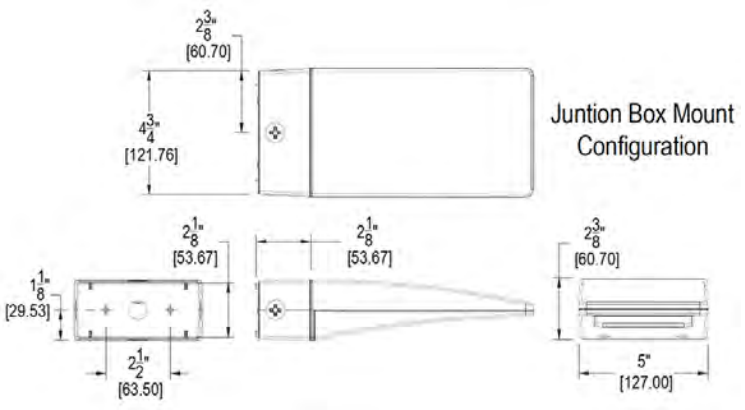

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