TOWN OF ARLINGTON
REDEVELOPMENT BOARD
Application for Special Permit In Accordance with Environmental Design Review Procedures (Section 3.4 of the Zoning Bylaw)

Docket No. _____

1. Property Address 93 Broadway
   Name of Record Owner(s) 93 Broadway LLC Phone 781-646-3855
   Address of Owner 93 Broadway Arlington MA 02476
   Street City, State, Zip

2. Name of Applicant(s) (if different than above) _____
   Address _____ Phone _____
   Status Relative to Property (occupant, purchaser, etc.) _____

3. Location of Property _____
   Assessor's Block Plan, Block, Lot No.

4. Deed recorded in the Registry of deeds, Book 18677, Page 49;
   -or- registered in Land Registration Office, Cert. No. _____, in Book _____, Page _____.

5. Present Use of Property (include # of dwelling units, if any) Early Childhood Learning Center

6. Proposed Use of Property (include # of dwelling units, if any) Early Childhood Learning Center

7. Permit applied for in accordance with the following Zoning Bylaw section(s)

section(s)	title(s)
3.4	EDR
6.1.5	parking reduction

8. Please attach a statement that describes your project and provide any additional information that may aid the ARB in understanding the permits you request. Include any reasons that you feel you should be granted the requested permission.

(In the statement below, strike out the words that do not apply)

The applicant states that Kevin Flynn, Springboard Schools, Inc. is the owner -or- occupant -or- purchaser under agreement of the property in Arlington located at 93 Broadway which is the subject of this application; and that unfavorable action -or- no unfavorable action has been taken by the Zoning Board of Appeals on a similar application regarding this property within the last two years. The applicant expressly agrees to comply with any and all conditions and qualifications imposed upon this permission, either by the Zoning Bylaw or by the Redevelopment Board, should the permit be granted.

_____ _____ _____
Signature of Applicant(s)

_____ _____
Address Phone

TOWN OF ARLINGTON
Dimensional and Parking Information
for Application to
The Arlington Redevelopment Board

Docket No. _____

Property Location 93 BROADWAY

Zoning District B-4

Owner: 93 Broadway LLC

Address: 93 Broadway, Arlington MA 02476

Present Use/Occupancy: No. of Dwelling Units:
EARLY CHILHOOD LEARNING CENTER

Uses and their gross square feet:
7867sf

Proposed Use/Occupancy: No. of Dwelling Units:
EARLY CHILHOOD LEARNING CENTER

Uses and their gross square feet:
16347sf

	Present Conditions	Proposed Conditions	Min. or Max. Required by Zoning for Proposed Use
Lot Size	17,522	17,522	min. -
Frontage	100'	100'	min. 50'
Floor Area Ratio	.45	.93	max. 1
Lot Coverage (%), where applicable	-	-	max. -
Lot Area per Dwelling Unit (square feet)	-	-	min. -
Front Yard Depth (feet)			min. -
Side Yard Width (feet) right side	-	-	min. -
left side	-	-	min. -
Rear Yard Depth (feet)	77'-0"	18'-1"	min. 18'-1"
Height			min.
Stories	2 1/2	2 1/2	stories 3
Feet	35'-0"	35'-0"	feet 35'-0"
Open Space (% of G.F.A.)	55%	29%	min. 10%
Landscaped (square feet)	9803sf	5197sf	(s.f.) 1634sf
Usable (square feet)	-	-	(s.f.) -
Parking Spaces (No.)	3	6	min. 10
Parking Area Setbacks (feet), where applicable	3'-0"	3'-0"	min. 10'-0"
Loading Spaces (No.)	0	0	min. 1
Type of Construction			
Distance to Nearest Building	-	-	min.

Springboard Schools, Inc
93 Broadway
Arlington MA 02474

12/13/19

Environmental Design Review- Impact Statement for 93 Broadway, Arlington.

The uses requested are listed in the Table of Use Regulations as a Special Permit in the district for which application is made or is so designated elsewhere in this Bylaw.

The proposed use, an early childhood learning center, is allowed in the B4 zone by Special Permit. We are proposing a new addition with a total of (5) classroom spaces.

The requested use is essential or desirable to the public convenience or welfare.

The proposed use, an early childhood learning center, provides a critical resource in the town. Childcare and early childhood learning are fundamental components of a livable community for many families. Being able to accommodate more kids spread thru-out our facility will be an attractive and much needed amenity to the Town.

The requested use will not create undue traffic congestion, or unduly impair pedestrian safety.

The parking area on the lot is accessed from Broadway and has 3 spots available for short term pick-up and drop –off. The proposed work requires 10 additional parking spots, however, the applicant is asking to reduce the number of required parking spaces from 10 to 3. The requested use will not add to traffic congestion nor impair pedestrian safety.

The requested use will not overload any public water, drainage or sewer system or any other municipal system to such an extent that the requested use or any developed use in the immediate area or in any other area of the Town will be unduly subjected to hazards affecting health, safety, or the general welfare.

The project consists of the development of the adjacent vacant lot which consists almost entirely of impervious paved surfaces. The existing property currently slopes from the rear of the lot out towards the front of the lot along Broadway. Essentially all stormwater that falls on this lot sheet flows across the sidewalk and out into the public way.

All of the existing paved surfaces will be removed, and pervious lawn, landscape and play areas will surround the proposed building. These proposed changes will allow stormwater to remain on site and naturally percolate into the ground instead of running off site into the public way. The proposed construction of the building addition will result in a significant decrease of impervious surfaces on the lot.

The gutters and downspouts from the proposed addition will be directed into a system of subsurface piping that will send these flows into the existing on site stormwater management system in order to further decrease stormwater runoff from the site.

There will be no new utility connections into the municipal systems in Broadway. We are proposing to interconnect the domestic water and sewer services from the proposed addition into the domestic services of the existing building. The existing services that were installed within the past 3 years consist of a 4" sprinkler, 2" domestic water and 6" sanitary and all have more than enough capacity to handle the increase in flows.

> **Preservation of Landscape: The landscape shall be preserved in its natural state insofar as practicable, by minimizing tree and soil removal and any grade changes shall be in keeping with the general appearance of neighboring developed areas.**

Proposed changes to the site will include the removal of a large area of relatively impervious material (gravel and asphalt) in preparation for the new addition. In addition a small area of grass located adjacent to the exist'g building will be removed and converted to (3) new parking spaces. The proposed work includes improving the exist'g site with buffer plantings and new lawn area.

> **Relation of the Building to the Environment: Proposed development shall be related harmoniously to the terrain and to the use, scale and architecture of the existing buildings in the vicinity that have functional or visible relationship to the proposed buildings.**

The project will look like a natural extension of the exist'g daycare center. It will be similar in size and will be clad in the same materials.

> **Open space: All open space (landscaped and usable) shall be so designed as to add to the visual amenities of the vicinity by maximizing its visibility for persons passing by the site or overlooking it from nearby properties. The location and configuration of usable open space shall be so designed**

as to encourage social interaction, maximize its utility and facilitate maintenance.

We propose to surround our new addition with a grass covered play space and to ring this with a buffer of evergreen plantings. We intend to install a wood slat fence system for privacy along the back, the side and partially at the front. It will be detailed similarly to the wood slat fencing at the roof-top play area giving some visual continuity between the two spaces.

<u>Circulation:</u> With respect to vehicular and pedestrian and bicycle circulation, including entrances, ramps, walkways, drives, and parking, special attention shall be given to location and number of access points to the public streets (especially in relation to existing traffic controls and mass transit facilities), width of interior drives and access points, general interior circulation, separation of pedestrian and vehicular traffic, access to community facilities, and arrangement of vehicle parking and bicycle parking areas, including bicycle parking spaces required by Section 8.13 that are safe and convenient and, insofar as practicable, do not detract from the use and enjoyment of proposed buildings and structures and the neighboring properties.

Vehicle circulation will be largely unchanged. The new site plan provides parking for three (3) additional cars making the total parking capacity of (6) cars. The current arrangement has been adequate for its intended use and this proposal will be adding the same amount of additional spots for one fewer classroom than the original building. The Applicant has applied for a Special Permit under—Parking Reduction in Business, Industrial and Multi-Family Residential Zones. Under this section, ten (10) additional parking spaces are required due to the number of new classrooms. They are requesting the maximum reduction, to three (3) additional parking spaces. The owner has a working TDM in place and will continue to implement its plan. In addition the owner will provide additional covered bike parking for twelve (12) bikes at the secondary entrance canopy. Also, there can be more bike parking provided in the basement storage area.

<u>Surface Water Drainage:</u> Special attention shall be given to proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties or the public storm drainage system. Available Best Management Practices for the site should be employed, and include site planning to minimize impervious surface and reduce clearing and re-grading. Best Management Practices may include erosion control and stormwater treatment by means of swales, filters, plantings, roof gardens, native vegetation, and leaching catchbasins. Stormwater should be treated at least minimally on the development site; that which cannot be handled on site shall be removed from all roofs, canopies,

paved and pooling areas and carried away in an underground drainage system. Surface water in all paved areas shall be collected in intervals so that it will not obstruct the flow of vehicular or pedestrian traffic and will not create puddles in the paved areas.

The proposal will significantly decrease the impervious surface on the site.

The project consists of the development of the adjacent vacant lot which consists almost entirely of impervious paved surfaces. The existing property currently slopes from the rear of the lot out towards the front of the lot along Broadway. Essentially all stormwater that falls on this lot sheet flows across the sidewalk and out into the public way.

All of the existing paved surfaces will be removed, and pervious lawn, landscape and play areas will surround the proposed building. These proposed changes will allow stormwater to remain on site and naturally percolate into the ground instead of running off site into the public way. The proposed construction of the building addition will result in a significant decrease of impervious surfaces on the lot.

The gutters and downspouts from the proposed addition will be directed into a system of subsurface piping that will send these flows into the existing on site stormwater management system in order to further decrease stormwater runoff from the site.

<u>Utilities Service:</u> Electric, telephone, cable, TV, and other such lines of equipment shall be underground. The proposed method of sanitary sewage disposal and solid waste disposal from all buildings shall be indicated.

There will be no new utility connections into the municipal systems in Broadway. We are proposing to interconnect the domestic water and sewer services from the proposed addition into the domestic services of the existing building. The existing services that were installed within the past 3 years consist of a 4" sprinkler, 2" domestic water and 6" sanitary and all have more than enough capacity to handle the increase in flows.

<u>Advertising Features:</u> The size, location, design, color, texture, lighting and materials of all permanent signs and outdoor advertising structures or features shall not detract from the use and enjoyment of proposed buildings and structures and the surrounding properties.

There will be no change to the exterior signage with this proposal.

<u>Special Features:</u> Exposed storage areas, exposed machinery installations, service areas, truck loading areas, utility buildings and structures, and

similar accessory areas and structures shall be subject to such setbacks, screen plantings or other screening methods as shall reasonably be required to prevent their being incongruous with the existing or contemplated environment and the surrounding properties.

There will be no change to the service areas with this proposal.

<u>Safety:</u> With respect to personal safety, all open and enclosed spaces shall be designed to facilitate building evacuation and maximize accessibility by fire, police and other emergency personnel and equipment. Insofar as practicable, all exterior spaces and interior public and semi-public spaces shall be so designed to minimize the fear and probability of personal harm or injury by increasing the potential surveillance by neighboring residents and passersby of any accident or attempted criminal act.

The project includes the construction of exit stairs from the new basement directly to grade as an improvement to egress.

<u>Heritage:</u> With respect to Arlington's heritage, removal or disruption of historic, traditional, or significant uses, structures or architectural elements shall be minimized insofar as practical whether these exist on the site or on adjacent properties.

The proposed project will have no impact on historical elements.

<u>Microclimate:</u> With respect to the localized climatic characteristics of a given area, any development which proposes new structures, new hard surface, ground coverage or the installation of machinery which emits heat, vapor or fumes shall endeavor to minimize insofar as practicable, any adverse impacts on light, air and water resources or on noise and temperature levels of the immediate environment.

The proposed project will contain play spaces at the perimeter of the new building. The use will not increase in intensity or duration from what is currently occurring. The classrooms all operate on slightly different schedules and efforts will be made to stagger outside time so as not to disrupt the neighborhood.

<u>Sustainable Building and Site Design:</u> Projects are encouraged to incorporate best practices related to sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. Applicants must submit a current Green Building Council Leadership in Energy and Environmental Design (LEED) checklist,

appropriate to the type of development, annotated with narrative description that indicates how the LEED performance objectives will be incorporated into the project.

The project will include Energy Star fixtures and will include high R-value sprayfoam insulation thru-out.

The requested use will not impair the integrity or character of the district or adjoining districts, nor be detrimental to the health, morals, or welfare.

The requested use will improve the district by adding to an amenity already in place on a commercial corridor.

The requested use will not, by its addition to a neighborhood, cause an excess of that particular use that could be detrimental to the character of said neighborhood.

The property is located on a lot abutting both residential and commercial uses. The proposed use will not be detrimental to the character of the neighborhood; rather, it will improve the character of the neighborhood.

Learn To Grow
Transportation Demand Management (TDM)

December 14, 2019

NOTE: Springboard is very pleased to report that the amount of environmentally friendly 'green' transportation use has dramatically risen since the schools inception in 2017. Incentive programs, installation of covered bicycle racks and communication with parents has proved successful. Accompanying this TDM are pictures that speak for themselves. Springboard is developing plans to increase further by using our elevator to store indoors bicycles, tricycles and tandem and sidecars indoors.

1. **How many staff members work at the current facility, and how many are projected to work at this site?**
    a. LTG currently has a total of 19 staff. The staff will increase to 29 with the addition.
    b. Currently 11 of our staff live in Arlington and we encourage any new staff, particularly those who live in Arlington to walk, bicycle or use public transportation. We anticipate the same ratio with the new staff so we expect 6 of the 10 new staff will also be from Arlington. We have implemented an incentive program with our staff and have are seeing better results over the past year to reduce automobile use.

2. **How do current employees get to work now?**
    a. 19 teachers, 7 drive, 5 walk or bicycle and 7 use public transportation.
    b. We project that with 10 additional teachers, 4 will drive, 3 will walk or bicycle and 3 will use public transportation.

3. **Are there alternative methods that will work for the existing staff?**
    a. There are several alternative methods available such as biking, ride share and public transportation.
    b. We have the great benefit at 93 Broadway of the bus stop next to the building. This provides a significant easier and less expensive means to commute to work.

4. **How many customers do you expect to drive to the site? Include information on frequency, length of stay, and peak hours.**

    The spreadsheet below summarizes the data we have accumulated with respect to this question and reflects what we have observed this past year+ to project the parking requirements for the new addition. We are pleased to report that the steps we have taken to encourage to families to not use cars has resulted in less use of automobiles. One of those steps in 2019, was the installation of multiple bicycle racks under shelter which resulted in much more bicycle use by our families.

Projected (93 Broadway) Family-Child Pick-ups & Drop-offs 2020											
AM	Drop-Off (autos only)	**7:15 & 7:30**	**7:45**	**8:00**	**8:15**	**8:30**	**8:45**	**9:00**	**9:15**	**9:30**	**Totals**
93 Broadway	Number of Families	12	9	12	11	8	8	7	5	2	74
	Average length of stay	3.5	3.5	3.5	4	3.5	4.5	4	5	4	3.6
	Number of parking required	4	3	6	5	3	3	2	2	1	
PM											
	Pick-Up (autos only)	**12:00**	**12:30**	**3:00**	**4:00**	**4:30**	**5:00**	**5:30**	**6:00**	**6:00 +**	
93 Broadway	Number of Families	7	6	8	7	10	10	12	9	5	74
	Average length of stay	6	5	5.5	5	4.5	4.5	5	5	5	5..1
	Number of parking required	3	2	2	2	4	5	6	4	2	

i. The chart above illustrates that pickup and drop-off times are spread out in a manner that it has not been necessary to implement a more disciplined drop off and pick up procedure. LTG will maintain a more disciplined pick-up and drop-off procedure if needed.

ii. Average length of stay is based on random surveillance of families from 2018 into 2019. The average length of stay is determined by the number of families in each time period in the chart divided into the total length of stays by those families. For example, 3 families staying a total of 15 minutes equals 5 minutes per family. Families do not always come at uniform times so experience shows that random surveillance provides enough data to support our findings. Much of the random surveillance is done during peak pickup and drop-off time periods through use of our parking lot camera.

iii. LTG has also developed a contingency plan in the event there is a change in family transportation habits that would increase the amount of automobile use. That plan envisions three options;

   i. We will provide an incentive plan for families (example- lower tuition, rebate or coupon program) to incentivize families to change to bicycling or public transportation means.
   ii. LTG will institute a more disciplined drop off and pick up procedure. For instance parents will be required to provide or adhere to a specific drop off and pick up schedule and LTG staff will have the children ready to minimize on site stay time.
   iii. Incentivize families using tuition discounts to pick up children during the non-peak pick up and drop-off time periods.

5. **What is your goal for total number of cars that will be driven to the site? Break out by employee and customer, and time of day, including information on peak hours.**
    b. **This plan is still in effect.**
        i. The drop off/pick up spreadsheet provides the current and projected data patterns at LTG.
        ii. Out of the 7 employees who currently drive their arrival is staggered two employees arrive every ½ hour starting at 7:15 am thru 10:00 a.m. At the end of the day the 6 employees depart every ½ hour starting at 3 p.m. thru 6:00 p.m.
        iii. LTG projects an additional 4 employees will drive to the site with the new addition. We will implement the same staggered schedule if needed.

6. **How much parking is provided, and how do you intend to use it?**
    a. 93 Broadway currently has three parking and has not experienced any parking problems with the current capacity of 6 classrooms. The addition will house 5 classrooms, one fewer that the current capacity, but will double parking capacity adding 3 additional spots to total 6. There is also currently 7 parking spaces on Broadway adjacent to the school. We remain confident that the balance we struck between our parking needs and green space for our children and parking availability on Broadway and North Union Street remains correct.

7. **If there is transit in the area, please provide information on bus routes and location of bus stops.**

Where can I go?
The Massachusetts Bay Transportation Authority (MBTA, or the "T") and private bus operators run more than a dozen routes in and near Arlington. They provide convenient connections to Cambridge and downtown Boston, plus service to Burlington, Lexington, Somerville and Waltham. The primary routes serving Arlington, with frequent service including evenings and weekends, are the MBTA Red Line and the #77 bus.

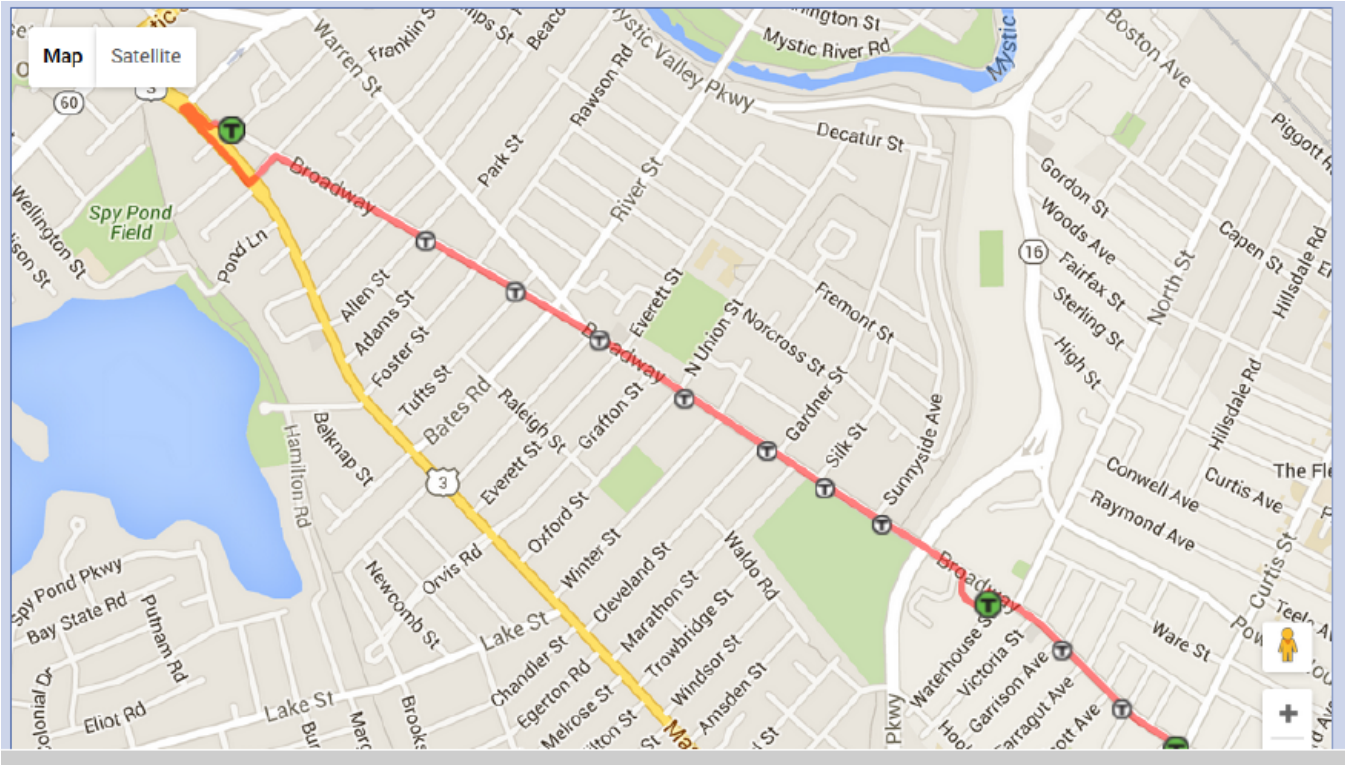
The Red Line provides subway service between Alewife Station (near East Arlington) and Somerville (Davis Square), Cambridge and Boston. Every bus route in Arlington, except for the #80, connects to the Red Line. The Minuteman Bikeway also provides convenient bike and pedestrian access from East Arlington to Alewife Station.

The #77 bus serves Mass Ave between Arlington Heights and Harvard Square, with connections to the Red Line at Porter and Harvard.

Other MBTA bus routes (see www.mbta.com for schedules) include

- #62 Alewife to Arlington Heights (via Park Avenue), then to Lexington and Bedford
- #67 Alewife to Turkey Hill via Pleasant Street and Arlington Center
- #76 Alewife to Hanscom Air Base, via the Route 2 service road and Lexington.
- #78 Harvard to Arlmont or Arlington Heights
- #79 Alewife to Arlington Heights via Mass Ave.
- #80 Lechmere to Arlington Center via Somerville and West Medford (Tufts University). Green Line connection at Lechmere.
- #84 Alewife to Arlmont
- #87 Lechmere to Arlington Center, via Broadway in Arlington. Red Line connection in Davis Square, Somerville.
- #350 Alewife to Burlington, via Mass Ave in East Arlington and Mystic Street. Serves Burlington Mall.
- #351 Express bus between Alewife and office parks along Mall Road and Middlesex Turnpike in Burlington.

Bus #87 stops on Broadway



8. **How will you communicate with staff and customers about expectations for vehicles and alternative transportation?**
   For the past 18 months, we have conducted monthly staff meetings and it is a subject we bring up with staff. We discuss the alternative means of transportation as well as point out that our building is directly on the bus stop. During orientation for both new staff and new families we review our parking policies and point out public transportation and bicycling alternatives. This includes procedures for staff parking and drop off and pick up for families.

9. **Which of the following TDM measures will you use to reduce car traffic to the site? All projects requesting a parking reduction must employ at least three (3) TDM methods described below. Please elaborate with additional information.**
   a) Charge for parking on-site; Pay a stipend to workers or residents without cars;
      i. We provide an incentive plan for families to incentivize families to change to other transportation means. We have had growing success with the use of 'green' transportation and less resistance from family's use of cars that cite time constraints and practicality issues.

NOTE: We strongly recommend to the town of Arlington that bicycle lanes be added to Broadway. In our family meetings this is a common theme.

   b) Provide transit pass subsidies (at least 50%);
      i. We will pay 50% for employee transit passes.
   c) Provide covered bicycle parking and storage;
      i. LTG created two onsite covered bicycle racks that can house twelve bicycles on Broadway and along North Union Street. The new addition will provide an additional 12 covered bicycle storage racks.
      ii. To accommodate more bicycle LTG will create additional bicycle storage in the basement. The basement is accessible through the elevator for this use.

PLAN OF LAND

LOCATED AT

93 BROADWAY
ARLINGTON, MA

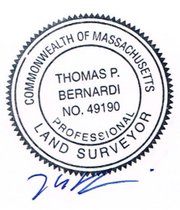
PREPARED FOR:
SPRINGBOARD SCHOOL, INC.

SCALE: 1 INCH = 20 FEET

ZONING B4:
FRONT 0'
SIDE 0'
REAR 10+(I/10)

MASSACHUSETTS SURVEY CONSULTANTS

14 SUMNER STREET
GLOUCESTER, MA 01930
617 899-0703
WWW.MASSACHUSETTSSURVEY.COM



NOTES

THIS PLAN WAS MADE FROM AN INSTRUMENT SURVEY ON THE GROUND BETWEEN THE DATES OF SEPTEMBER 12 AND SEPTEMBER 15, 2016 AND ALL STRUCTURES ARE LOCATED AS SHOWN HEREON.

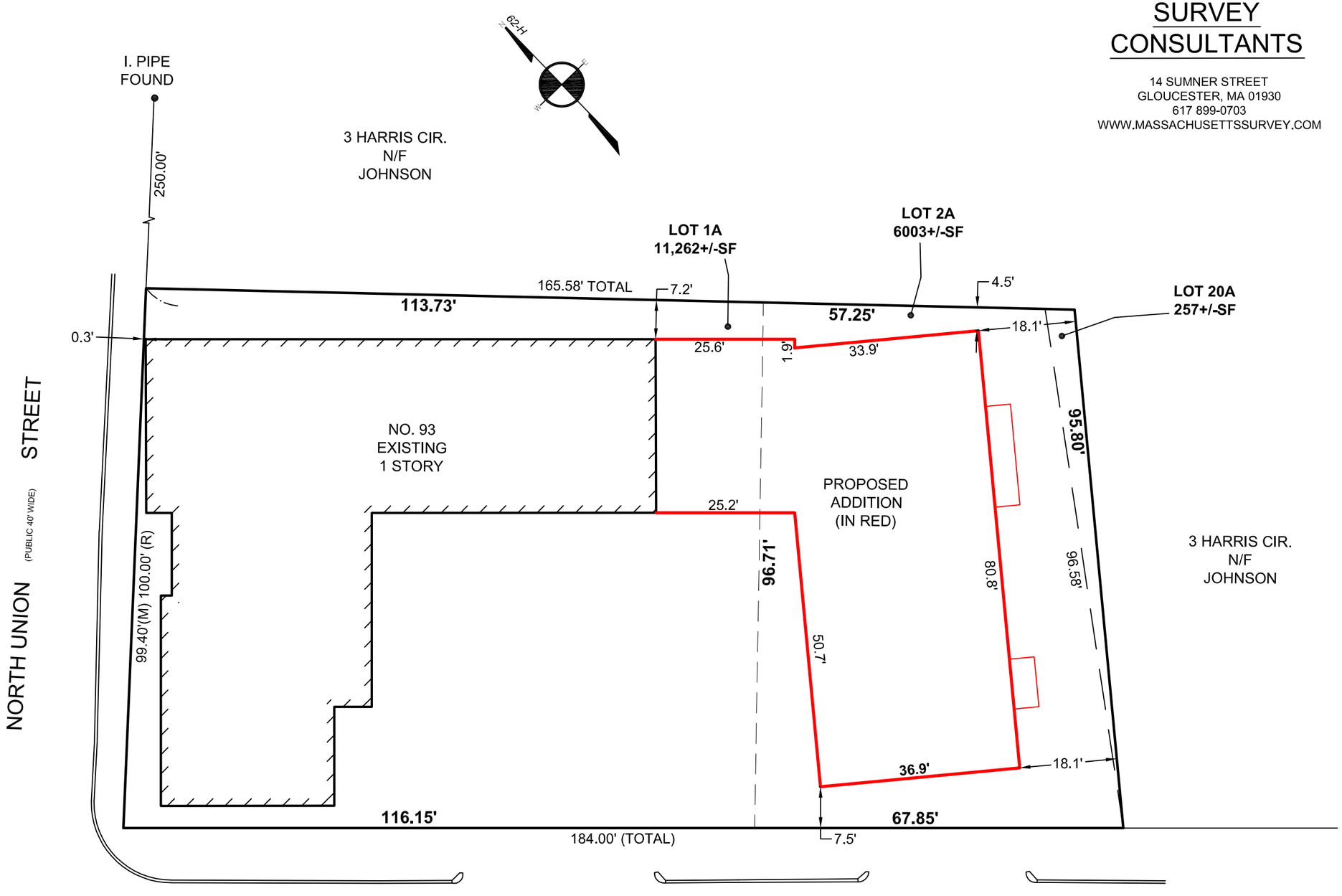
THIS PLAN WAS PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

THOMAS BERNARDI P.L.S. DATE: DEC. 8, 2019

REFERENCES

DEED: BOOK 68144, PAGE 282 (UNREGISTERED LAND - LOTS 1 & 2)
DEED: BOOK 1037, PAGE 197 (REGISTERED LAND - LOT 20A)
PLAN: L.C.C. 62C & 62H
PLAN: BOOK 7614, PAGE 388

ACCORDING TO FEMA MAP 25017C0417E, DATED JUNE 4, 2010, THE EXISITNG BUILDING IS LOCATED OUTSIDE THE SPECIAL FLOOD HAZARD AREA (S.F.H.A.)



Springboard Schools, Inc

93 Broadway
Arlington, MA 02474

Owner

Kevin Flynn
Springboard Schools, Inc
508 Groton Rd
Westford, MA
978-808-6621

Architecture

BROWN FENOLLOSA Architects, Inc
197 Broadway Arlington, MA 02474
zeke@brownfenollosa.com / 781 641 9500

Surveyor

Massachusetts Survey Consultants
10 1st Ave #24
Peabody MA 01960
p: 617-899-0703

DRAWING LIST:

ZONING SUMMARY: 93 Broadway Arlington, MA 02474

PARCEL ID:
ZONING DISTRICT: BUSINESS (B4)
USE: 1-4 CHILD CARE FACILITY

CONSTRUCTION CLASSIFICATION: 5B, UNPROTECTED
OCCUPANT LOAD:

NARRATIVE OF WORK:

THE PROJECT CONSISTS OF A NEW ADDITION TO EXISTING TWO STORY DAY CARE CENTER BUILDING. THE NEW ADDITION WILL BE USED AS AN EXTENSION OF THE DAYCARE CENTER ON FLOORS BASEMENT, ONE AND TWO. THE ATTIC WILL BE USED FOR STORAGE. THE NEW BUILDING WILL BE WOOD FRAME, TYPE 5B CONSTRUCTION, 2 ½ STORIES, AND FULLY SPRINKLERED. THE PROJECT ALSO CONSISTS OF EXTENSIVE SITE IMPROVEMENTS.

APPLICABLE CODES
THE 9TH EDITION OF THE MASSACHUSETTS STATE BUILDING CODE (MSBC). APPLICABLE CODES, STANDARDS, AND GUIDELINES FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING, CURRENT EDITIONS:

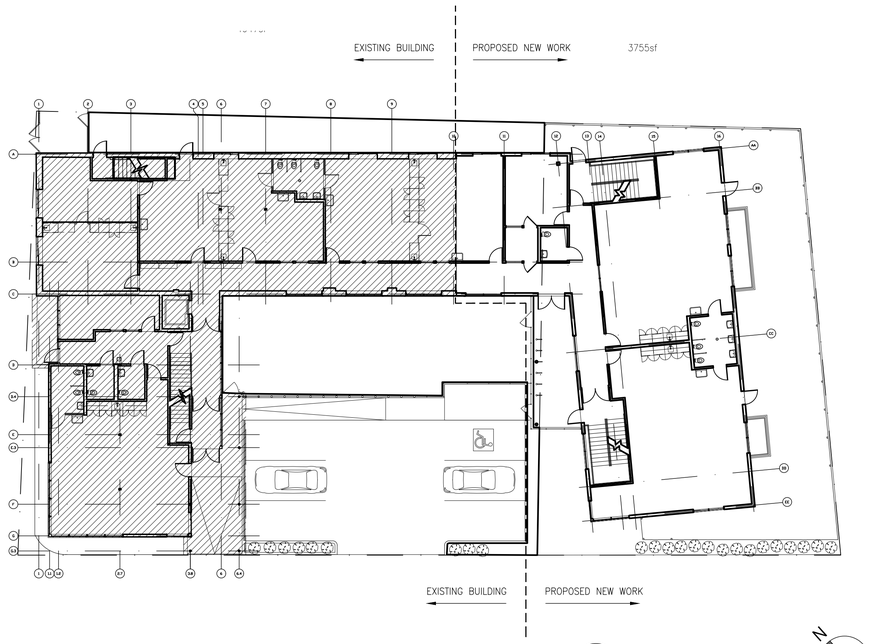
- 2015 IBC: INTERNATIONAL BUILDING CODE
- 2015 IEBC: INTERNATIONAL EXISTING BUILDING CODE – LEVEL 3 ALTERATION
- 780 CMR: MASSACHUSETTS AMENDMENTS TO THE INTERNATIONAL BUILDING CODE (MSBC), 9TH EDITION
- 521 CMR: MA ARCHITECTURAL ACCESS BOARD (MAAB)
- AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)
- 248 CMR: MA STATE PLUMBERS AND GASFITTERS CODE
- 527 CMR, CH.12: NATIONAL ELECTRICAL CODE WITH MA AMENDMENTS

SUBAREA SUMMARY:

	EXISTING BUILDING GROSS AREAS:	PROPOSED BUILDING GROSS AREAS:	EXIST'G AND PROPOSED GFA FOR FAR:
CELLAR:	3300 sf	3379 sf	0 sf
FIRST FLOOR:	4947 sf	3747 sf	8694 sf
SECOND FLOOR:	2920 sf	3564 sf	6484 sf
ATTIC:	0 sf	1169 sf	1169 sf
TOTAL:	11,167 sf	11,859 sf	16,347 sf

DIMENSIONAL CALCULATIONS:

	REQUIRED:	EXISTING:	PROPOSED:
MIN. LOT SIZE.:	Not Applicable	17,522sf	Not Applicable
MIN. LOT AREA/DWELLING UNIT:	Not Applicable	Not Applicable	Not Applicable
MIN. FRONTAGE (ft):	50'-0"	100'-0"	100'-0"
MAX. FLOOR AREA RATIO (F.A.R.):	1.0	.45	.93
MIN. OPEN SPACE: LANDSCAPED	10%	55%	29%
MIN. OPEN SPACE: USABLE	Sec. 5.3.21	–	–
MAX. LOT COVERAGE	Not Applicable	Not Applicable	Not Applicable
MAX. BUILDING HEIGHT:			
MAX STORIES:	3	2 1/2	2 1/2
FEET:	35'-0"	35'-0"	35'-0"
MIN. YARD IN FEET:			
FRONT:	Not Applicable	Not Applicable	Not Applicable
SIDE:	Not Applicable	Not Applicable	Not Applicable
REAR:	10+(L/10)	77'-0"	18'-1"



1 KEY PLAN
SCALE: 1/16" = 1'-0"

P:\89-87 Broadway\DAYCARE EXPANSION\CAD\SHEET SET

SPRINGBOARD SCHOOLS
87-89 BROADWAY ARLINGTON MA

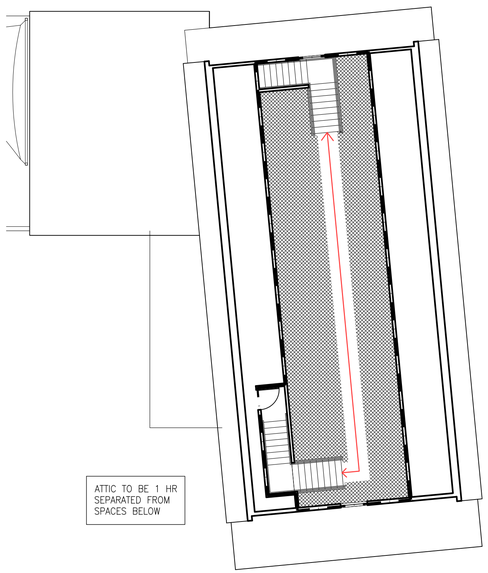
BROWN FENOLLOSA ARCHITECTS INC
197 Broadway Arlington MA 02474
P 781 641 9500 info@brownfenollosa.com

Revision :	Date :

TITLE SHEET

Date :	07-Jan-2020
Scale :	AS NOTED
Project Number :	--
Drawn by :	

T1.0



4 ATTIC EGRESS PLAN
3/32" = 1'-0"

Project Summary

The existing building, 93 Broadway, is located in Arlington, MA. The proposed project involves an addition to the exist'g structure. It will have a 5B classification, it will be fully sprinklered, and will be 2 1/2 story structure with a full cellar.

Code Type	Applicable Codes
Building	780 CMR: Massachusetts State Building Code, 9th Edition (2015 International Building Code) (2015 International Existing Building Code)
Fire Prevention	527 CMR: Massachusetts Fire Prevention Regulations M.G.L. Chapter 148 Section 26G – Sprinkler Protection
Accessibility	521 CMR: Massachusetts Architectural Access Board Regulations
Electrical	527 CMR 12.00: Massachusetts Electrical Code (2014 National Electrical Code)
Elevators	524 CMR: Massachusetts Elevator Code (2004 ASME A17.1)
Mechanical	2009 International Mechanical Code (IMC)
Plumbing	248 CMR: Massachusetts Plumbing Code
Energy Conservation	2009 International Energy Conservation Code

Occupancy Classification

The proposed building will be used as a Daycare space (Use Group I-4).

Construction Type

The building is constructed as Type 5B (exterior walls , interior elements are anything permitted).

Height and Area Limitations

Use Group I-4 (fully sprinklered): 2 stories, 27,000sf
Overall building area: 23,048sf (including all cellar and attic space).

Fire Resistance Ratings

The following table summarizes the required fire resistance ratings for various building elements based on 780 CMR Table 601 and other applicable code provisions for Type 5B construction.

Building Element	Fire Resistance Ratings (Hrs)
Structural Frame	0
Exterior Bearing Walls	0
Interior Bearing Walls	0
Floor Construction	0
Roof Construction	0

Required separation of occupancies- S-2 and I-4- 1hr (IBC 508.4)

Vertical Opening Requirements

New vertical openings connecting not more than 4 floors in a building protected with an automatic sprinkler system:
1 hr protection required (IBC 708.4)

Required Fire Protection Systems

Mass General Law 148 Chapter 26G:

Fire sprinklers are required in all existing and new buildings when the aggregate building area (including all floors) is 7,500sf or greater.

Fire Extinguishers shall be required (IBC 906.1). one per floor.

Fire alarm and detection system required in areas of new occupancy and existing alarm devices shall be automatically activated throughout building. (IBC 907.2.6)

- Audible alarms (907.5)
- Voice Alarm Communication can be substituted with a distinct signal (MA Amendments 907.5.2.2.6) provided total building evacuation is required.
- Alarm system must have emergency power backup system.
- Visible alarms required at all public and common areas (907.5.2.3)

Means of Egress

See code floor plans for occupant load and exit capacity calculations

1. Maximum exit access travel distance (w/ 2 exits) does not exceed 200 feet for Occupancy I-4 and 400 feet for S-2 (IBC 1017.1) w/ sprinklers.
2. Exit enclosures must be 1 hour fire rated when connecting less than 4 stories.
3. Maximum dead end corridor length does not exceed 20 feet (IBC 1020.4).
4. Remote means of egress are separated by 1/3 of the diagonal dimension of the room or space they serve (IBC 1007.1.1.2).
5. All rooms or spaces with an occupant load greater than 10 people, or a travel distance over 75 ft are provided with two egress doors and illuminated exit signs at each exit (IBC 1006.2.1).
6. All doors serving an occupant load of 50 or more swing in the direction of egress travel (IBC 1010.1.2.1).
7. All means of egress lighting and exit signs throughout the building must be provided with an emergency power supply to assure continued illumination for not less than 1.5 hours in case of primary power loss (IBC 1008.3).

Interior Finish Requirements

The existing interior finish of walls and ceilings in the work area and in all exits and corridors serving the work area must comply with the code requirements for new construction (IBC 801). All newly installed wall and ceiling finishes, and interior trim materials must also comply with IBC Table 803.11. The requirements are summarized below:

Walls & Ceilings (IBC Table 803.9)

Use Group	I-4 (Sprinklered)	S-2 (Sprinklered)
Exit Stairs, enclosures and passageways	Class B	Class C
Corridors	Class B	Class C
Rooms & Enclosed Spaces	Class B	Class C

All Admin spaces can be Class C

Structural

Must comply with IBC 1601

Electrical

Must comply with IBC 2701

Energy

Must comply with IBC 1301

Accessibility

Alterations to the building must comply with the requirements of the Massachusetts Architectural Access Board Regulations (521 CMR).

All portions of the building open to (clients, visitors, delivery, etc) must comply in full with the current requirements of 521 CMR, including the general public

- All public entrances must be accessible (521 CMR 25.1)
- Accessible routes throughout the work area (521 CMR 20.1)
- Accessible toilet rooms (521 CMR 30)
- Accessible drinking fountains, where drinking fountains are provided (521 CMR 36.1)
- Where 2 means of egress are required both must be accessible (521 CMR 20.11.1)

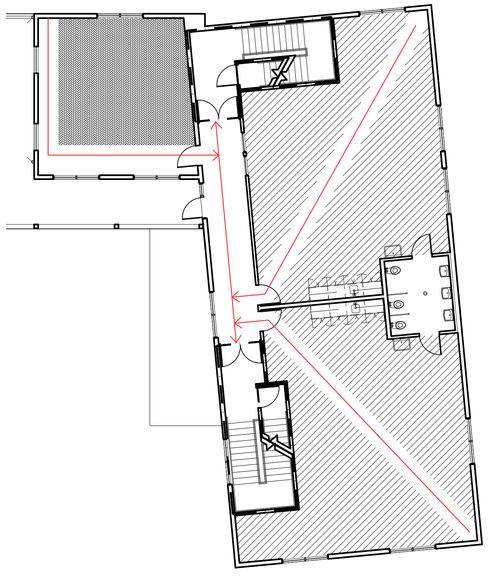
Any employee-only areas such as staff lounges, staff bathrooms, and staff work areas are not required to comply with 521 CMR, as long as public access is not permitted.

OCCUPANT LOAD

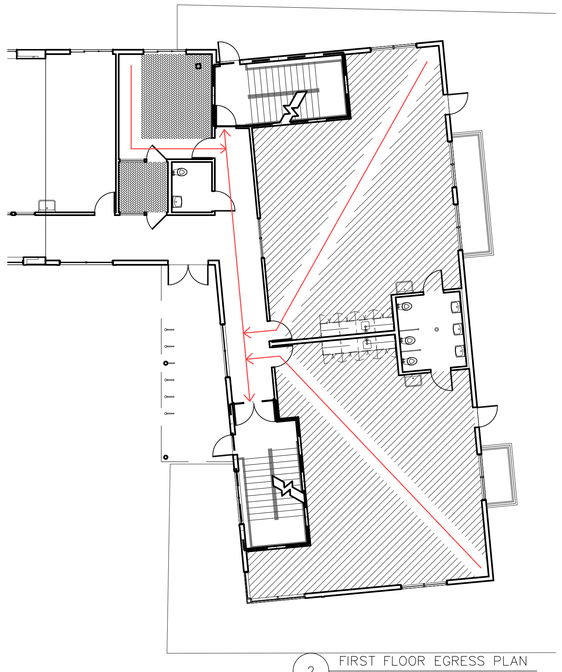
USE	FLOOR AREA	FLOOR AREA/SF	OCCUPANT LOAD	ACTUAL
CLASSROOM	5067sf	35	145	115
ADMIN	556sf	100	6	4
STORAGE/ MECH	1402sf	300	5	2
			156	121

EXIT CAPACITY

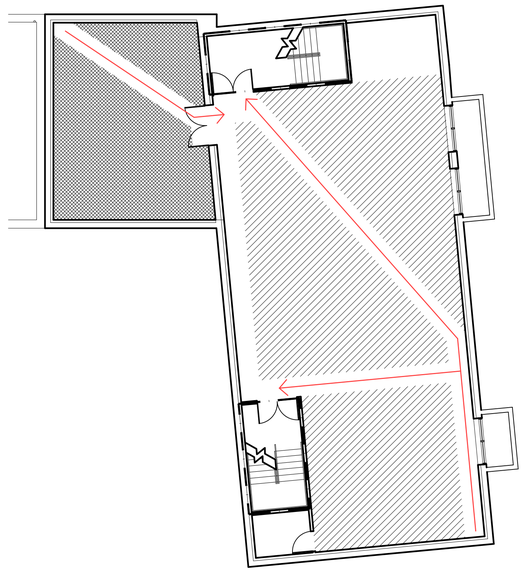
EXIT	DOOR WIDTH	ALLOWANCE/ PERSON	CAPACITY (PERSONS)
BACK STAIR	34"	.15	227
FRONT STAIR	34"	.15	227



3 SECOND FLOOR EGRESS PLAN
3/32" = 1'-0"



2 FIRST FLOOR EGRESS PLAN
3/32" = 1'-0"



1 CELLAR EGRESS PLAN
3/32" = 1'-0"

1 HR RATED ASSEMBLY AT STAIR ENCLOSURES

NOTE: CEILING AT BASEMENT AND 2ND FLOOR TO BE 1 HR RATED

EGRESS ROUTE

STORAGE/ MECH

CLASSROOM

ADMIN

N

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87-89 BROADWAY ARLINGTON MA

BROWN FENOLLOSA ARCHITECTS INC
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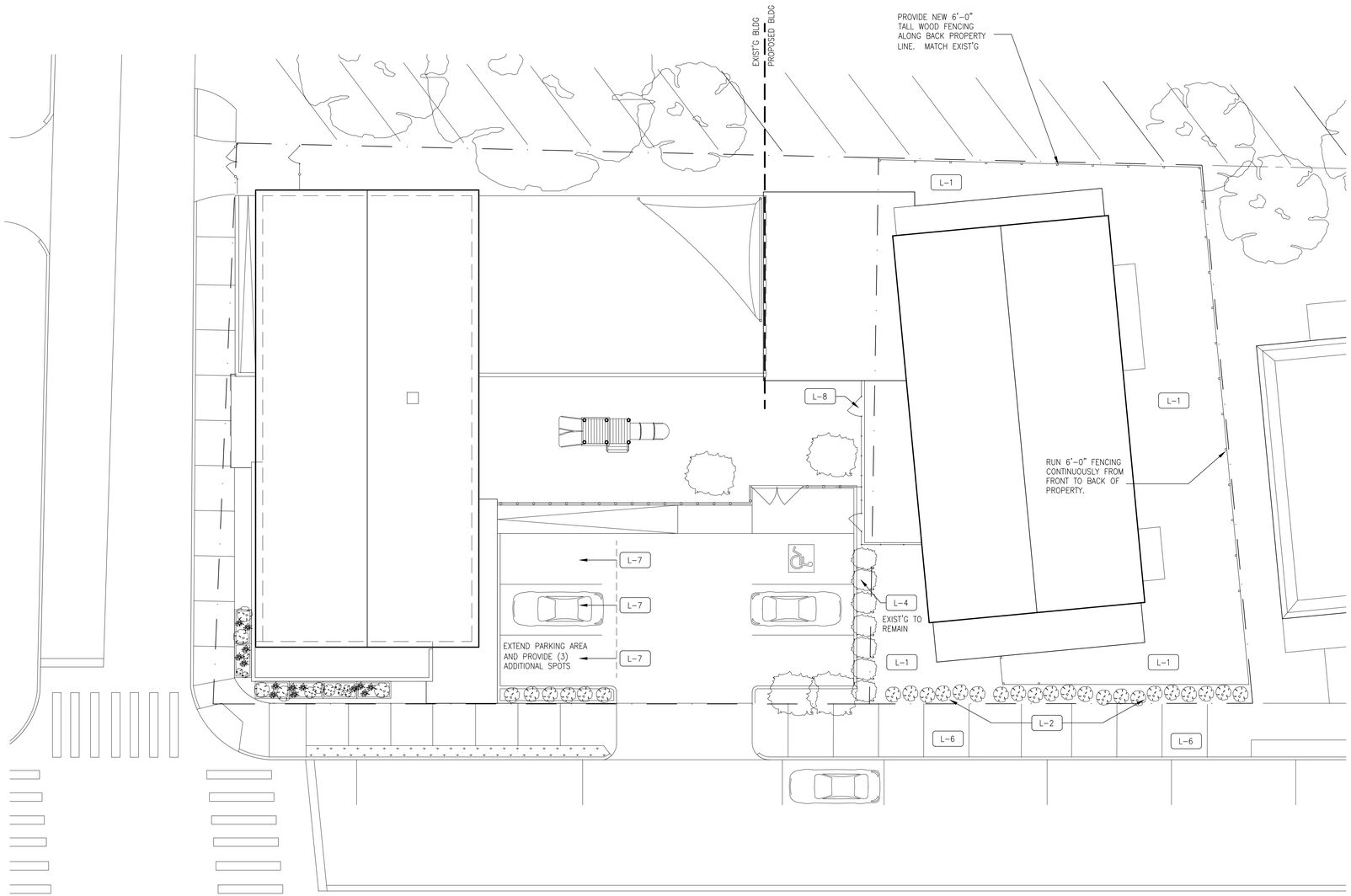
Revision :	Date :

CODE AND EGRESS

Date :	09-Dec-2019
Scale :	AS NOTED
Project Number :	--
Drawn by :	

T1.1



1 SITE PLAN
SCALE: 3/32" = 1'-0"

N

L-1 PROVIDE 6"-8" CLEAN FILL FOR ROUGH GRADING, 4" CLEAN LOAM, RAKED SMOOTH, ROLLED SOD

L-2 PROVIDE ORNAMENTAL GRASSES. PREP SOIL AS NEC'Y, BLACK MULCH BED.

L-4 PROVIDE CONTINUOUS 'HEDGE' OF 5'-6'H EVERGREEN THUJAS. PREP SOIL AS NEC'Y, BLACK MULCH BED.

L-6 SIDEWALK CONCRETE.

L-7 2 LAYER ASPHALT PAVING, STRIPED AND SIGNED FOR PARKING. PROVIDE CLEAN SUB-GRADE MATERIALS, COMPACTED. SLOPE TO DRAINS. PROVIDE FORMED ASPHALT CURBING

L-8 4'-0" TALL BLACK CHAIN LINK FENCING

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SITE PLAN

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Drawn by :	

L1.0

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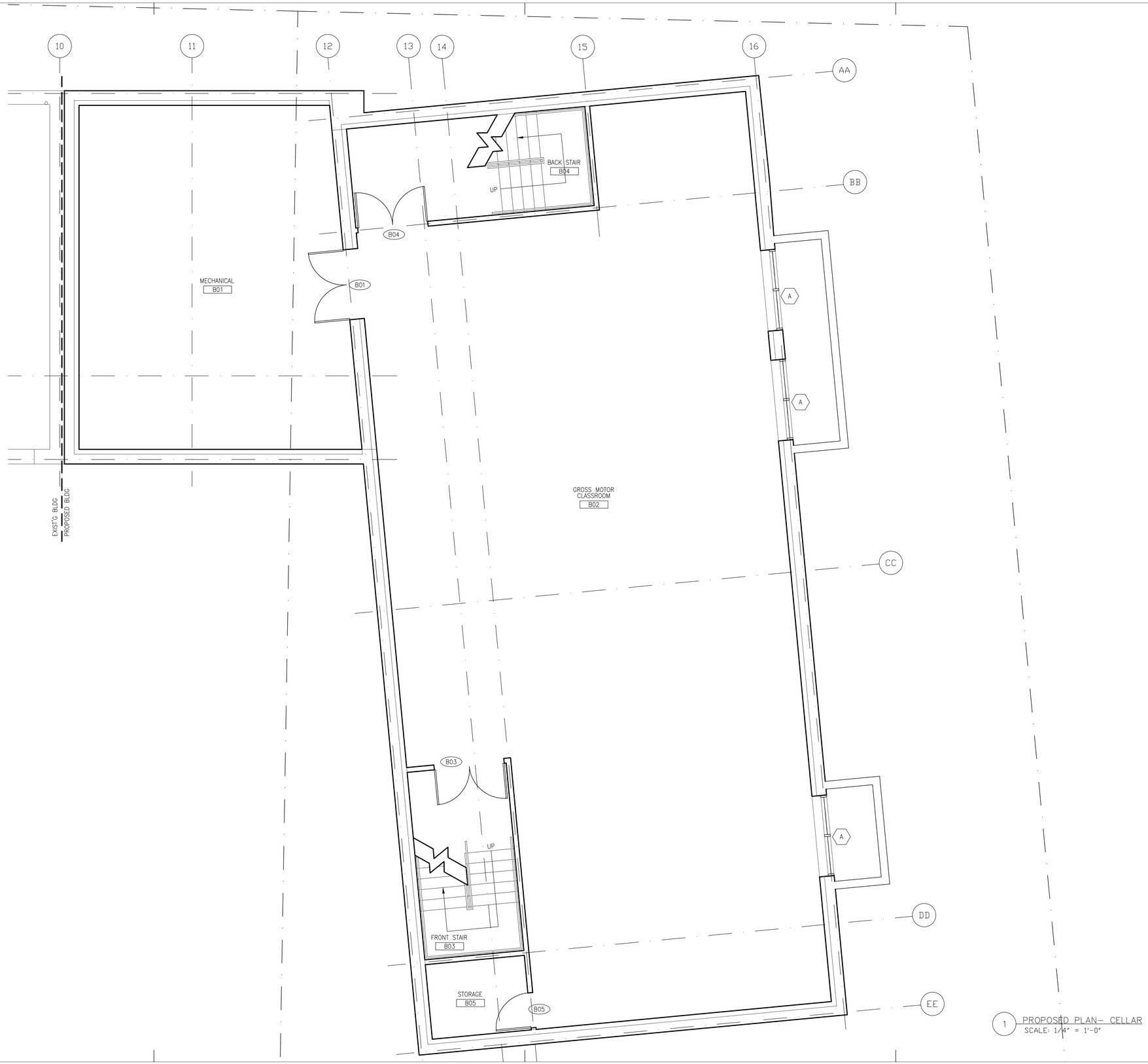

1 PROPOSED PLAN— CELLAR
SCALE: 1/4" = 1'-0"

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PROPOSED PLANS

Date :	09-Dec-2019
Scale :	AS NOTED
Project Number :	--
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A2.0

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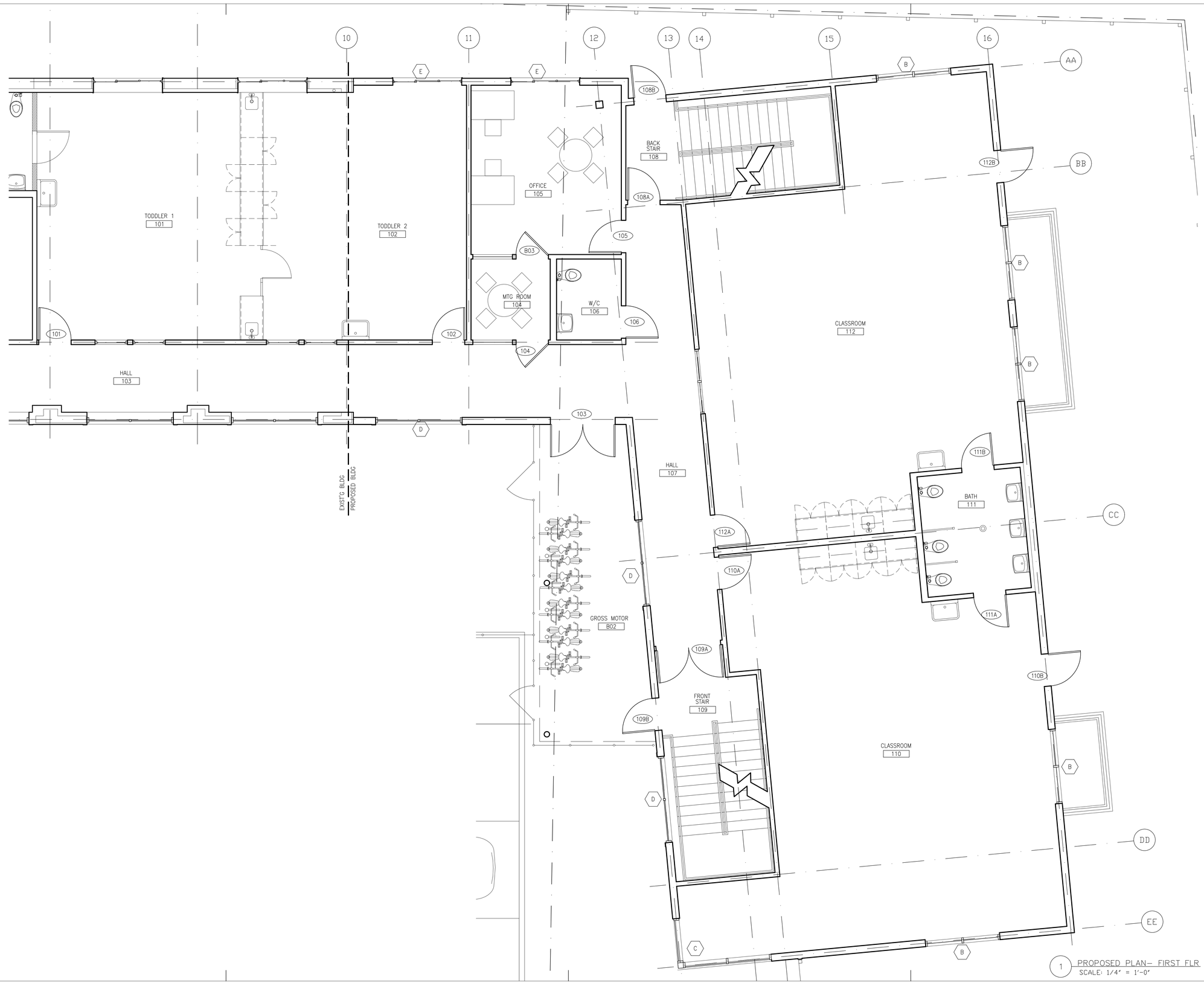

1 PROPOSED PLAN– FIRST FLR
SCALE: 1/4" = 1'-0"

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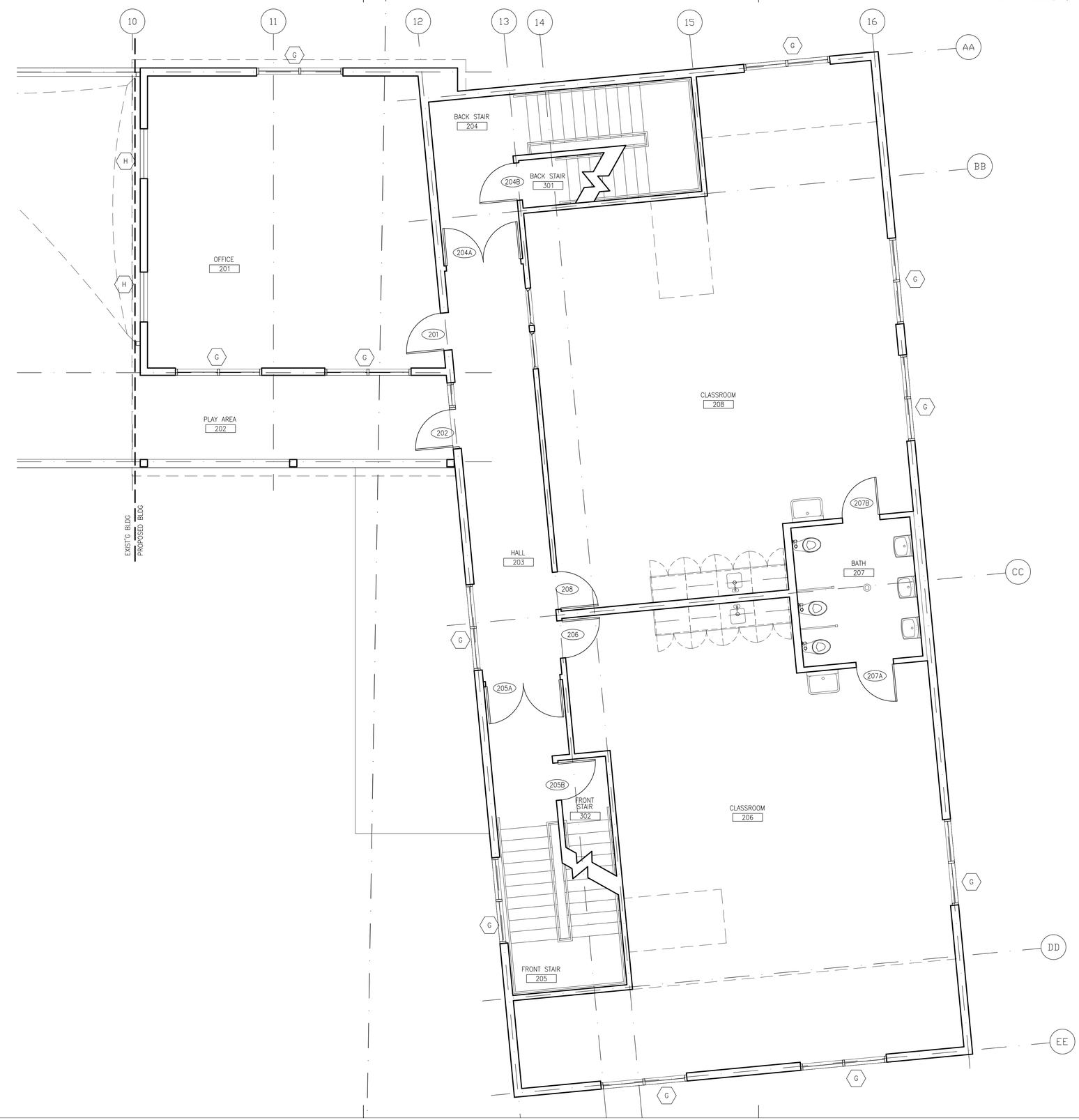
A2.1



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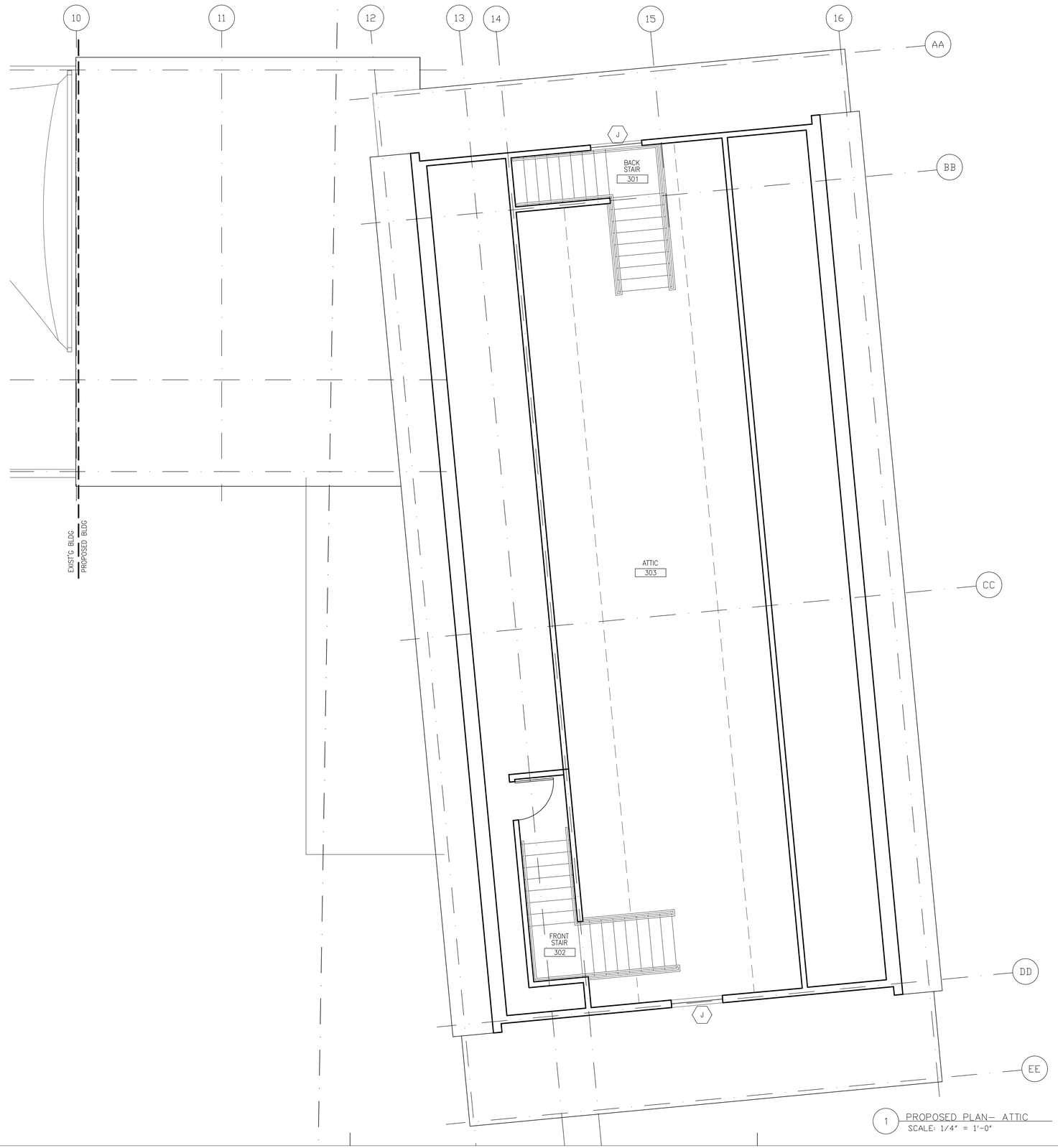
Drawn by :	

A2.2



1 PROPOSED PLAN– ATTIC
SCALE: 1/4" = 1'-0"

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ATTIC PLAN

Date :	09-Dec-2019
Scale :	AS NOTED
Project Number :	--
Drawn by :	

A2.3

EXTERIOR FINISHES:

SID-1	HORIZONTAL HARDI-PANEL SIDING, PAINTED. PANEL HEIGHT. APPROX 1'-8". PANEL LENGTH 10'-0". STAGGER VERTICAL SEAMS. RUNNING BOND PATTERN. FRY REGLET SEAMS, TRANSITIONS. UNPAINTED ANODIZED ALUM.
SID-2	PAINTED HORIZONTAL HARDI LAP SIDING, SMOOTH SIDE OUT, REVEAL 10 ¼", STAGGER JOINTS. PAINTABLE PVC 1X TRIM AT WINDOWS, CORNERS, FRIEZE AND BASE.
SID-3	VERTICAL HARDI PANEL SIDING, PAINTED. PANEL WIDTH 1'-8". PROVIDE 1X3 PAINTED PVC BATTEN AT EACH VERTICAL SEAM AND ALONG RAKE AND BASE. PANELING TO BE PROUD OF SID-2 BY 1 ½".
SID-4	PAINTED HORIZONTAL HARDI LAP SIDING, SMOOTH SIDE OUT, REVEAL 7 ¼", STAGGER JOINTS. PAINTABLE PVC 1X TRIM AT WINDOWS, CORNERS, FRIEZE AND BASE.
LAT-1	VERTICAL 1X4 WESTERN RED CEDAR BOARDS, 1/2" GAP BETWEEN BOARDS. WATER SEALED
RF-1	30 YEAR ARCHITECTURAL GRADE ASPHALT SHINGLES
RF-2	EPDM MEMBRANE, FULLY ADHERED TO RECOVERY BOARD PANELS. SLOPED AT ¼":12 WITH TAPERED INSULATION PANELS
CAN-1	-PAINTED CHANNEL STEEL FASCIA -LGMF ROOF STRUCTURE -3/4" FIRE RETARDANT PLYWOOD DECKING -RF-2 MEMBRANE -HARDIPANEL WITH BATTENS AT SOFFIT, PAINTED -4" PAINTED STEEL POSTS -GUT-1
GUT-1	4"x5" ALUMINUM GUTTER AND DOWNSPOUTS

2 PROPOSED NORTH ELEVATION
SCALE: 1/4" = 1'-0"

1 PROPOSED SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

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EXTERIOR ELEVATIONS

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Project Number :	--
Drawn by :	

A3.0

EXTERIOR FINISHES:

SID-1 HORIZONTAL HARDI-PANEL SIDING, PAINTED. PANEL HEIGHT. APPROX 1'-8". PANEL LENGTH 10'-0". STAGGER VERTICAL SEAMS. RUNNING BOND PATTERN.
FRY REGLET SEAMS, TRANSITIONS.
UNPAINTED ANODIZED ALUM.

SID-2 PAINTED HORIZONTAL HARDI LAP SIDING, SMOOTH SIDE OUT, REVEAL 10 ¼", STAGGER JOINTS. PAINTABLE PVC 1X TRIM AT WINDOWS, CORNERS, FRIEZE AND BASE.

SID-3 VERTICAL HARDI PANEL SIDING, PAINTED. PANEL WIDTH 1'-8". PROVIDE 1X3 PAINTED PVC BATTEN AT EACH VERTICAL SEAM AND ALONG RAKE AND BASE. PANELING TO BE PROUD OF SID-2 BY 1 ½".

SID-4 PAINTED HORIZONTAL HARDI LAP SIDING, SMOOTH SIDE OUT, REVEAL 7 ¼", STAGGER JOINTS. PAINTABLE PVC 1X TRIM AT WINDOWS, CORNERS, FRIEZE AND BASE.

SID-5 PAINTED HORIZONTAL WOOD BOARDS TO MATCH INTERIOR WALLS OF PLAY AREA.

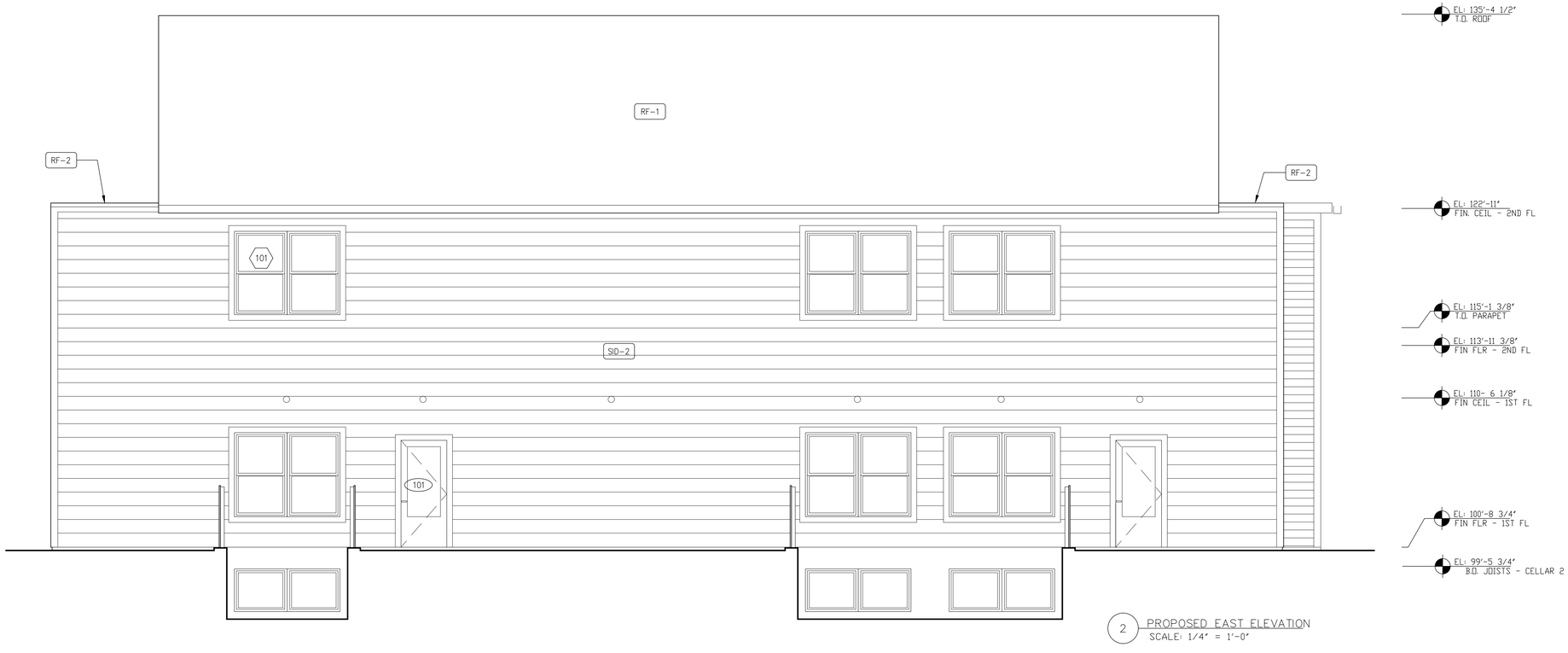
LAT-1 VERTICAL 1X4 WESTERN RED CEDAR BOARDS, 1/2" GAP BETWEEN BOARDS. WATER SEALED

RF-1 30 YEAR ARCHITECTURAL GRADE ASPHALT SHINGLES

RF-2 EPDM MEMBRANE, FULLY ADHERED TO RECOVERY BOARD PANELS. SLOPED AT ½":12 WITH TAPERED INSULATION PANELS

CAN-1 -PAINTED CHANNEL STEEL FASCIA
-LGMF ROOF STRUCTURE
-3/4" FIRE RETARDANT PLYWOOD DECKING
-RF-2 MEMBRANE
-HARDIPANEL WITH BATTENS AT SOFFIT, PAINTED
-4" PAINTED STEEL POSTS
-GUT-1

GUT-1 4"x5" ALUMINUM GUTTER AND DOWNSPOUTS



2 PROPOSED EAST ELEVATION
SCALE: 1/4" = 1'-0"

1 PROPOSED WEST ELEVATION
SCALE: 1/4" = 1'-0"

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EXTERIOR ELEVATIONS

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A3.1

LEED v4 for BD+C: Schools

Project Checklist

Project Name: Learn to Grow- Springboard Schools
Date: 1/21/2020

Y	?	N			
		x	Credit	Integrative Process	1

0	0	0	Location and Transportation		15
		x	Credit	LEED for Neighborhood Development Location	15
		x	Credit	Sensitive Land Protection	1
		x	Credit	High Priority Site	2
x			Credit	Surrounding Density and Diverse Uses	5
x			Credit	Access to Quality Transit	4
x			Credit	Bicycle Facilities	1
x			Credit	Reduced Parking Footprint	1
		x	Credit	Green Vehicles	1

0	0	0	Sustainable Sites		12
Y			Prereq	Construction Activity Pollution Prevention	Required
Y			Prereq	Environmental Site Assessment	Required
		x	Credit	Site Assessment	1
		x	Credit	Site Development - Protect or Restore Habitat	2
x			Credit	Open Space	1
x			Credit	Rainwater Management	3
		x	Credit	Heat Island Reduction	2
		x	Credit	Light Pollution Reduction	1
		x	Credit	Site Master Plan	1
		x	Credit	Joint Use of Facilities	1

0	0	0	Water Efficiency		12
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
	x		Credit	Outdoor Water Use Reduction	2
x			Credit	Indoor Water Use Reduction	7
		x	Credit	Cooling Tower Water Use	2
		x	Credit	Water Metering	1

0	0	0	Energy and Atmosphere		31
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
		x	Credit	Enhanced Commissioning	6
		x	Credit	Optimize Energy Performance	16
		x	Credit	Advanced Energy Metering	1
		x	Credit	Demand Response	2
		x	Credit	Renewable Energy Production	3
		x	Credit	Enhanced Refrigerant Management	1
		x	Credit	Green Power and Carbon Offsets	2

0	0	0	Materials and Resources		13
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
		x	Credit	Building Life-Cycle Impact Reduction	5
		x	Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
		x	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
		x	Credit	Building Product Disclosure and Optimization - Material Ingredients	2
		x	Credit	Construction and Demolition Waste Management	2

0	0	0	Indoor Environmental Quality		16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
Y			Prereq	Minimum Acoustic Performance	Required
		x	Credit	Enhanced Indoor Air Quality Strategies	2
x			Credit	Low-Emitting Materials	3
		x	Credit	Construction Indoor Air Quality Management Plan	1
		x	Credit	Indoor Air Quality Assessment	2
x			Credit	Thermal Comfort	1
x			Credit	Interior Lighting	2
x			Credit	Daylight	3
x			Credit	Quality Views	1
x			Credit	Acoustic Performance	1

0	0	0	Innovation		6
		x	Credit	Innovation	5
		x	Credit	LEED Accredited Professional	1

0	0	0	Regional Priority		4
		x	Credit	Regional Priority: Specific Credit	1
		x	Credit	Regional Priority: Specific Credit	1
		x	Credit	Regional Priority: Specific Credit	1
		x	Credit	Regional Priority: Specific Credit	1

0	0	0	TOTALS	Possible Points:	33

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110