

Brent Elementary School CFA Submission

Wednesday November 6, 2024



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EXECUTIVE SUMMARY | PROJECT NARRATIVE



The Schematic Design for Brent Elementary School, located in Ward 6 of Washington, DC, stands as a visionary solution to address the unique challenges posed by the site's limited space. Designed to accommodate preK-5th-grade students, this schematic design offers innovative approaches while adhering to a consistent and forward-thinking educational program. The development of this design has been driven by an inclusive process that prioritizes engagement with stakeholders and the local community. Recognizing the importance of diverse perspectives, the design team has actively sought input from educators, parents, and community members. This collaborative effort ensures that the final design reflects the aspirations and needs of those directly impacted by the school's transformation.

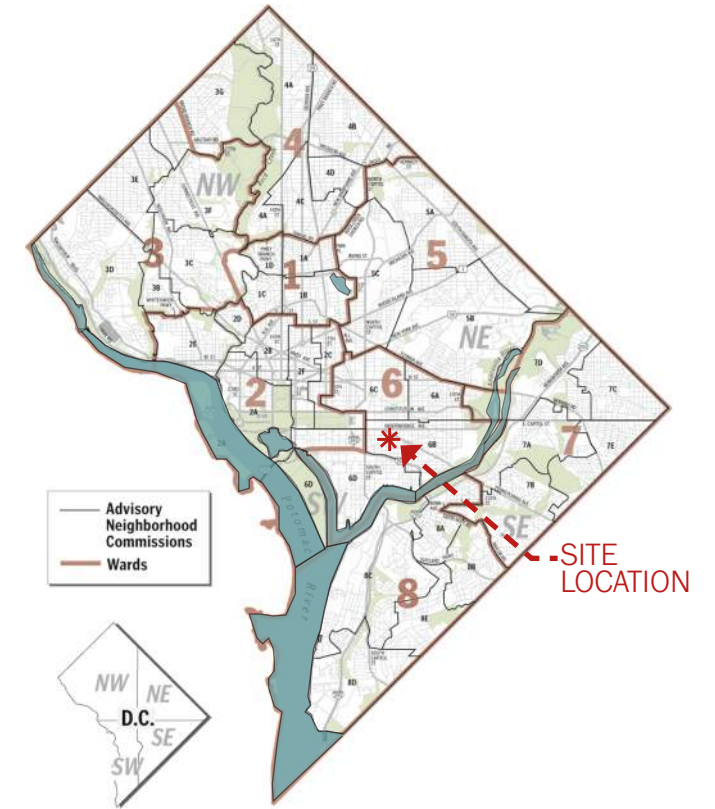
Despite the constraints imposed by the small site, this design showcases creative solutions that optimize spatial functionality. This design prioritizes flexible learning environments, acknowledging the evolving nature of education and the diverse needs of students spanning from PreK to 5th grade. The innovative program integrates modern pedagogical approaches, fostering a dynamic and adaptable educational experience. Crucially, ongoing conversations with the Department of General Services (DGS) and the District of Columbia Public Schools (DCPS) underscore a commitment to aligning the designs with evolving educational standards and community expectations. This iterative process ensures that the final design not only meets current needs but remains adaptable for future educational advancements.

The design shows a commitment to sustainability and environmental consciousness. Green initiatives are woven into the fabric of the designs, reflecting a dedication to creating a learning environment that is both eco-friendly and supportive of the community's broader values.

In conclusion, the design for Brent Elementary School exemplifies a collaborative, inclusive, and innovative approach to overcoming the challenges of a small site. The iterative engagement with stakeholders and ongoing dialogue with relevant authorities position this design as a transformative solution for Brent Elementary School, setting the stage for a model educational facility within Ward 6.



SITE ANALYSIS | SITE LOCATION



W:
 301 NORTH CAROLINA AVE SE
SQUARE: 0792
LOTS: 0033

ORIGINAL BUILDING
CONSTRUCTION: 1968
ADDITION CONSTRUCTION: 2009
EXIST ENROLLMENT (2022-2023): 419 Students
DESIGN CAPACITY: 577 Students
CONSTRUCT. COMPLETION: July 2027





Zoning / Land Use

Zone District: RF-1/CAP
 Overlay Area: CAP (Capitol Interest)
 Historic District: Capitol Hill Historic District

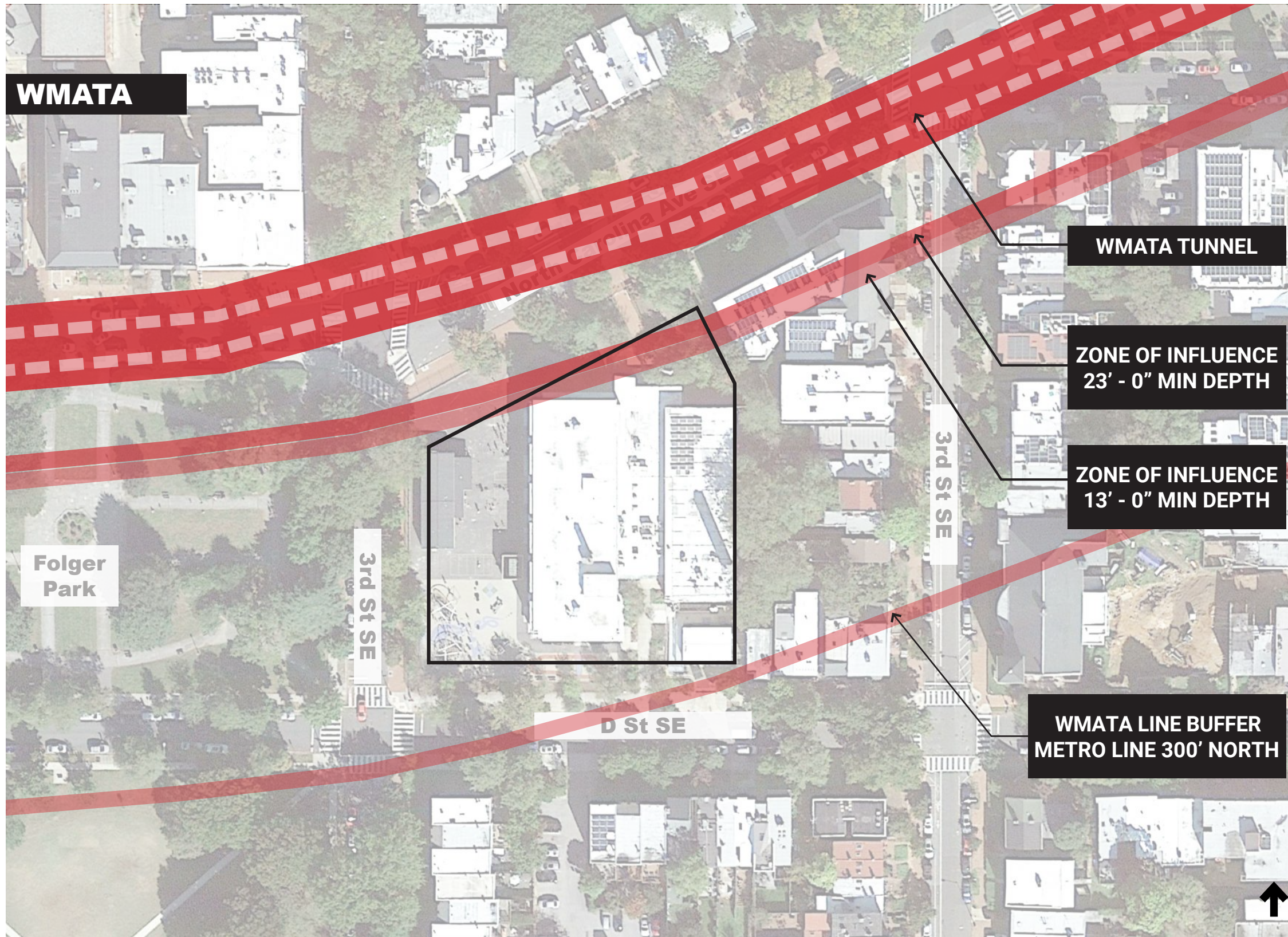
Zoning Regulation

FAR: 1.8
 Max Height (Not Including Penthouse): 40'-0"
 Max Penthouse Height: 18'-6"
 Front Setback: Not Required
 Rear Yard: 20'-0" Min
 Side Yard: Not Required

Lot Occupancy: 60% Max At Max Building Height, can increase to 70% provided that additional 10% not exceed 20'-0" in height or 2 stories

Pervious Surface: 50% Min
 1 Parking Space Per 8,000 GSF
 1 Min Loading Berth
 1 Min Service/Delivery Space





WMATA tunnel is located to the north of the site approximately following North Carolina Ave SE. Zone of Influence (ZOI) of the WMATA tunnel overlaps the northeast corner of the property as shown. The depth of the ZOI decreases as the distance from the WMATA tunnel increases.

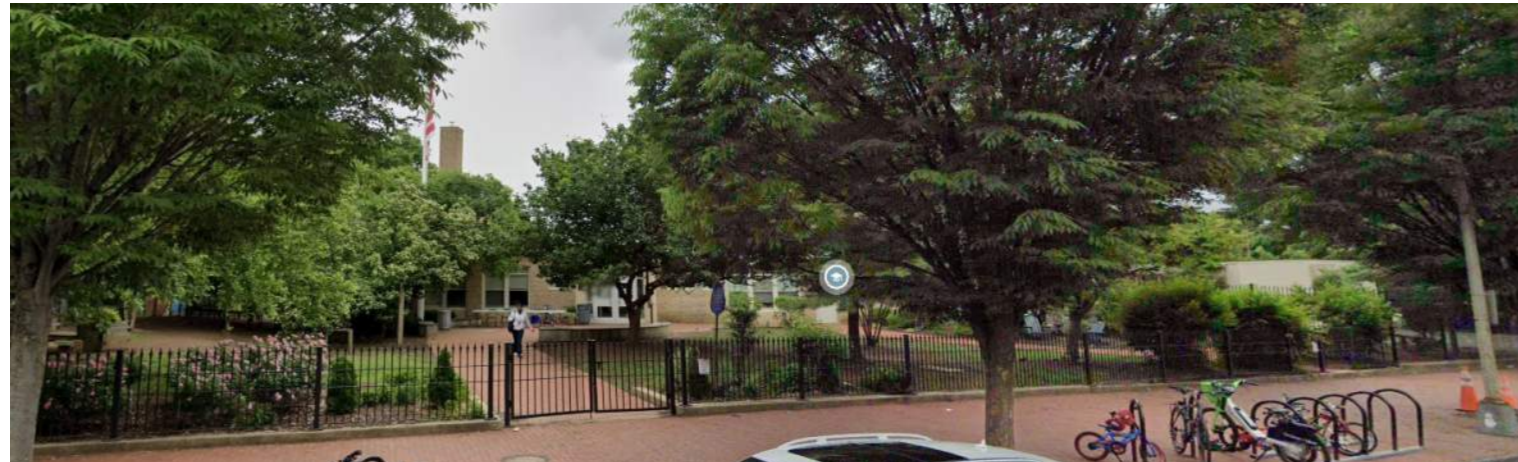
To avoid the Zone of Influence (ZOI), the building footings would have to be between the depth of 23'-0" to 13'-0" below grade in the darker red band shown in the diagram and between the depth of 13'-0" to 0'-0" in the lighter red band.



SITE ANALYSIS | EXISTING SITE



C INTERSECTION AT 3RD ST SE & N CAROLINA AVE SE



D ENTRANCE ON N CAROLINA AVE SE



E CHURCH AT N CAROLINA AVE SE & 4TH ST SE



B VIEW FROM 3RD ST SE



F ENTRANCE AT D ST SE



A INTERSECTION AT 3RD ST SE & D ST SE



G VIEW FROM D ST SE



SITE ANALYSIS | EXISTING SITE



C D ST SE ENTRANCE



D SCHOOL MURAL



E MECH AREAWAY



B N CAROLINA AVE SE ENTRANCE



A 3RD ST SE FACADE



F EAST PROPERTY LINE



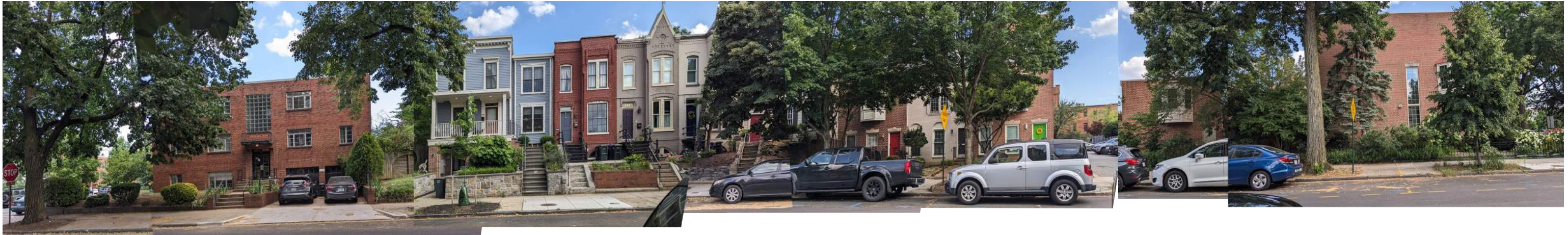
G EAST PROPERTY LINE



SITE ANALYSIS | EXISTING SITE



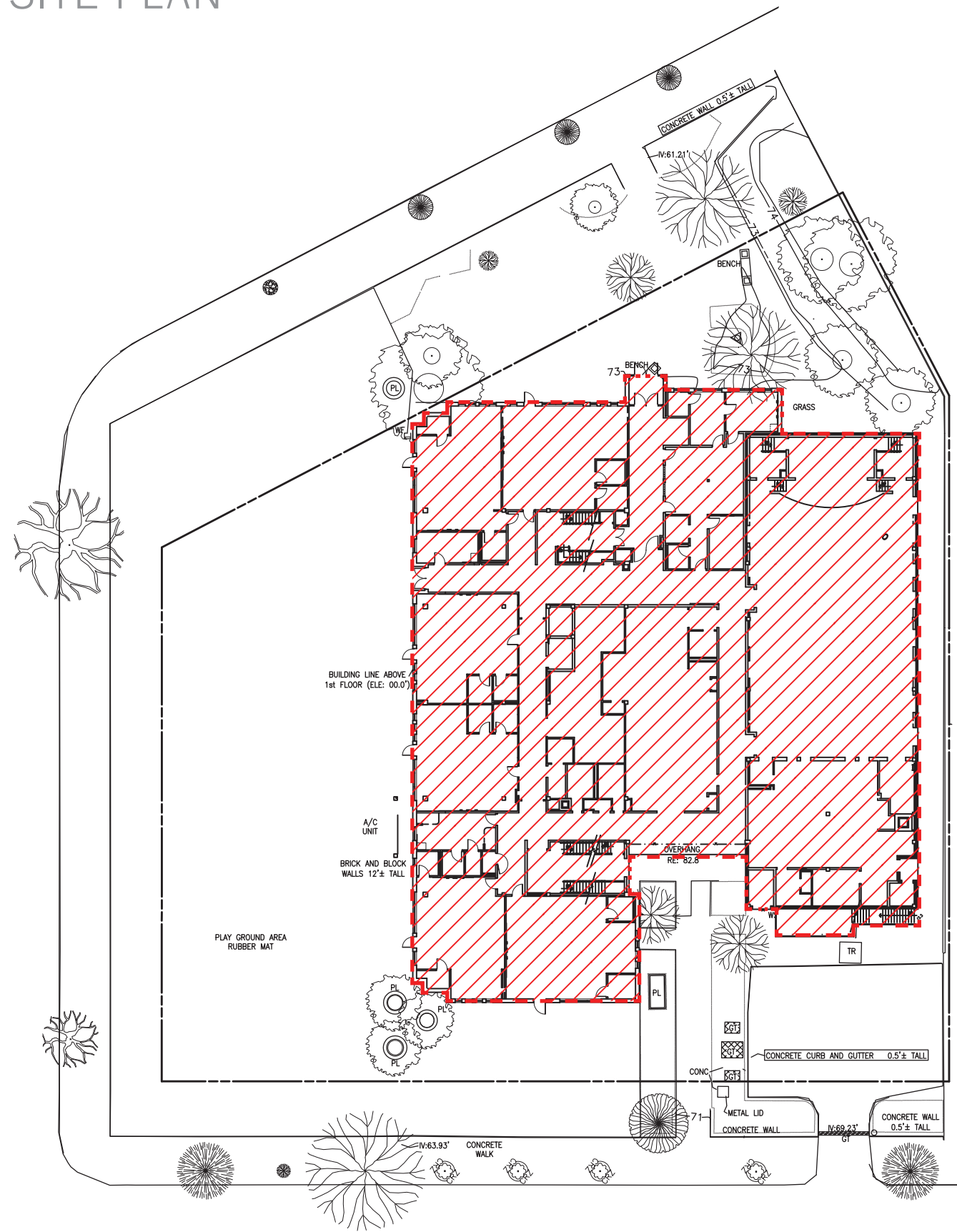
N CAROLINA AVE SE LOOKING NORTH



D ST SE LOOKING SOUTH



EXISTING CONDITIONS | SITE PLAN

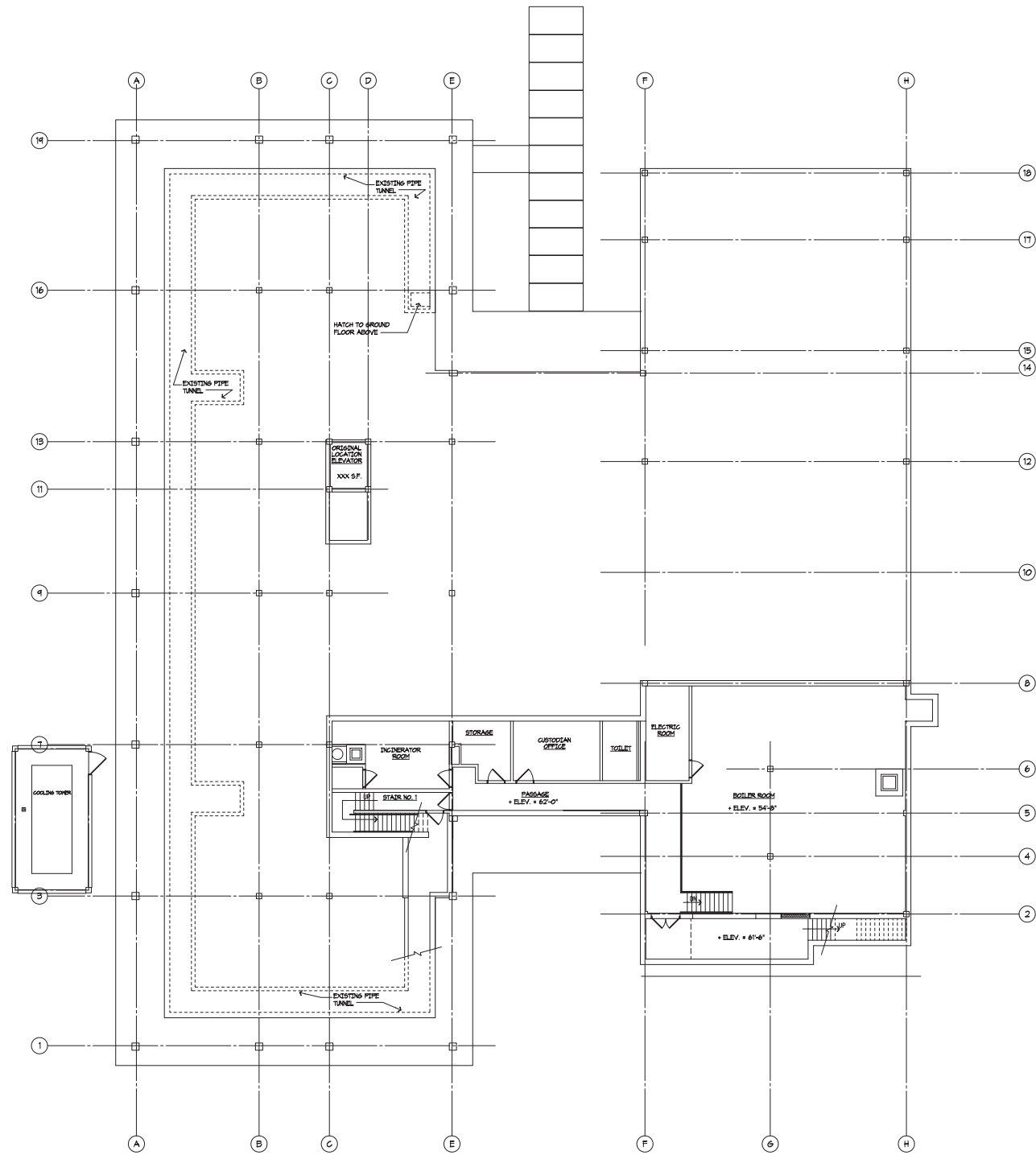


LEGEND

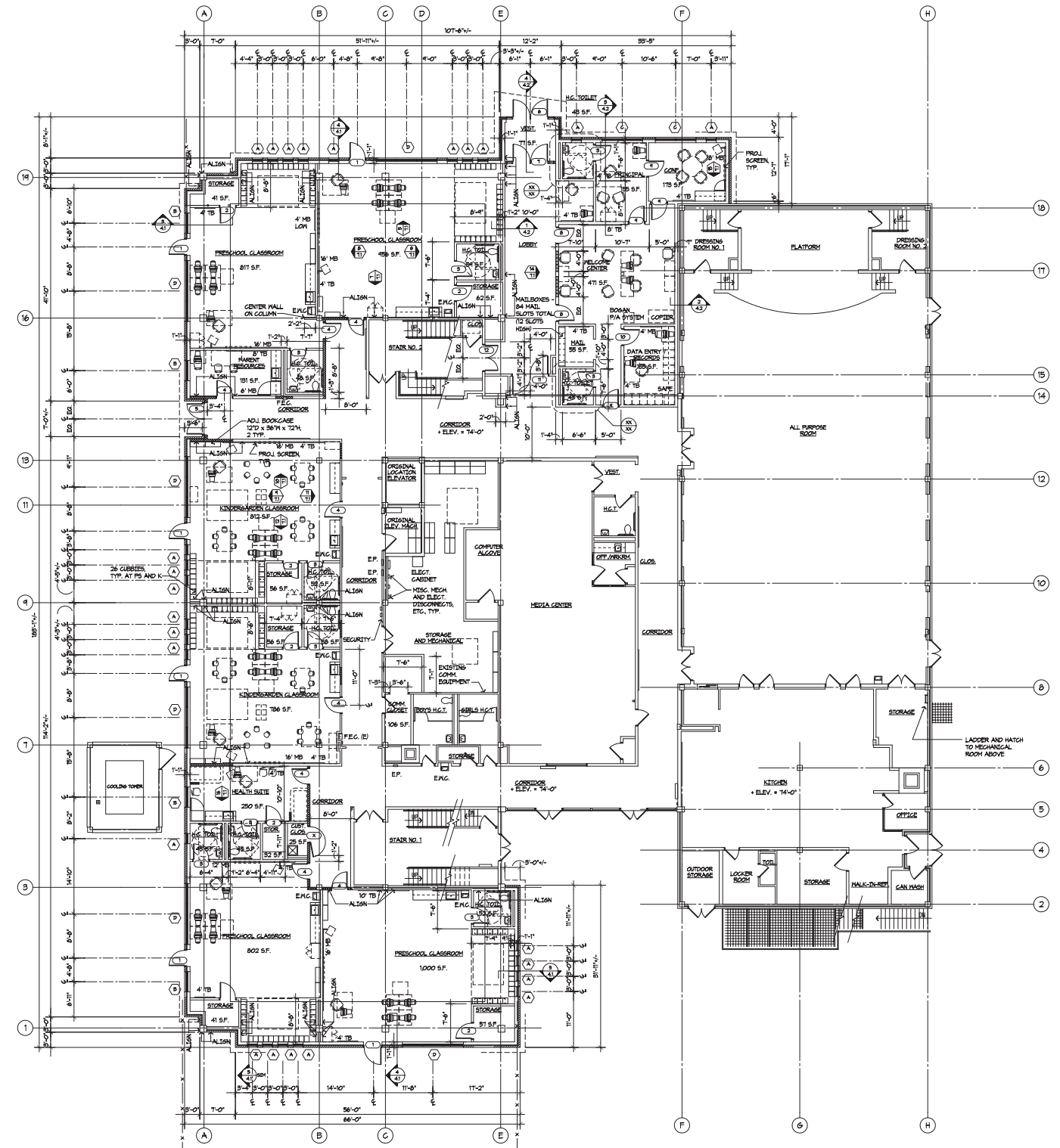
 EXISTING TO BE DEMOLISHED



EXISTING CONDITIONS | PLANS



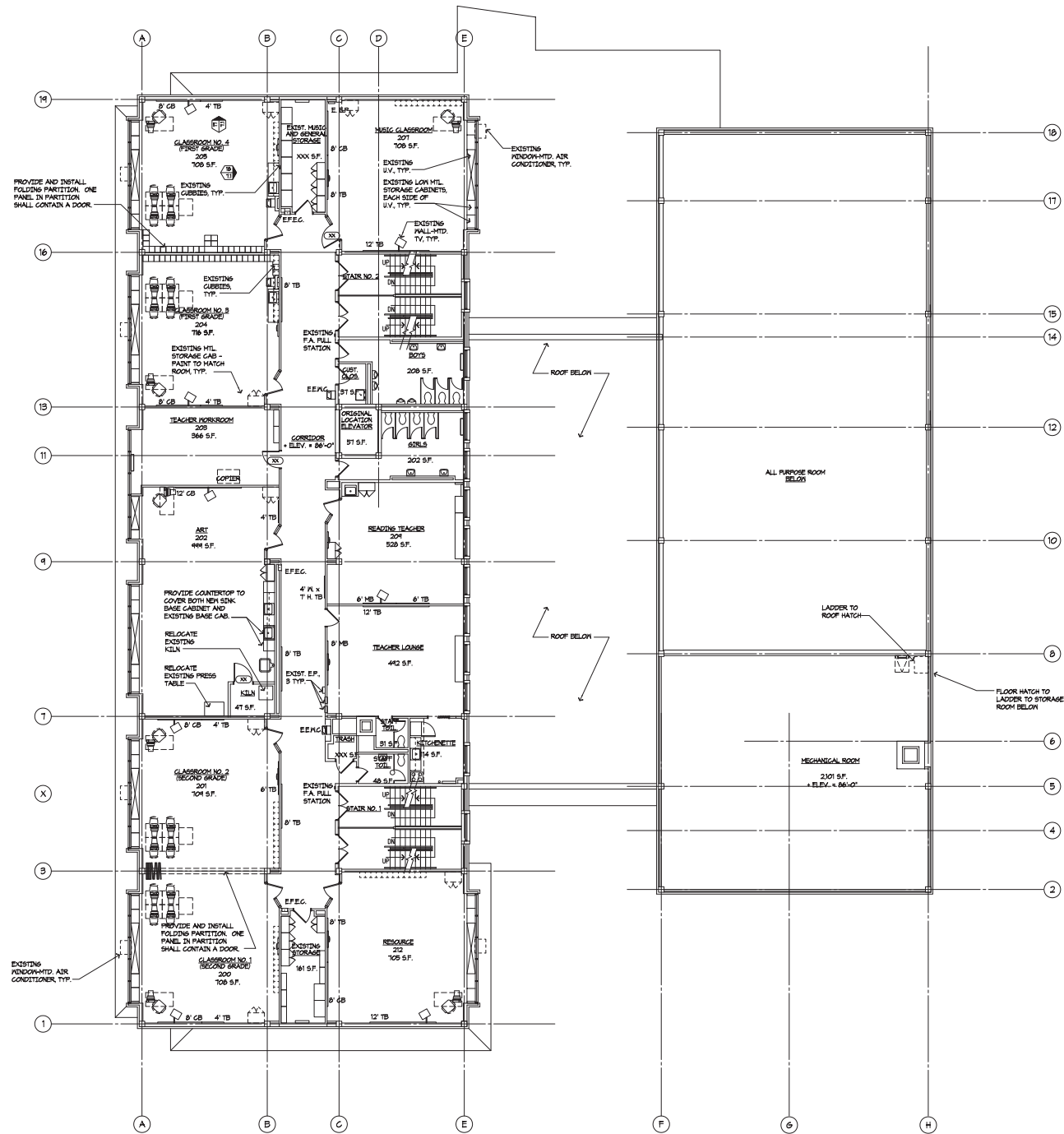
BASEMENT



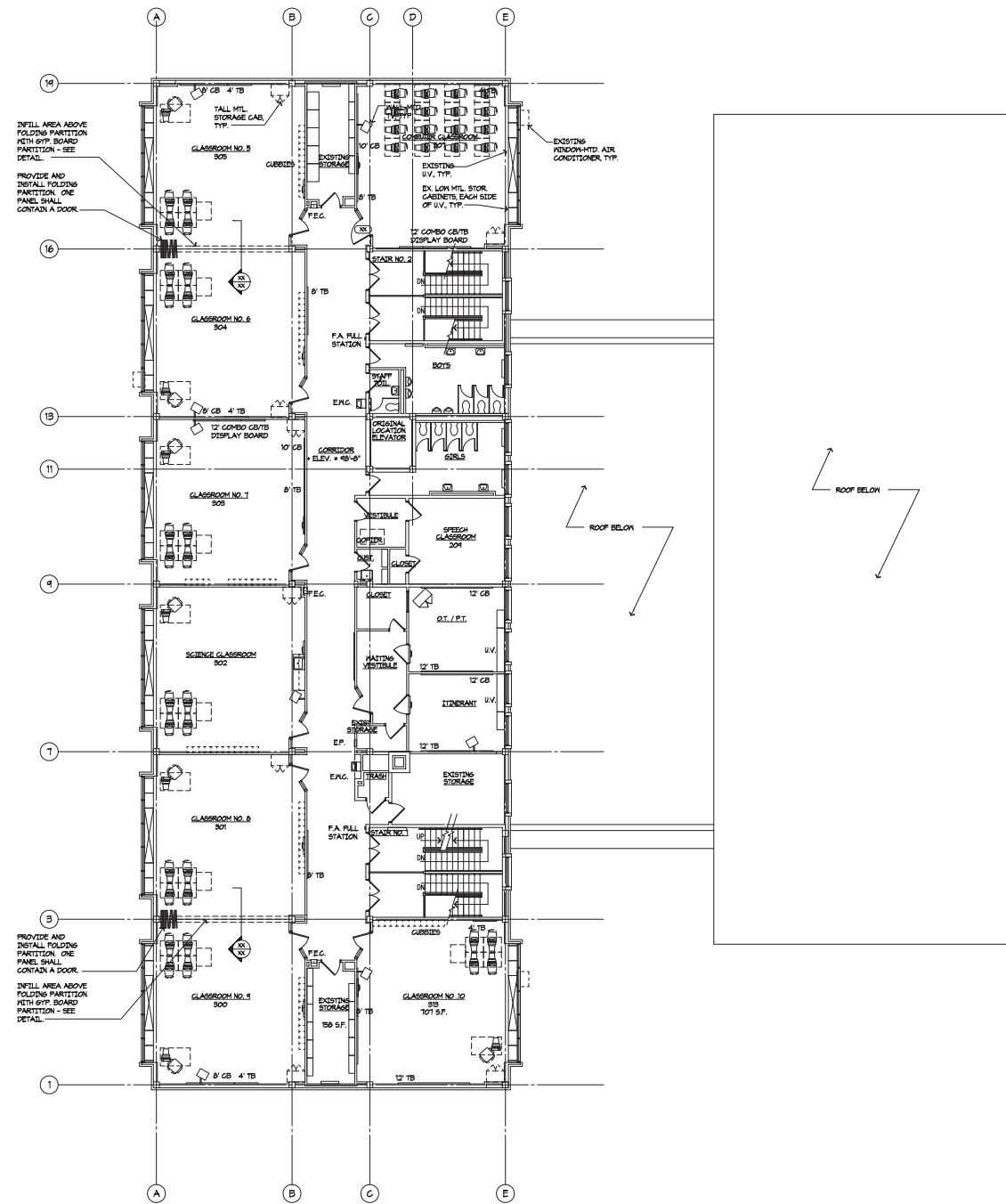
LEVEL 1



EXISTING CONDITIONS | PLANS



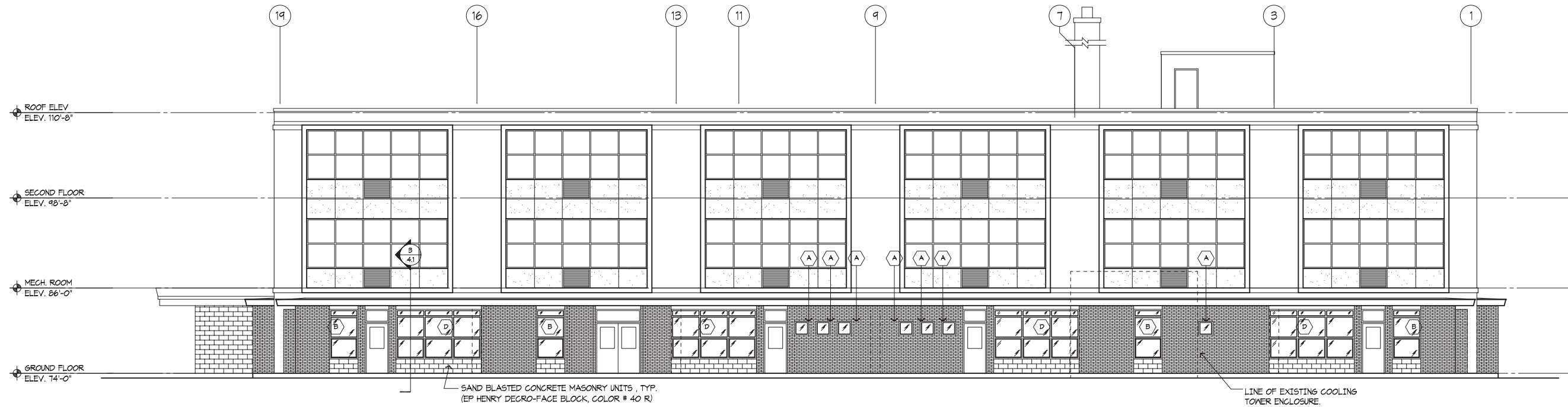
LEVEL 2



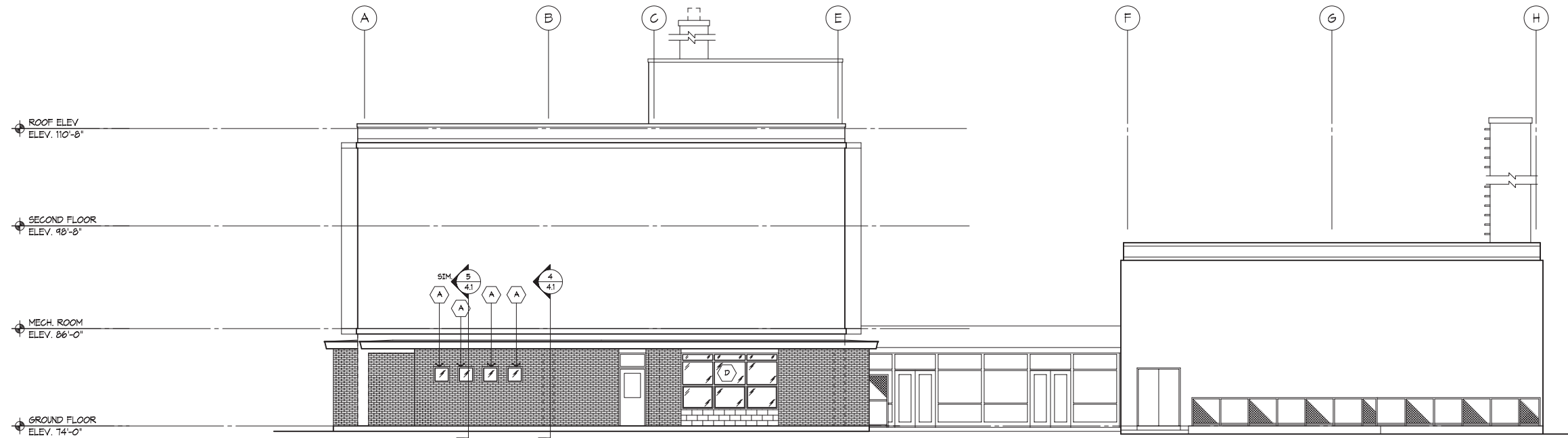
LEVEL 3



EXISTING CONDITIONS | ELEVATIONS



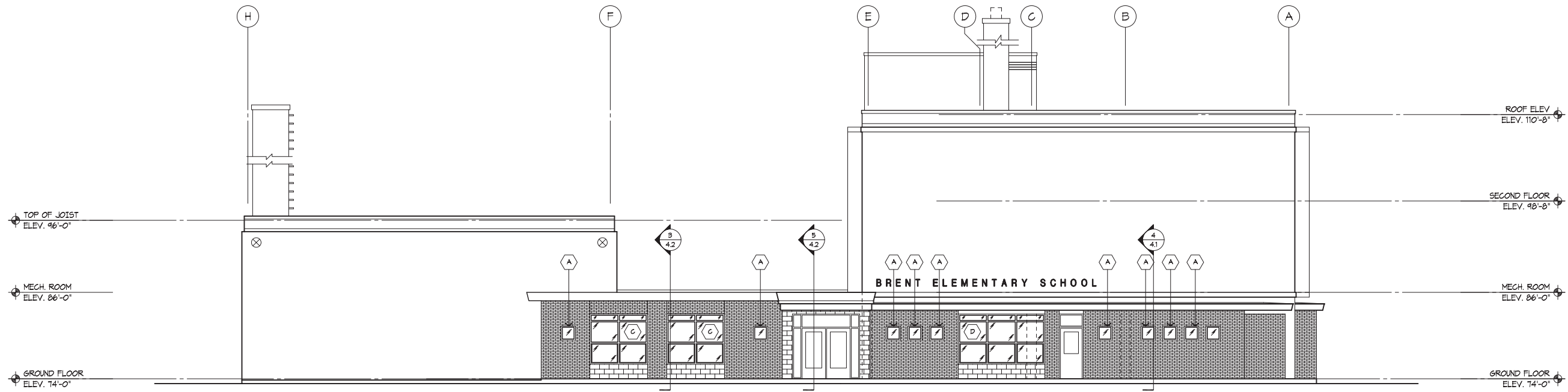
3RD ST ELEVATION



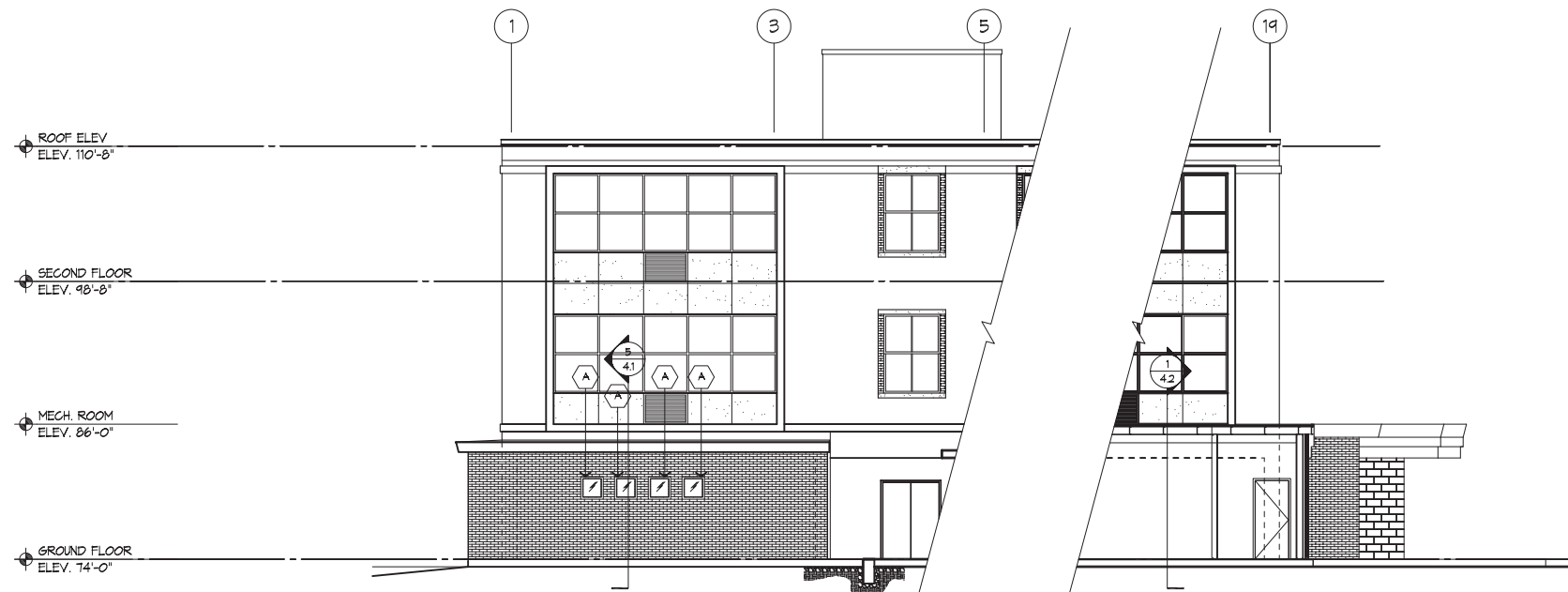
D ST ELEVATION



EXISTING CONDITIONS | ELEVATIONS



NORTH CAROLINA AVE ELEVATION



EAST ELEVATION





The following design incorporates feedback from DGS, DCPS, the SIT Committee and preliminary review from other agencies. The design incorporates 2 primary goals:

1. Creating a highly engaging elementary school per the DCPS Program, with an emphasis on Reggio Emilia instruction per the Brent School pedagogy.
2. Providing an urban response that celebrates the tree-lined and walkable Capitol Hill neighborhood, as envisioned per the original l'Enfant city plan featuring grand avenues and public parks.

The result is an appropriately scaled 'city school', which frames the street corner, overlooking both North Carolina Ave SE and Folger Park.

The design adheres to best practices in school design, like the following:

- CPTED principles for site and building layout
- Locations for Public Art
- High performing building envelope and mechanical systems
- The incorporation of daylighting and views for connections to nature
- Age-appropriate 'blocking and stacking' to ensure safe egress for all learners, and easy access to 'Specials' to minimize travel distance
- Distributed Administration for passive supervision throughout the building
- Grade level Small Learning Communities (SLCs) or "neighborhoods"
- Equitable access to toilets and accessible circulation for both students and staff
- Flexible break out and gathering spaces (Discovery Commons and Resource Rooms)
- Centralized location of gathering spaces for ease of school and potential community use.

The design site layout features the new building flanking 3rd St SE and North Carolina Ave SE. The entrance, on the first floor, and the "Specials" above, celebrate the corner and create a strong focal point for the architecture, the neighborhood, and for easy wayfinding. Front yards leverage public space to integrate outdoor learning and bike racks. A large play area is situated behind the building, in a sunny open yard which features play grounds, outdoor learning, a traffic garden, landscaping, and access from the Gymnasium and Dining. Parking and service zones are located at the south east corner of the site, with access from D Street, SE.

The building mass follows the property line which helps maximize play areas. The ribbon window configuration helps each classrooms receive proper daylight and views, while the flexible ribbon opening infill accommodates the alignment of various sized rooms as they stack up the building. Their vertical High-performance Concrete Panels break the scale of each classroom wing to relate to the smaller scale adjacent residential neighborhood. The main wall "peels away" at the corners revealing the special program spaces behind such as the Library, Arts & Science rooms, Discovery Commons and Main Entry.

The design also includes the following strategies to create a high performing building:

- Roof area for future Photo Voltaic (PV) array to offset on-site energy usage
- Area for extensive green roof as part of the Storm Water Management (SWM) system
- Sun shades where needed to diffuse southern daylight and western glare.

Safety features of the site layout include:

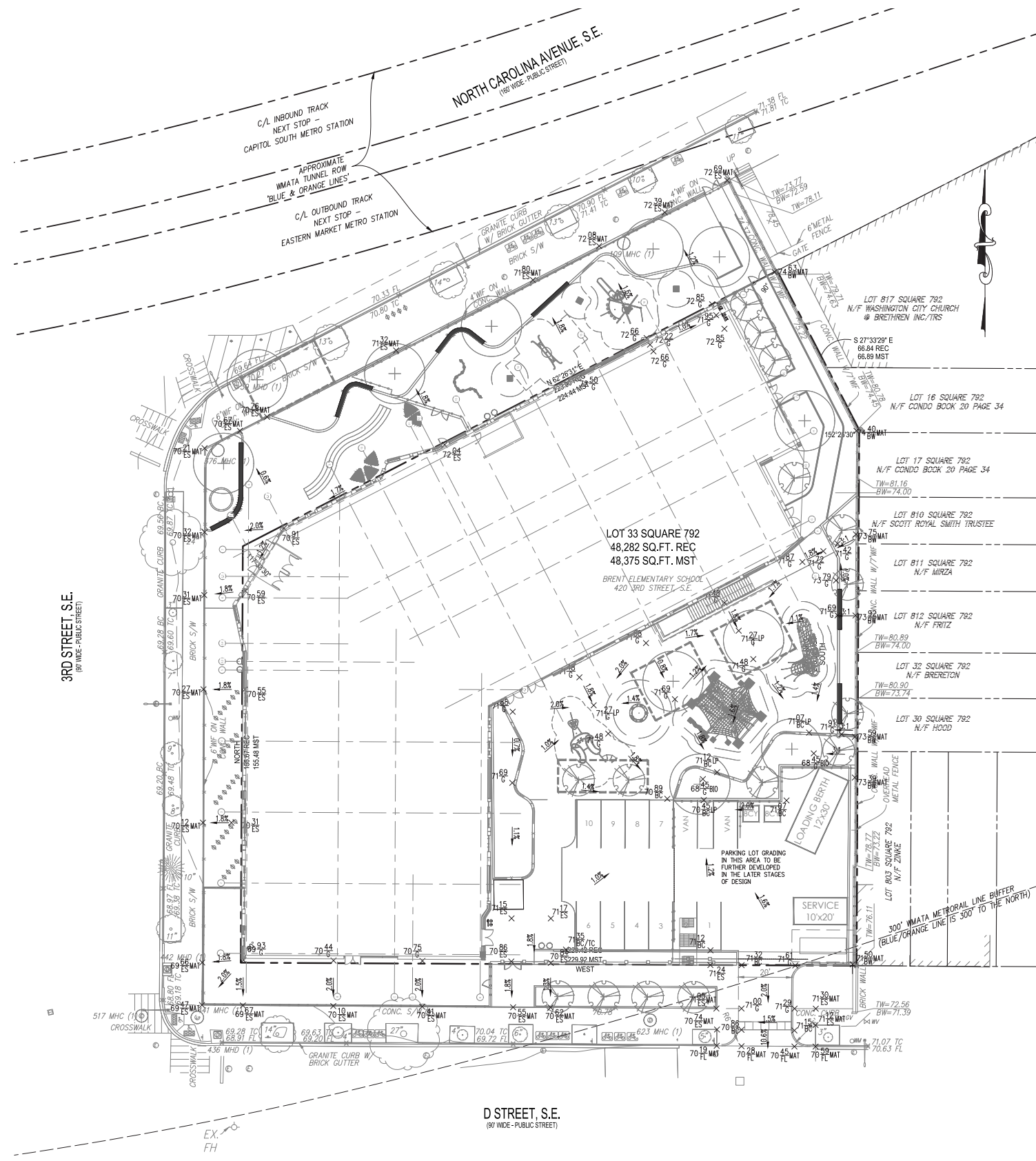
- Easily identified single point of entry
- Administrative office windows facing the front gathering plaza
- Perimeter fencing securing student areas
- Main playground away from busy streets



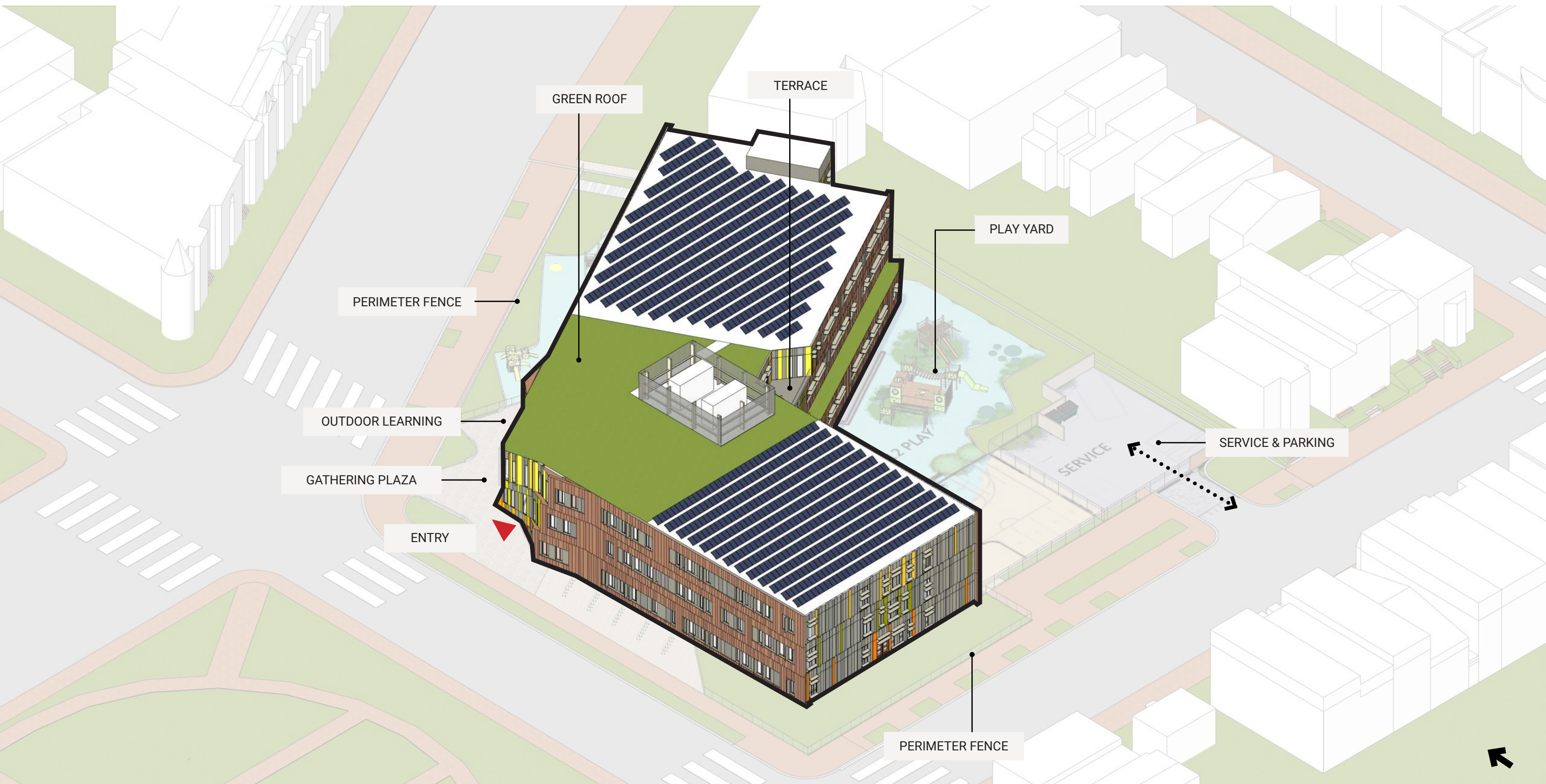
CONCEPT DESIGN | SITE PLAN



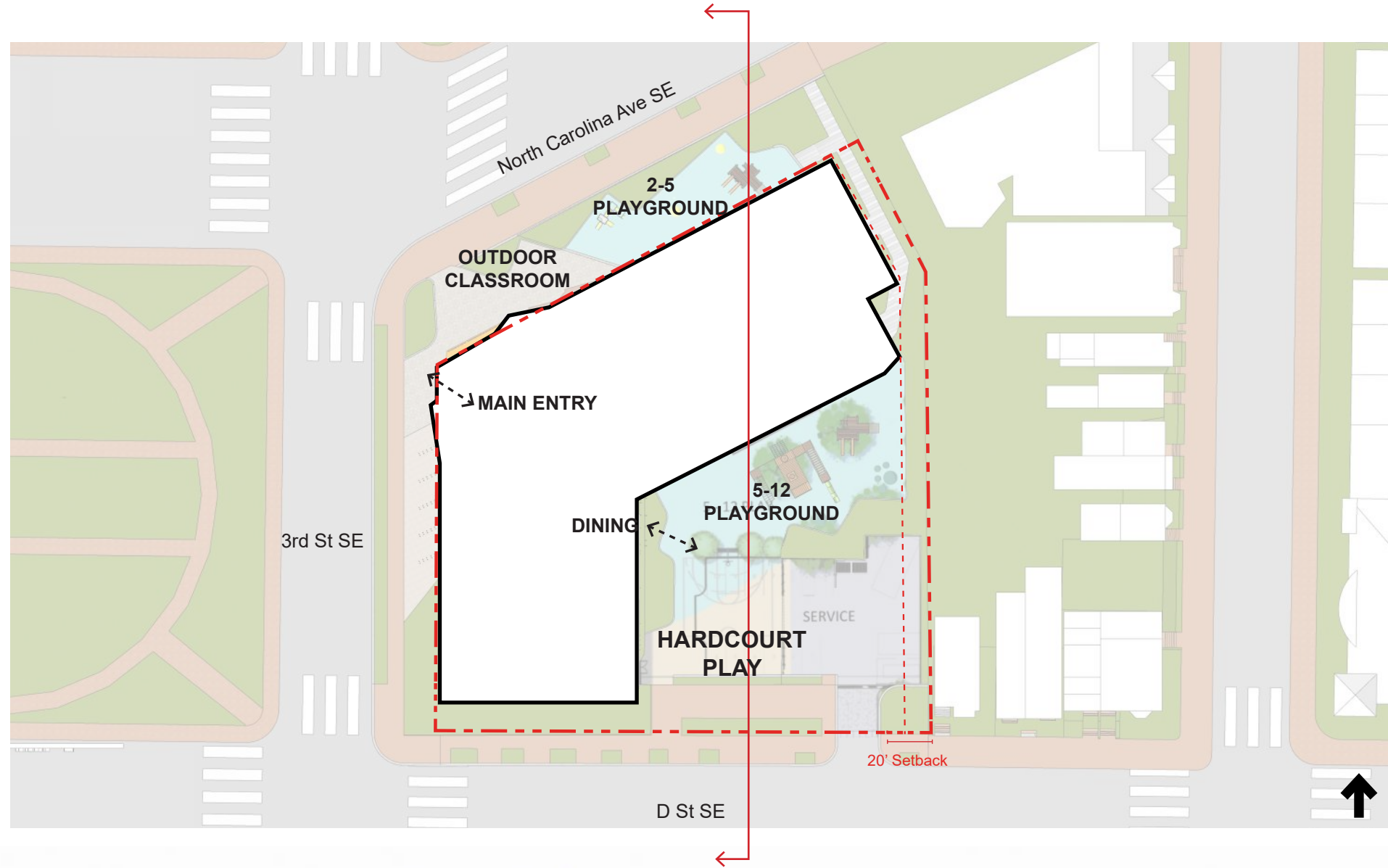
CONCEPT DESIGN | GRADING PLAN



CONCEPT DESIGN | MASSING



CONCEPT DESIGN | SITE & SECTION

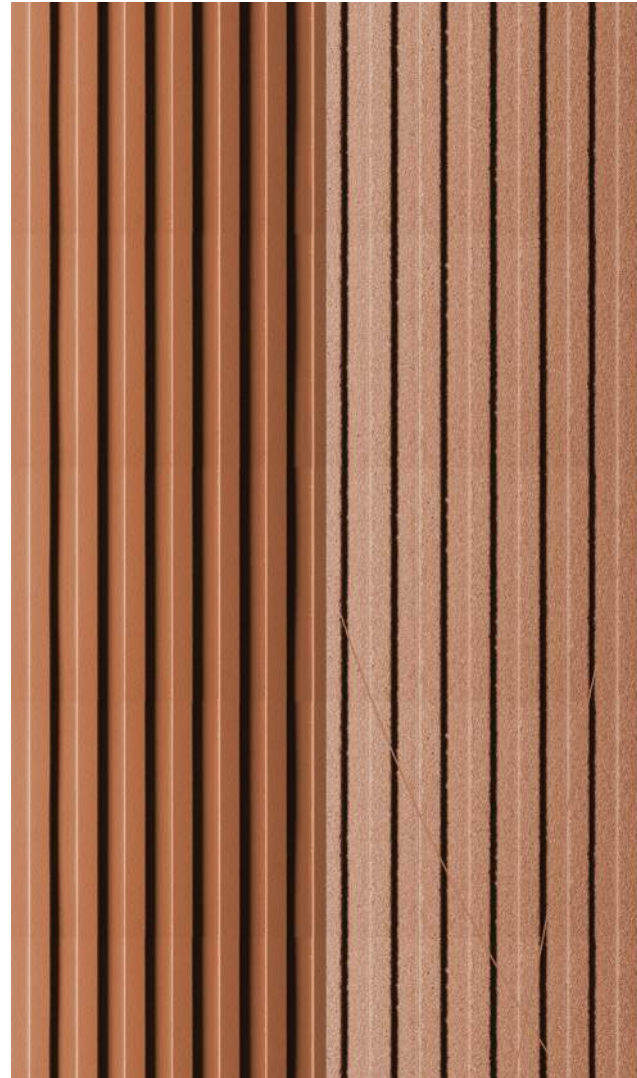


NOT TO SCALE



A N-S Section





Large format ultra-high performing concrete raincreen panels in terracotta colors with add a vertical texture the the building, and be a mix of tone on tone colors and several textures.



Aluminum Composite Material panels will differentiate the corner material and be expressed in long vertical lines.

NEUTRAL PANEL COLOR OPTION



ACCENT PANEL COLOR OPTIONS



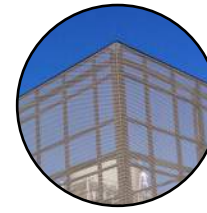
Intermittent use of colored Aluminum Composite Material Panels will enliven and celebrate the corner as both an entry focal point and an expression of the special programs inside.



CONCEPT DESIGN | FACADE CONCEPT



PRIMARY FACADE OPTION
HIGH PERFORMANCE CONCRETE RAIN SCREEN PANELS (TAKTL OR SIMILAR) + PUNCHED OPENINGS



METAL MECHANICAL ROOF SCREENING

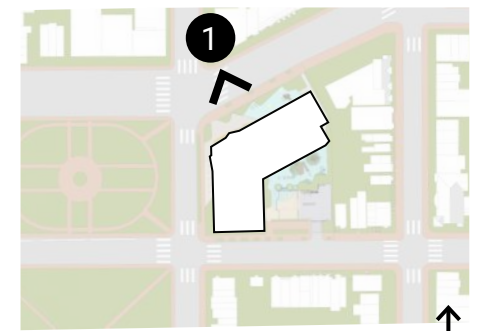


1 View from North Carolina Ave SE

METAL RAINSCREEN PANELS
ALUMINUM COMPOSITE MATERIAL (ACM)



PUBLIC PROGRAM/ENTRY
STOREFRONT/CURTAIN WALL





view from D Street SE





view from corner of 3rd Street SE and D Street SE





view from North Carolina Ave SE (East and North Facade)



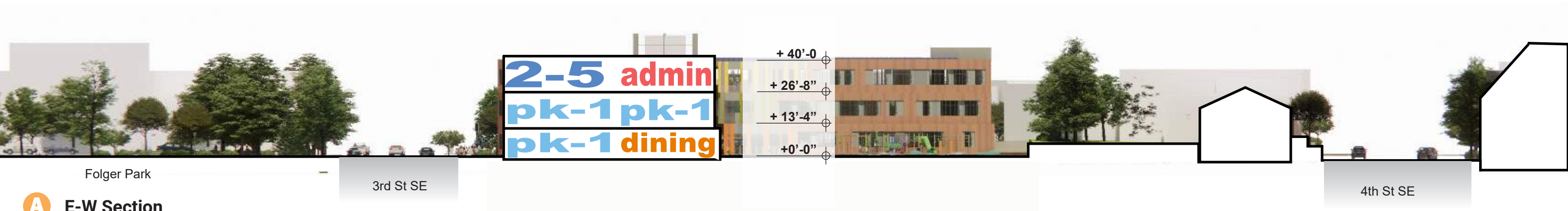
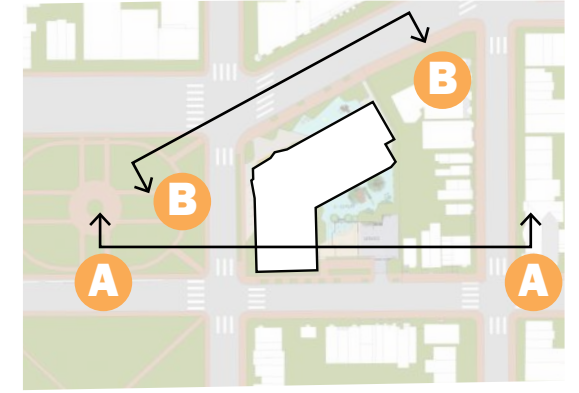


CONCEPT DESIGN | PERSPECTIVE



view from North Carolina Ave SE

CONCEPT DESIGN | SECTION & ELEVATION



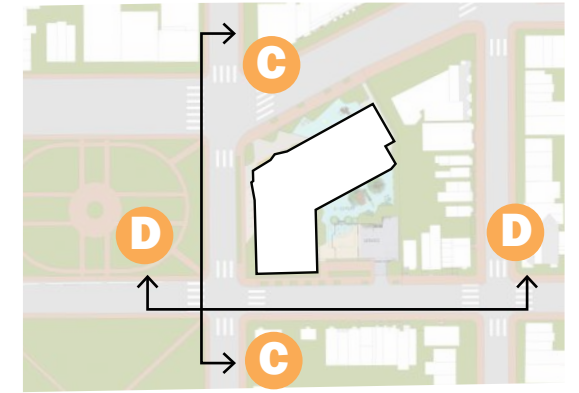
A E-W Section



B N Carolina Ave SE Elevation



CONCEPT DESIGN | ELEVATIONS



C 3rd St SE Elevation

North Carolina Ave SE

D St SE



D D St SE Elevation

Folger Park

3rd St SE

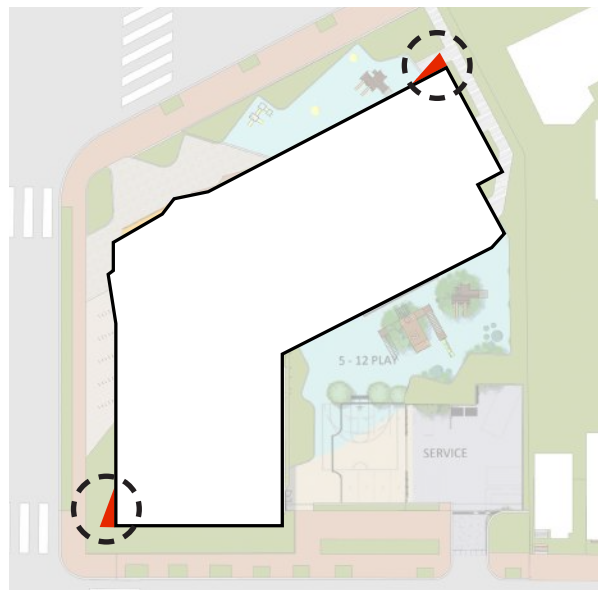
4th St SE

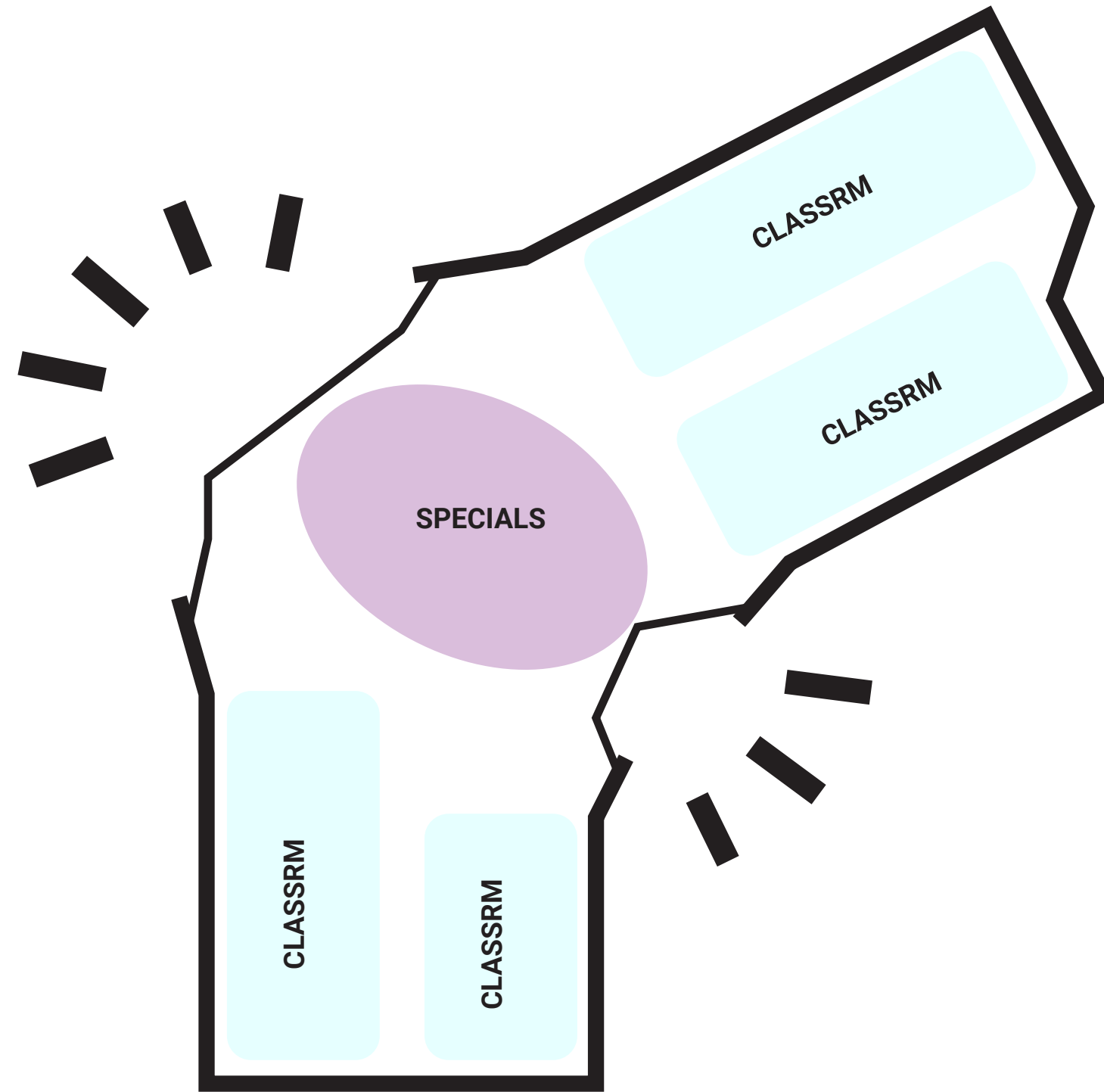


CONCEPT DESIGN | FACADE BOOKEND OPTION



BOOKENDS
ANGLED WALLS ON NORTHEAST CORNER
OF NORTH FACADE +
SOUTHWEST CORNER OF WEST FACADE





CONCEPT DESIGN | PLAN - LVL 0



LEGEND

- ADMINISTRATIVE
- BUILDING SUPPORT
- SPECIALS
- CORE ACADEMICS
- COMMONS
- CAFETERIA
- HEALTH SUITE
- GYMNASIUM
- LIBRARY

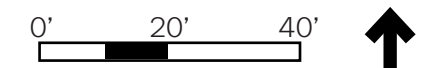


CONCEPT DESIGN | PLAN - LVL 1



LEGEND

- ADMINISTRATIVE
- BUILDING SUPPORT
- SPECIALS
- CORE ACADEMICS
- COMMONS
- CAFETERIA
- HEALTH SUITE
- GYMNASIUM
- LIBRARY

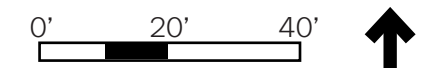


CONCEPT DESIGN | PLAN - LVL 2



LEGEND

- ADMINISTRATIVE
- BUILDING SUPPORT
- SPECIALS
- CORE ACADEMICS
- COMMONS
- CAFETERIA
- HEALTH SUITE
- GYMNASIUM
- LIBRARY

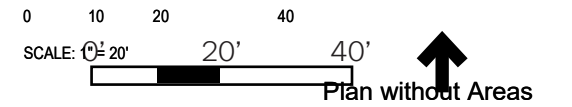


CONCEPT DESIGN | PLAN | LVL 3

3 Scheme 2 Level 2
G0.3 SCALE: 1" = 20'-0"



- LEGEND**
- ADMINISTRATIVE
 - BUILDING SUPPORT
 - SPECIALS
 - CORE ACADEMICS
 - COMMONS SD Revised
10/4/2024 REVISIONS
 - CAFETERIA
 - HEALTH SUITE
 - GYMNASIUM
 - LIBRARY



Brent Elementary School

301 North Carolina Ave SE
Washington, DC 20003

CONCEPT DESIGN | ELEVATIONS



Sketchup Elevation - N Carolina Ave SE



Sketchup Elevation - Courtyard East



Sketchup Elevation - 3rd St SE



Sketchup Elevation - Courtyard South



Sketchup Elevation - D St SE

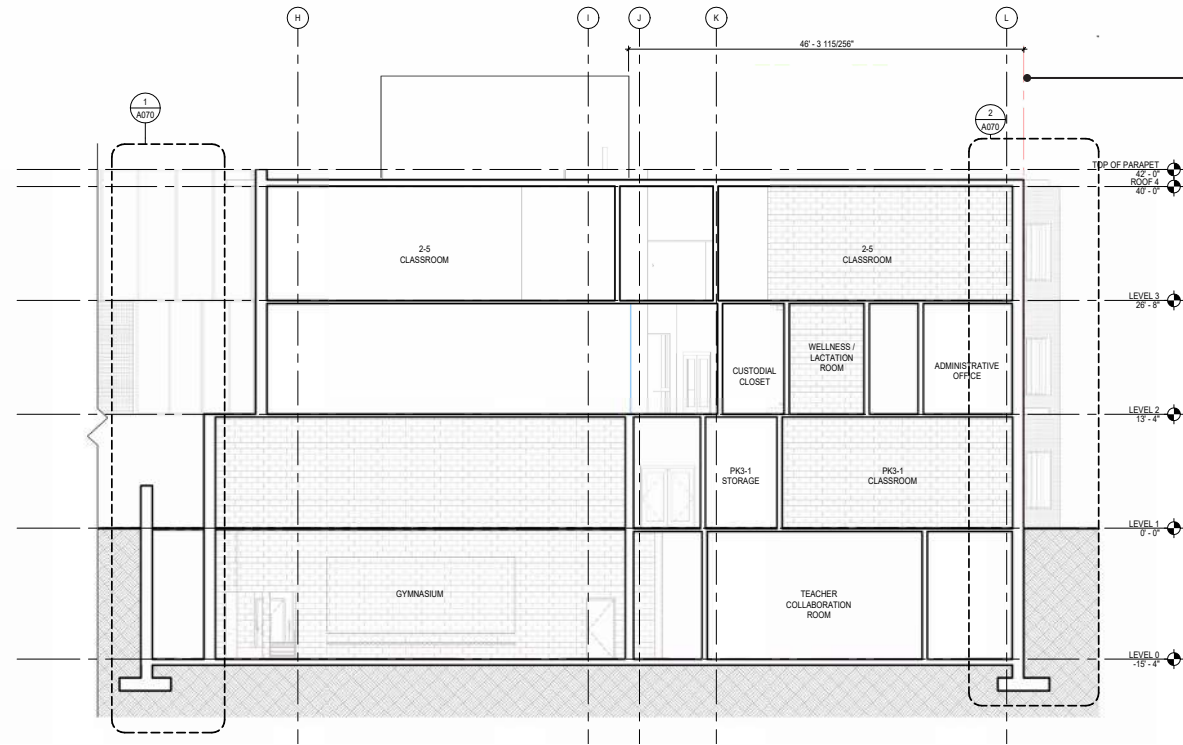


Sketchup Elevation - East

NOT TO SCALE

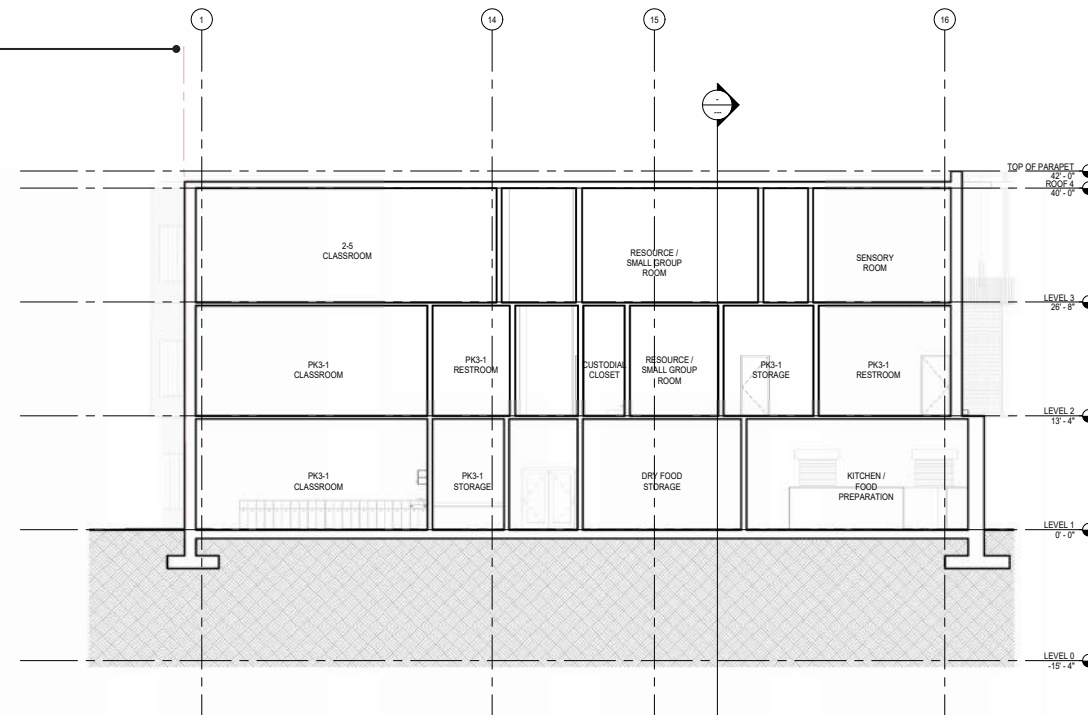


CONCEPT DESIGN | SECTIONS

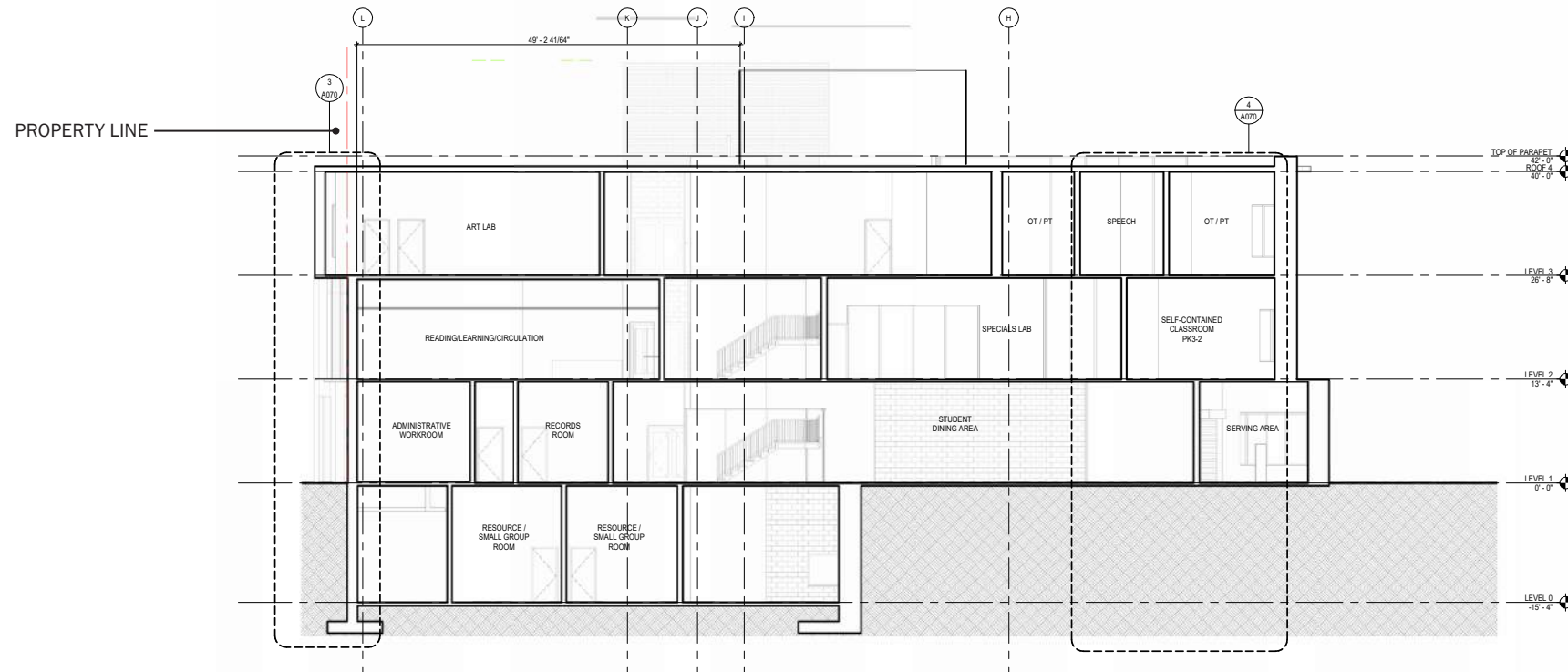


Section 1

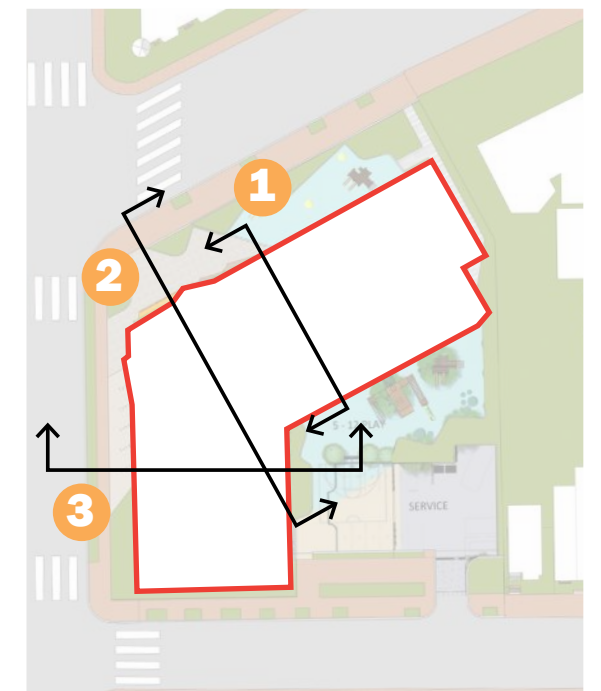
PROPERTY LINE



Section 3



Section 2



NOT TO SCALE

