EXHIBIT A TOTAL PROJECT BUDGET TOWN OF NATICK JOHN F. KENNEDY MIDDLE SCHOOL

PROJECT FUNDING AGREEMENT

Total Project Budget

Town of Natick John F. Kennedy Middle School

John F. Kennedy Middle School	T			
		Scope Items Excluded from the Estimated Basis of	Estimated Basis of	
Total Project Budget: All costs associated with the		Maximum Facilities Grant or	Maximum Total Facilities	Estimated Maximum Total
project are subject to 963 CMR 2.16(5)	Estimated Budget	Otherwise Ineligible	Grant ¹	Facilities Grant ¹
Feasibility Study Agreement OPM Feasibility Study	\$175,000	\$0	\$175,000	
A&E Feasibility Study	\$480,177	\$0	\$480,177	
Environmental & Site	\$83,698		\$83,698	
Other Feasibility Study Agreement Subtotal	\$11,125 \$750,000		\$11,125 \$750,000	\$361,575
Administration	\$750,000	20	\$750,000	\$301,373
Legal Fees	\$25,000	\$25,000	\$0	\$0
Owner's Project Manager Design Development	\$124,000	\$0	\$124,000	
Construction Contract Documents	\$124,000		\$124,000	
Bidding	\$44,720	\$0	\$44,720	
Construction Contract Administration Closeout	\$2,498,671 \$67,173	\$0 \$0	\$2,498,671 \$67,173	
Extra Services	\$07,173		\$07,173	
Reimbursable & Other Services	\$5,000		\$5,000	
Cost Estimates Advertising	\$66,000 \$1,000		\$66,000 \$1,000	
Permitting	\$75,000	\$0 \$0	\$75,000	
Owner's Insurance	\$55,000		\$55,000	
Other Administrative Costs	\$50,000		\$50,000	A4 400 704
Administration Subtotal Architecture and Engineering	\$3,123,364	\$25,000	\$3,098,364	\$1,493,721
Basic Services				
Design Development	\$2,405,416		\$2,405,416	
Construction Contract Documents Bidding	\$3,720,949 \$273,571	\$0 \$0	\$3,720,949 \$273,571	
Construction Contract Administration	\$1,595,561	\$0	\$1,595,561	
Closeout	\$143,295	\$0	\$143,295	
Other Basic Services Basic Services Subtotal	\$0 \$8,138,792	\$0 \$0	\$0 \$8,138,792	
Reimbursable Services				
Construction Testing	\$36,650		\$36,650	
Printing (over minimum) Other Reimbursable Costs	\$30,000 \$199,950		\$30,000 \$199,950	
Hazardous Materials	\$106,975	\$0	\$106,975	
Geotechnical & Geo-Environmental	\$190,345	\$0 \$0	\$190,345	
Site Survey Wetlands	\$49,865 \$40,000		\$49,865 \$40,000	
Traffic Studies	\$13,200	\$0	\$13,200	
Architectural/Engineering Subtotal	\$8,805,777	\$0	\$8,805,777	\$4,245,265
CM at Risk Preconstruction Services Pre-Construction Services	\$0	\$0	\$0	\$0
Site Acquisition	Ψ	ΨΟ	ΨΟ	Ψ
Land / Building Purchase	\$0		\$0	
Appraisal Fees Recording fees	\$0 \$0		\$0 \$0	
Site Acquisition Subtotal	\$0	·	\$0	\$0
Construction Costs				
SUBSTRUCTURE Foundations	\$2,738,705	\$0		
Basement Construction	\$0			
SHELL Company Chrosothera	Ф7 COO 400	¢ο		
Super Structure Exterior Closure	\$7,622,103 \$0	\$0 \$0		
Exterior Walls	\$6,871,683	\$0		
Exterior Windows	\$2,739,101	\$0 \$0		
Exterior Doors Roofing	\$168,218 \$2,212,848			
INTERIORS				
Interior Construction	\$9,282,006	\$0 \$0		
Staircases Interior Finishes	\$548,614 \$4,332,224	\$0 \$0		
SERVICES				
Conveying Systems Plumbing	\$509,000 \$2,904,835	\$0 \$0		
HVAC	\$7,085,764			
Fire Protection	\$750,546			
Electrical EQUIPMENT & FURNISHINGS	\$8,837,737	\$0		
Equipment	\$1,236,484	\$0		
Furnishings	\$513,993	\$0		
SPECIAL CONSTRUCTION & DEMOLITION Special Construction	\$50,000	\$0		
Existing Building Demolition	\$919,080	\$0		
In-Building Hazardous Material Abatement	\$513,000 \$150,000			
Asbestos Containing Floor Material Abatement Other Hazardous Material Abatement	\$150,000 \$0			
BUILDING SITEWORK				
Site Preparation	\$1,606,330 \$3,054,000			
Site Improvements Site Civil / Mechanical Utilities	\$3,954,009 \$1,577,654			
Site Electrical Utilities	\$743,020	\$0		
Other Site Construction	\$0			
Scope Excluded Site Cost Construction Trades Subtotal	\$67,866,954	\$3,212,704 \$3,362,704		
Contingencies (Design and Pricing)	\$6,786,695			
Germingeriolog (Edelgir arrait menig)				
D/B/B Sub-Contractor Bonds	\$678,670			
0 (0	\$678,670 \$1,153,738 \$5,848,077	\$57,166		

Town of Natick John F. Kennedy Middle School

		Scope Items Excluded from the Estimated Basis of	Estimated Basis of	
Total Project Budget: All costs associated with the		Maximum Facilities Grant or	Maximum Total Facilities	Estimated Maximum Total
project are subject to 963 CMR 2.16(5)	Estimated Budget	Otherwise Ineligible	Grant ¹	Facilities Grant ¹
GMP Insurance	\$0	\$0		
GMP Fee	\$0	\$0		
GMP Contingency	\$0	\$0		
Escalation to Mid-Point of Construction	\$3,189,747	\$158,047		
Ineligible Auditorium & PE Areas beyond Guidelines		\$5,334,438		
Overall Excluded Construction Cost		\$17,191,607		
Construction Budget	\$87,559,890	\$26,864,504	\$60,695,386	\$29,261,246
Alternates				
Ineligible Work Included in the Base Project	\$0			
Alternates Included in the Total Project Budget	\$0	\$0		
Alternates Excluded from the Total Project Budget	\$0		\$0	
Subtotal to be Included in Total Project Budget	\$0	\$0	\$0	\$0
Miscellaneous Project Costs				
Utility Company Fees	\$200,000	\$0	\$200,000	
Testing Services	\$100,000			
Swing Space / Modulars	\$0			
Other Project Costs (Mailing & Moving)	\$70,000	\$70,000	\$0	
Misc. Project Costs Subtotal	\$370,000	\$70,000	\$300,000	\$144,630
Furnishings and Equipment				
Furniture, Fixtures, and Equipment	\$1,795,000	\$595,000		
Technology	\$2,406,910	\$1,206,910	\$1,200,000	
FF&E Subtotal	\$4,201,910	\$1,801,910	\$2,400,000	\$1,157,040
Soft Coate that averaged 200% of Coatewation Coat		Φ0		
Soft Costs that exceed 20% of Construction Cost	•	\$0		• • • • •
Project Budget	\$104,810,941	\$28,761,414	\$76,049,527	\$36,663,477

Board Authorization	
Design Enrollment	1,000
Total Building Gross Floor Area (GSF)	182,195
Total Project Budget (excluding Contingencies)	\$104,810,941
Scope Items Excluded or Otherwise Ineligible	\$28,761,414
Third Party Funding (Ineligible)	\$0
Estimated Basis of Maximum Total Facilities Grant ¹	\$76,049,527 48.21%
Reimbursement Rate ³	48.21%
Est. Max. Total Facilities Grant (before recovery) ¹	\$36,663,477
Cost Recovery ⁴	\$12,929
Estimated Maximum Total Facilities Grant ¹	\$36,650,548

Construction Contingency² \$4,249,059 Ineligible Construction Contingency² \$3,373,460 "Potentially Eligible" Construction Contingency² \$875,599 Owner's Contingency² \$500,000 Ineligible Owner's Contingency² "Potentially Eligible" Owner's Contingency² \$500,000 Total Potentially Eligible Contingency² \$1,375,599 Reimbursement Rate³ 48.21% Potential Additional Contingency Grant Funds² \$663,176 Maximum Total Facilities Grant \$37,313,724 **Total Project Budget** \$109,560,000 43.63 Reimbursement Rate Before Incentive Points 4.58 Total Incentive Points³

48.21% MSBA Reimbursement Rate

NOTES

This document was prepared by the MSBA based on a preliminary review of information and estimates provided by the Town of Natick for the John F. Kennedy School project. Based on this preliminary review, certain budget, cost and scope items have been determined to be ineligible for reimbursement, however, this document does not contain a final, exhaustive list of all budget, cost and scope items which may be ineligible for reimbursement by the MSBA. Nor is it intended to be a final determination of which budget, cost and scope items may be eligible for reimbursement by the MSBA. All project budget, cost and scope items shall be subject to review and audit by the Authority, and the Authority shall determine, in its sole discretion whether any such budget, cost and scope items are eligible for reimbursement. The MSBA may determine that certain additional budget, cost and scope items are ineligible for reimbursement.

- 1 The Estimated Basis of Total Facilities Grant and Estimated Maximum Facilities Grant amounts appearing in the "MSBA Board Approved Budget" column do not include any potentially eligible contingency funds and are subject to review and audit by the MSBA. The Estimated Basis of Total Facilities Grant, Estimated Maximum Facilities Grant, and Maximum Total Facilities Grant amounts appearing in the "Proposed Revised PFA Budget" column have been adjusted to account for construction bids received in accordance with Section 2.2 of the PFA and any budget revision requests submitted and approved by the MSBA as of the Date noted in the Proposed Revised Budget PFA column of the PFA Amendment. These amounts are also subject to further review and audit by the MSBA.
- 2 Pursuant to Section 3.20 of the Project Funding Agreement and the applicable policies and guidelines of the Authority, any project costs associated with the reallocation or transfer of funds from either the Owner's contingency or the Construction contingency to other budget line items shall be subject to review by the Authority to determine whether any such costs are eligible for reimbursement by the Authority. All costs are subject to review and audit by the MSBA.
- 3 The MSBA has provisionally included two (2) incentive points for energy efficiency, subject to the District meeting certain sustainability requirements for the project. If the District does not meet the requirements for the energy efficiency, the District will not qualify for these incentive points and the MSBA will adjust the reimbursement rate accordingly.
- 4 Cost associated with the commissioning of ineligible square footage will result in the recovery of a portion of the overall commissioning cost. The MSBA has calculated this recovery of funds to be \$12,929. A total of \$12,929 has been deducted from the Estimated Maximum Total Facilities Grant and the Maximum Total Facilities Grant.

Exhibits on CD Template

MSBA Project No.: 201501980305

Project: John F. Kennedy Middle School

District: Town of Natick

INDEX OF EXHIBITS FOR PROJECT FUNDING AGREEMENT

The enclosed CD contains documents from Exhibits B and E of the PROJECT FUNDING AGREEMENT for the John F. Kennedy Middle School Project. Below is a description of the document(s) included in each Exhibit:

Exhibit B – Scope:

- o Project Narrative
- o Scope Drawings
- o Room Data Sheets
- o Outline Specifications, Table of Contents
- o Hazardous Materials Report
- o Code Narrative
- o LEED Scorecard
- o Space Summary

Exhibit E – Site:

- o Site Narrative
- o Site Drawings
- o Geotechnical Study Report
- o Traffic Analysis

INTRODUCTION

Brief Summary of Preferred MSBA Board Solution

Preferred MSBA Board Solution

The Preferred Schematic Design solution was approved on October 25, 2017 by the MSBA Board of Directors. The Preferred Schematic Design solution is an "all new" 182,195 gsf middle school serving 1,000 students in grades 5-8. The new school will be located on the existing 35.2-Acre Kennedy Middle School and Brown Elementary campus located at 165 Mill Street in Natick, MA. The existing Kennedy Middle School will be demolished after the new school is substantially completed. The main entry drive and site circulation will be modified to improve bus, parent, and staff circulation for both the Brown and Kennedy Schools. A new multi-use synthetic turf field will replace the existing sports field at the northeast corner of the site. A new basketball court will be located close to the Brown Elementary School for shared school and community use. The existing trail system currently located at the south and west edges of the site will be improved and connected to the new trail system proposed to the west edge of the site. The proposed site will accommodate approximately 285 to 305 parking spaces.

Project Description & Key Elements of the Design

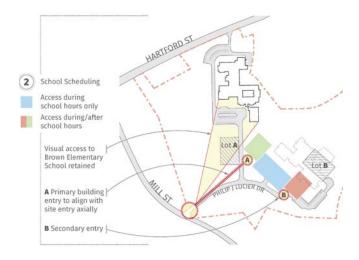
There are many positive attributes to the 4-story, new school option that ultimately made it an easy selection as a Preferred Schematic Option for the School Department and School Building Committee. The new design places each grade on a dedicated floor level and allows the subdivision of each grade level into three neighborhoods. If the administration chooses, the school can be subdivided into a lower 5th/6th grade school on floors 1 and 2, and an upper 7th/8th grade school on floors 3 and 4. The key to subdividing the student population into an upper and lower school would be the creation of two student commons areas. The 7,500 sf student dining space can be separated into two 3,750 sf areas; the lower school dining area would be located on level one and the upper school dining area would be located on level three. Similarly, the kitchen program of 2,300 sf would be subdivided into a 1,700 sf main kitchen on floor 1 and a 600 sf satellite kitchen on floor 3. The academic classroom core allows program space to be placed on either end of the core, offering increased flexibility of site placement which the other options did not allow.

The Preferred Schematic option maximizes the open green space to the south of the Brown Elementary School by placing more educational program space adjacent to the southwest facade of the existing middle school. The new middle school athletic center is located to the southeast, adjacent to the new fields, and the performing arts space is located to the north, adjacent to the Brown School, so that it can be shared by the Brown Elementary School community.

The following is a summary of the preferred option's attributes:

- Provides a clearly visible, identifiable, and direct main entry; in alignment with the main entry access drive from Mill Street.
- The academic core continues to allow each grade level to be clearly divided into three neighborhoods while allowing placement of program space along either side.
- · Simplified building organization and circulation.
- Best site layout for the Brown School, Kennedy Middle School, and the community, creating an overall school campus.
- Ideal location of the Performing Arts program (adjacent to the Brown School) and the Health & Physical Education program (adjacent to the new athletic fields).
- Bus and parent circulation remain in front of the Brown and Kennedy schools.
- Secondary entry is in alignment with the main entry and allows a direct physical and visible connection from the west-facing main entry plaza to the community fields and amenities to the east.
- Preservation of the Brown Elementary School view corridor from existing entry drive.
- Preservation of open green space in front of the existing Brown Elementary School.

- Improved distribution of parking and site circulation.
- The 4-story academic classroom core is flanked by 2-story program elements to help reduce the scale of academic core.
- Placement of multi-story academic core is the most remote location possible in Site Zone 3 to the abutters of Barnesdale Road and Surrey Lane.
- No impact to bordering vegetated wetlands.



The Kennedy Middle School Building Committee and Natick Public Schools overwhelmingly endorsed the Preferred Schematic option.

The Owner's Project Manager presented to the Kennedy Middle School Building Committee the construction delivery method on November 15, 2017. The Committee evaluated the advantages and disadvantages of Design Bid Build (M.G.L. c. 149) and Construction Manager at Risk (M.G.L. c. 149A) delivery methods for the new school project. The KMSBC will determine the construction delivery method at the next scheduled meeting.

The Total Project Budget for the new school option is projected to be approximately \$110 Million.

Building Construction	\$78,870,000
Site Construction	\$8,450,000
All soft costs: Consultant Fees, Administrative Costs, FF&E, Technology	\$17,430,000
Contingencies	\$4,760,000
Total Project Budget	\$109,510,000

Based on early budgeting, the projected cost for the new Natick Kennedy Middle School could be on the order of \$110 Million exclusive of MSBA reimbursement. The Town of Natick maintains a healthy balance sheet and its current debt load is well within the recommended level. Currently, the Town has a Standard and Poor rating of AAA. Financing for this project will be based upon a successful debt exclusion override scheduled in March 2018. The Town of Natick is confident that it can acquire bonded financing in excess of \$110 Million when it is approved by the citizens of Natick in March 2018. The only other project the Town is currently engaged in is a fire station project. The budget for the fire station is approximately \$11.5 Million with an estimated start date of January/February 2018 with completion twelve months later.

Currently, there are no alternates included in the project scope. Please refer to the Total Project Budget within this report.

Community Outreach Program

To engage the community in the project, the School Department has implemented a communications plan using traditional and social media channels. The Natick Public Schools communication strategy works to build public understanding (and support) for the District through stakeholder engagement by working collaboratively with students, parents, staff, and Natick community members.

Natick's communications efforts focus on consistent public and media relations, internal and external engagement, and timely updates through public communications channels. Natick Public Schools promotes excellence in education, learning in action, and highlight special events and award recognitions. All of this is accomplished through community relations, media relations, photography, press releases, public information, and video productions.

Assistant Superintendent of Schools, Anna Nolin, and Communications Specialist, Christina Maryland, oversee and monitor press releases and announcements to the community. They oversee the operations and maintenance of the web site (https://sites.google.com/a/natickps.org/kms-building-project/home) which provides links to reports and materials submitted to the MSBA as well as social media channels on Facebook (Natick-Public-Schools) and Twitter (NatickSchools@natickps). Traction on social media is strong and closely monitored to ensure the information is easily accessible to residents to garner their support for the Kennedy Middle School project.

The School Department used social media advertising on Facebook to drive awareness and attendance at the two public forums held on May 31st, July 12th, and more recently on October 10th, as well as continuing engagement with design and progress. On September 27th, a Kennedy Middle School open-house was held for parents and students. The Preferred Schematic Design site plan, floor plans, and exterior renderings were presented to the general public for review and comment. In addition, Facebook-boosted posts target Natick parents with children of all ages to reach those

Comment of the c

who will benefit the most from the middle school project. The media mix is intended, however, to ensure that all voters learn about the value of the project.

In addition to the social media outreach, the Kennedy Middle School Building Committee holds two public meetings every month and begins each meeting with opportunities for input from the public. Additionally, the Kennedy Middle School Building Committee established three (3) televised public forums that were for the specific purpose of presenting, in detail, all options evaluated by the KMSBC and School Department, conducting an open discussion, and receiving feedback from the public. The open public forums were attended by residents, local business owners, faculty, staff, students, parents, Town Officials, Building Committee Members, School Administration, and others.

Kennedy Middle School: Community Input Survey





FIRST FLOOR FIRE SAFETY ANALYSIS:

TABLE 601 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

Building Element	Type IIIA
Primary structural frame Including columns, girders, trusses, & braces	1
Bearing walls	
Exterior	2
Interior	1
Exterior Nonbearing walls and partitions	See Table 602
Interior Nonbearing walls and partitions	0
Floor construction and secondary members Including supporting beams & joists	1
Roof construction and secondary members Including supporting beams & joists	1 (b,c)

- b. Except in Group F-1, H, M and S-1 Occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

Chapter 10: Means of Egress Section 1002 Definitions

Common Path of Egress Travel: That portion of the exit access travel distance measured from the most remote point within a story to that point where the occupants have separate access to two exits or exit access doorways.

Floor Area, Net: The actual occupied area not including unoccupied accessory areas such as corridors, stairways, ramps, toilet rooms, mechanical rooms and closets.

Means of Egress Sizing

1005.3.2 Other egress components

Exceptions: 1. For other than Group H and I-2 Occupancies, the capacity, in inches, of means of egress

components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.15 inch per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section

Required Egress Width:

3,116 Occupants x 0.15 inches per Occupant = 468 inches

Designed Egress Width: = 1,155 inches * 33" egress width used for 36" door



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KENNEDY MIDDLE SCHOOL 165 MILL STREET NATICK, MA 01760

FIRE SAFETY	PLAN LEGEND:
#	OCCUPANT LOAD
ROOM NAME	ROOM TAG

KEYNOTE LEGEND:

FIRE VALVE OR HOSE CABINET WITH EXTINGUISHER

FIRE EXTINGUISHER CABINET WALL MOUNTED FIRE EXTINGUISHER

2 HR SHAFT WALL

2-HOUR FIRE RATING AT UNDERSIDE OF ROOF DECK & STRUCTURE, AT TOP OF ELEVATOR SHAFTS, ELEVATOR MACHINE ROOM CEILINGS AND WHERE SHAFTS TO NOT EXTEND TO THE

BOTTOM OF THE BUILDING.

1-HOUR FIRE RATING AT UNDERSIDE OF ROOF DECK & STRUCTURE

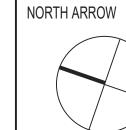
GENERAL NOTES:

. PROVIDE 2-A MINIMUM RATING SINGLE PROVIDE 20-B MINIMUM EXTINGUISHER RATING (ORDINARY HAZARD) PER NFPA-10 c 2007 AT THE FOLLOWING LOCATIONS:

KITCHEN MECHANICAL ELEVATOR EQUIPMENT ROOMS

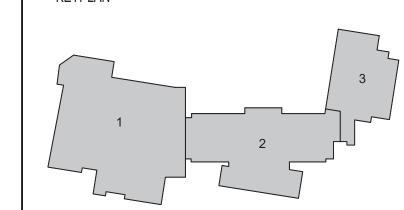
CAFETERIA/DINING CUSTODIAN RECEIVING AND SUPPLY CUSTODIAN WORK/STORAGE PROVIDE FIRE RATED DOORS AND GLAZING IN

WALLS DENOTED AS 1 AND 2 HOUR FIRE BARRIER ASSEMBLY ON PLANS G0.02 TO G0.05 FLOOR ASSEMBLY TO BE 1-HOUR FIRE RATED (UL DESIGN NO. D902)



SCHEMATIC

KEYPLAN



FIRST FLOOR FIRE SAFETY PLAN

DRAWN BY:

DRAWING NAME:

REVIEWED BY: SCALE: As indicated | DRAWING NUMBER: JOB NO.:

DATE: DEC. 21, 2017





SECOND FLOOR FIRE SAFETY ANALYSIS:

TABLE 601 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

Building Element	Type IIIA
Primary structural frame Including columns, girders, trusses, & braces	1
Bearing walls	
Exterior	2
Interior	1
Exterior Nonbearing walls and partitions	See Table 602
Interior Nonbearing walls and partitions	0
Floor construction and secondary members Including supporting beams & joists	1
Roof construction and secondary members Including supporting beams & joists	1 (b,c)

- b. Except in Group F-1, H, M and S-1 Occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

Chapter 10: Means of Egress Section 1002 Definitions

Common Path of Egress Travel: That portion of the exit access travel distance measured from the most remote point within a story to that point where the occupants have separate access to two exits or exit access doorways. Floor Area, Net: The actual occupied area not including unoccupied accessory areas such as corridors, stairways, ramps, toilet rooms, mechanical rooms and closets.

Means of Egress Sizing

1005.3.1 Stairways: The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.3 inch per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story. Exceptions:

1. For other than Group H and I-2 Occupancies, the capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.2 inch per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Total width Means of Egress in inches provided:

Stair 2 = 62 Inches Stair 3 = 42 Inches Stair 4 = 60 Inches

Stair 5 = 60 Inches

Stair 6 = 48 Inches

Total Design Egress Width = 272 Inches

<u>Second Floor Occupants</u> = 1,122 occupants Required Egress Width 1,122 Occupants x 0.2 inches per occupant = 225 Inches <u>Design Egress Width</u> = 272 Inches

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165 MILL STREET NATICK, MA 01760

KEYNOTE LEGEND: FIRE SAFETY PLAN LEGEND:

OCCUPANT LOAD

FIRE VALVE OR HOSE CABINET WITH EXTINGUISHER

FIRE EXTINGUISHER CABINET WALL MOUNTED FIRE EXTINGUISHER

ACCESSORY SPACE 192 TRAVEL DISTANCE IN FEET

2 HR FIRE BARRIER 2 HR SHAFT WALL 1 HR FIRE BARRIER

2-HOUR FIRE RATING AT UNDERSIDE

OF ROOF DECK & STRUCTURE, AT TOP OF ELEVATOR SHAFTS, ELEVATOR MACHINE ROOM CEILINGS AND WHERE SHAFTS TO NOT EXTEND TO THE BOTTOM OF THE BUILDING.

1-HOUR FIRE RATING AT UNDERSIDE OF ROOF DECK & STRUCTURE

GENERAL NOTES:

PROVIDE 2-A MINIMUM RATING SINGLE EXTINGUISHER THROUGHOUT - PER NFPA-10 c 2007 PROVIDE 20-B MINIMUM EXTINGUISHER RATING (ORDINARY HAZARD) PER NFPA-10 c 2007 AT THE FOLLOWING LOCATIONS:

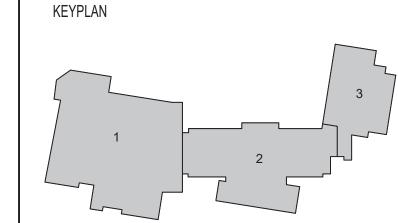
KITCHEN MECHANICAL ELEVATOR EQUIPMENT ROOMS CAFETERIA/DINING CUSTODIAN RECEIVING AND SUPPLY

CUSTODIAN WORK/STORAGE PROVIDE FIRE RATED DOORS AND GLAZING IN WALLS DENOTED AS 1 AND 2 HOUR FIRE BARRIER

ASSEMBLY ON PLANS G0.02 TO G0.05
2. FLOOR ASSEMBLY TO BE 1-HOUR FIRE RATED (UL DESIGN NO. D902)

NORTH ARROW





DRAWING NAME:

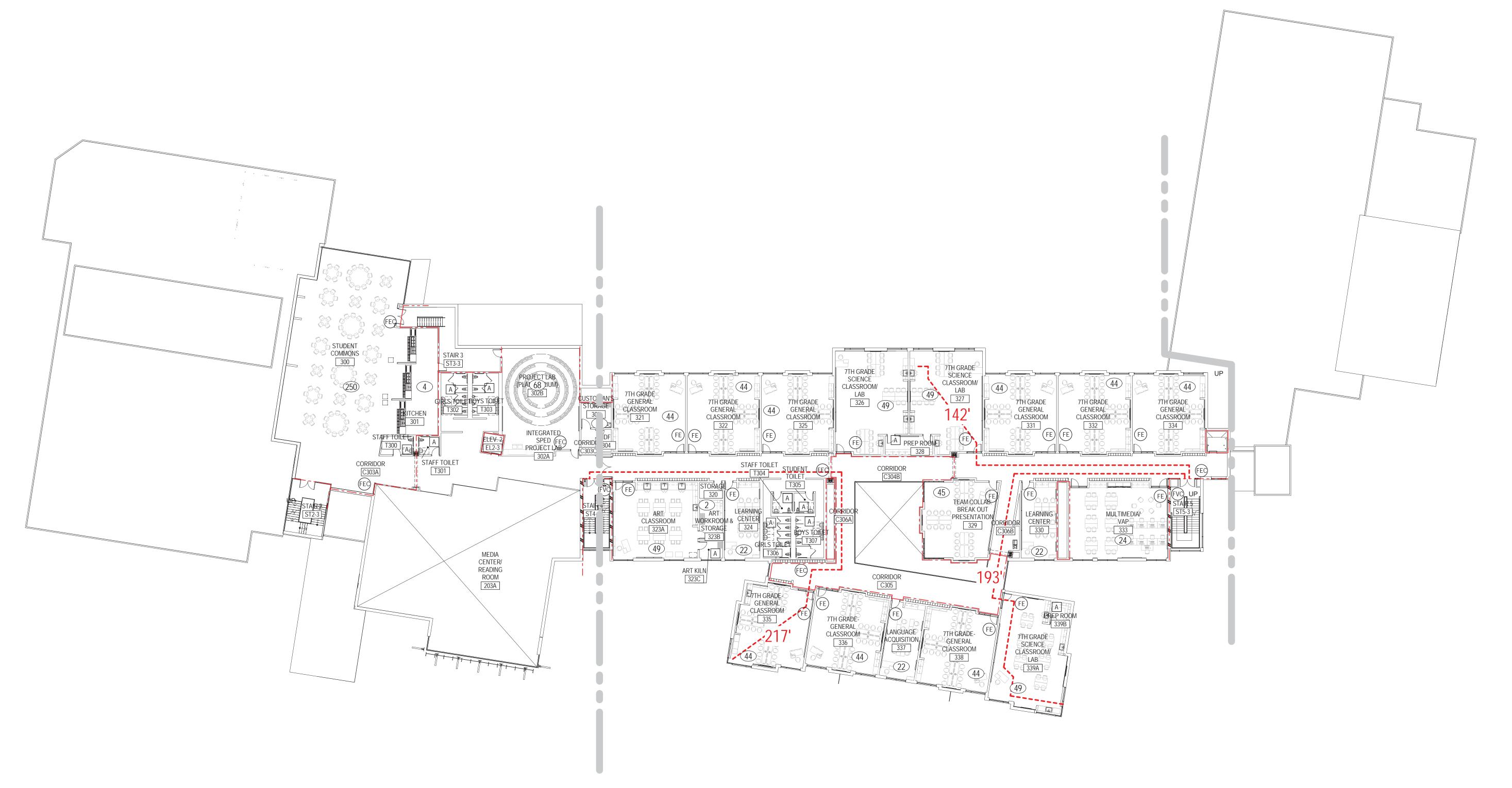
SECOND FLOOR FIRE SAFETY PLAN

DRAWN BY:

JOB NO.:

REVIEWED BY: SCALE: As indicated | DRAWING NUMBER:

DATE: DEC. 21, 2017



THIRD FLOOR FIRE SAFETY ANALYSIS:

TABLE 601 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

Building Element	Type IIIA
Primary structural frame Including columns, girders, trusses, & braces	1
Bearing walls	
Exterior	2
Interior	1
Exterior Nonbearing walls and partitions	See Table 60
Interior Nonbearing walls and partitions	0
Floor construction and secondary members Including supporting beams & joists	1
Roof construction and secondary members Including supporting beams & joists	1 (b,c)

Except in Group F-1, H, M and S-1 Occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.

c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

Chapter 10: Means of Egress Section 1002 Definitions

Common Path of Egress Travel: That portion of the exit access travel distance measured from the most remote point within a story to that point where the occupants have separate access to two exits or exit access doorways. Floor Area, Net: The actual occupied area not including unoccupied accessory areas such as corridors, stairways, ramps, toilet rooms, mechanical rooms and closets.

Means of Egress Sizing
1005.3.1 Stairways: The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.3 inch per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story. Exceptions:

1. For other than Group H and I-2 Occupancies, the capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.2 inch per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Total width Means of Egress in inches provided:

Stair 2 = 62 Inches Stair 3 = 42 Inches Stair 4 = 60 Inches

Stair 5 = 60 Inches

Total Design Egress Width = 224 Inches

<u>Third Floor Occupants</u> = 1,052 occupants Required Egress Width 1,052 Occupants x 0.2 inches per occupant = 211 Inches

<u>Design Egress Width</u> = 224 Inches

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KEYNOTE LEGEND: FIRE SAFETY PLAN LEGEND:

OCCUPANT LOAD

FIRE VALVE OR HOSE CABINET WITH EXTINGUISHER

FIRE EXTINGUISHER CABINET WALL MOUNTED FIRE EXTINGUISHER ACCESSORY SPACE

——192—— TRAVEL DISTANCE IN FEET 2 HR FIRE BARRIER 2 HR SHAFT WALL

1 HR FIRE BARRIER

2-HOUR FIRE RATING AT UNDERSIDE OF ROOF DECK & STRUCTURE, AT TOP OF ELEVATOR SHAFTS, ELEVATOR MACHINE ROOM CEILINGS AND WHERE SHAFTS TO NOT EXTEND TO THE BOTTOM OF THE BUILDING.

1-HOUR FIRE RATING AT UNDERSIDE OF ROOF DECK & STRUCTURE

GENERAL NOTES:

PROVIDE 2-A MINIMUM RATING SINGLE EXTINGUISHER THROUGHOUT - PER NFPA-10 c 2007 PROVIDE 20-B MINIMUM EXTINGUISHER RATING (ORDINARY HAZARD) PER NFPA-10 c 2007 AT THE FOLLOWING LOCATIONS:

MECHANICAL ELEVATOR EQUIPMENT ROOMS CAFETERIA/DINING CUSTODIAN RECEIVING AND SUPPLY

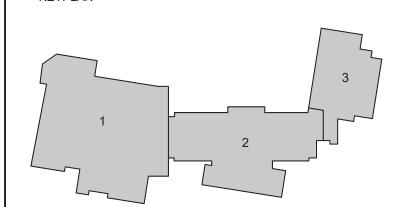
DESIGN NO. D902)

CUSTODIAN WORK/STORAGE PROVIDE FIRE RATED DOORS AND GLAZING IN WALLS DENOTED AS 1 AND 2 HOUR FIRE BARRIER ASSEMBLY ON PLANS G0.02 TO G0.05 FLOOR ASSEMBLY TO BE 1-HOUR FIRE RATED (UL

NORTH ARROW

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KEYPLAN



THIRD FLOOR FIRE SAFETY PLAN

DRAWN BY:

DATE: DEC. 21, 2017

DRAWING NAME:

REVIEWED BY: SCALE: As indicated | DRAWING NUMBER: JOB NO.:



FOURTH FLOOR FIRE SAFETY ANALYSIS:

TABLE 601 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

Building Element

Danaing Liomone	1,700
Primary structural frame Including columns, girders, trusses, & braces	1
Bearing walls Exterior Interior	2 1
Exterior Nonbearing walls and partitions	See Table 602
Interior Nonbearing walls and partitions	0
Floor construction and secondary members Including supporting beams & joists	1
Roof construction and secondary members Including supporting beams & joists	1 (b,c)

- b. Except in Group F-1, H, M and S-1 Occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

Chapter 10: Means of Egress Section 1002 Definitions

Common Path of Egress Travel: That portion of the exit access travel distance measured from the most remote point within a story to that point where the occupants have separate access to two exits or exit access doorways. Floor Area, Net: The actual occupied area not including unoccupied accessory areas such as

corridors, stairways, ramps, toilet rooms, mechanical rooms and closets.

Means of Egress Sizing

1005.3.1 Stairways: The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.3 inch per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story. Exceptions:

1. For other than Group H and I-2 Occupancies, the capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.2 inch per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

<u>Total width Means of Egress in inches provided:</u> Stair 2 = 62 Inches Stair 4 = 60 Inches

Total Design Egress Width = 182 Inches

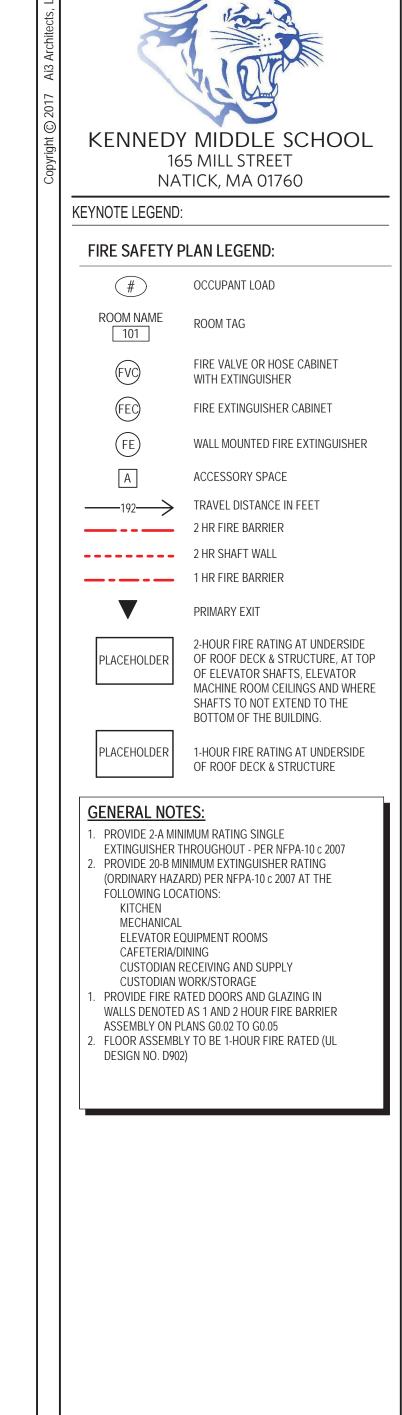
<u>Design Egress Width</u> = 182 Inches

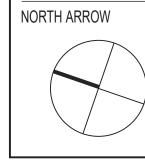
Stair 5 = 60 Inches

Fourth Floor Occupants = 749 occupants Required Egress Width 749 Occupants x 0.2 inches per occupant = 150 Inches

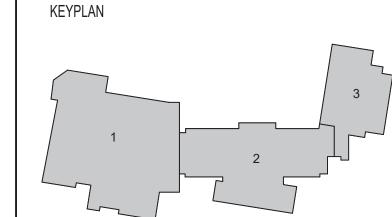


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		RTH FL SAFETY	.oor fire ' Plan	
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	REVIEWED BY	·		JI
	SCALE:	As indicated	DRAWING NUMBER:	

DATE: DEC. 21, 2017

	_ai3 MASTER KEYNOTE LEGEND
03 30 00.01	CONCRETE
04 20 00.01	CMU - STANDARD - NORMAL WEIGHT - REFERENCE DRAWINGS FOR DEPTH SIZE AND FIRE RATING
05 12 00.01	STEEL BEAM - SEE STRUCTURAL
05 12 00.16	STEEL CHANNEL - SEE STRUCTURAL
05 12 00.18 05 12 00.36	STEEL ANGLE CONTINUOUS - SEE STRUCTURAL STEEL PLATE BENT - SEE STRUCTURAL
05 31 00.01	COMPOSITE STEEL DECK - SEE STRUCTURAL
05 31 00.01	STEEL ROOF DECK - 1 1/2 INCH GALVANIZED - SEE STRUCTURAL
05 31 00.11	STEEL ROOF DECK - 3 INCH GALVANIZED - SEE STRUCTURAL
05 40 00.03	STEEL STUDS - 3 5/8 INCH - 16 INCHES O.C. MAX
05 40 00.19	STEEL Z-CLIP - 16 GAGE MIN 1 INCH MIN. DEPTH - 16 INCHES O.C. MAX
05 50 00.10	STEEL ANGLE - SEISMIC CLIP - SEE STRUCTURAL
05 50 00.93 06 10 00.04	ROOF ACCESS LADDER - INTERIOR WOOD BLOCKING - (2X) CONTINUOUS - PRESSURE TREATED - SIZE AS REQUIRED - ESTABLISH LEVEL INSTALLA' SURFACE FOR ROOFTOP CURB
06 10 00.21	WOOD BLOCKING - 2X FIRE RETARDANT TREATED - SIZE AS NOTED OR DRAWN
06 10 00.33	PLYWOOD - 5/8 INCH
06 10 00.42	PLYWOOD PRESSURE TREATED - 1/2 INCH
06 20 00.62 07 21 00.20	HARDBOARD STAGE FLOORING GLASS FIBER INSULATION
07 21 00.20	GLASS FIBER ACOUSTICAL BLANKET INSULATION - 6 INCH - UNFACED
07 21 00.22	GLASS FIBER ACOUSTICAL BLANKET INSULATION - 3 1/2 INCH - UNFACED
07 21 00.30	MINERAL FIBER INSULATION
07 21 00.31	MINERAL FIBER ACOUSTICAL INSULATION - 6 INCH
07 21 00.32	MINERAL FIBER ACOUSTICAL INSULATION - 3 1/2 INCH
07 21 00.40	FOAMED IN PLACE INSULATION / AIR BARRIER
07 54 19.04	POLYISO TAPERED INSULATION
07 54 19.05	FLASHING MEMBRANE
07 54 19.12	BLIND NAILER STAINLESS STEEL HOSE CLAMD
07 54 19.14 07 54 19.20	STAINLESS STEEL HOSE CLAMP PVC EXPANSION JOINT
07 54 19.20	ADHESIVE
07 54 19.90	SEALANT - CONTINUOUS
07 54 19.92	HOT-AIR WELD
07 62 00.40	SHEET METAL COLLAR
07 62 00.41	SHEET METAL RAIN HOOD
07 71 00.01	FACTORY FABRICATED FASCIA TRIM/ROOF EDGE - CUSTOM COLOR
07 72 00.02	ROOF SCUTTLE - TYPE 2 - 3'-0" x 4'-6"
07 72 00.10	NEOPRENE GASKET ENTIRE PERIMETER TYP.
07 72 00.12	SPRING LATCH W/ HANDLE AND PADLOCK HASP ON INSIDE
07 72 00.13 07 72 00.40	PADLOCK HASP WELDED ALUMINUM CURB
07 72 00.40	HEAT AND SMOKE VENT - 5'-0" x 10'-0"
07 81 00.01	CEMENTITIOUS FIREPROOFING
07 84 00.01	FIRE SAFING MINERAL WOOL
07 84 00.02	CAULK - CAULK AND PUTTY
07 92 00.01	JOINT SEALANT - TYPE AS REQUIRED
07 92 00.02	BACKER ROD AND SEALANT - TYPE AS REQUIRED
08 11 13.11	STEEL FRAME - SEE SCHEDULE FOR TYPES
08 11 13.20	STEEL FRAME CLIP BY FRAME INSTALLER
08 14 16.01 08 43 13.02	SOLID CORE FLUSH WOOD DOOR- SEE DOOR SCHEDULE ALUMINUM ENTRANCE DOOR
08 71 00.11	ALUMINUM THRESHOLD
09 21 23.11	METAL SHAFTWALL C-H STUD - 2 1/2 INCH - 24 INCHES O.C. MAX
09 21 23.21	GYPSUM SHAFTWALL LINER PANEL - 1 INCH
09 21 23.32	GYPSUM BOARD - 5/8 INCH TYPE "X" - 2 LAYERS
09 21 23.41	METAL SHAFTWALL C-STUD TRACK - 2 INCH
09 21 23.42	METAL SHAFTWALL H STUD - 2 INCH
09 21 23.51	ALUMINUM 2x2x2-1/2 INCH BREAKAWAY CLIP - MAX 10 FEET O.C. VERTICALLY
09 22 16.01 09 22 16.03	METAL STUD 1-5/8 INCH - 16 INCHES O.C. MAX METAL STUD 3-5/8 INCH - 16 INCHES O.C. MAX
09 22 16.05	METAL STUD 6 INCH - 16 INCHES O.C. MAX
09 22 16.08	METAL STUD 8 INCH - 16 INCHES O.C. MAX
09 22 16.20	METAL STUD - REFER TO FLOOR PLANS FOR DEPTH
09 22 16.21	METAL FURRING CHANNEL - 7/8 INCH - 16 INCHES O.C. MAX
09 22 16.31	BOXED HEADER
09 22 16.41	METAL DEFLECTION TRACK ASSEMBLY
09 22 16.42	METAL DEFLECTION TRACK ASSEMBLY - FIRE RATED
09 22 16.52	DOUBLE STUD JAMB - SIZE AS REQUIRED
09 22 16.99	METAL CLIP FOR WALL FRAMING - 16 GA 24 INCHES O.C. MAX
09 29 00.01	5/8 INCH GYPSUM BOARD - LEVEL 4 FINISH 5/8 INCH GYPSUM BOARD - 2 LAYERS - LEVEL 4 FINISH
09 29 00.02 09 29 00.43	5/8 INCH GYPSUM BUARD - 2 LAYERS - LEVEL 4 FINISH CORNER BEAD
09 29 00.43	GYPSUM BOARD SYSTEM - LEVEL 4 FINISH - REFER TO FLOOR PLANS AND WALL TYPES FOR COMPONENTS
09 30 13.01	CERAMIC MOSAIC FLOOR TILE
09 30 13.11	GLAZED CERAMIC WALL TILE
09 30 13.31	MARBLE THRESHOLD
09 30 13.43	THICK SET TILE SETTING BED
09 30 13.51	CEMENTITIOUS BACKING BOARD
09 30 13.61	ALUMINUM CORNER TRIM
09 30 16.01	QUARRY TILE
09 30 19.01 09 30 19.51	PORCELAIN FLOOR TILE CEMENTITIOUS BACKING BOARD
09 30 19.51	ALUMINUM FLOOR TRANSITION STRIP
09 64 29.01	WOOD STRIP AND PLANK FLOOR
09 64 66.01	WOOD ATHLETIC FLOOR
09 65 13.01	RUBBER BASE - 4"
09 65 23.11	TRANSITION STRIP
09 65 43.01	LINOLEUM SHEET FLOORING
09 65 43.11	TRANSITION STRIP
09 68 00.01	CARPET
09 68 00.11	RUBBER CARPET REDUCING STRIP
09 91 00.01	PAINT - SEE SCHEDULE
12 48 13.01	RECESSED ENTRANCE MAT - REFERENCE DRAWINGS FOR SIZE
12 48 13.05	EXTRUDED ALUMINUM RECESSED FRAMING - Z SHAPE EYTDLIDED ALLIMINIUM DECESSED EDAMING - L SHADE
12 48 13.10 22 00 00.20	EXTRUDED ALUMINUM RECESSED FRAMING - L SHAPE ROOF DRAIN ASSEMBLY - SEE PLUMBING
22 00 00.20 22 00 00.21	FLOOR DRAIN - SEE PLUMBING FLOOR DRAIN - SEE PLUMBING
22 00 00.21	DRAIN PIPE - SEE PLUMBING
	ROOF TOP UNIT - SEE HVAC
23 00 00.06	TOOL TO GIVE GEETIVE



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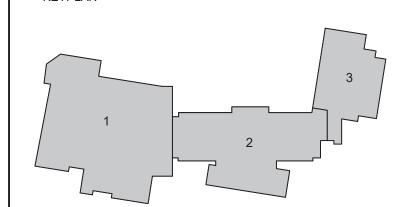
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KEYNOTE LEGEND:

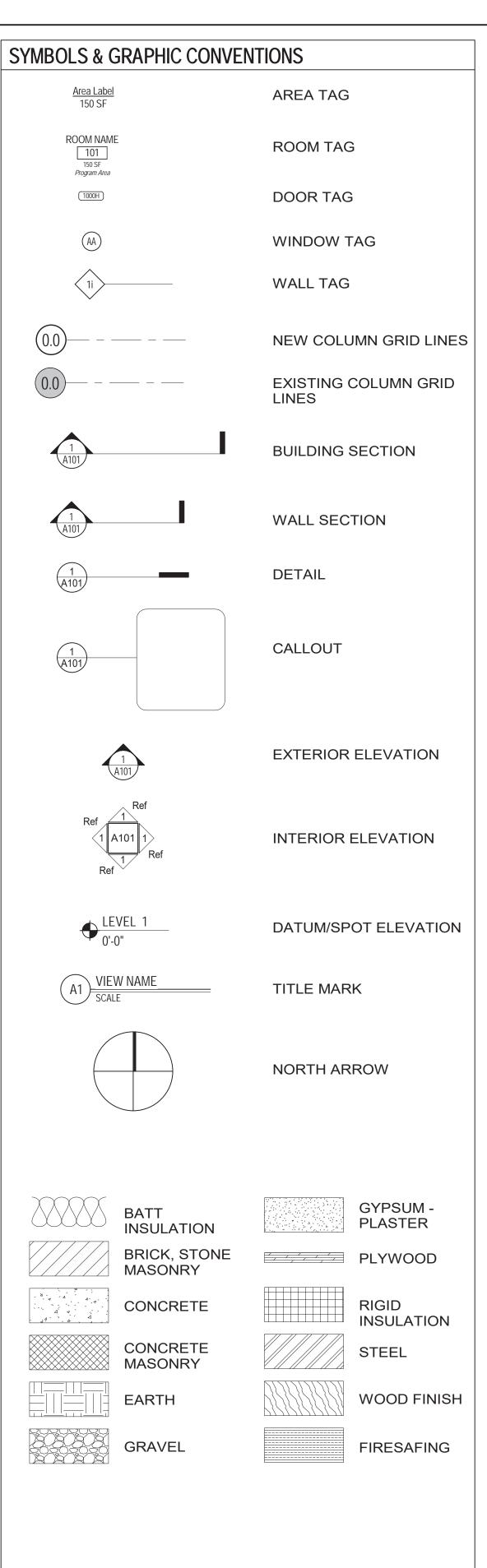
GENERAL NOTES: 1. SAMPLE TEXT

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ARCHITECTURAL ABBREVIATION LIST FA FIRE ALARM OVERALL TREAD ACRE AC FAB FABRICATE ON CENTER **TONGUE & GROOVE** AIR CONDITIONING FAF ACST FLUID-APPLIED ATHLETIC FLOORING **OUTSIDE DIAMETER** TACK BOARD ACOUSTICAL ACT ACOUSTICAL CEILING TILE FLAT BAR OFOI TOP OF CURB OWNER FURNISHED / OWNER INSTALLED AD AREA DRAIN FLOOR DRAIN OFCI OWNER FURNISHED / CONTRACTOR INSTALLED TEL TELEPHONE ADD FIRE DEPARTMENT VALVE CABINET ADDENDUM FDVC OVERHEAD TEMP TEMPORARY, TEMPERATURE ADDL OPER OPERABLE ADDITIONAL FIRE EXTINGUISHER THIN-FILM EPOXY FLOORING ADJ OPNG ADJUSTABLE, ADJACENT OPENING THICK FIRE EXTINGUISHER CABINET AFF OPP THRESHOLD ABOVE FINISH FLOOR FLOOR EXPANSION JOINT OPPOSITE AGGR AGGREGATE FINISH FLOOR OUNCE TOILET FIRE HYDRANT TOP OF AHU AIR HANDLING UNIT TOP OF BLOCKING ALT FINISH ALTERNATE PAINT FINISH GRADE **ALUMINUM** TOP OF CONCRETE PARALLEL PAR ANOD ANODIZED FIX FIXED TOP OF FOUNDATION PERF PERFORATED ACCESS PANEL FIXT **FIXTURE** TOP OF STEEL PERP PERPENDICULAR APRX APPROXIMATE FLASH FLASHING TRACK PG PAINT GRADE TUBE STEEL FLEX FLEXIBLE ARCHITECTURAL PLATE AVG **FLUOR** FLUORESCENT TELEVISION AVERAGE PLASTIC LAMINATE FLR **FLOOR** TOP OF WALL PLBG PLUMBING FND **FOUNDATION** TYPICAL ANGLE PLAS PLASTER **FPRF** FIRE PROOFING TERRAZZO PNL PANEL, PANELING FIRE RETARDANT TREATED POL POLISHED FOOD SERVICE PAIR FT FOOT, FEET BRICK COURSE UNDERCUT PRFB PREFABRICATED BD FTG FOOTING BOARD UNDERWRITERS LABORATORY PRTBD PARTICLE BOARD BG **BELOW GRADE** FTR FINNED TUBE RADIATION UNO UNLESS OTHERWISE NOTED POUNDS PER SQUARE INCH PSI **FURN BUILDING LINE FURNITURE** UR PRESSURE TREATED FURR BLDG **FURRING** BUILDING UV UNIT VENTILATOR, ULTRAVIOLET PTD PAINTED FUT **FUTURE** BLK BLACK PTN PARTITION BLKG **BLOCKING** PWD PLYWOOD BLR BOILER GA GUAGE BM BEAM, BENCHMARK VINYL BASE GALV GALVANIZED BTM BOTTOM VCT VINYL COMPOSITE TILE GC GENERAL CONTRACTOR BTU BRITISH THERMAL UNIT **VERT** VERTICAL QUARTER ROUND GEN GENERAL, GENERATOR BOW BOTTOM OF WALL VESTIBULE QUARRY TILE GFRG GLASS FIBER REINFORCED GYPSUM VERIFY IN FIELD QUAL QUALITY GFRP GLASS FIBER REINFORCED PLASTER VENEER PLASTER QUAN QUANTITY GL **GLASS** VTR VENT THROUGH ROOF GND GROUND CAB CABINET VINYL WALLCOVERING GWB GYPSUM WALL BOARD CB CHALK BOARD GYPSUM CBN RADIUS, RISER, RUBBER CATCH BASIN CJ RUBBER BASE CONTROL JOINT WEST, WIDE, WIDTH **RCPT** RECEPTACLE CENTERLINE HIGH WITH CLG **ROOF DRAIN** CEILING HC **HOLLOW CORE** W/O WITHOUT CLKG RECESSED CAULKING WOOD ATHLETIC FLOORING VENTED BASE HARDWARE CLOS RECT RECTANGULAR CLOSET HM **HOLLOW METAL** REF WOOD ATHLETIC FLOORING REFERENCE CLR CLEAR WATER CLOSET HORZ HORIZONTAL REFL REFLECTED CLSRM CLASSROOM CMT HP HIGH POINT REFR REFRIGERATOR CERAMIC MOSAIC TILE HR WALL EXPANSION JOINT HOUR CMTB REINF REINFORCED CERAMIC MOSAIC TILE BASE HORIZONTAL SLIDING MARKER BOARD WIDE FLANGE CMU REQD REQUIRED CONCRETE MASONRY UNIT WATER HEATER COL RESIL COLUMN RESILIENT HEATING VENTILATION & AIR CONDITIONING **WORK POINT** REVISE, REVERSE COMP COMPRESSIBLE HW HOT WATER WATER PROOFING RIGHT HAND CONC CONCRETE HARDWOOD WSF WOOD STRIP FLOORING RIGHT HAND REVERSE CONST CONSTRUCTION WEIGHT, WT (STEEL SHAPE) CONT RAIN LEADER CONTINUOUS CONTRACTOR ROUGH OPENING CORR CORRIDOR CROSSBAR CPT CARPET RUBBER RISER INSIDE DIAMETER EXTRA HEAVY CRS COURSE INCH, INCHES EXTRA LARGE RUBBER TILE, RUBBER TREAD CT CERAMIC TILE INCLUDE, INCLUSIVE CTB CERAMIC TILE BASE INSULATION, INSULATED CTR CENTER INT INTERIOR CUH CABINET UNIT HEATER SOUTH YARD INVERT, INVERSE YEAR CW SOLID CORE ΥR COLD WATER YS YIELD STRENGTH CHANNEL SCHD SCHEDULE STATIC-CONTROL RESILIENT FLOORING SECT SECTION JAN JT **JANITOR** JOINT SEGMENT MODULUS OF SECTION DEEP SQUARE FOOT ΖN ZINC DBL DEG DOUBLE SHELF DEGREE SHEET DEMO DEMOLITION SHOWER KD KNOCKED DOWN DEPARTMENT SEAMLESS SHEET VINYL KITCHEN EQUIPMENT CONTRACTOR DET DETAIL SIMILAR KITCHEN DF DRINKING FOUNTAIN SLOTTED HORIZONTAL DIA KILOWATT KW DIAMETER SLOTTED VERTICAL KILOWATT PER HOUR DIFF DIFFUSER SMFL SEAMLESS FLOORING DIM DIMENSION SPEC SPECIFICATION DISP DISPENSER SQUARE DIV DIVISION SQUARE INCH LEFT, LONG DN DOWN STAINLESS STEEL LAMINATE, LAMINATED DPFG DAMPROOFING SSM SOLID SURFACE MATERIAL LAVATORY DR DOOR STREET DRW DRAWER STA STATION LINEAR FOOT, LINEAR FEET DS DOWNSPOUT SOUND TRANSMISSION CLASSIFICATION LEFT HAND DWG DRAWING STD STANDARD LOW POINT STEEL LIGHT STORAGE LTG LIGHTING STRUCTURE STR EAST STRL STRUCTURAL EΑ EACH SUBCONTRACTOR **EXPANSION JOINT** ENTRANCE MATS, ENTRANCE GRATE SUSPENDED ELEVATION MATERIAL SOFT WOOD ELECTRICAL SYM SYMMETRICAL MAXIMUM ELEV ELEVATOR SYN SYNTHETIC MARKER BOARD **EMER EMERGENCY** SYST MECHANICAL SYSTEM **ENCLOSURE ENCL** MEMB MEMBRANE ENTR ENTRANCE MFR MANUFACTURER ELECTRICAL PANEL, EPOXY PAINT MINIMUM EQ **EQUAL** MISCELLANEOUS **EQUIP EQUIPMENT** MO MASONRY OPENING **EWC** ELECTRIC WATER COOLER MOISTURE RESISTANCE EX EXISTING MTD MOUNTED EXCV **EXCAVATION** MTG MOUNTING, MEETING EXP **EXPOSED** MTL METAL EXT **EXTERIOR** MUL MULLION EXTRUDED EXTR NORTH NATURAL NAT NOT IN CONTRACT NO NUMBER NOMINAL NOISE REDUCTION COEFFICIENT NOT TO SCALE



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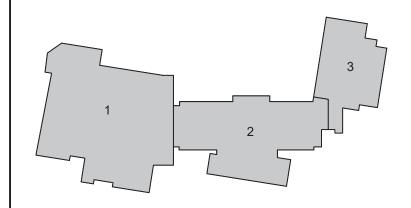
KENNEDY MIDDLE SCHOOL
165 MILL STREET
NATICK, MA 01760

KEYNOTE LEGEND:

NORTH ARROW

SCHEMATIC DESIGN

KEYPLAN



DRAWING NAME:

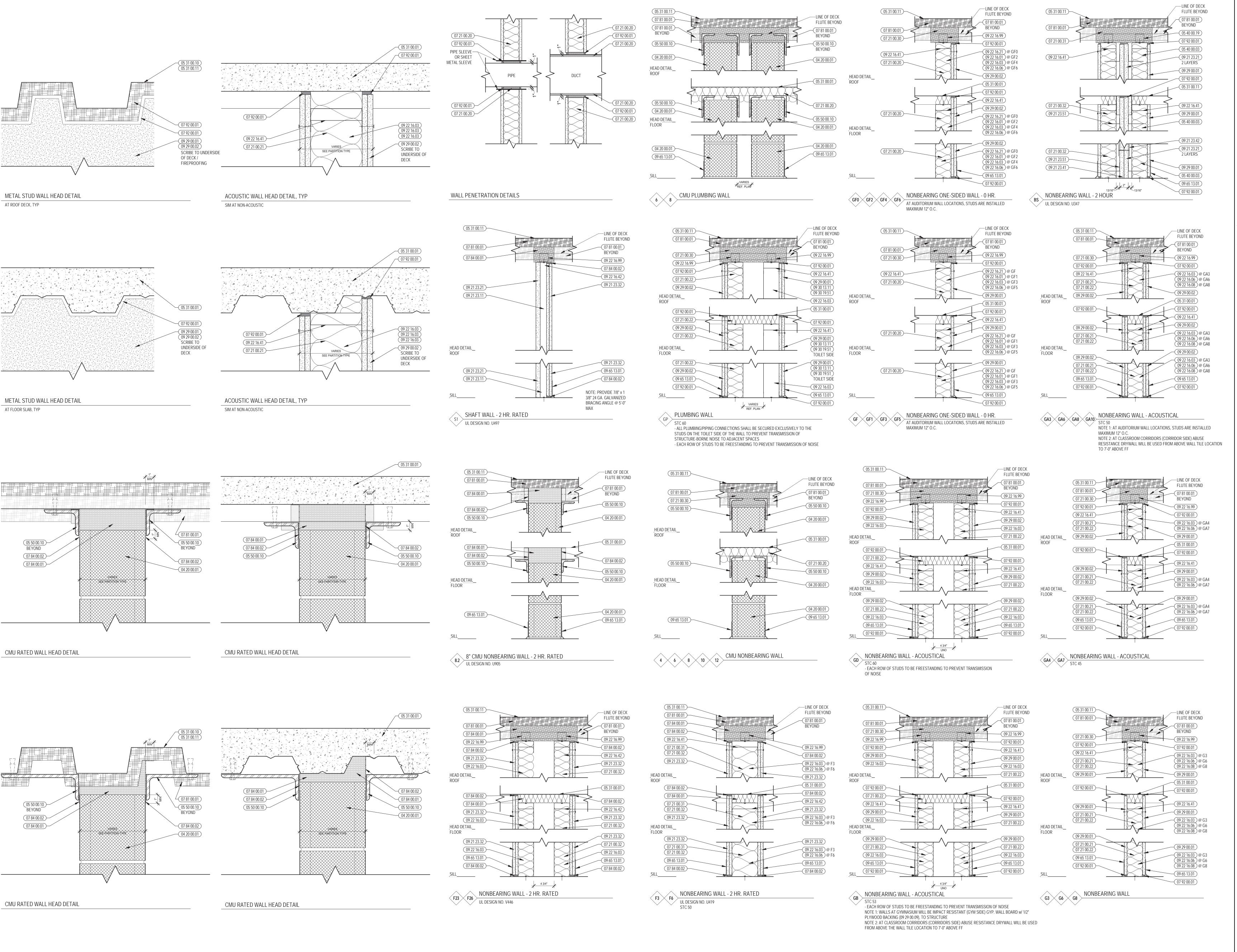
ABBREVIATIONS, SYMBOLS & MATERIALS INDICATIONS

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REVIEWED BY:

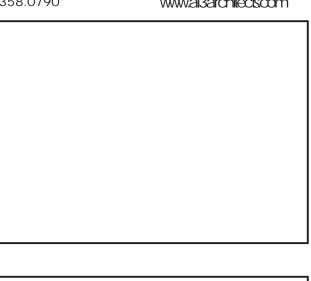
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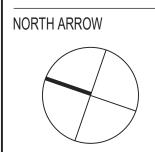
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	KEYNOTE L	EGEND:
	04 20 00.01	CMU - STANDARD - NORMAL WEIGHT - REFERENCE DRAWINGS FOR DEPTH SIZE AND FIRE RATING
	05 31 00.01	COMPOSITE STEEL DECK - SEE STRUCTURAL
	05 31 00.10	STEEL ROOF DECK - 1 1/2 INCH GALVANIZED - SE STRUCTURAL
	05 31 00.11	STEEL ROOF DECK - 3 INCH GALVANIZED - SEE STRUCTURAL
١	05 40 00.03	STEEL STUDS - 3 5/8 INCH - 16 INCHES O.C. MAX
	05 40 00.19	STEEL Z-CLIP - 16 GAGE MIN 1 INCH MIN. DEPTH - 16 INCHES O.C. MAX
١	05 50 00.10	STEEL ANGLE - SEISMIC CLIP - SEE STRUCTURAL
	07 21 00.20	GLASS FIBER INSULATION
	07 21 00.21	GLASS FIBER ACOUSTICAL BLANKET INSULATION - 6 INCH - UNFACED
	07 21 00.22	GLASS FIBER ACOUSTICAL BLANKET INSULATION - 3 1/2 INCH - UNFACED
1	07 21 00.30	MINERAL FIBER INSULATION
ı	07 21 00.31	MINERAL FIBER ACOUSTICAL INSULATION - 6 INC
	07 21 00.32	MINERAL FIBER ACOUSTICAL INSULATION - 3 1/2 INCH
1	07 81 00.01	CEMENTITIOUS FIREPROOFING
ı	07 84 00.01	FIRE SAFING MINERAL WOOL
	07 84 00.02	CAULK - CAULK AND PUTTY
	07 92 00.01	JOINT SEALANT - TYPE AS REQUIRED
	09 21 23.11	METAL SHAFTWALL C-H STUD - 2 1/2 INCH - 24 INCHES O.C. MAX
ı	09 21 23.21	GYPSUM SHAFTWALL LINER PANEL - 1 INCH
	09 21 23.32	GYPSUM BOARD - 5/8 INCH TYPE "X" - 2 LAYERS
	09 21 23.41	METAL SHAFTWALL C-STUD TRACK - 2 INCH
	09 21 23.42	METAL SHAFTWALL H STUD - 2 INCH
	09 21 23.51	ALUMINUM 2x2x2-1/2 INCH BREAKAWAY CLIP - MAX 10 FEET O.C. VERTICALLY
	09 22 16.01	METAL STUD 1-5/8 INCH - 16 INCHES O.C. MAX
	09 22 16.03	METAL STUD 3-5/8 INCH - 16 INCHES O.C. MAX
	09 22 16.06	METAL STUD 6 INCH - 16 INCHES O.C. MAX
	09 22 16.08	METAL STUD 8 INCH - 16 INCHES O.C. MAX
	09 22 16.21	METAL FURRING CHANNEL - 7/8 INCH - 16 INCHES O.C. MAX
١	09 22 16.41	METAL DEFLECTION TRACK ASSEMBLY
	09 22 16.42	METAL DEFLECTION TRACK ASSEMBLY - FIRE RATED
	09 22 16.99	METAL CLIP FOR WALL FRAMING - 16 GA 24 INCHES O.C. MAX
١	09 29 00.01	5/8 INCH GYPSUM BOARD - LEVEL 4 FINISH
	09 29 00.02	5/8 INCH GYPSUM BOARD - 2 LAYERS - LEVEL 4 FINISH
	09 30 13.11	GLAZED CERAMIC WALL TILE
ı	09 30 19.51	CEMENTITIOUS BACKING BOARD
Į.		



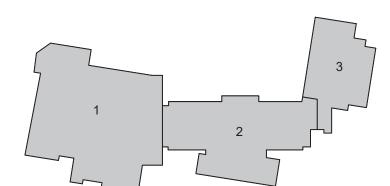
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KEYPLAN

SCALE:

JOB NO.:

DATE:



DRAWING NAME:

PARTITION TYPES

DRAWN BY: MJR

REVIEWED BY: JPT

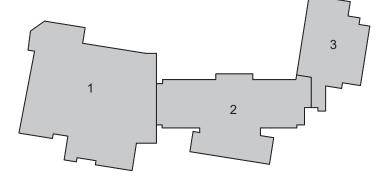
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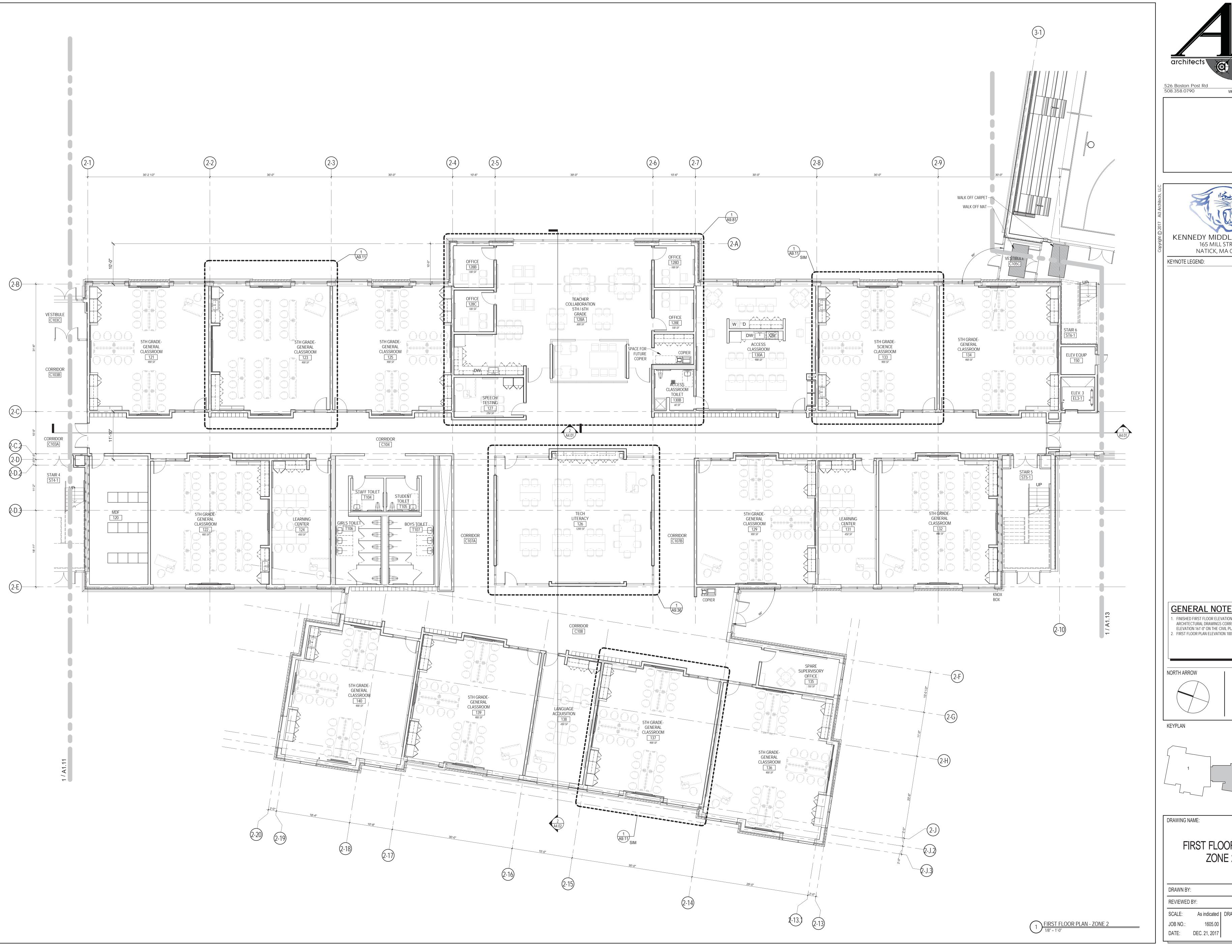
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OVERALL FIRST FLOOR

MJR/ HM/ SJL





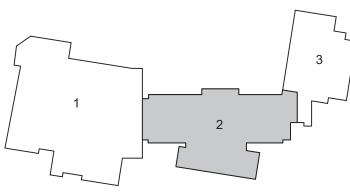


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KENNEDY MIDDLE SCHOOL 165 MILL STREET NATICK, MA 01760

GENERAL NOTES: 1. FINISHED FIRST FLOOR ELEVATION 100'-0" ON ARCHITECTURAL DRAWINGS CORRESPONDS WITH ELEVATION 161'-0" ON THE CIVIL PLANS.
2. FIRST FLOOR PLAN ELEVATION 100'-0"

SCHEMATIC



FIRST FLOOR PLAN ZONE 2

SCALE: As indicated | DRAWING NUMBER:

MJR/ HM/ SJL





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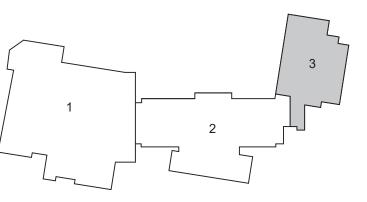


GENERAL NOTES: 1. FINISHED FIRST FLOOR ELEVATION 100'-0" ON ARCHITECTURAL DRAWINGS CORRESPONDS WITH ELEVATION 161'-0" ON THE CIVIL PLANS.

2. FIRST FLOOR PLAN ELEVATION 100'-0"

NORTH ARROW

SCHEMATIC



DRAWING NAME: FIRST FLOOR PLAN ZONE 3

REVIEWED BY:

SCALE: As indicated | DRAWING NUMBER: JOB NO.: DATE: DEC. 21, 2017

MJR/HM/SJL





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KENNEDY MIDDLE SCHOOL

165 MILL STREET

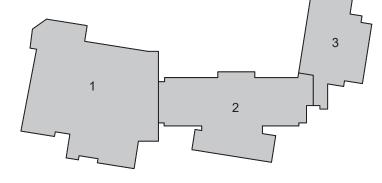
NATICK, MA 01760

KEYNOTE LEGEND:

GENERAL NOTES: FINISHED SECOND FLOOR ELEVATION 100'-0" ON ARCHITECTURAL DRAWINGS CORRESPONDS WITH ELEVATION 161'-0" ON THE CIVIL PLANS.
 SECOND FLOOR PLAN ELEVATION 114'-0"

NORTH ARROW





DRAWING NAME:

OVERALL SECOND FLOOR PLAN

1" = 20'-0"

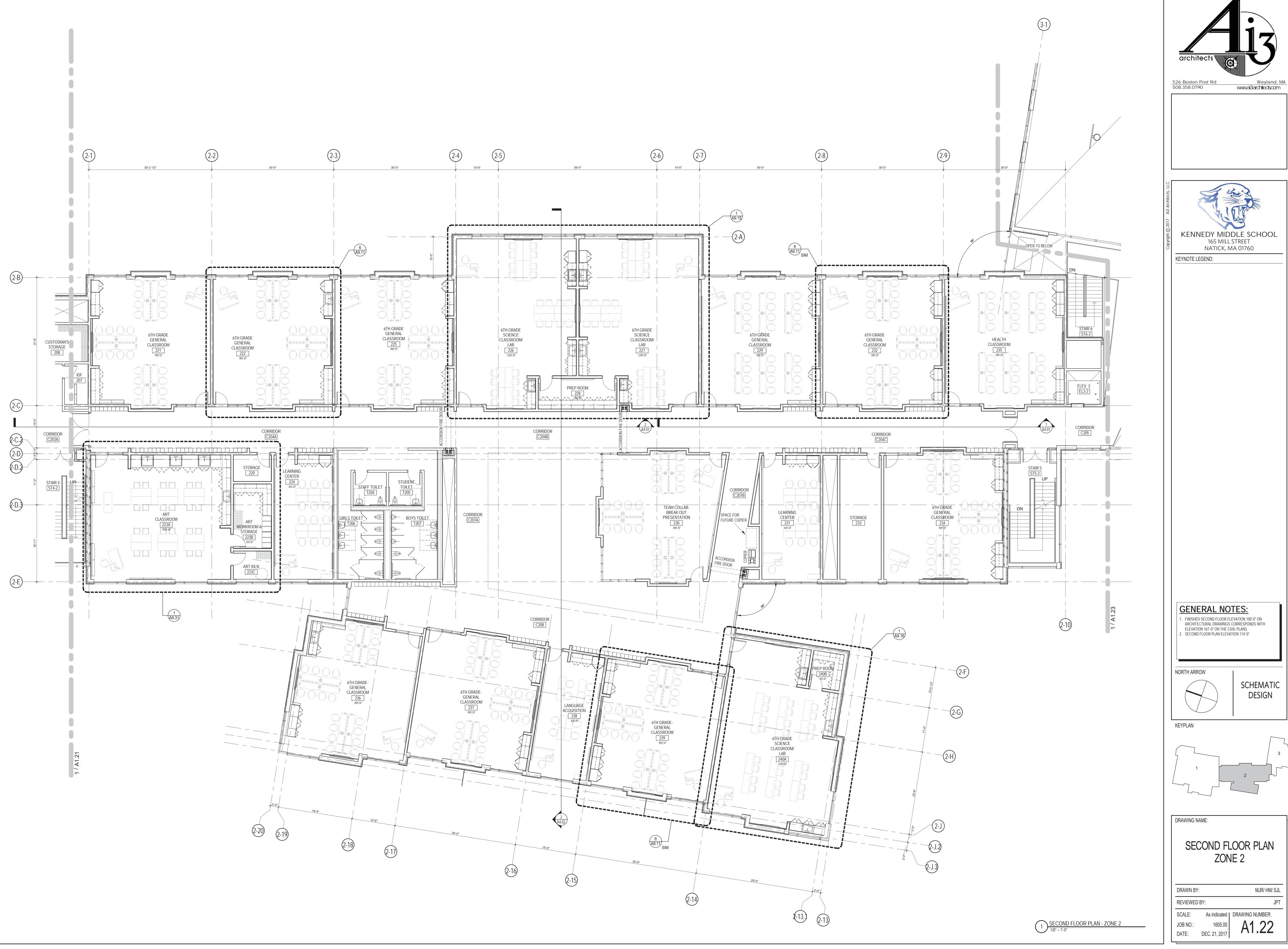
OVERALL SECOND FLOOR PLAN

DRAWN BY: REVIEWED BY:

SCALE: As indicated | DRAWING NUMBER: JOB NO.: DATE: DEC. 21, 2017

MJR/ HM/ SJL



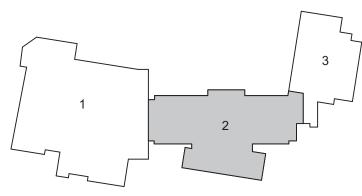






GENERAL NOTES: FINISHED SECOND FLOOR ELEVATION 100'-0" ON ARCHITECTURAL DRAWINGS CORRESPONDS WITH





SECOND FLOOR PLAN ZONE 2

MJR/ HM/ SJL SCALE: As indicated | DRAWING NUMBER:





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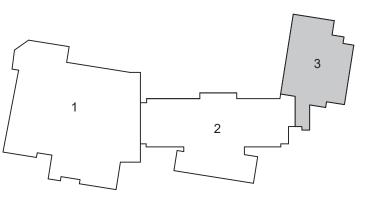
GENERAL NOTES:

FINISHED SECOND FLOOR ELEVATION 100'-0" ON ARCHITECTURAL DRAWINGS CORRESPONDS WITH ELEVATION 161'-0" ON THE CIVIL PLANS.
 SECOND FLOOR PLAN ELEVATION 114'-0"

NORTH ARROW

SCHEMATIC DESIGN

KEYPLAN

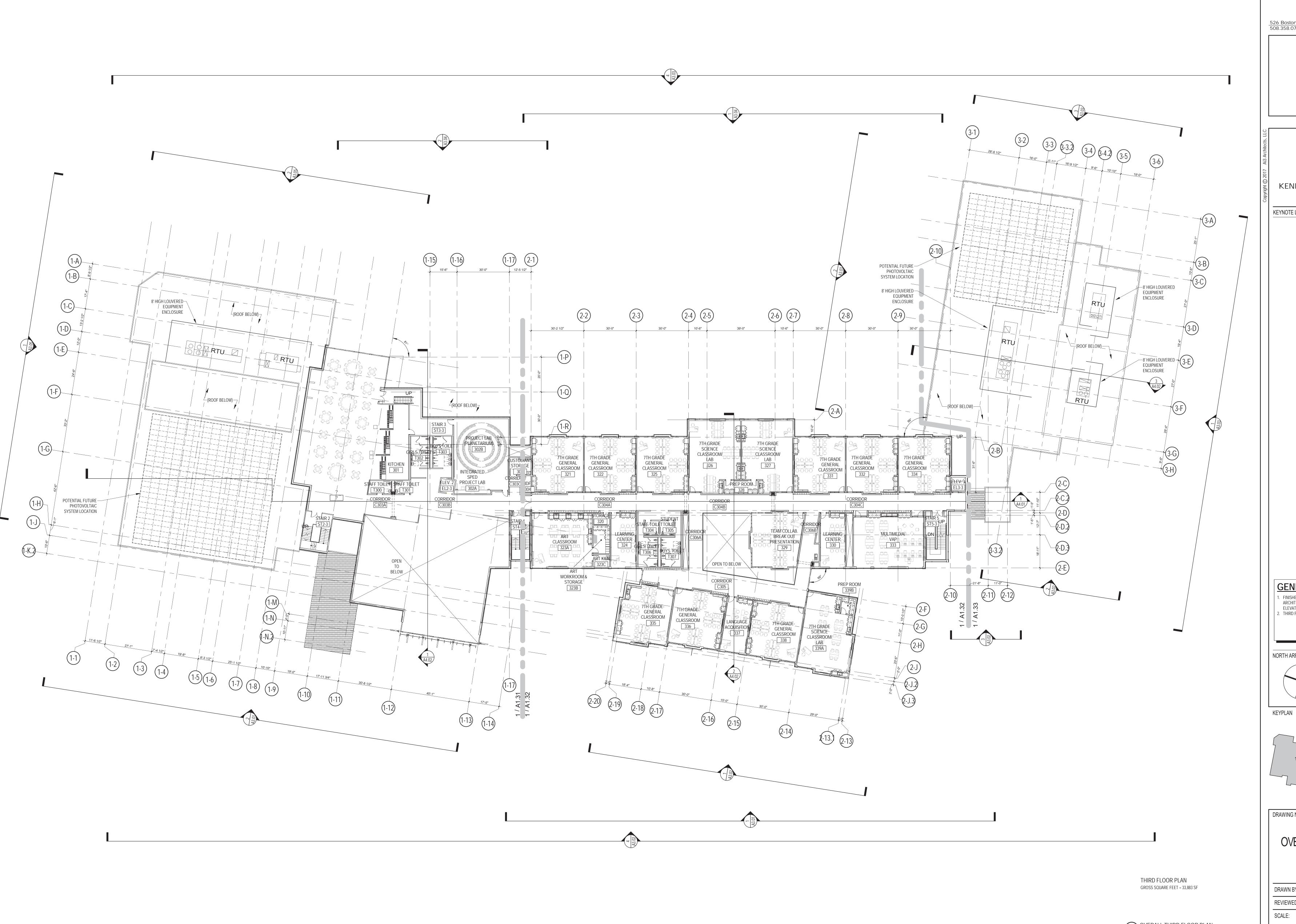


DRAWING NAME: SECOND FLOOR PLAN ZONE 3

REVIEWED BY:

SCALE: As indicated | DRAWING NUMBER:

MJR/ HM/ SJL





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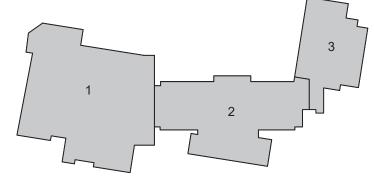


KEYNOTE LEGEND:

GENERAL NOTES: FINISHED THIRD FLOOR ELEVATION 100'-0" ON ARCHITECTURAL DRAWINGS CORRESPONDS WITH ELEVATION 161'-0" ON THE CIVIL PLANS.
 THIRD FLOOR PLAN ELEVATION 128'-0"

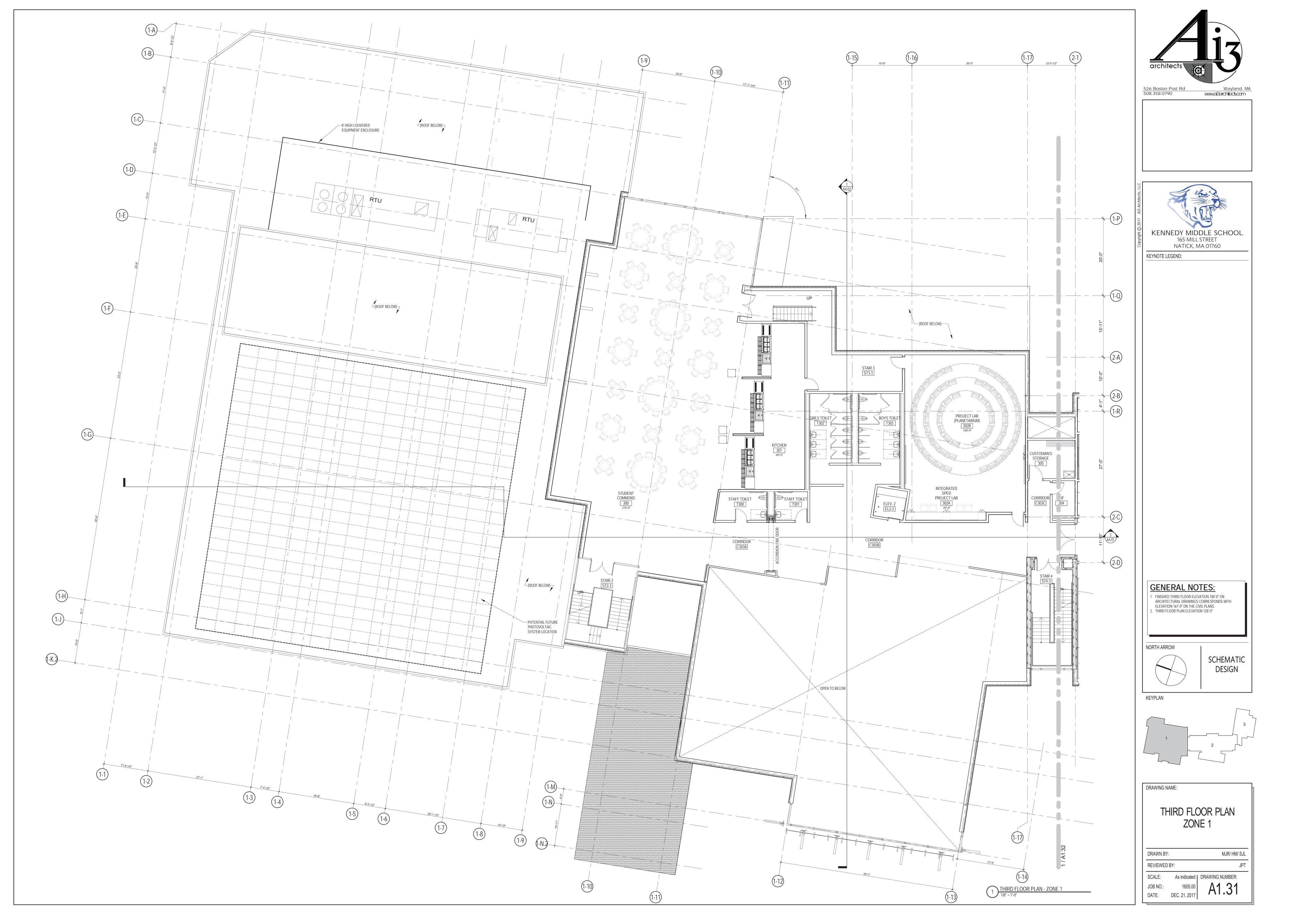
NORTH ARROW

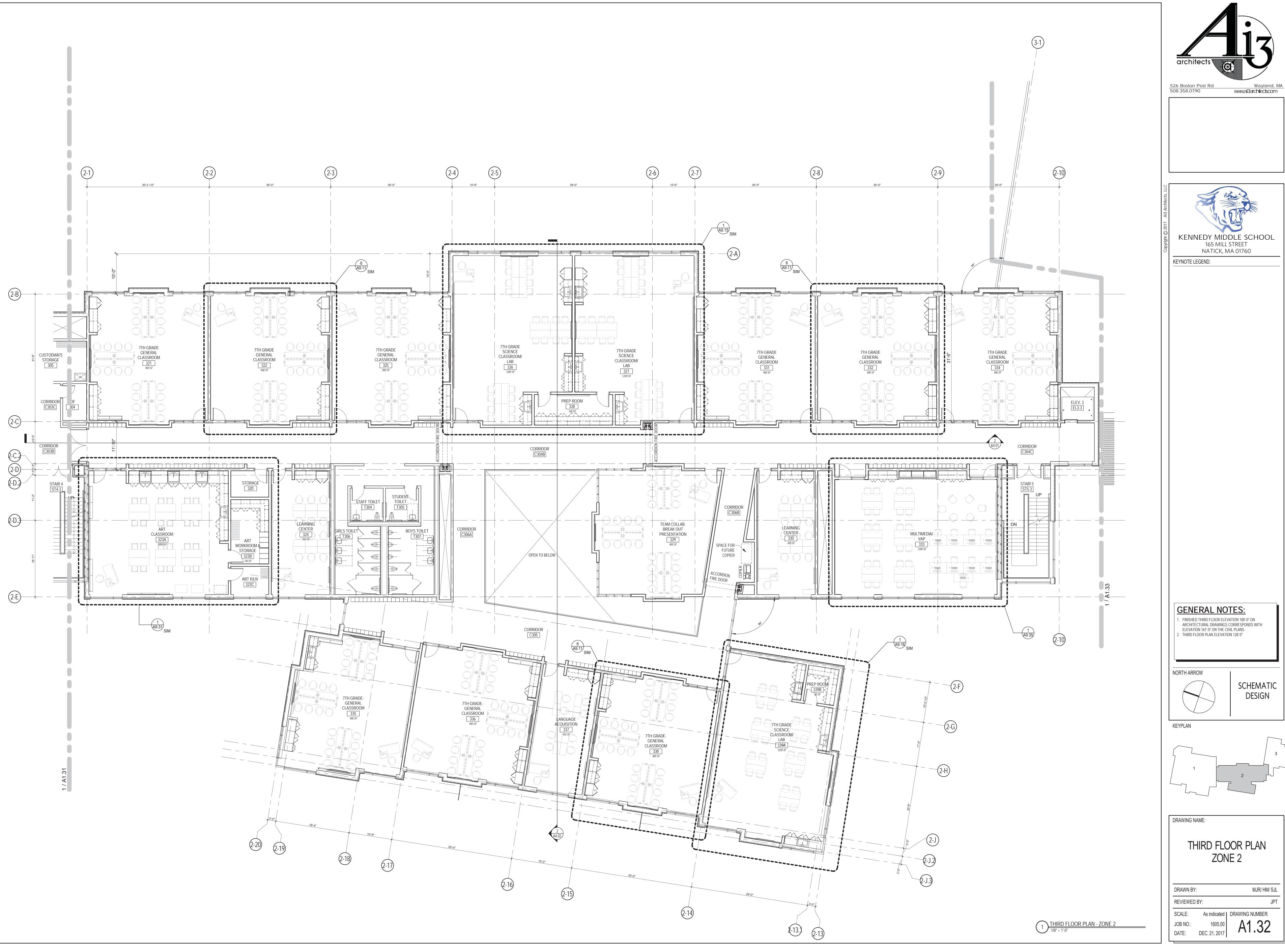
SCHEMATIC DESIGN



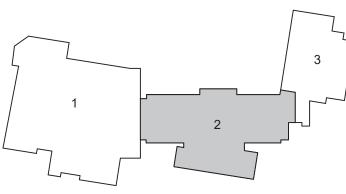
DRAWING NAME: OVERALL THIRD FLOOR PLAN

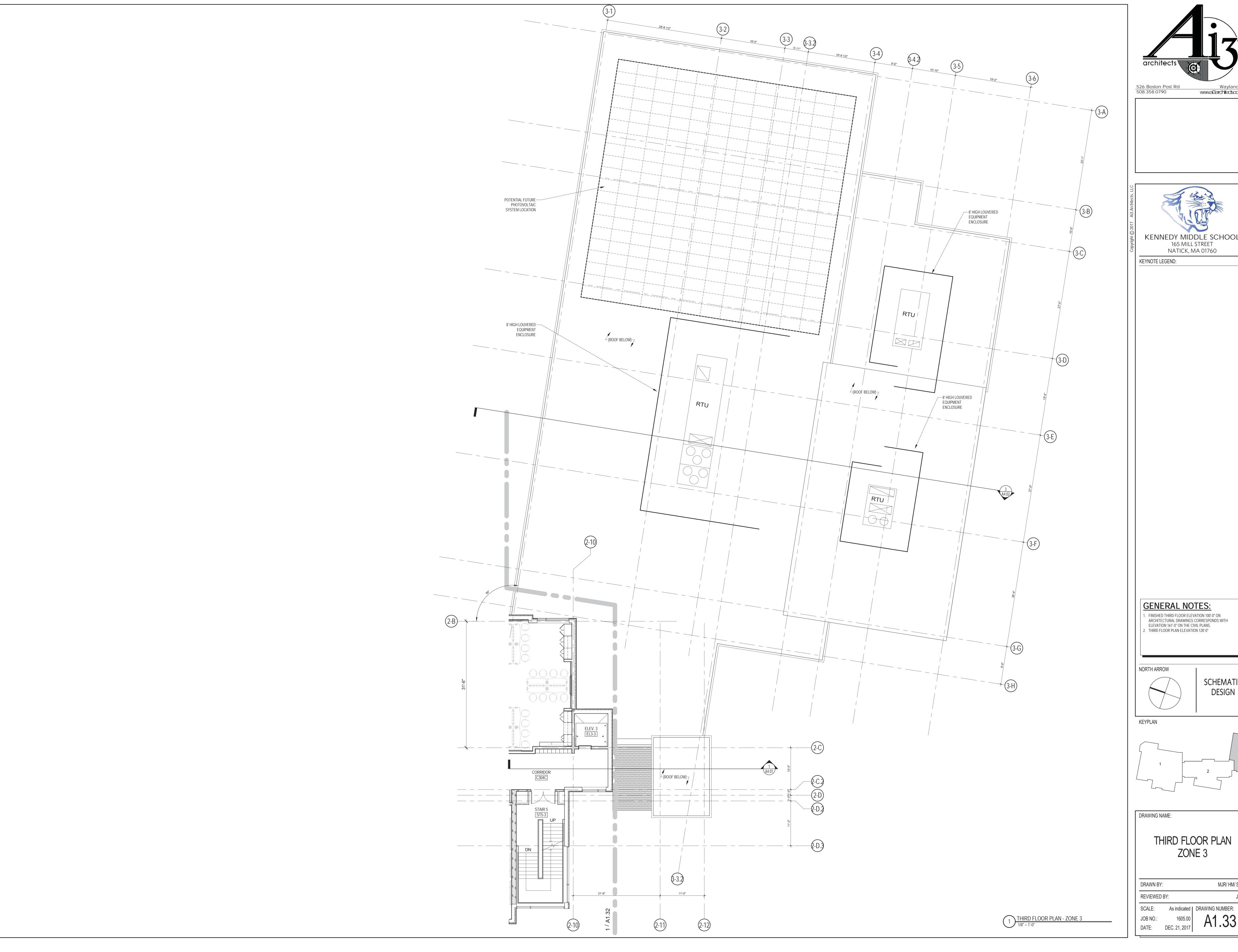
MJR/ HM/ SJL REVIEWED BY: SCALE: As indicated | DRAWING NUMBER: JOB NO.: DATE: DEC. 21, 2017





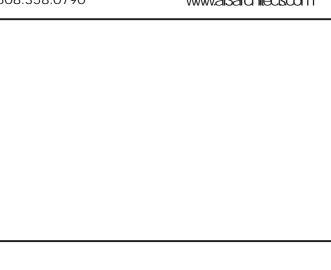


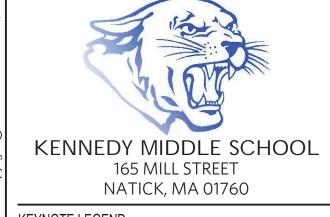






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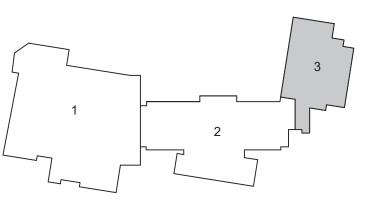




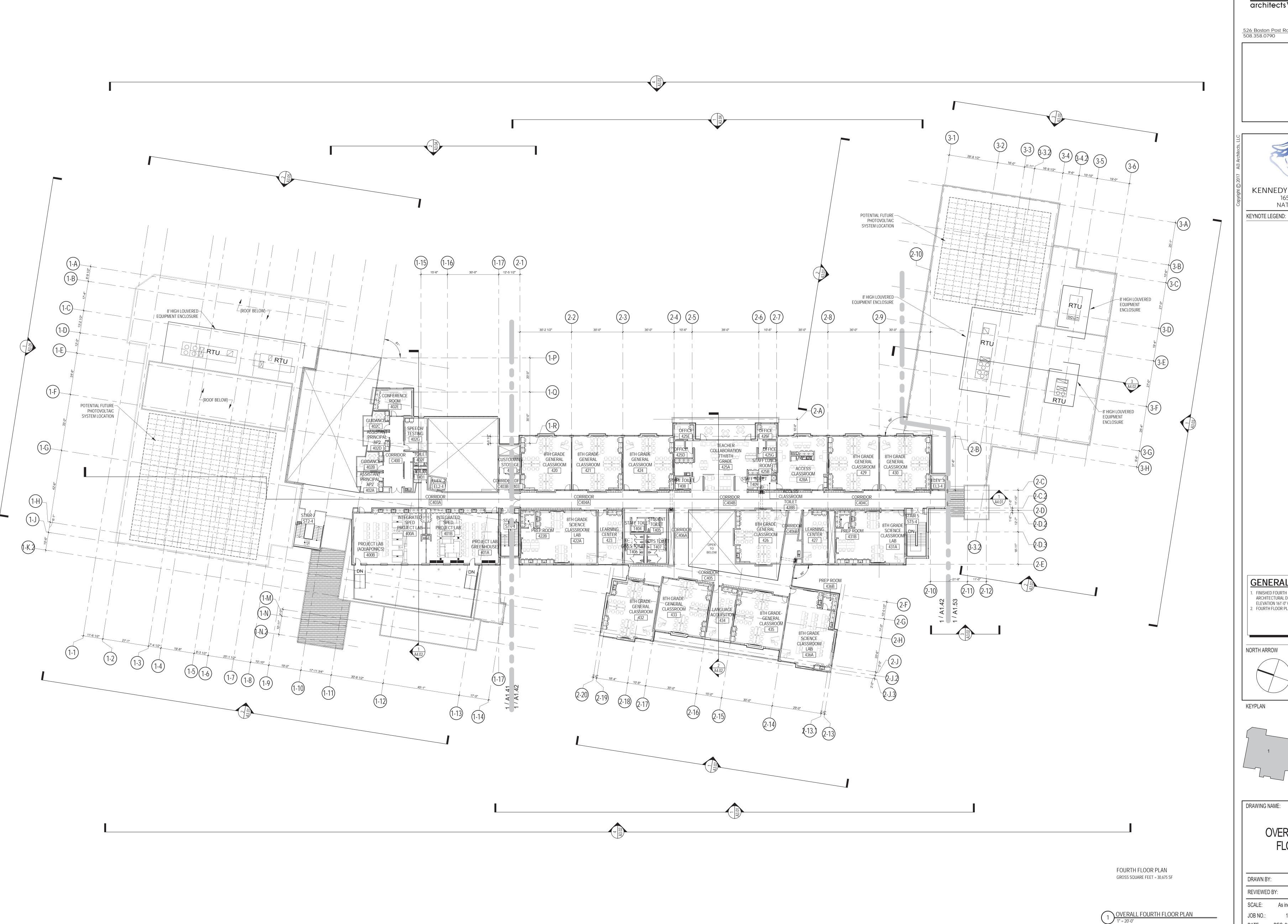
GENERAL NOTES: 1. FINISHED THIRD FLOOR ELEVATION 100'-0" ON ARCHITECTURAL DRAWINGS CORRESPONDS WITH ELEVATION 161'-0" ON THE CIVIL PLANS.

2. THIRD FLOOR PLAN ELEVATION 128'-0"

> SCHEMATIC DESIGN



THIRD FLOOR PLAN ZONE 3 MJR/HM/SJL





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KENNEDY MIDDLE SCHOOL

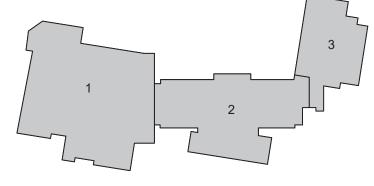
165 MILL STREET

NATICK, MA 01760

GENERAL NOTES: FINISHED FOURTH FLOOR ELEVATION 100'-0" ON ARCHITECTURAL DRAWINGS CORRESPONDS WITH ELEVATION 161'-0" ON THE CIVIL PLANS.
 FOURTH FLOOR PLAN ELEVATION 142'-0"

NORTH ARROW

SCHEMATIC DESIGN



OVERALL FOURTH

FLOOR PLAN

MJR/ HM/ SJL

DRAWN BY: REVIEWED BY:

SCALE: As indicated | DRAWING NUMBER: JOB NO.: DATE: DEC. 21, 2017