

# ROCKWELL AND JOHNSON ELEMENTARY SCHOOL PROJECTS

## BUILDING COMMITTEE UPDATE



# TEAM INTRODUCTION

## Perkins Eastman

Joe Costa

Tina Greco

Mike Berger

Joe Culotta

Lauren Giamundo

Alison Dobbertin

## Milone & MacBroom

Dan Kroeber

## DTC

Graham Curtis

Jesse Vose

# PROJECT UPDATE

Schedule

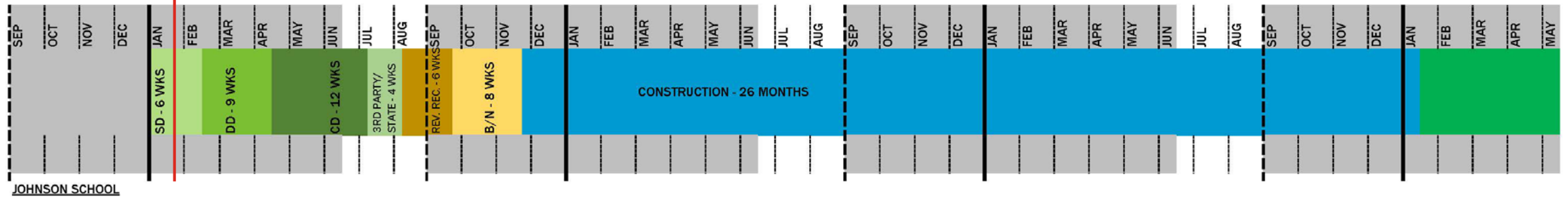
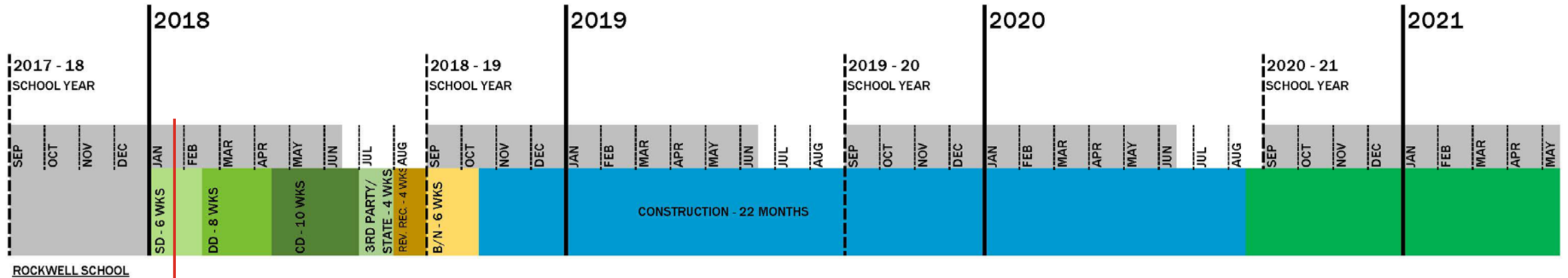
Investigating the Existing Buildings/Conditions

Updating the Revit Model

Developing typical floor plan layouts

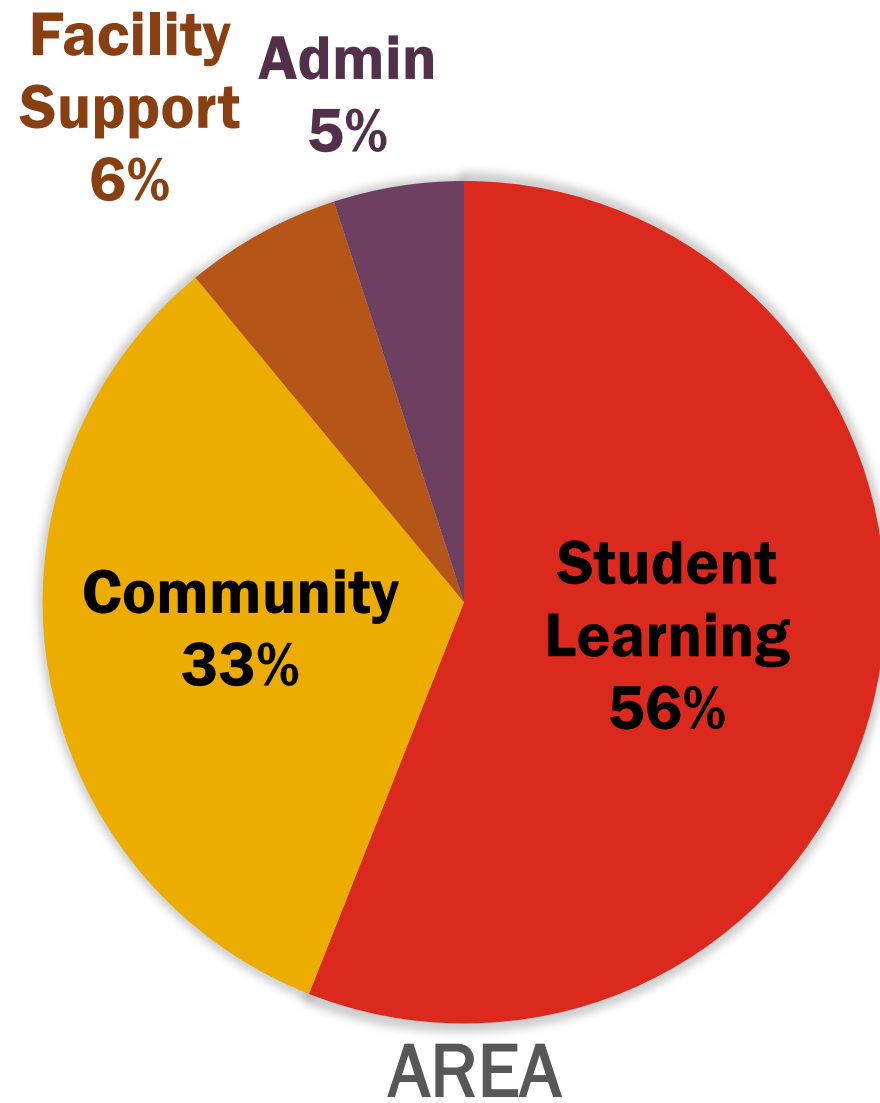
# **SCHEDULE UPDATE**

# SCHEDULE UPDATE



# ROCKWELL - DESIGN UPDATE

# ROCKWELL ELEMENTARY SCHOOL



- Grades K, 1, 2
- 305 Students



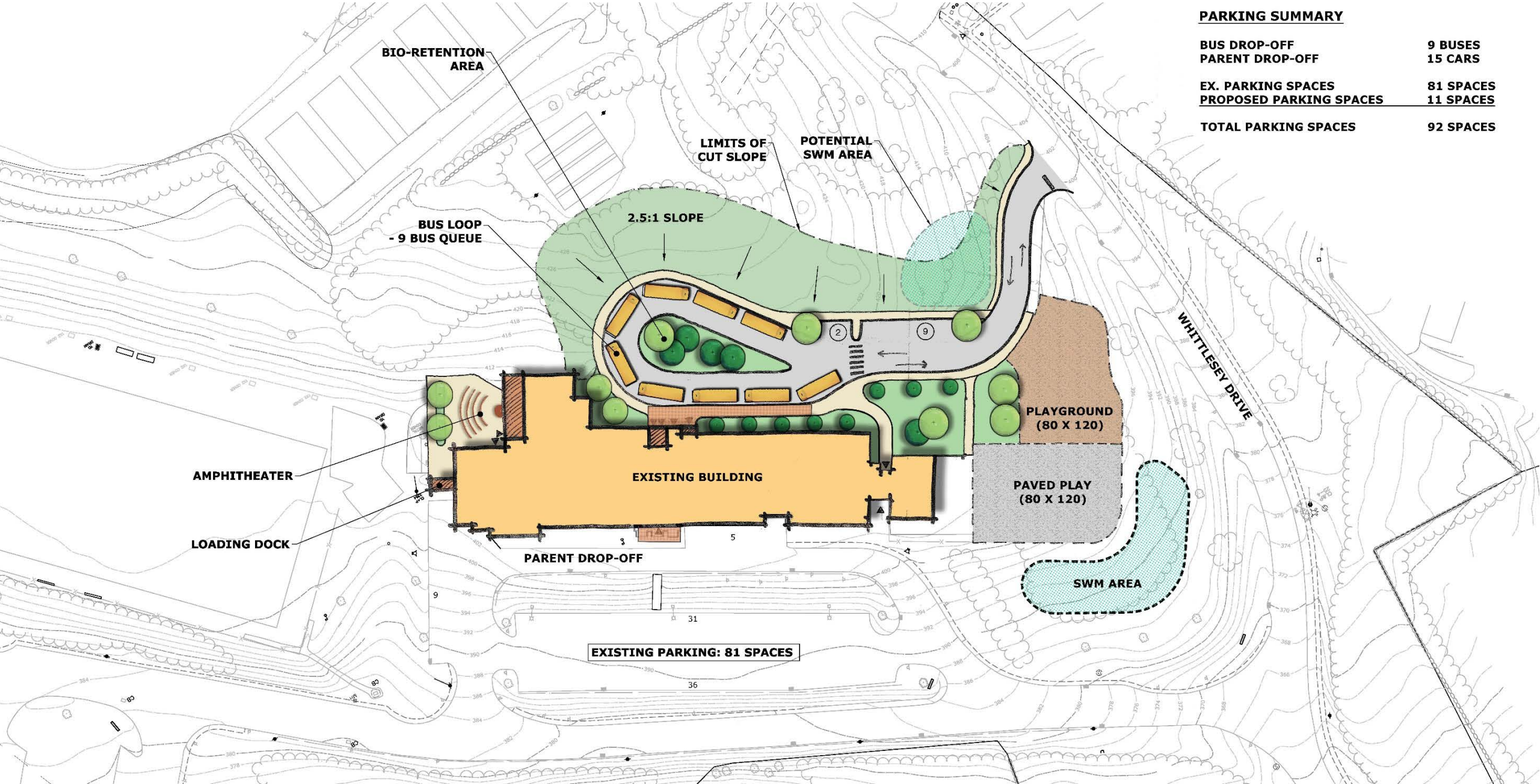
# ROCKWELL SCHOOL Existing Site Plan





# ROCKWELL SCHOOL

## Proposed Site Plan



**PARKING SUMMARY**

<b>BUS DROP-OFF</b>	<b>9 BUSES</b>
<b>PARENT DROP-OFF</b>	<b>15 CARS</b>
<b>EX. PARKING SPACES</b>	<b>81 SPACES</b>
<b>PROPOSED PARKING SPACES</b>	<b>11 SPACES</b>
<b>TOTAL PARKING SPACES</b>	<b>92 SPACES</b>

BIO-RETENTION AREA

LIMITS OF CUT SLOPE

POTENTIAL SWM AREA

2.5:1 SLOPE

BUS LOOP - 9 BUS QUEUE

PLAYGROUND (80 X 120)

PAVED PLAY (80 X 120)

WHITTLESEY DRIVE

AMPHITHEATER

EXISTING BUILDING

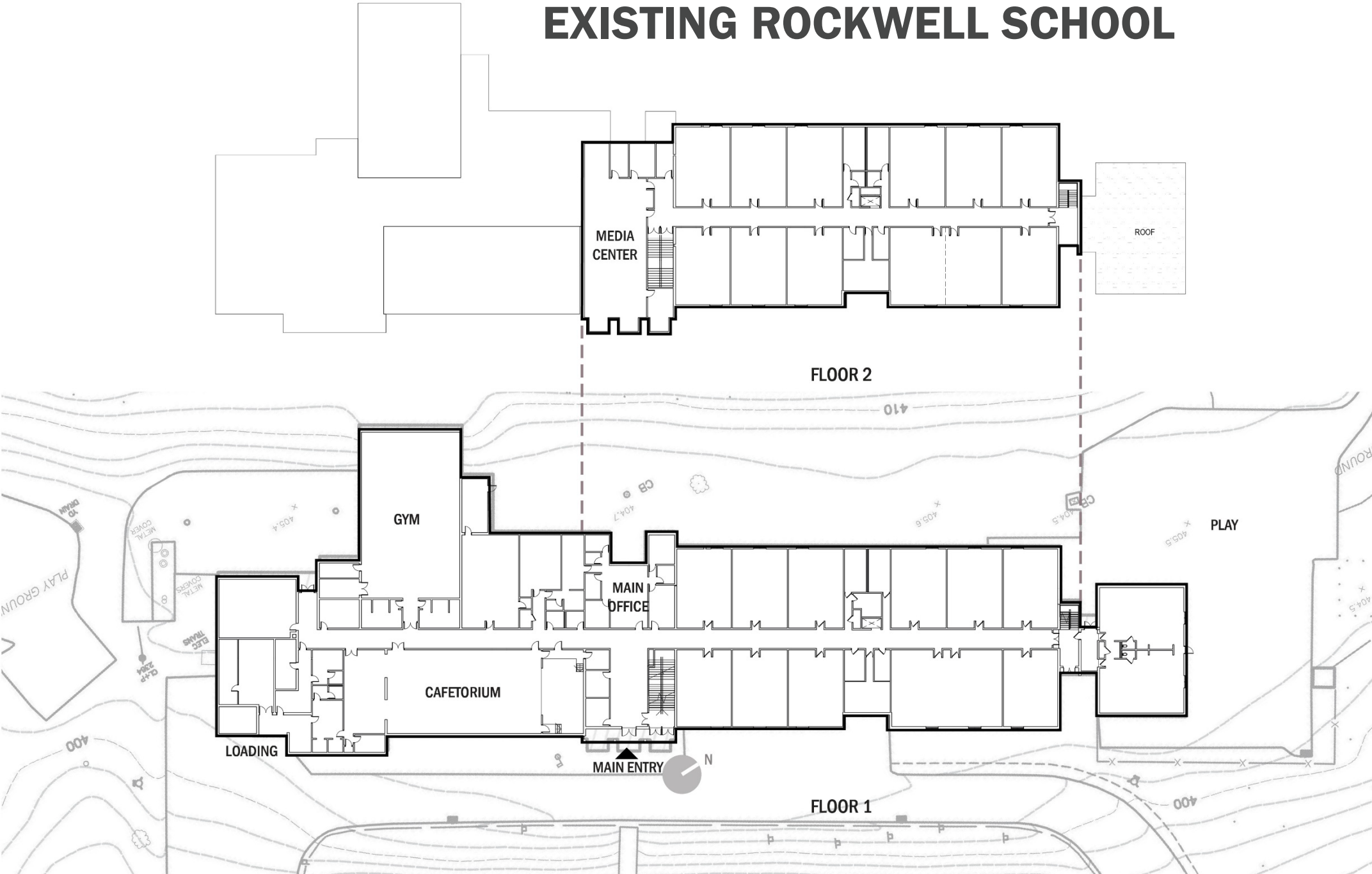
LOADING DOCK

PARENT DROP-OFF

SWM AREA

EXISTING PARKING: 81 SPACES

# EXISTING ROCKWELL SCHOOL





# ROCKWELL SCHOOL Front Door & Cafeteria

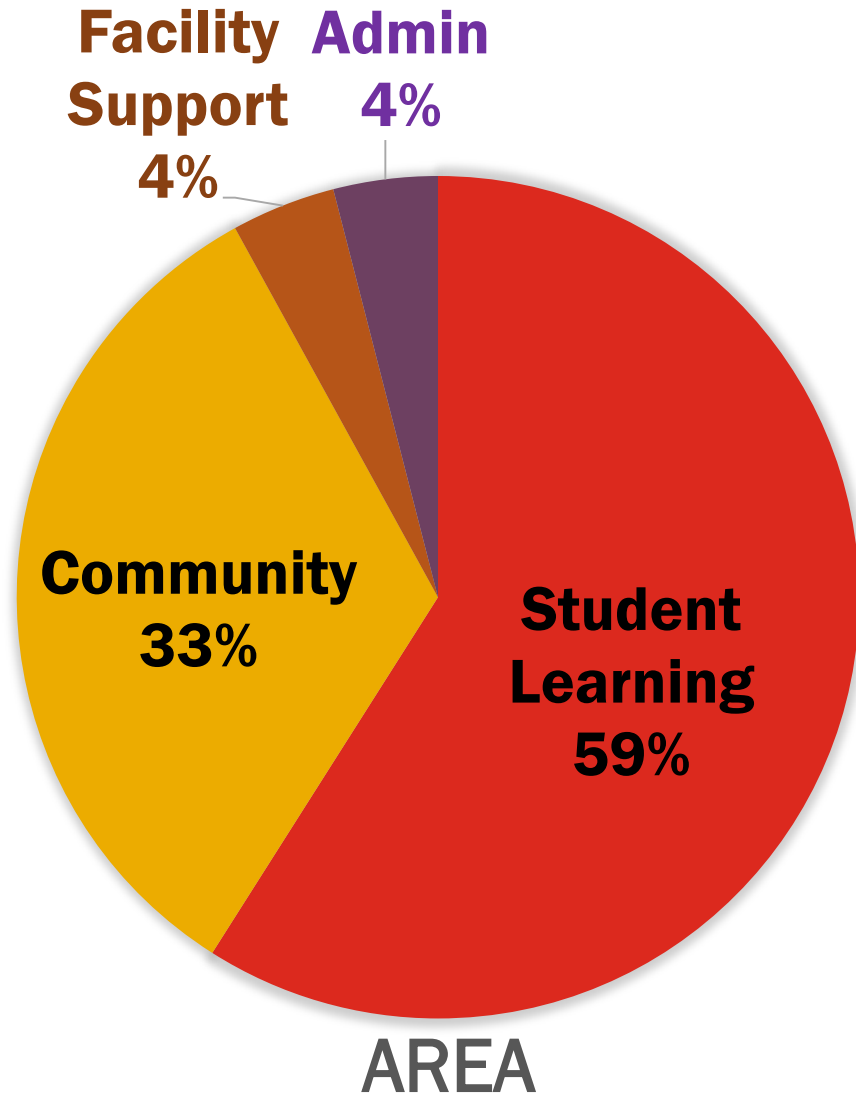


# ROCKWELL SCHOOL Front Door & Cafeteria



# JOHNSON - DESIGN UPDATE

# JOHNSON ELEMENTARY SCHOOL



- Grades 3, 4, 5
- 644 Students



# JOHNSON SCHOOL

Existing Site Plan



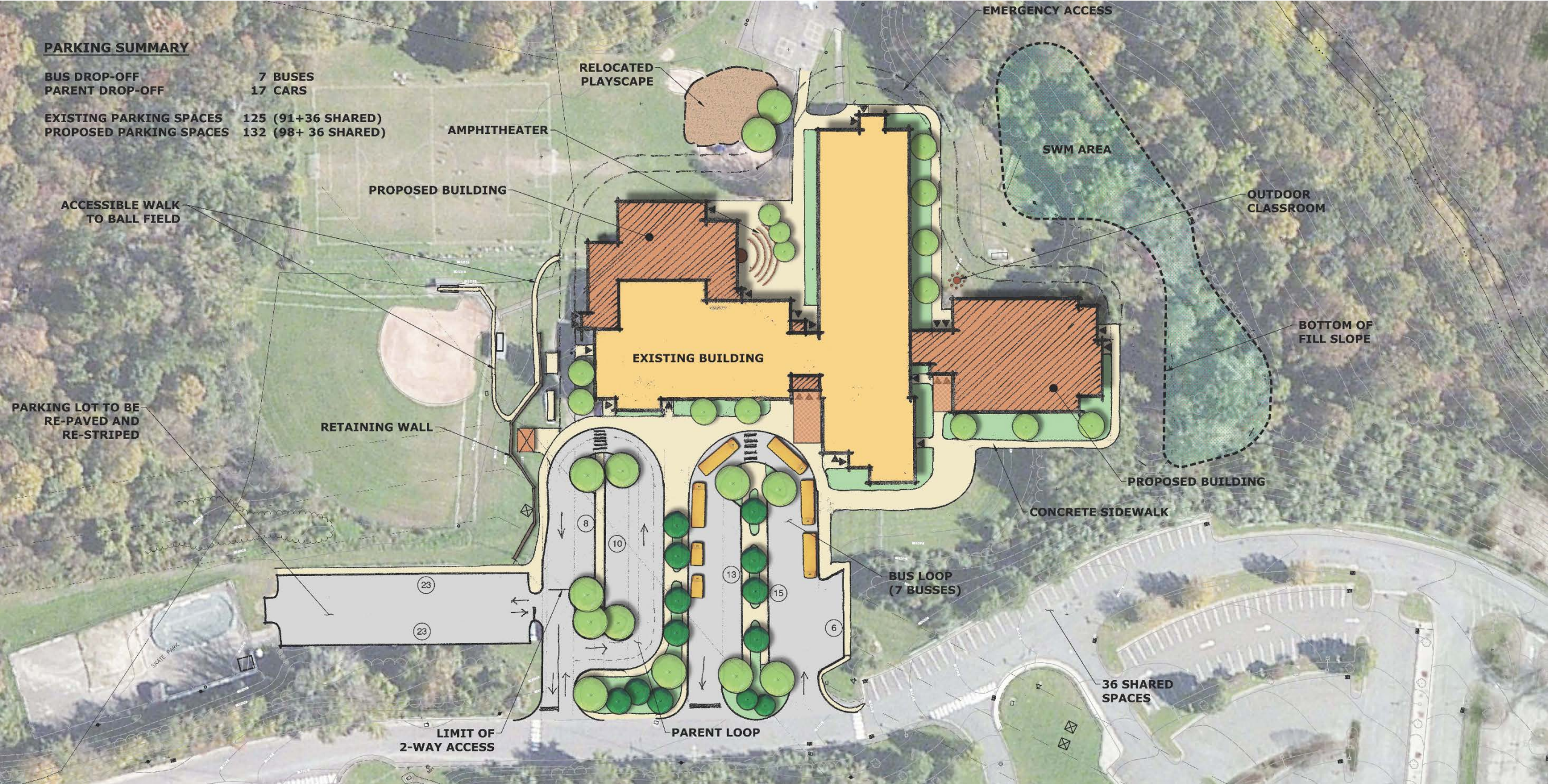


# JOHNSON SCHOOL

## Proposed Site Plan

### PARKING SUMMARY

BUS DROP-OFF	7 BUSES
PARENT DROP-OFF	17 CARS
EXISTING PARKING SPACES	125 (91+36 SHARED)
PROPOSED PARKING SPACES	132 (98+ 36 SHARED)



RELOCATED  
PLAYSCAPE

EMERGENCY ACCESS

### PARKING SUMMARY

BUS DROP-OFF	7 BUSES
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AMPHITHEATER

PROPOSED BUILDING

SWM AREA

OUTDOOR  
CLASSROOM

ACCESSIBLE WALK  
TO BALL FIELD

EXISTING BUILDING

BOTTOM OF  
FILL SLOPE

PARKING LOT TO BE  
RE-PAVED AND  
RE-STRIPED

RETAINING WALL

PROPOSED BUILDING

CONCRETE SIDEWALK

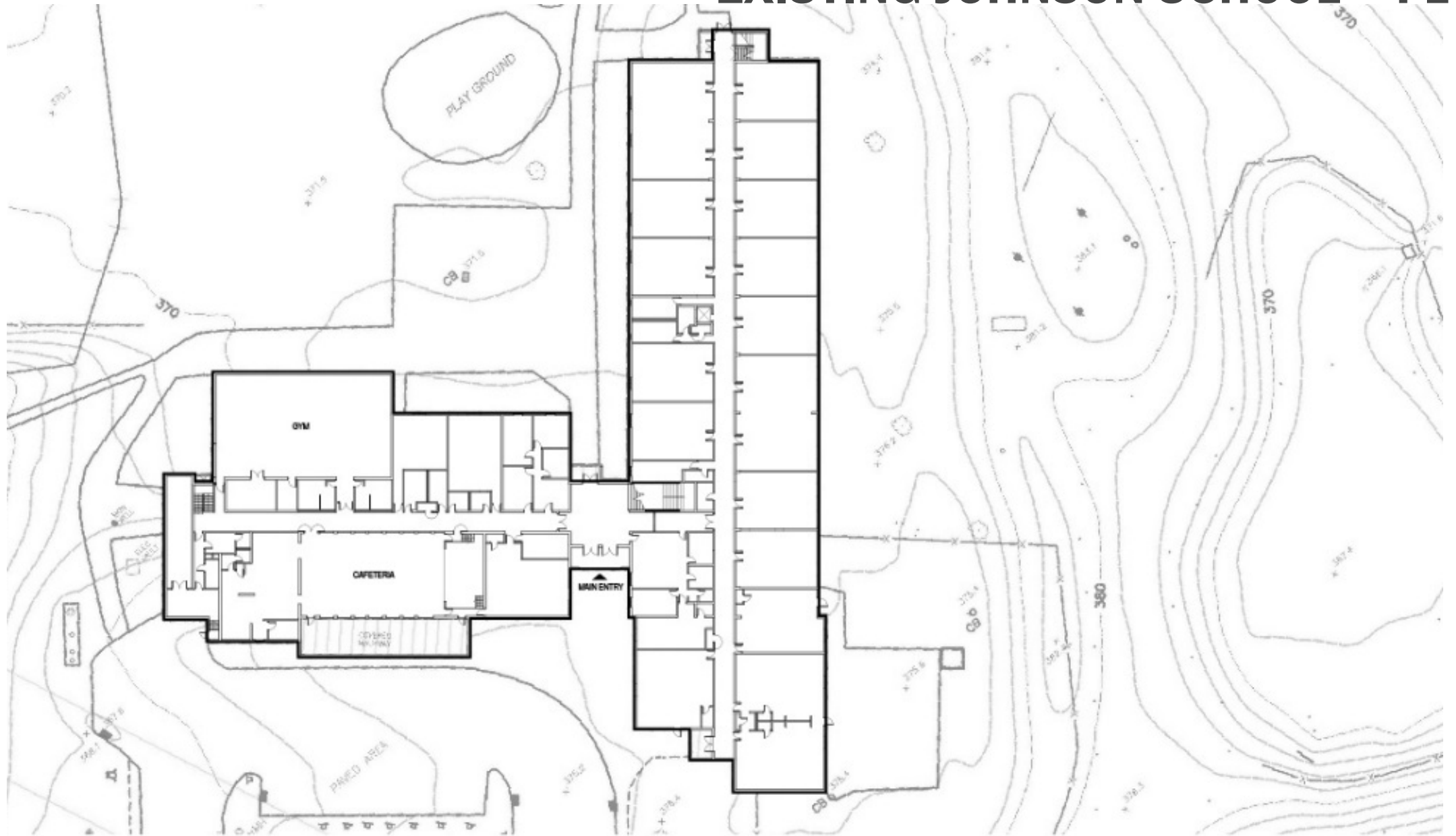
BUS LOOP  
(7 BUSES)

36 SHARED  
SPACES

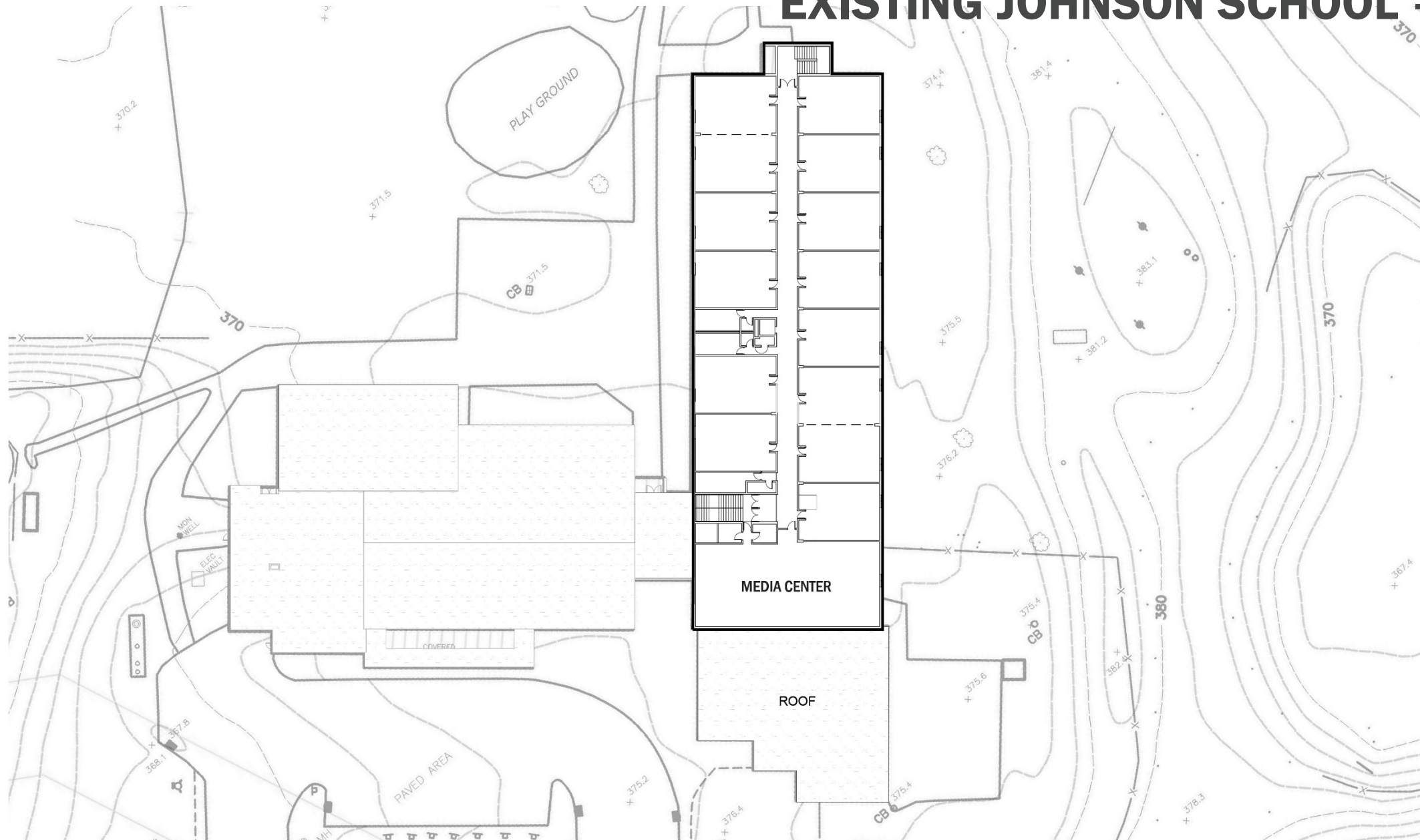
LIMIT OF  
2-WAY ACCESS

PARENT LOOP

# EXISTING JOHNSON SCHOOL - FL 1



# EXISTING JOHNSON SCHOOL – FL 2



# JOHNSON SCHOOL - LEVEL 1



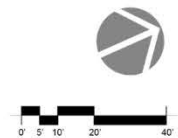
BASEMENT	1,363 SF
FLOOR 1	59,847 SF
FLOOR 2	28,139 SF
<b>TOTAL</b>	<b>89,349 SF</b>



# JOHNSON SCHOOL – LEVEL 2



BASEMENT	1,363 SF
FLOOR 1	59,847 SF
FLOOR 2	28,139 SF
<b>TOTAL</b>	<b>89,349 SF</b>



# JOHNSON SCHOOL

Front Door & Cafeteria



# JOHNSON SCHOOL

Front Door & Cafeteria



# JOHNSON SCHOOL Media Center & CR Addition





# JOHNSON SCHOOL Gymnasium



# JOHNSON SCHOOL Gymnasium



# ENLARGED PLANS

Typical Classrooms

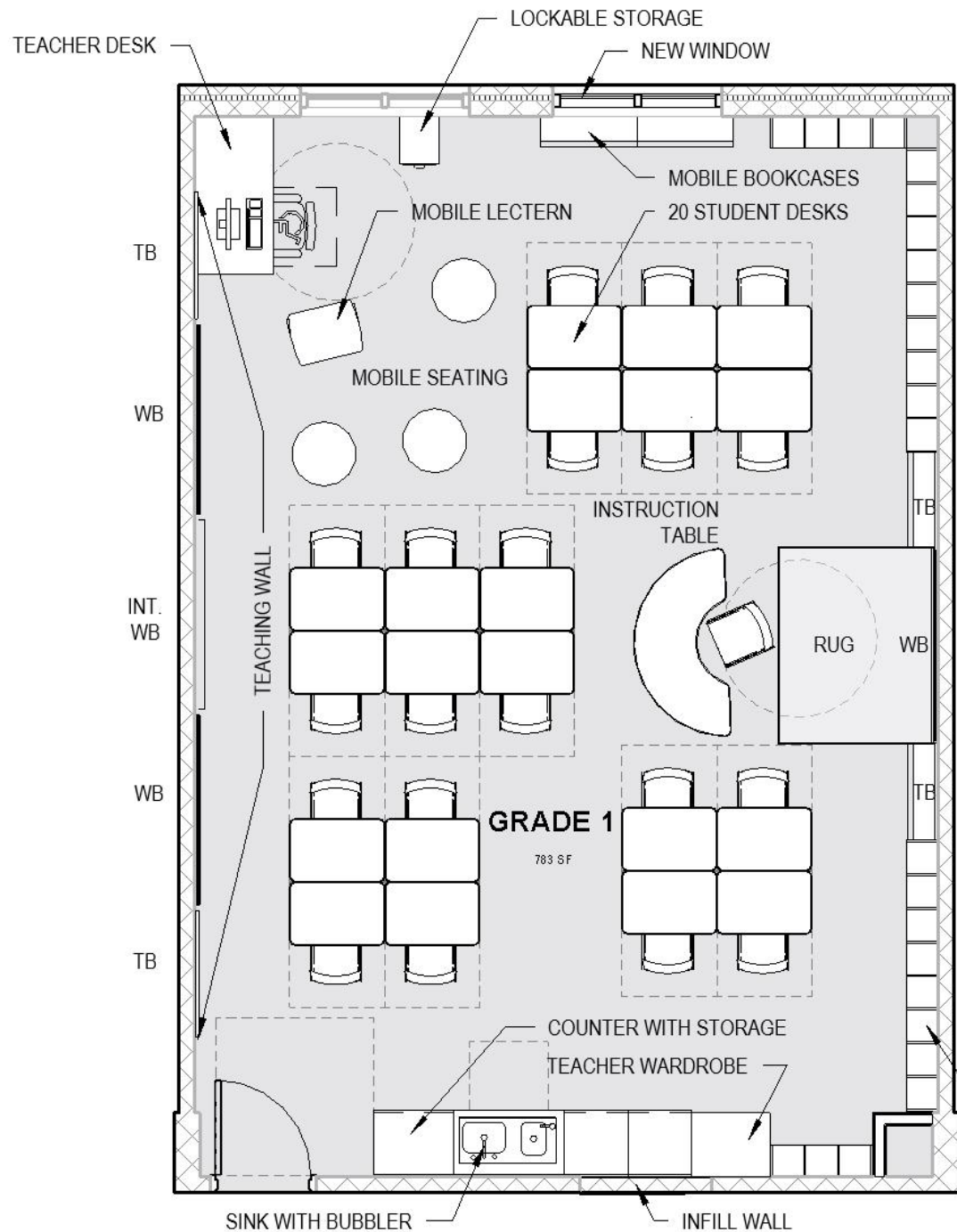
Administration

Nurse/ Guidance Office

Media Center

Cafeteria

Gym and Platform

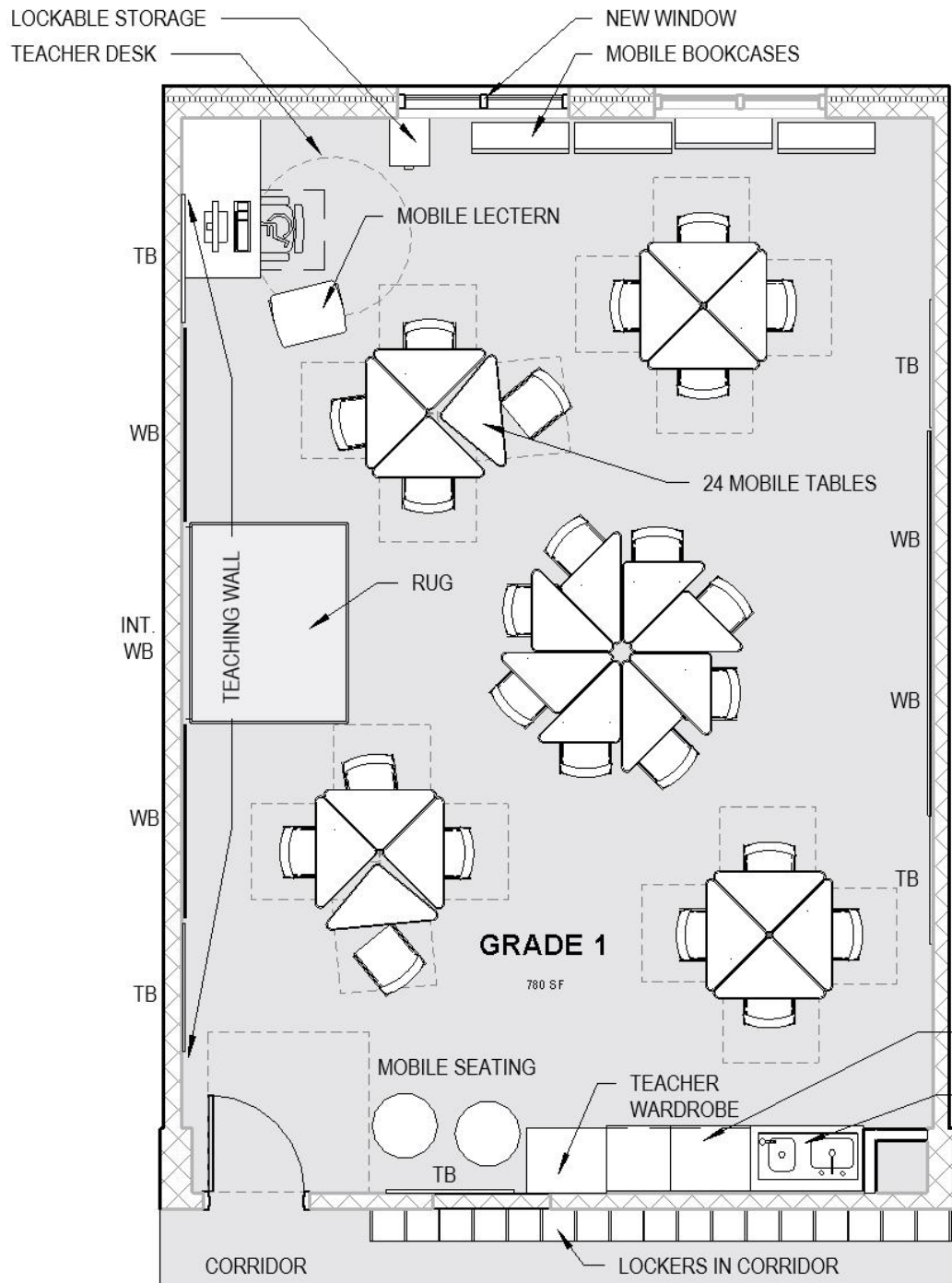


# ENLARGED PLANS

Typical Classroom



24 CUBBIES  
WITH COATHOOKS



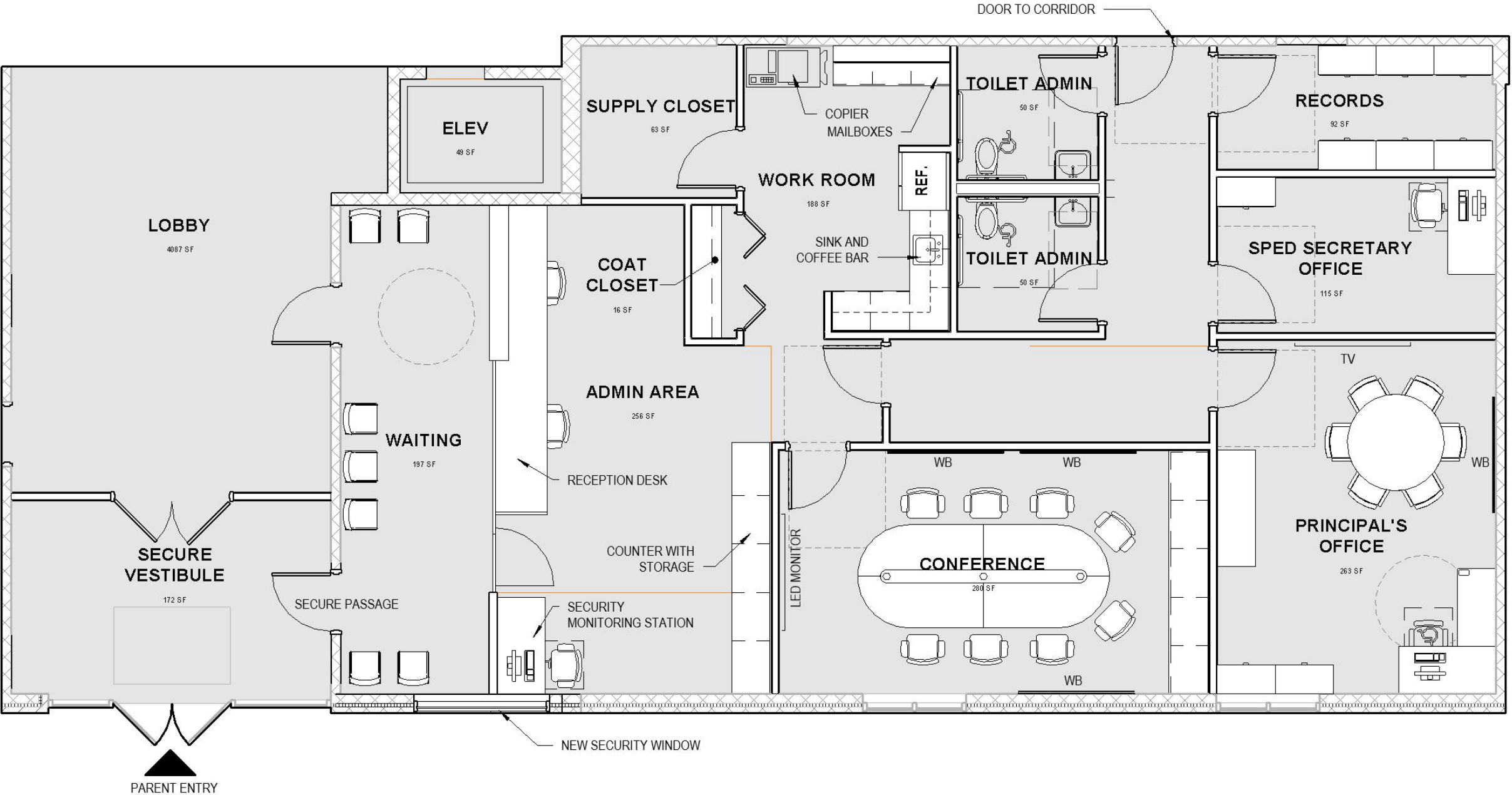
# ENLARGED PLANS

Typical Classroom



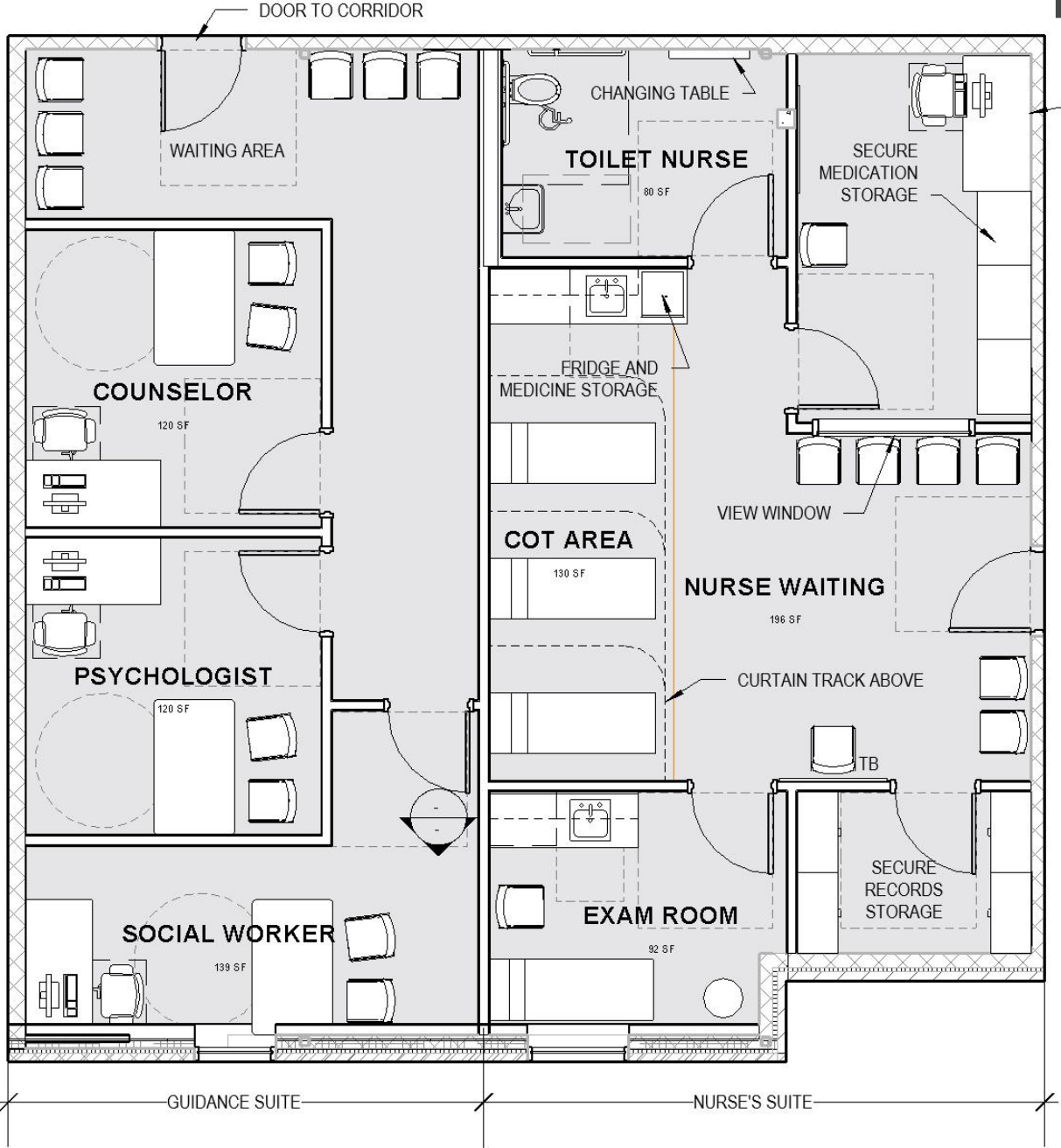
COUNTER WITH STORAGE  
 SINK WITH BUBBLER

# ENLARGED PLANS Administration

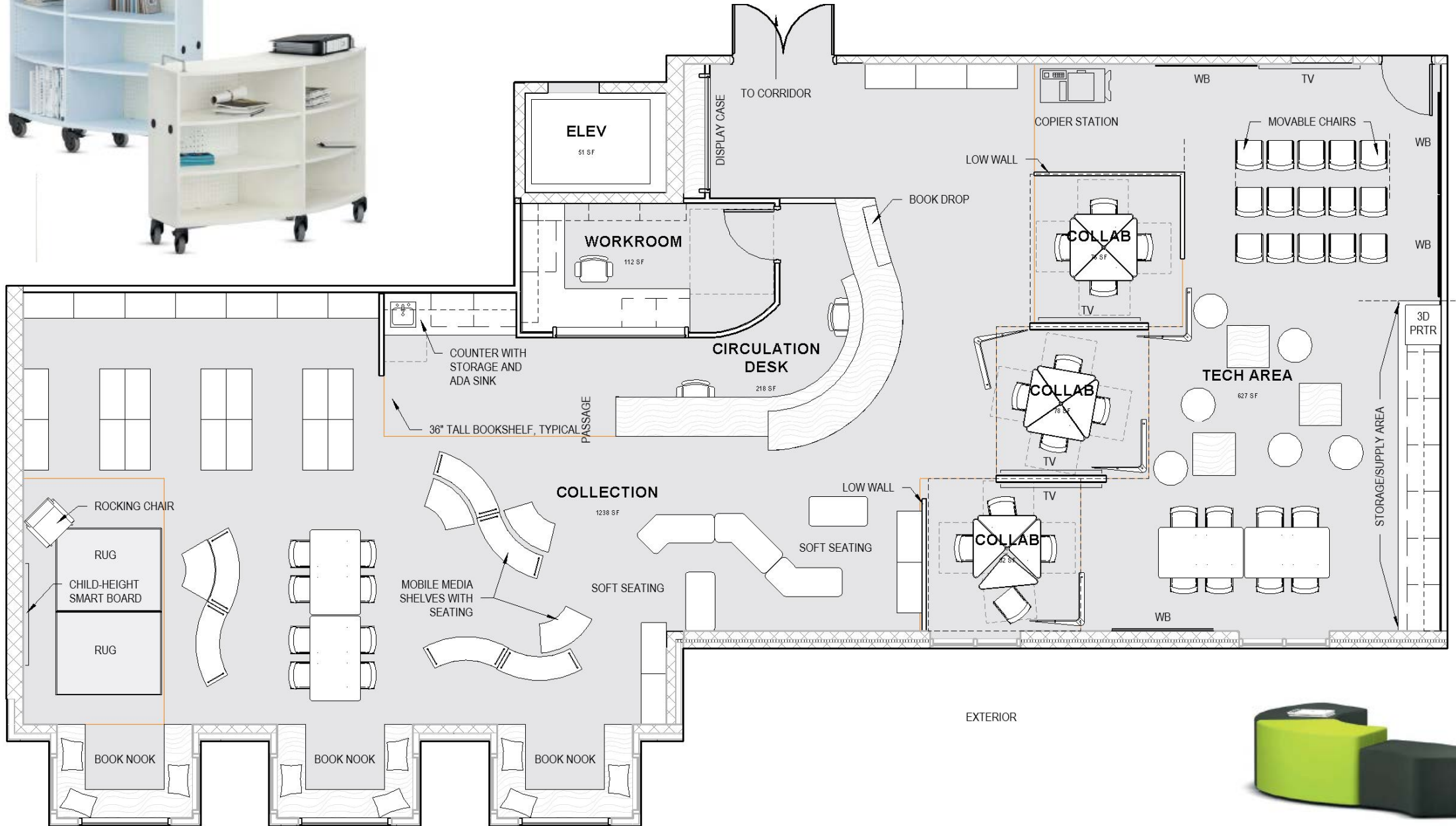


# ENLARGED PLANS

Nurse/ Guidance Office

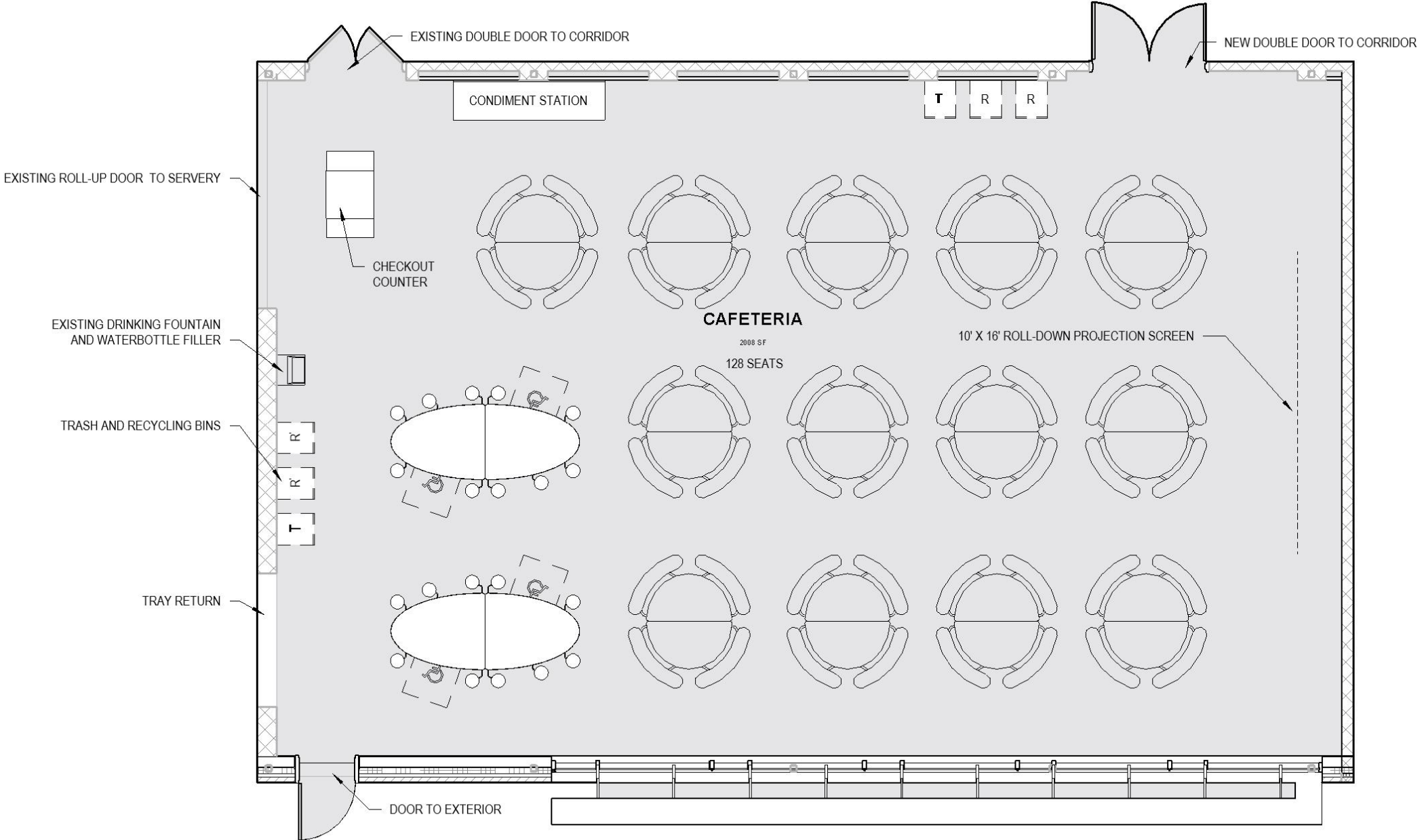


# ENLARGED PLANS Media Center



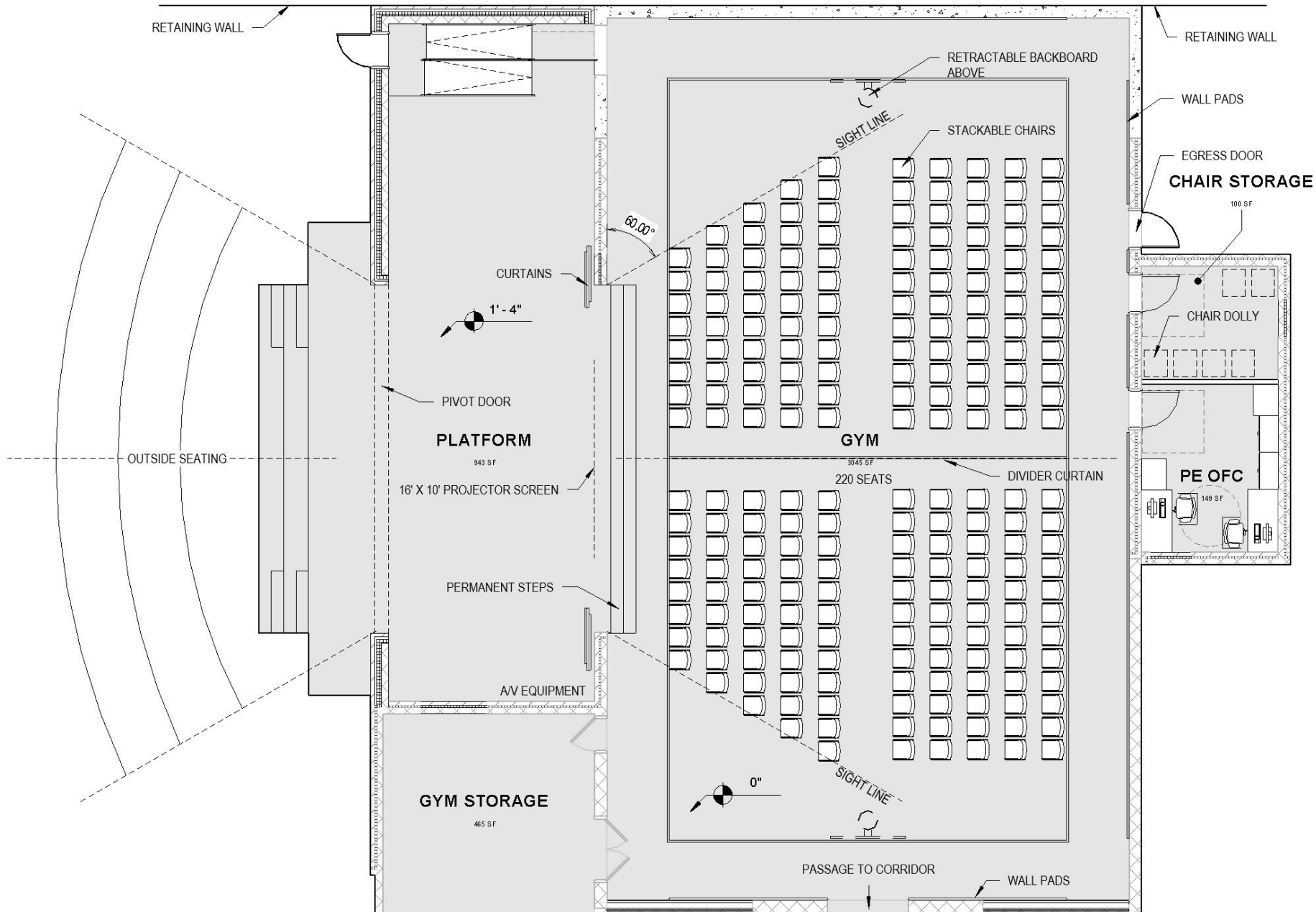


# ENLARGED PLANS Cafeteria



# ENLARGED PLANS

Gym and Platform



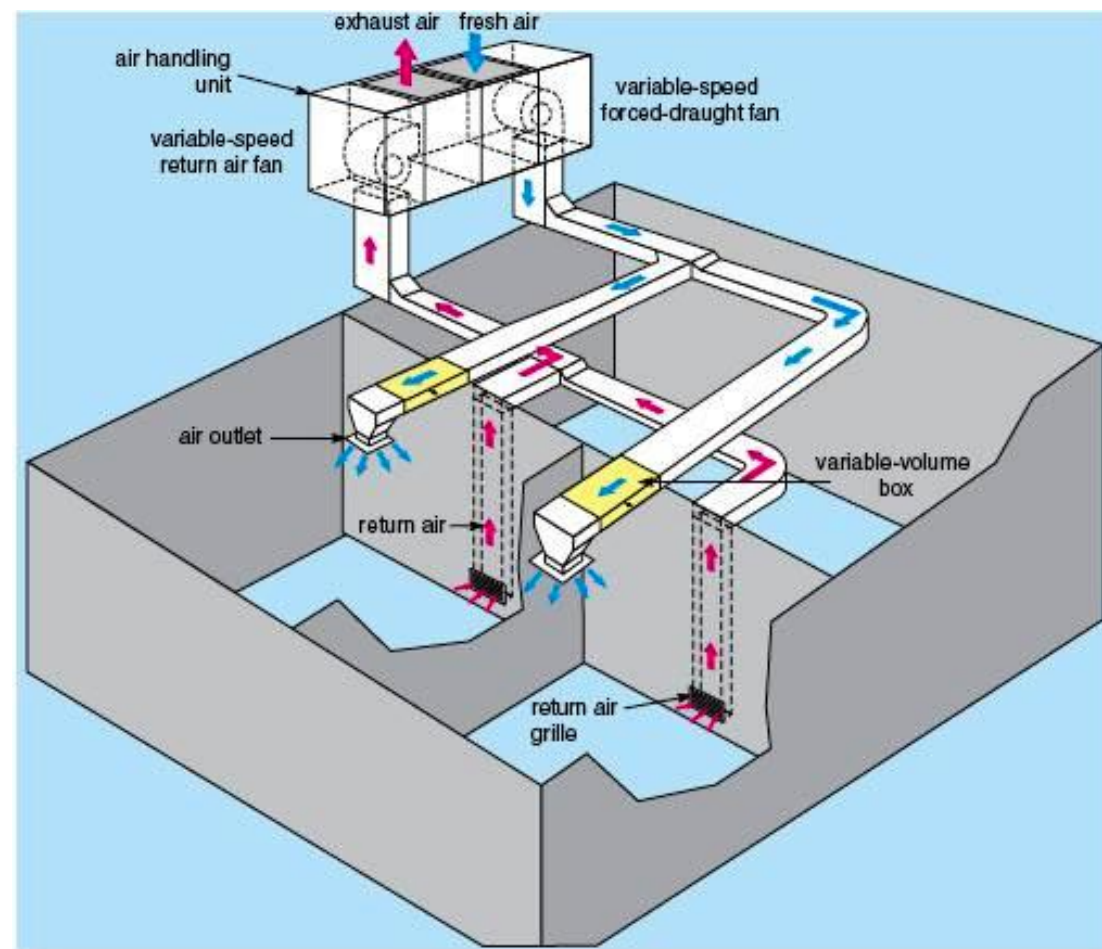
# MEP UPDATE

Mechanical Strategies

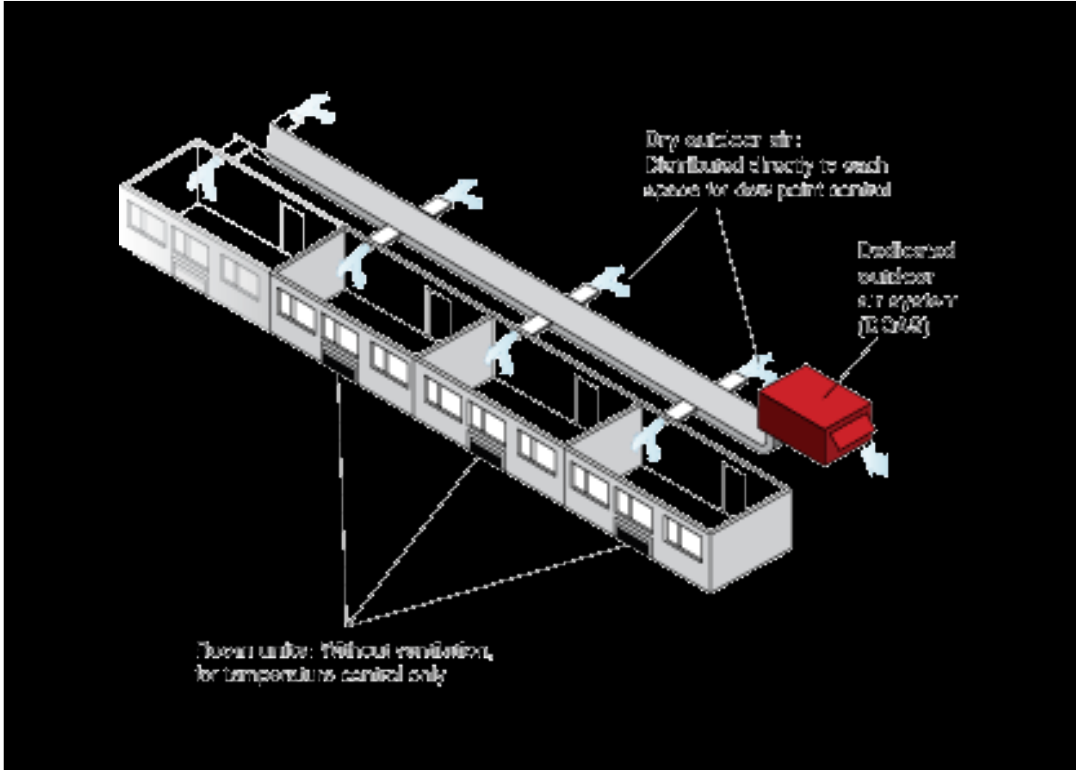
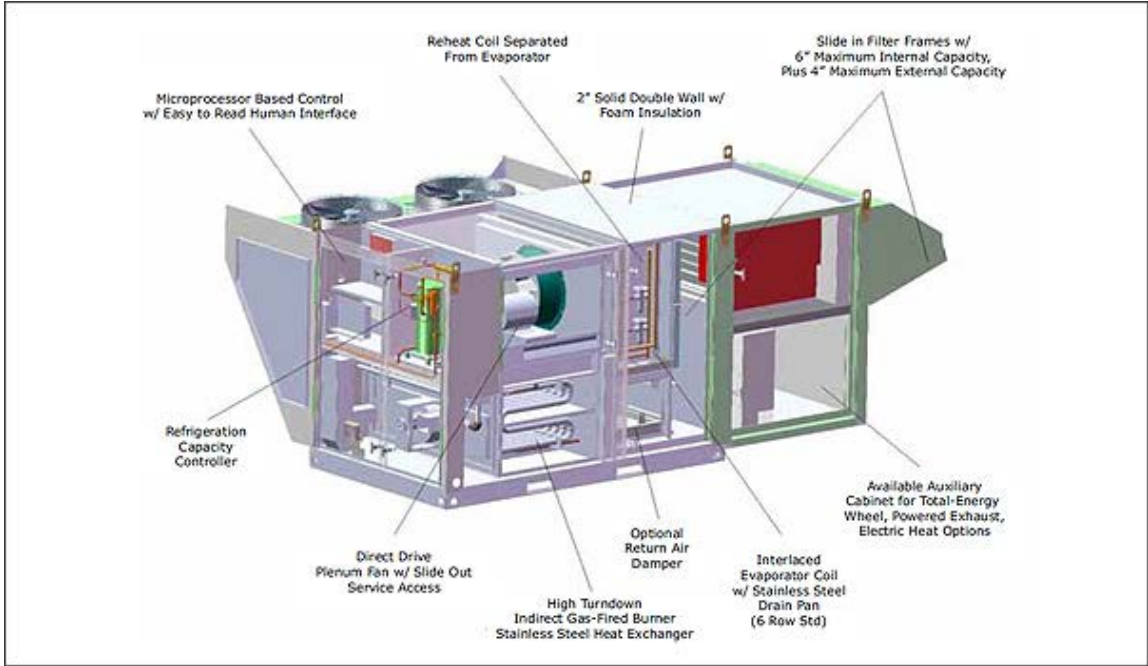
Fire Protection approach

Electrical

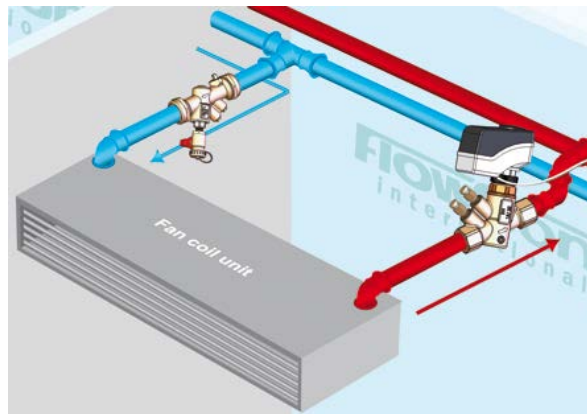
# Variable Air Volume (VAV) Rooftop Units with Chilled Water or Direct Expansion (DX) Cooling & Hot Water or Gas Heating



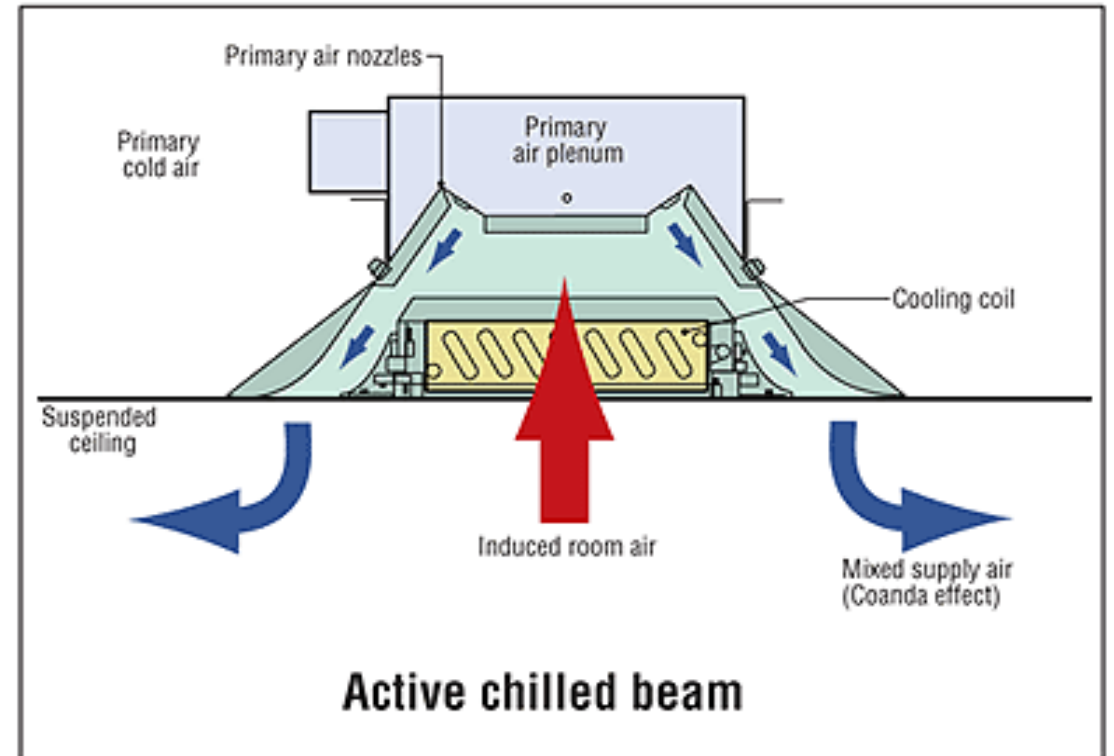
# Dedicated Outdoor Air (DOAS) Units



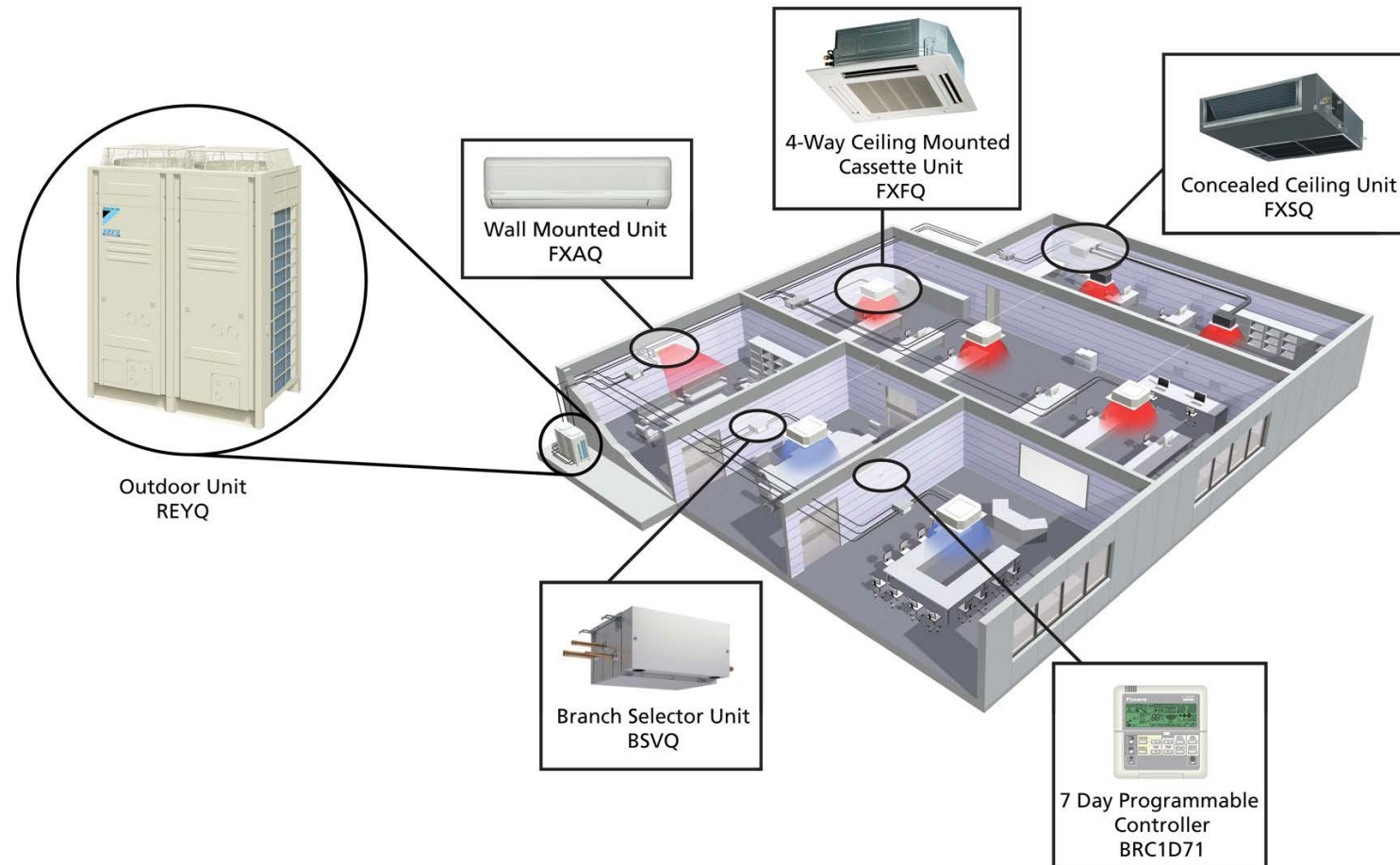
# 4-Pipe Fan Coils with DOAS Units



# Chilled Beams with DOAS Units



# Variable Refrigerant Flow (VRF) Systems with DOAS Units





# HVAC Comparison Matrix

HVAC Systems Comparison Matrix For Bethel Schools								
System Type	Cooling Efficiency	Heating Efficiency	Overall Energy Efficiency	System Complexity Ease of Maintenance	Ease of Coordination with Architectural Layout	Sound Levels	Comparative First Costs	Average Rating
VAV RTU's with Chilled Water Coils, VAV Boxes with Hot Water Reheat, Perimeter Radiant Ceiling Panels, Air Cooled Chiller, and Hot Water Boilers	4	2	4	3	3	2	4	3.8
DOAS Units (Gas/DX) for Ventilation, 4-Pipe Fan-Coil Units for Heating & Cooling, Perimeter Radiant Ceiling Panels, Air Cooled Chiller, and Hot Water Boilers	3	1	3	3	2	2	3	2.9
DOAS Units (Gas/DX) for Ventilation, Chilled Beams for Heating & Cooling, Perimeter Radiant Ceiling Panels, Air Cooled Chiller, and Hot Water Boilers	2	1	2	1	2	1	2	1.9
DOAS Units (Gas/DX) for Ventilation, Air-Cooled VRF with Heat Recovery, Perimeter Radiant Ceiling Panels, Rooftop Units (Gas/DX to Serve Gym, Cafeteria, Auditorium, Media Center, Kitchen), No Chiller, and Smaller Boilers than Other Options	1	1	1	2	2	2	1	1.7
Notes:								
1. All options listed will utilize Rooftop Units (Gas/DX) to serve the Gym, Cafeteria, Auditorium, Media Center, and Kitchen.								
2. Options with DOAS Units will result in smaller distribution ductwork to the spaces they serve, as they only require a portion of the air be provided from a central location rather than all of the air in a VAV system.								

# STRUCTURAL UPDATE

Design Strategies

Johnson Gym

# **SITE/CIVIL UPDATE**

Design Update

Traffic Study

Geotechnical Investigation

Survey

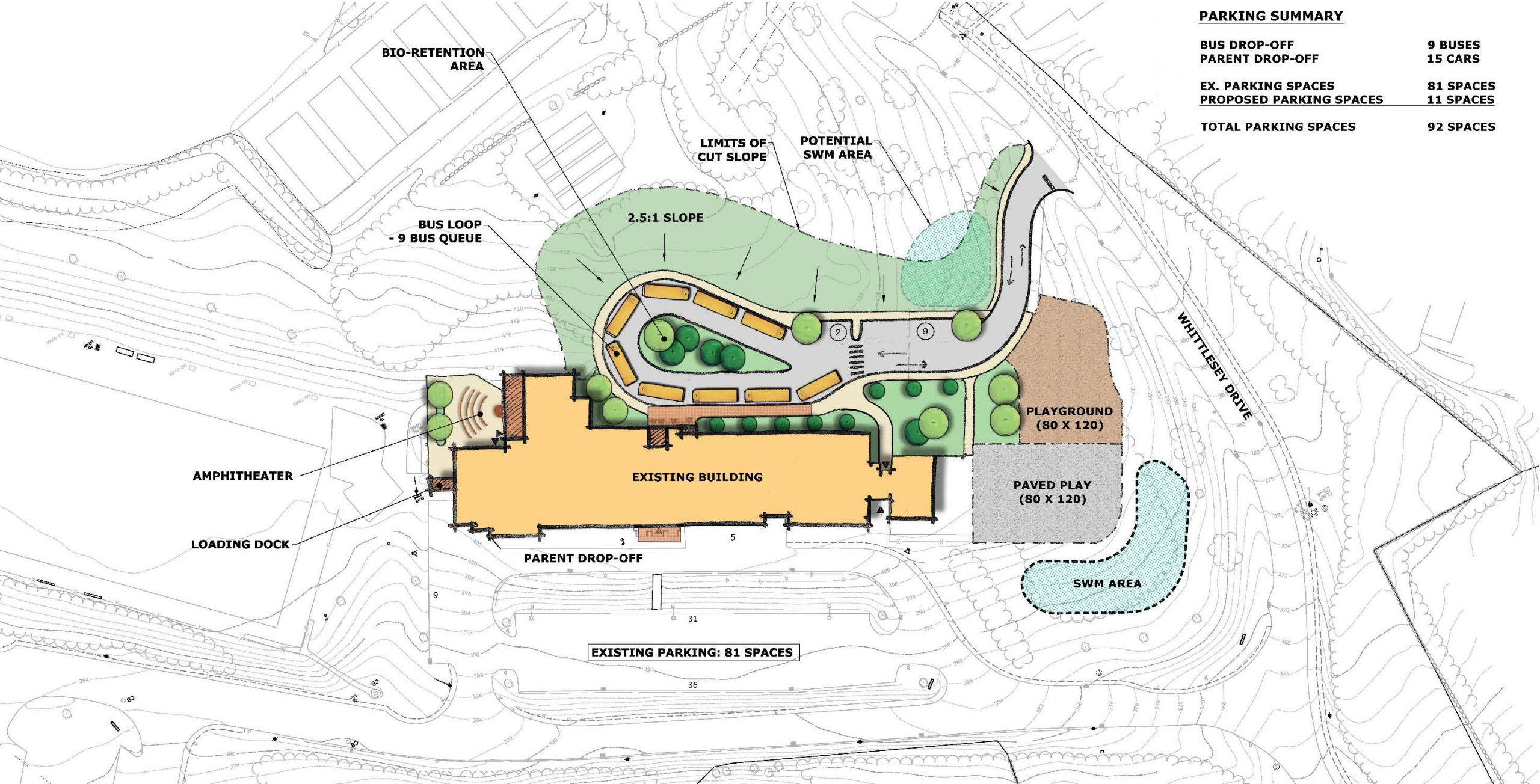
Environmental

Permits

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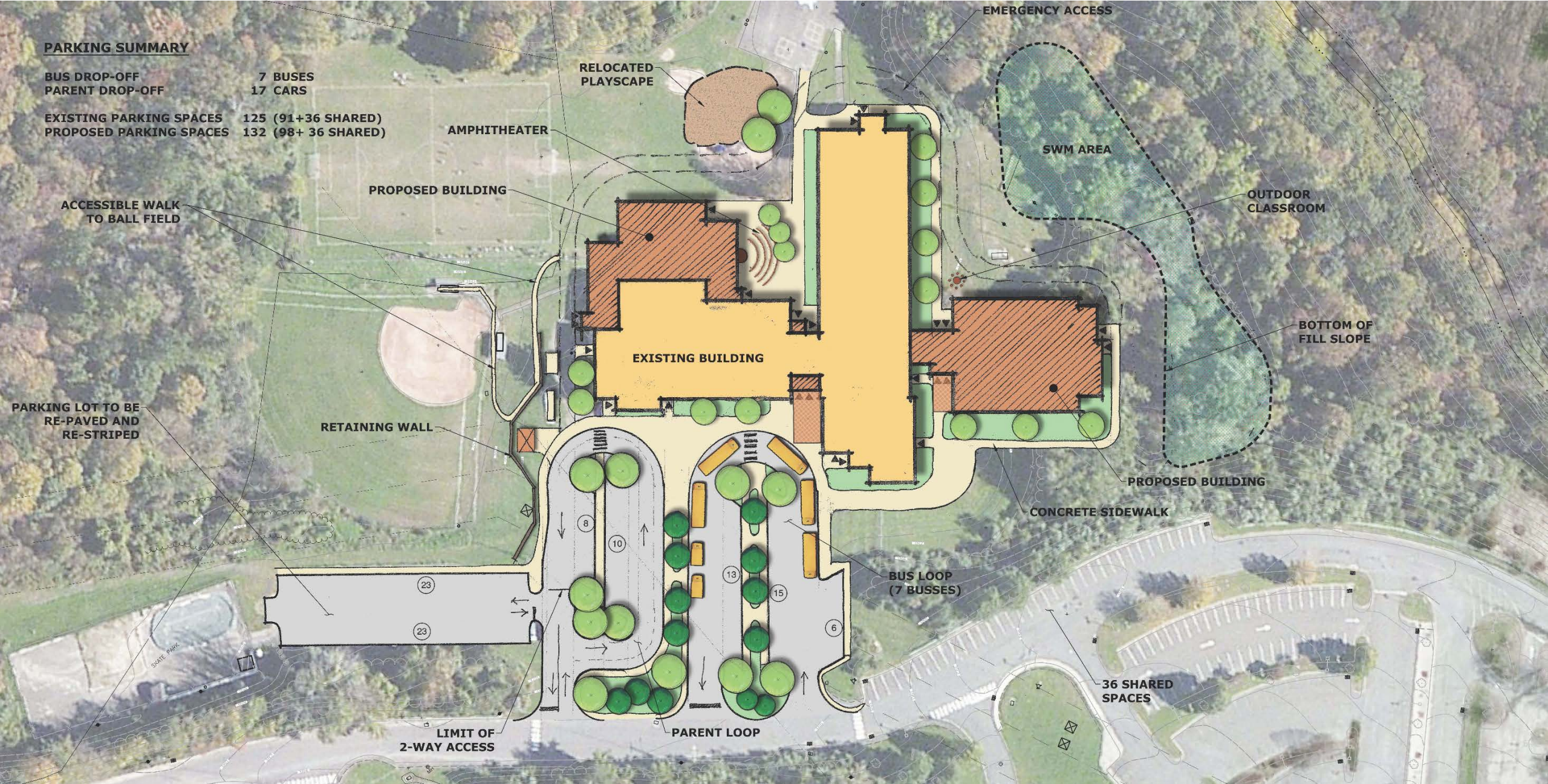


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CONCRETE SIDEWALK

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(7 BUSES)

36 SHARED  
SPACES

LIMIT OF  
2-WAY ACCESS

PARENT LOOP

## **NEXT STEPS:**

Next Meeting: 2/6

SD deliverable due 2/15

Meet with CM following selection