

# FEASIBILITY STUDY

## BURNING TREE ELEMENTARY SCHOOL



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# INTRODUCTION

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# FEASIBILITY STUDY PARTICIPANTS

Daniel Ruiz	Community Member
Jillian Storms, AIA	Exec Director, MD State Dept of Ed. Office
Darcy Buckley	of School Facilities
Douglas Stephens	Montgomery Parks
Henry Coppola	Montgomery Parks
Matthew Harper	Montgomery Parks
Adam Bossi	Montgomery Parks
Atul Sharma	Montgomery Planning
Carlos Pazmino	Montgomery Planning
Cashielle Nelson	Montgomery Planning
Elza Hisel-McCoy	Montgomery Planning
Paul Mortensen	Montgomery Planning
Stephanie Dickel	Montgomery Planning
Tsaiquan Gatling	Montgomery Planning
Abhinav Rampuria	Montgomery Planning
Alissa Peruzzini	Parent/Guardian
Amir Mokhtari	Parent/Guardian
Aneesha Sherman	Parent/Guardian
Brian Kapatkin	Parent/Guardian
Carrie Worn	Parent/Guardian
Christine Escamilla	Parent/Guardian
Debra Audus	Parent/Guardian
Elizabeth Stark	Parent/Guardian
Elsa	Parent/Guardian
Elyssa Tanenbaum	Parent/Guardian
Erin Katz	Parent/Guardian
Jessica Henderson	Parent/Guardian
Jessica Kasenetz	Parent/Guardian
Johnny Harris	Parent/Guardian
Julia Galletto	Parent/Guardian
Julie Schuman	Parent/Guardian
Kara Feldman	Parent/Guardian
Karen Reddish	Parent/Guardian
Katie Harb	Parent/Guardian
Khamika	Parent/Guardian
Kim Richards	Parent/Guardian
Kris Cronin	Parent/Guardian
Kyle Ginzi	Parent/Guardian

Lindsay Harris	Parent/Guardian
Liz	Parent/Guardian
Lorraine Wilson	Parent/Guardian
Lyndsy Paulson	Parent/Guardian
Marcela Cruz	Parent/Guardian
Melissa Armstrong	Parent/Guardian
Mikell Rice	Parent/Guardian
Nabilah Siddiquee	Parent/Guardian
Polson Kanneth	Parent/Guardian
Rana Rassipour	Parent/Guardian
Saima Song	Parent/Guardian
Sarika Parasuraman	Parent/Guardian
Sebastian Schmidt	Parent/Guardian
Shilpa Shah	Parent/Guardian
Sriram Gollapalli	Parent/Guardian
Stacey Shapiro	Parent/Guardian
Steve Lieberman	Parent/Guardian
Svetlana Fishman	Parent/Guardian
Yasha Toufanian	Parent/Guardian
Zach Lipso	Parent/Guardian
Jo Anne Murray	Parent/Guardian
Amanda Luzi	School Facilities Architect for MSDE
Amanda Updegrove	Staff
Catherine Black	Staff
Cathy Stoll	Staff
Coleen	Staff
Danielle Cohn	Staff
Felice Grossman	Staff
Heather Whitby	Staff
Jenna Boule	Staff
Jennifer Redden	Staff
Juliette Schank	Staff
Kate Bubser	Staff
Katherine A Bubser	Staff
Miranda Steinbeck	Staff
Pamela Merritt	Staff
Patrick Byrne	Staff



# EXECUTIVE SUMMARY

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HISTORY OF CONSTRUCTION



1958	Original School opened	18,267 gsf
1959	Addition was constructed	19,775 gsf
1991	Full Renovation and Addition project	22,806 gsf
2002	TIMS project was complete	
2007	Gymnasium is constructed	7,271 gsf
2011	Roof replacement	
2012	Playground replacement	
2015	Fire Alarm Upgrade	
2016	Roof top and fan coil units are replaced	
2019	Computer Lab Room Modifications	
2020	Security Vestibule Renovation	

Total Square Footage of Burning Tree ES 68,119 gsf

REDACTED

## PROJECT INFORMATION

Current Enrollment:	492 students
Projected Enrollment:	504 students
Current capacity of Burning Tree Elementary School:	389 students
Proposed Capacity:	612 students
Existing Building Site:	6.79 acres
Existing Building Gross Square Footage:	68,119 gsf
Proposed Gross Square Footage:	80,396 gsf

# OVERVIEW OF APPROACHES

Area of Existing Building:  
68,119 GSF

APPROACH 1:



RENEWAL

APPROACH 2:



ADA RENOVATIONS

APPROACH 3:



ADDITIONS AND RENOVATIONS

APPROACH 4:



REPLACEMENT SCHOOL

Total Parking Spaces:

75

75

75

102

Total Building :

68,119 GSF

± 76,525 GSF

± 86,119 GSF

± 80,396 GSF

Construction Duration:

24 Months

24 Months

24 Months

24 Months

Sustainable Certification Level:

N/A

N/A

2 Green Globes

2 Green Globes

Energy Use Index:

68 kBtu/ft<sup>2</sup>

57 kBtu/ft<sup>2</sup>

35 kBtu/ft<sup>2</sup>

25 kBtu/ft<sup>2</sup>

Updated Building Systems:



ADA Compliant:



Energy Efficient Design:



Improve Site Circulation:



Rooms sized per Ed Spec:



Total Project Cost:

\$24,621,527

\$8,801,846

\$61,280,358

\$66,612,626

30-Year Life Cycle Cost Analysis

\$10,943,028

\$9,011,318

\$12,258,048

\$9,298,923



# PROJECT SCOPE, OBJECTIVES AND GOALS

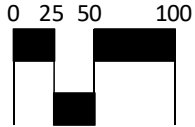
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## PLANNING GOALS

- Create flexible and collaborative learning environments throughout the building.
- Ensure that the building is fully accessible and meets ADA guidelines.
- Improve circulation in the building to improve transitions and hallway supervision.
- Improve acoustics within the school.
- Make core spaces such as the cafeteria and gymnasium accessible to the community and secure them from the rest of the school for use after-school hours.
- Ensure the safety using other such as Crime Prevention Through Environmental Design (CPTED) strategies.
- Provide sustainable infrastructure and building systems.
- Reduce energy and water use, reduce operational costs, and generate long-term financial savings for MCPS.
- Improve site circulation to provide safer routes for pedestrians.
- Improve size of instructional areas to meet the current requirements set by the proposed Educational Specifications for Montgomery County Public Schools

## EXISTING ARCHITECTURAL ASSESSMENT:

### SPACE ANALYSIS - ROOM SIZES COMPARED TO EDUCATIONAL SPECIFICATIONS



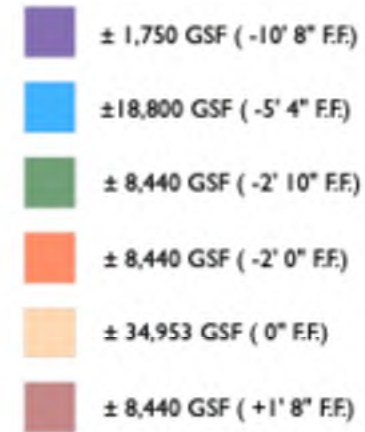
#### LEGEND

- Undersized - MoreThan 20% Required By Program
- Undersized - Between 11 - 19% Required By Program
- Within - 10% Required By Program
- Oversized - Between 11 - 19% Required By Program
- Oversized - MoreThan 20% Required By Program

REDACTED

EXISTING FLOOR PLANS

## EXISTING ARCHITECTURAL ASSESSMENT: ELEVATION CHANGES



Existing Floor Height Offsets From  
Main Level (0'-0" F.F.)

REDACTED

EXISTING FLOOR PLAN - ELEVATION VARIATIONS

# EXISTING CONDITIONS

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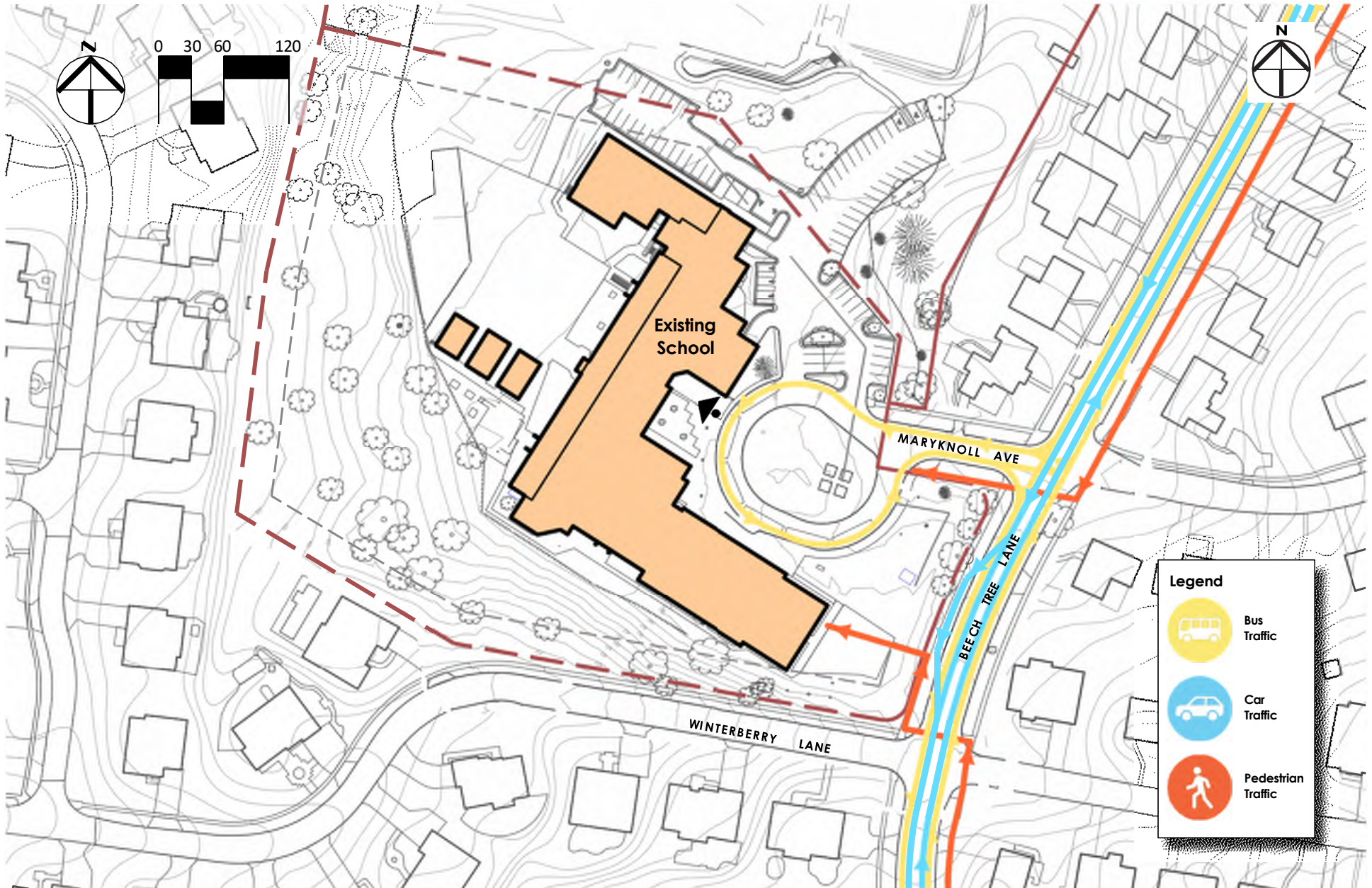


## EXISTING SITE PLAN

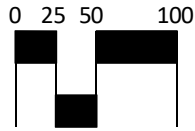










# EXISTING SITE CIRCULATION



## EXISTING FLOOR PLANS



### LEGEND

-  Classrooms
-  Media Center, PE, Multi-Purpose & Kitchen
-  Administration
-  Music & Arts
-  Instructional Support
-  Building Support

REDACTED

LOWER LEVEL

MAIN LEVEL

UPPER LEVEL

FLOOR PLANS

# APPROACH 1: RENEWAL

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# APPROACH 1 - SUMMARY: RENEWAL

<b>PROJECT COST ESTIMATE:</b>	\$24,621,527
<b>GROSS SQUARE FOOTAGE</b>	
EXISTING BUILDING:	68,119 GSF
AREA OF DEMOLITION:	0 GSF
AREA OF ADDITION:	0 GSF
<b>TOTAL AREA OF BUILDING:</b>	<b>68,119 GSF</b>

## PARKING TABULATION

SCHOOL STANDARD SPACES:	41	PARK STANDARD SPACES:	27
SCHOOL HANDICAP SPACES:	5	PARK HANDICAP SPACES:	2
TOTAL SCHOOL PARKING SPACES:	46	TOTAL PARK PARKING SPACES:	29
TOTAL PARKING SPACES:	75		



## SUMMARY:

- The existing elementary school will remain in place with minimal renovation to interior spaces.
- The renewal will include replacing all existing systems in kind and cosmetic upgrades (i.e. flooring, paint, new windows, new doors, new roof, etc).
- No site work will be conducted.
- ADA accessibility will not be addressed.

## OPPORTUNITIES:

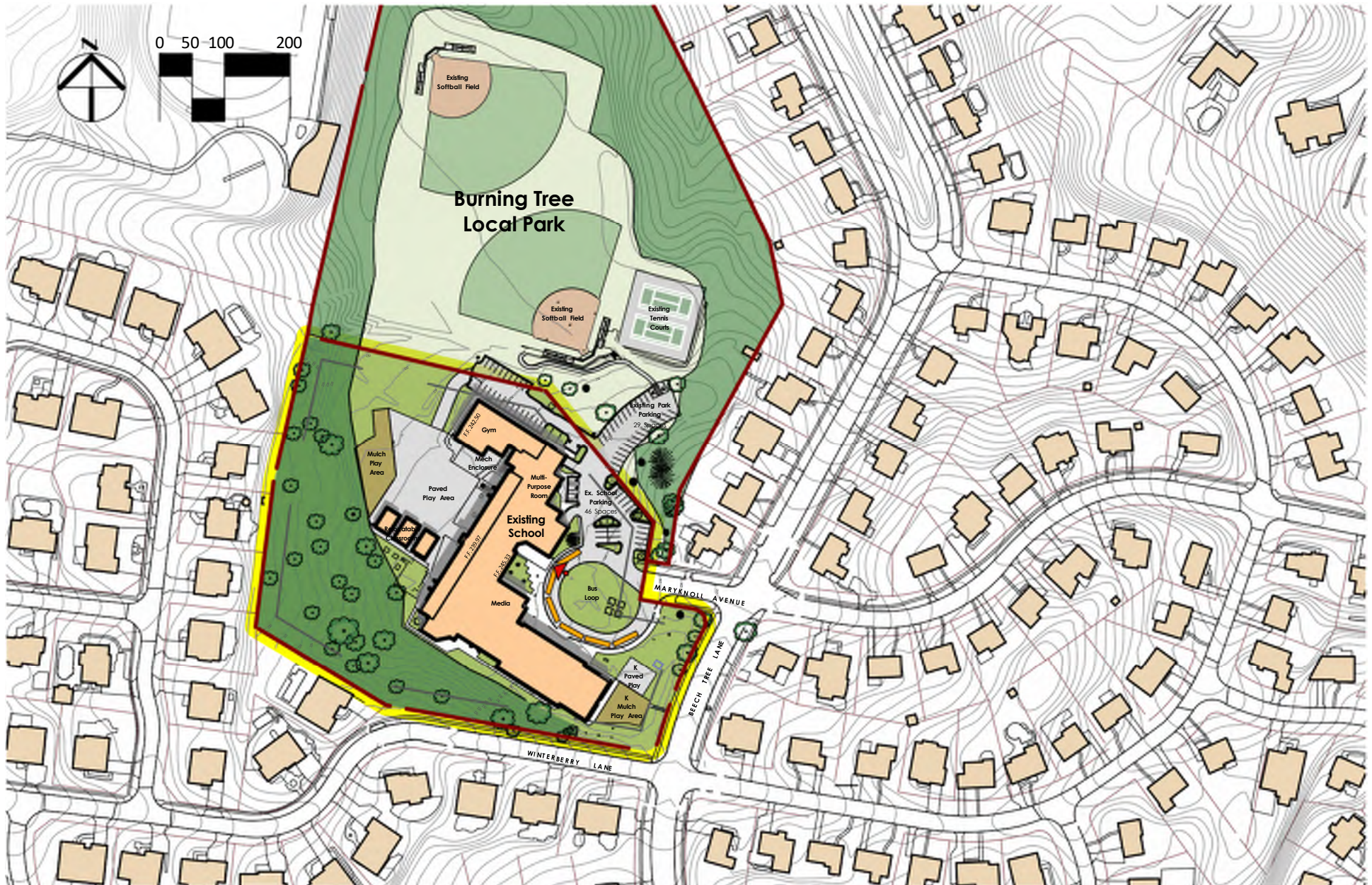
- Many of the systemic problems (mechanical, electrical, and plumbing) would be resolved, allowing the staff to have better teaching environments within the existing envelope of the school.
- With the work being minimal, the time frame of construction would be shorter, which would mean less time of displacement.

## CHALLENGES:

- None of the areas both inside and outside of the building will improve handicap accessibility, which is one of the schools' most crucial issues.
- These changes would not address nor fully meet the school's capacity needs, code compliance needs, and the educational specification needs for Montgomery County Public Schools.
- With the site not changing, the traffic pattern will remain the same. This will continue to cause backup on Beech Tree Lane and Winterberry Lane. and pedestrian safety is not being addressed.
- The relocatable classrooms would remain on site.

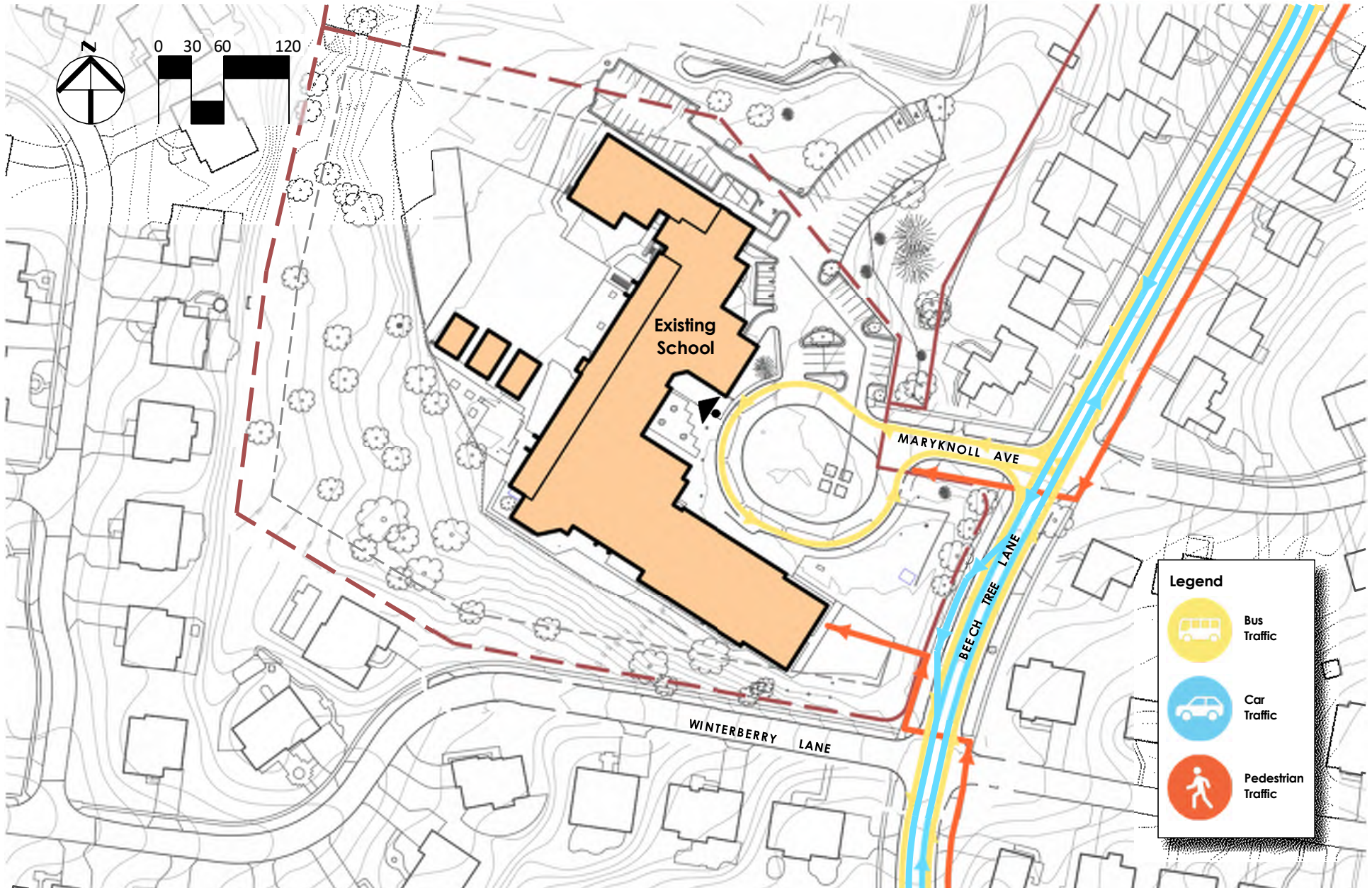


## APPROACH 1 - SITE PLAN

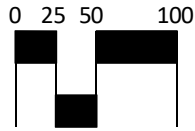






## APPROACH 1 - SITE CIRCULATION



## APPROACH 1 - FLOOR PLANS



### LEGEND

-  Classrooms
-  Media Center, PE, Multi-Purpose & Kitchen
-  Administration
-  Music & Arts
-  Instructional Support
-  Building Support

REDACTED

LOWER LEVEL

MAIN LEVEL

UPPER LEVEL

## APPROACH 1 – SPACE ANALYSIS

[illegible]

## **APPROACH 2:**

# **ADA UPGRADES AND LIGHT RENOVATIONS**



## APPROACH 2 - SUMMARY: LIGHT RENOVATIONS AND ADDITIONS

<b>PROJECT COST ESTIMATE:</b>	\$8,801,846
<b>GROSS SQUARE FOOTAGE</b>	
EXISTING BUILDING:	68,119 GSF
AREA OF DEMOLITION:	-94 GSF
AREA OF ADDITION:	± 8,500 GSF
<b>TOTAL AREA OF BUILDING:</b>	<b>± 76,525 GSF</b>

### PARKING TABULATION

SCHOOL STANDARD SPACES:	41	PARK STANDARD SPACES:	27
SCHOOL HANDICAP SPACES:	5	PARK HANDICAP SPACES:	2
TOTAL SCHOOL PARKING SPACES:	46	TOTAL PARK PARKING SPACES:	29
TOTAL PARKING SPACES:	75		



### SUMMARY:

- The existing elementary school will remain in place with ADA accessibility issues being fully addressed both on site and inside the building with light renovations to the existing spaces and an accessible corridor addition.
- This approach will include replacing a minimal amount of the existing systems in kind and will only include cosmetic upgrades (i.e. flooring, paint, new windows, new doors, new roof, etc) to the areas of renovation.
- Site work is minimal and will focus on providing accessible routes to the building entry points, providing separation between the bus and the car circulation, and updating the handicap parking spots.

### OPPORTUNITIES:

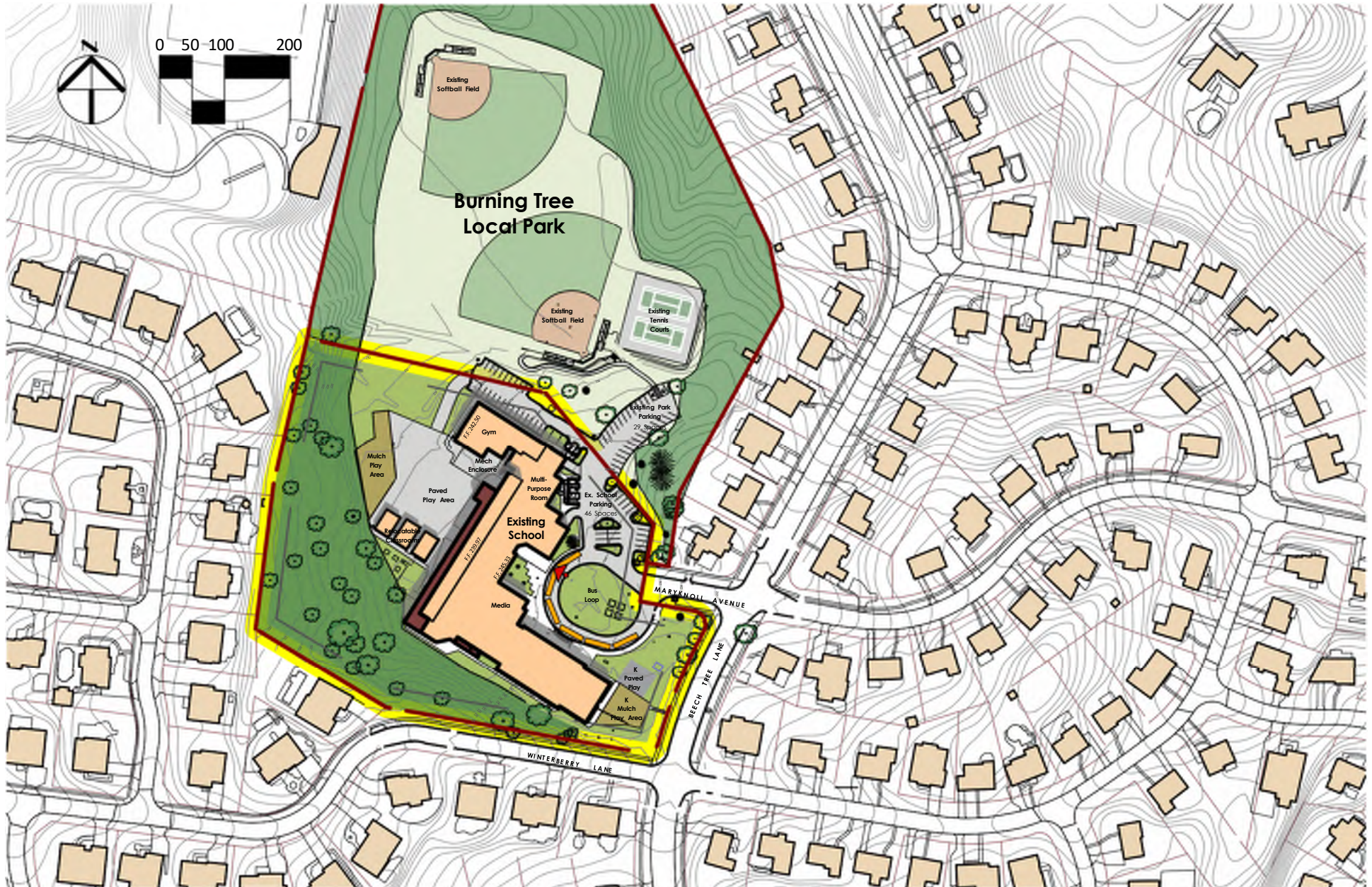
- The building would meet the minimum ADA accessibility requirements without demolishing much of the existing site.
- This the most cost-effective approach.
- All hardware would be updated to be ADA accessible (including, but not limited to closers, handrails, bathroom grab bars, etc.).

### CHALLENGES:

- The school's capacity needs would not be addressed.
- This approach will not bring the entire school up to current code standards.
- The programmatic spaces required by the education specifications for Montgomery County Public Schools would not be fully met and would require another renovation and/or addition in the future.
- Minimal site changes will result in the traffic pattern remaining the same. and continuing to cause backups on Beech Tree Lane and Winterberry Lane.
- Systemic (mechanical, electrical, plumbing) issues found within the existing school would not be fixed as the systems throughout the building will not be updated.
- The relocatable classrooms would remain on site.

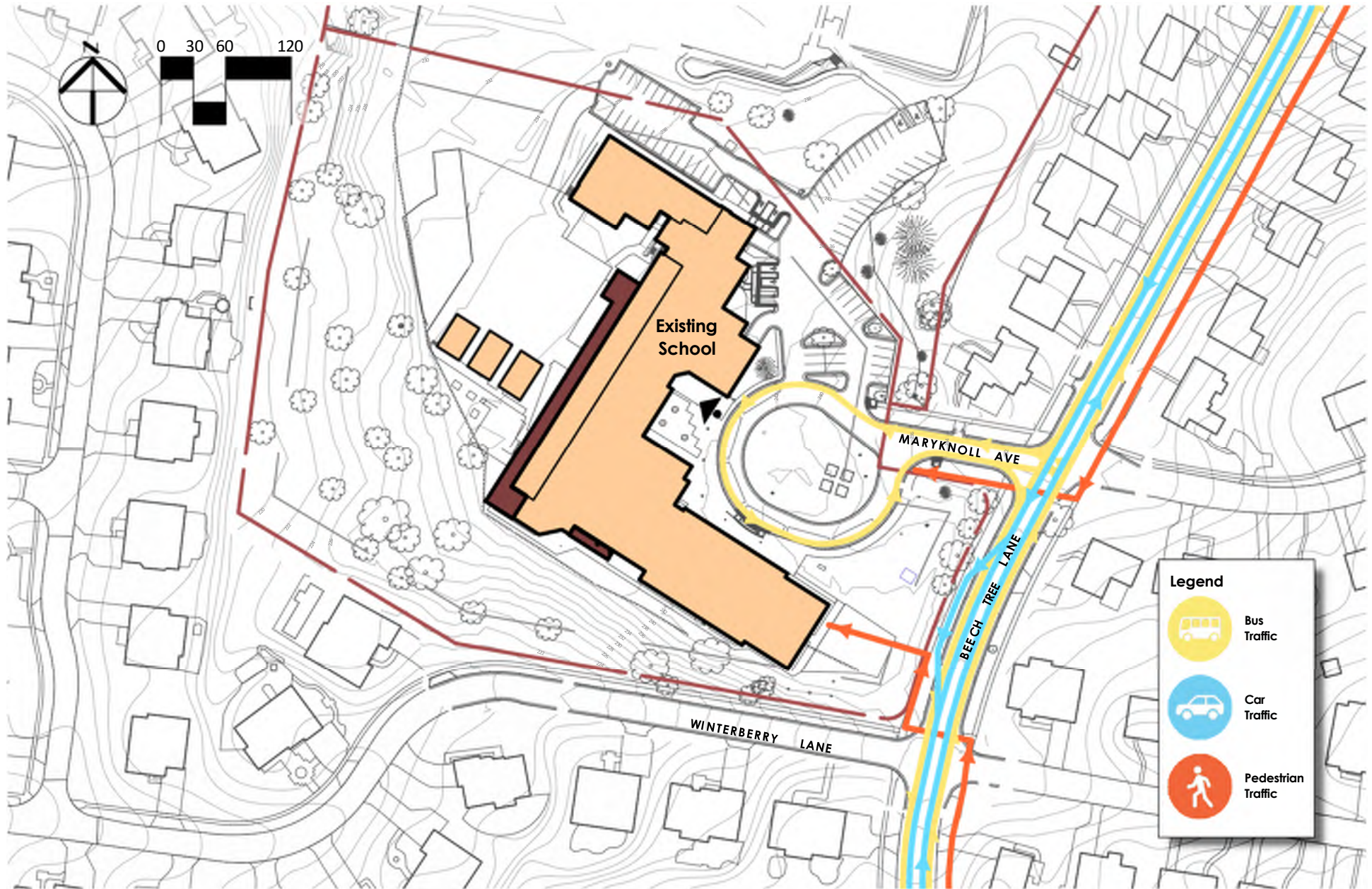


## APPROACH 2 - SITE PLAN

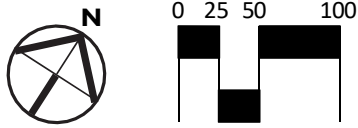









## APPROACH 2 - SITE CIRCULATION



## APPROACH 2 - FLOOR PLANS



### LEGEND

-  Classrooms
-  Media Center, PE, Multi-Purpose & Kitchen
-  Administration
-  Music & Arts
-  Instructional Support
-  Building Support

REDACTED

LOWER LEVEL

MAIN LEVEL

UPPER LEVEL





# **APPROACH 3:**

## **MAJOR RENOVATIONS AND ADDITIONS**

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## APPROACH 3 - SUMMARY: MAJOR RENOVATIONS AND ADDITIONS

<b>PROJECT COST ESTIMATE:</b>	\$61,280,358
<b>GROSS SQUARE FOOTAGE</b>	
EXISTING BUILDING:	68,119 GSF
AREA OF DEMOLITION:	-25,660 GSF
AREA OF ADDITION:	± 43,660 GSF
<b>TOTAL AREA OF BUILDING:</b>	<b>± 86,119 GSF</b>

### PARKING TABULATION

SCHOOL STANDARD SPACES:	41	PARK STANDARD SPACES:	27
SCHOOL HANDICAP SPACES:	5	PARK HANDICAP SPACES:	2
<b>TOTAL SCHOOL PARKING SPACES:</b>	<b>46</b>	<b>TOTAL PARK PARKING SPACES:</b>	<b>29</b>
<b>TOTAL PARKING SPACES:</b>	<b>75</b>		



### SUMMARY:

- This approach will retain at least 50% of the existing building footprint and will increase the building by approximately 18,000 sf.
- Interior spaces are to be reconfigured along with the new addition to conform to the current Montgomery County Public Schools Specifications.
- ADA accessibility issues being fully addressed both on site and inside the building with major renovations to the existing spaces.
- This approach will include replacing all existing systems in kind and cosmetic upgrades (i.e. flooring, paint, new windows, new doors, new roof, etc).
- The site would include a new traffic pattern to allow for separation between bus and car circulation by adding a new bus loop and utilizing the existing bus loop as a car loop.

### OPPORTUNITIES:

- Many of the systemic problems (mechanical, electrical, and plumbing) would be resolved, allowing the staff to have better teaching environments within the existing envelope of the school.
- The building would meet the ADA accessibility requirements.
- This approach would also address the school's capacity needs and code compliancy needs.
- The relocatable classrooms would be removed because of the available capacity in this approach.

### CHALLENGES:

- The site will require significant re-grading as many trees would need to be removed in order to construct the new addition.
- The addition would take up more of the outdoor play area that students use on a day-to-day basis. These areas would have to be replaced.
- Parking deficiencies are not addressed, which means that the school will continue to share parking with the local park.

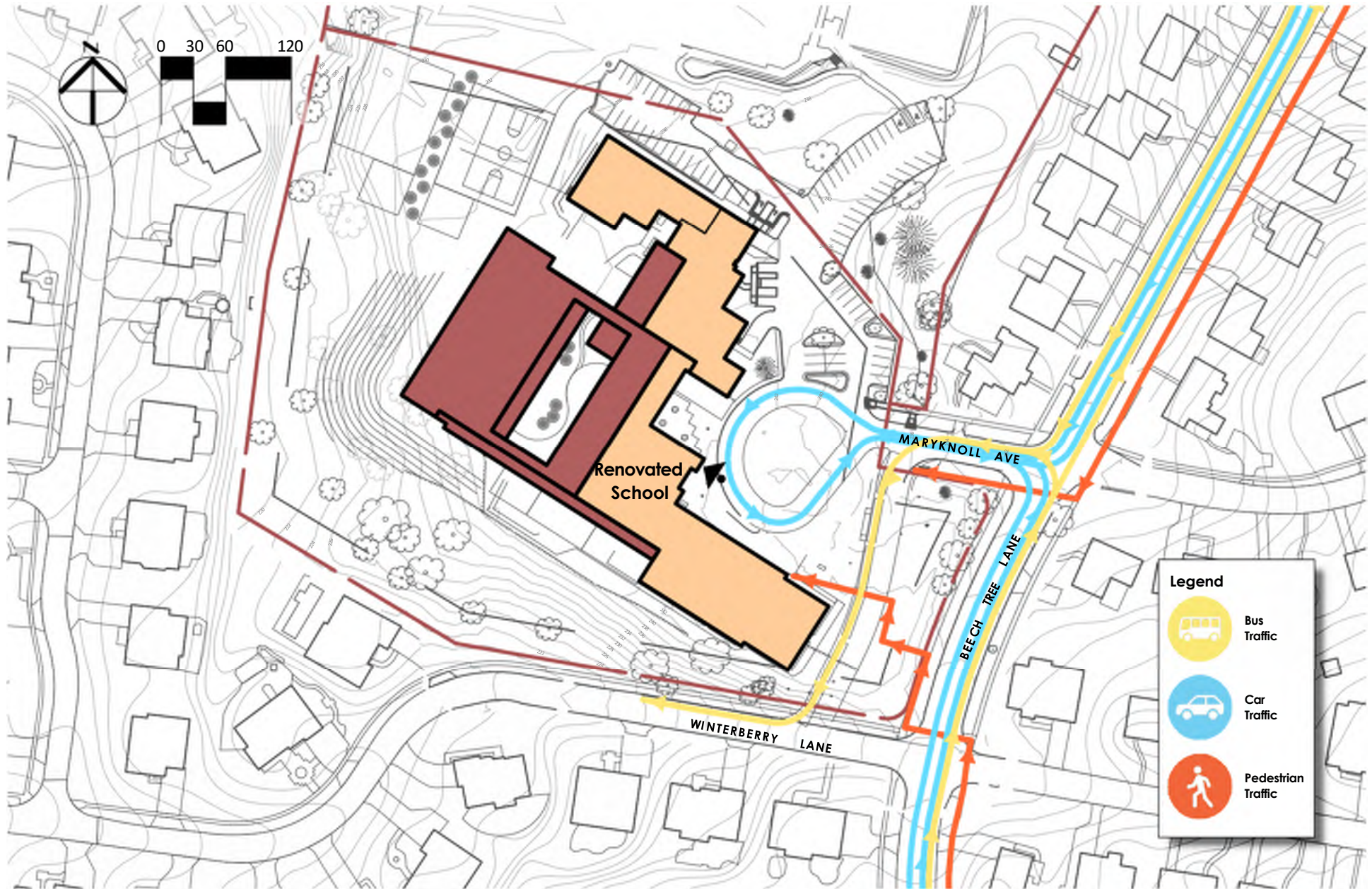


## APPROACH 3 - SITE PLAN

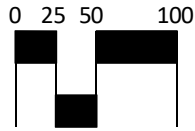





## APPROACH 3 - SITE CIRCULATION



## APPROACH 3 - FLOOR PLANS



### LEGEND

-  Classrooms
-  Media Center, PE, Multi-Purpose & Kitchen
-  Administration
-  Music & Arts
-  Instructional Support
-  Building Support

REDACTED

MAIN LEVEL

UPPER LEVEL

## APPROACH 3 – SPACE ANALYSIS

[illegible]

# APPROACH 4: REPLACEMENT SCHOOL



## APPROACH 4 - SUMMARY: REPLACEMENT SCHOOL

**CONSTRUCTION COST ESTIMATE:** \$66,612,626

## GROSS SQUARE FOOTAGE

EXISTING BUILDING: 68,119 GSF

AREA OF DEMOLITION: -68,119 GSF

AREA OF ADDITION: ± 80,396 GSF

TOTAL AREA OF BUILDING: ± 80,396 GSF

## PARKING TABULATION

SCHOOL STANDARD SPACES:	69	PARK STANDARD SPACES:	27
SCHOOL HANDICAP SPACES:	4	PARK HANDICAP SPACES:	2
TOTAL SCHOOL PARKING SPACES:	73	TOTAL PARK PARKING SPACES:	29
TOTAL PARKING SPACES:	102		



### SUMMARY:

- The existing building would be demolished entirely and a new building will be constructed in its place.
- The new building will fully meet Montgomery County Public Schools Education Specification requirements and will be compliant with current codes and standards.

### OPPORTUNITIES:

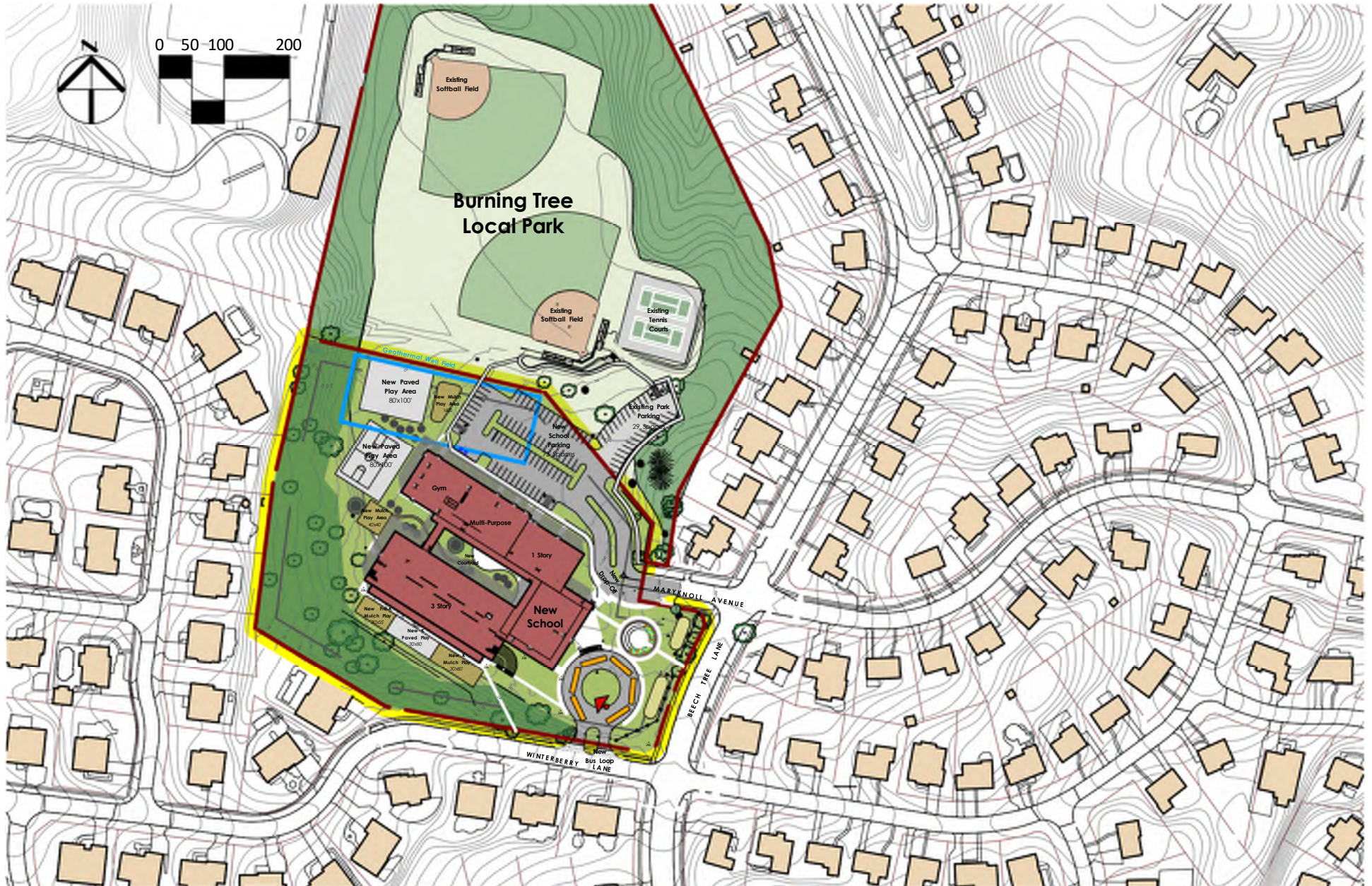
- The school would be able to better blend in with the neighborhood.
- Most issues that the community has would be resolved and would be set up to address the schools' future needs.
- Further separation from the local park gives more relief to the traffic congestion.
- This approach would aim to make the building a high performance school.
- Sustainable and CPTED strategies would be used to help make the building more energy efficient and address the community's safety concerns.
- The design will be more compact to reduce the limit of disturbance.
- A new car parking lot and a parent drop-off area will be constructed. This will allow bus and vehicular traffic to be separated providing pedestrian safety.
- A pedestrian plaza has been added to further separate the pedestrian foot traffic from the vehicular traffic.

## CHALLENGES:

- The cost of a replacement school is the most expensive option between all approaches.
- The site will require slight re-grading as some trees would need to be removed in order to construct the replacement school.

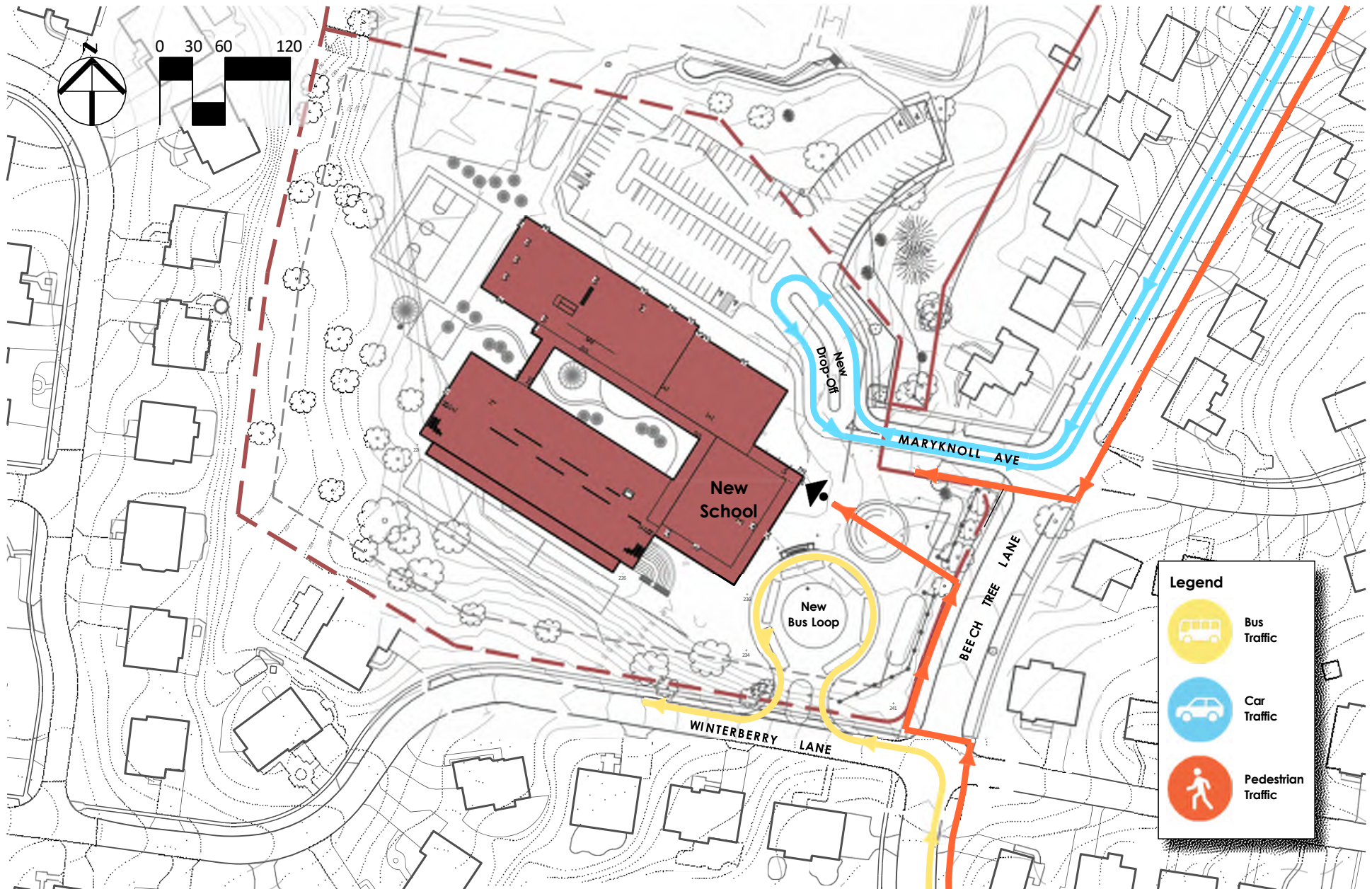


## APPROACH 4 - SITE PLAN

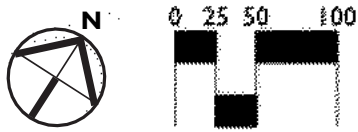




## APPROACH 4 - SITE CIRCULATION



## APPROACH 4 - FLOOR PLANS



### LEGEND

- Classrooms
- Media Center, PE, Multi-Purpose & Kitchen
- Administration
- Music & Arts
- Instructional Support
- Building Support

REDACTED

LOWER LEVEL

MAIN LEVEL

UPPER LEVEL





## NEXT STEPS

### Superintendent's Recommended FY27 CIP

October 14	Presentation to the Board of Education
October 23	Public Hearing #1
October 28	Public Hearing #2
November 6	Public Hearing #3 (if necessary)
November 20	Board of Education Approval

# THANK YOU

## Questions?

