

MARCH 28, 2017

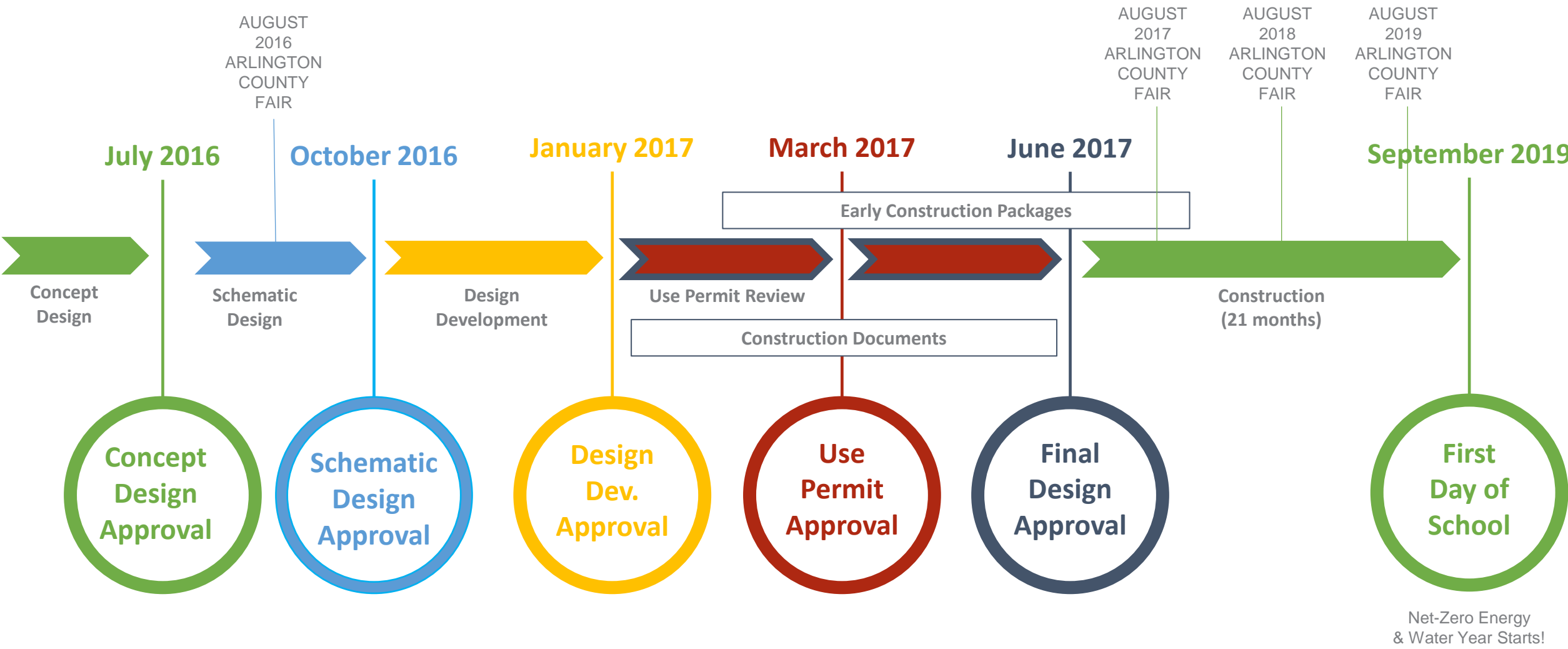
**NEW ELEMENTARY SCHOOL
AT THOMAS JEFFERSON MIDDLE SCHOOL**

Parks & Recreation Commission

Project Parameters

1. New Elementary School for the Henry Community
2. Support Strategic Plan Goal #4 – Provide Optimal Learning Environments
3. Address capacity by providing at least 725 seats
4. Open by start of school 2019
5. Multi-story building in northwest corner of site
6. Structured parking
7. Project cost \$59 million

General Schedule | Timeline



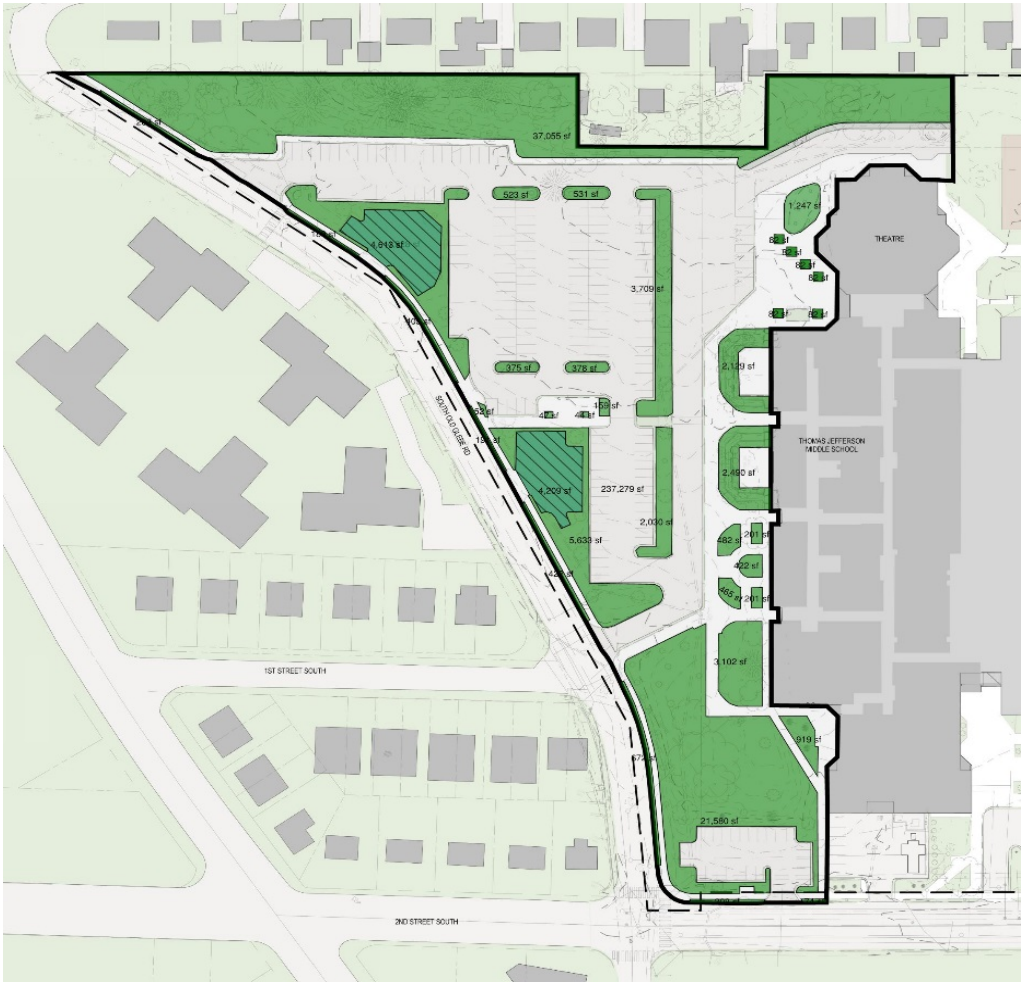


Overall Existing site plan



Overall Final site plan

Existing Condition



38.6% pervious
3.7% semi
57.7% impervious

Proposed Condition



34.3% pervious
8.8% semi
56.9% impervious

Existing condition



Final Design



CALCULATIONS

14.2.2.B.1 - STREET TREES
<i>REQUIREMENT:</i> 1 TREE PER 35 LINEAR FEET OF PUBLIC RIGHT OF WAY
SITE DATA: SOUTH OLD GLEBE ROAD 1031 LINEAR FEET
STREET TREES REQUIRED: 29 STREET TREES REQUIRED
STREET TREES PROVIDED: 30 STREET TREES PROVIDED

DPR ADMINISTRATIVE REGULATION 4.3 - TREE REPLACEMENT
<i>REQUIREMENT:</i> REPLACE TREES SLATED FOR REMOVAL (SEE CIVIL SHEET T1.00 & T2.00)
REPLACEMENT TREES REQUIRED: 187 TREE REPLACEMENTS REQUIRED
REPLACEMENT TREES PROVIDED: 246 TREE REPLACEMENTS PROVIDED
91 LARGE SHADE TREES
47 MEDIUM SHADE TREES
68 MEDIUM EVERGREEN TREES
35 FLOWERING TREES
5 UPRIGHT SHADE TREES

- 157:** Trees scheduled for demolition
- 187:** Replacement trees required

- 29:** Trees required along streetscape
- 158:** Trees throughout rest of site
- 187**

- 246:** Total tree replacements being installed
- 59 more than required**
- 89 more than exist**



Along SOG



North of theater

GEOTHERMAL WELL FIELD

Two-thirds of the south soccer field's length has a well field below it. Prior to building the soccer field, 70 wells were drilled 500 feet into the earth. These wells are spaced 20 feet apart and contain a closed-loop pipe for moving water through earth. The water is always contained within the pipe, but in the process of circulating through the 70,000 linear feet of underground piping, heat is transferred between the water and the earth through the pipe's walls.

When it's cold outside, Discovery's heat pumps take heat from the water and use it to warm the school's inside air. The water is now cooler and it is sent back to the earth to be warmed up. When it's hot outside, the heat pumps pull heat from the school and discharge it into the water. The water is now warmer and it is sent back to the earth to be cooled down.

SCHOOL HEATING

SCHOOL COOLING

Two permanent wells already drilled down to 560 feet with conductivity results as expected.

70 more wells will be drilled during construction when the site is fenced off and in full site construction mode.

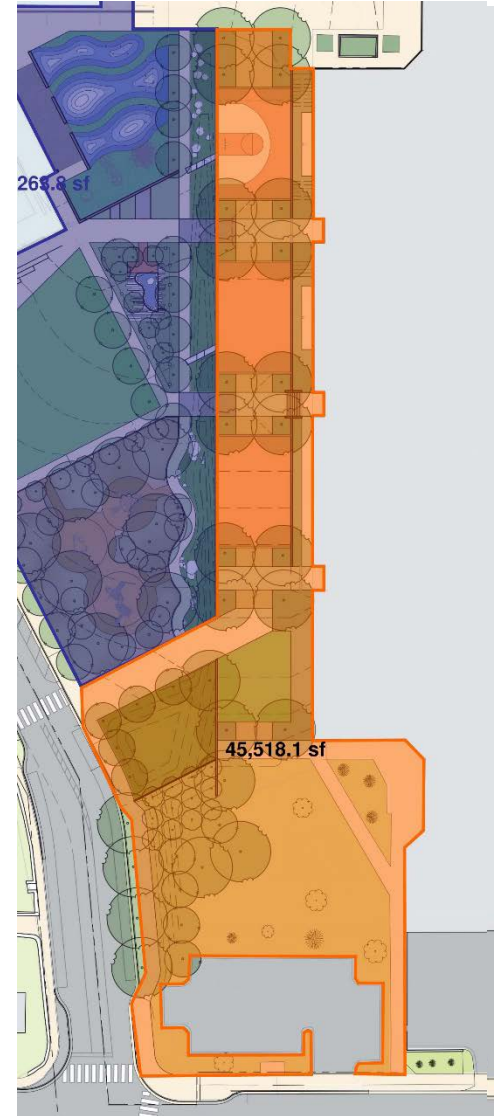
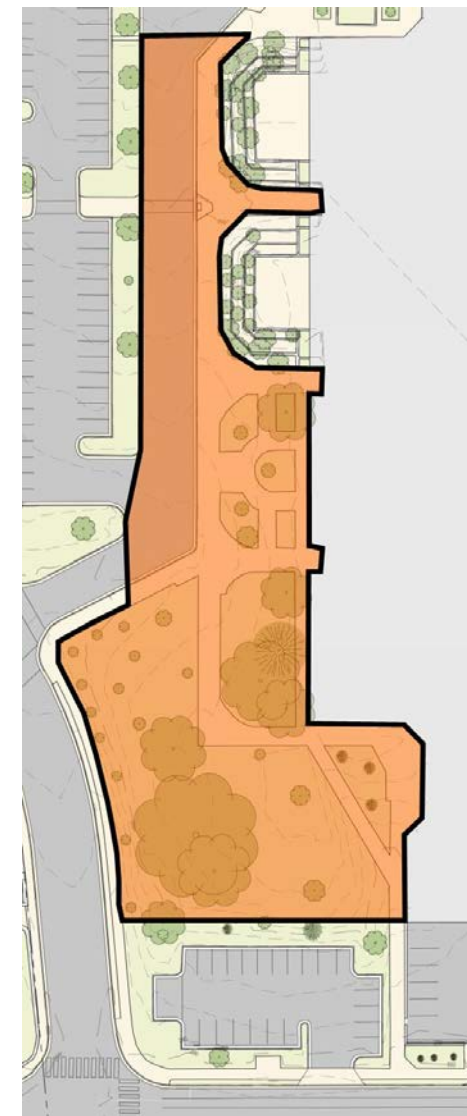
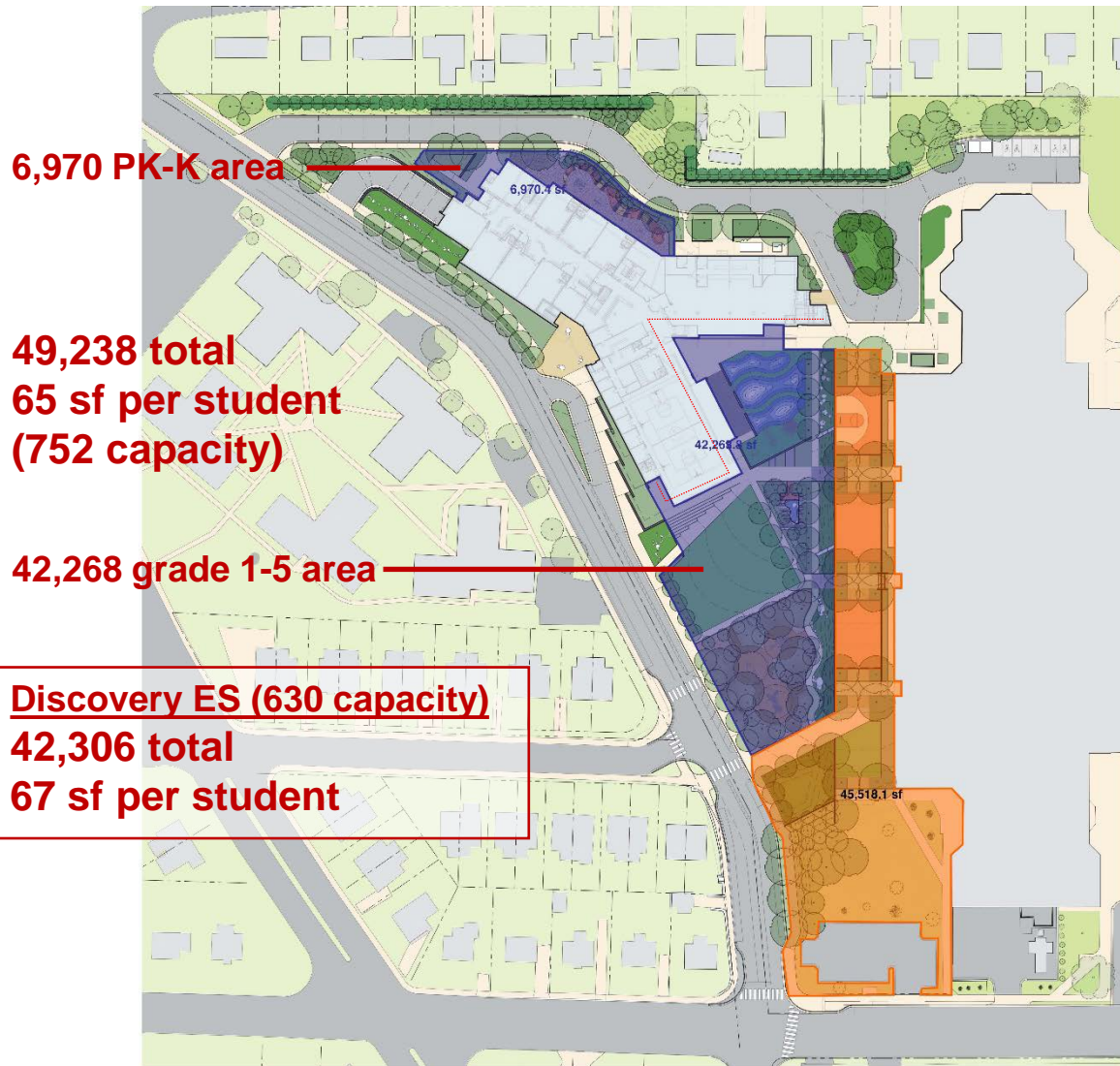
This is one of the largest energy saving aspects of the project. This also prevents the need for noisy exterior cooling towers, which often draw complaints in the summer

Example of construction signage

Proposed Final Design

Existing condition

Proposed Final Design

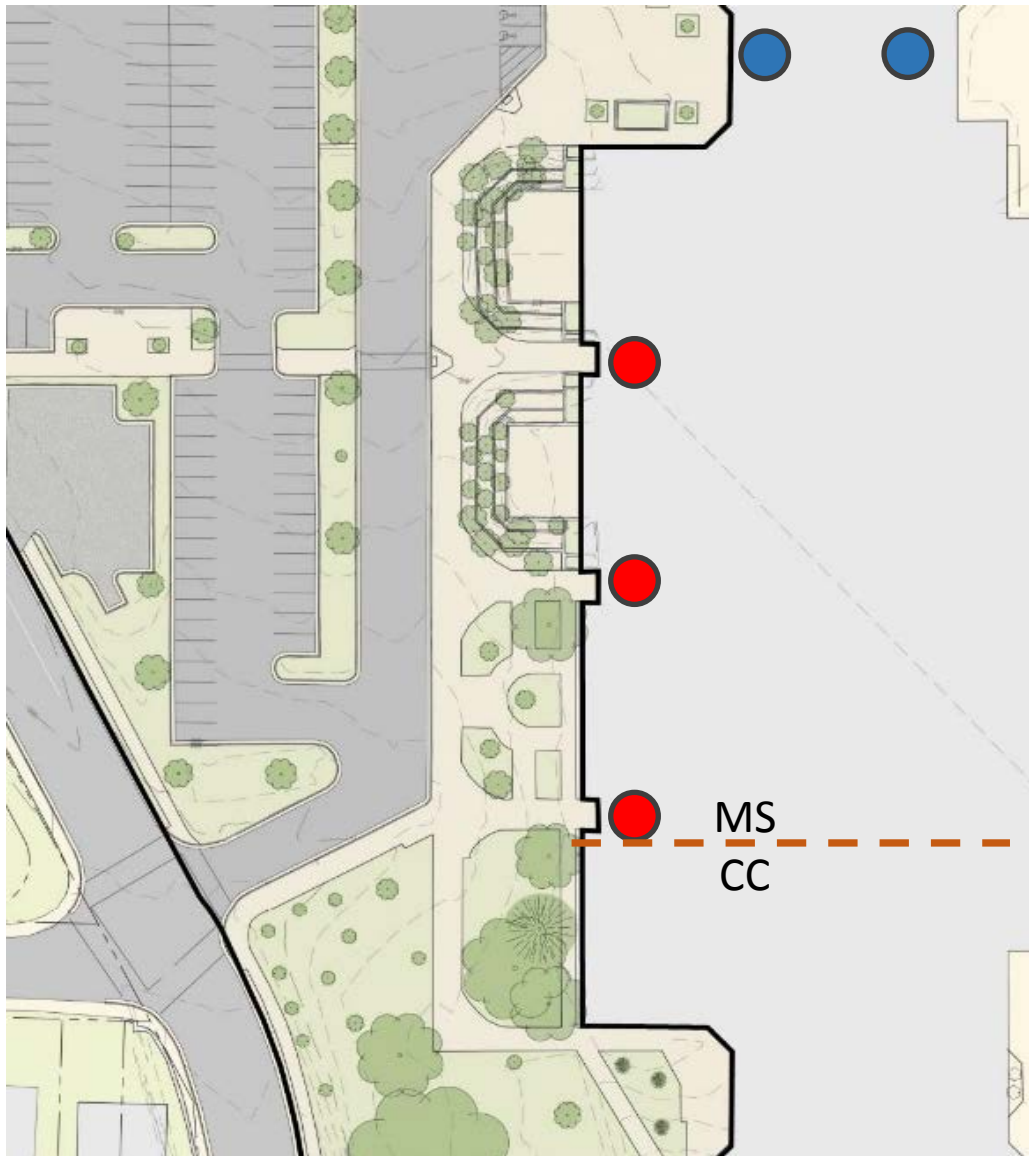


49,238 sf Elementary | 45,518 sf Middle

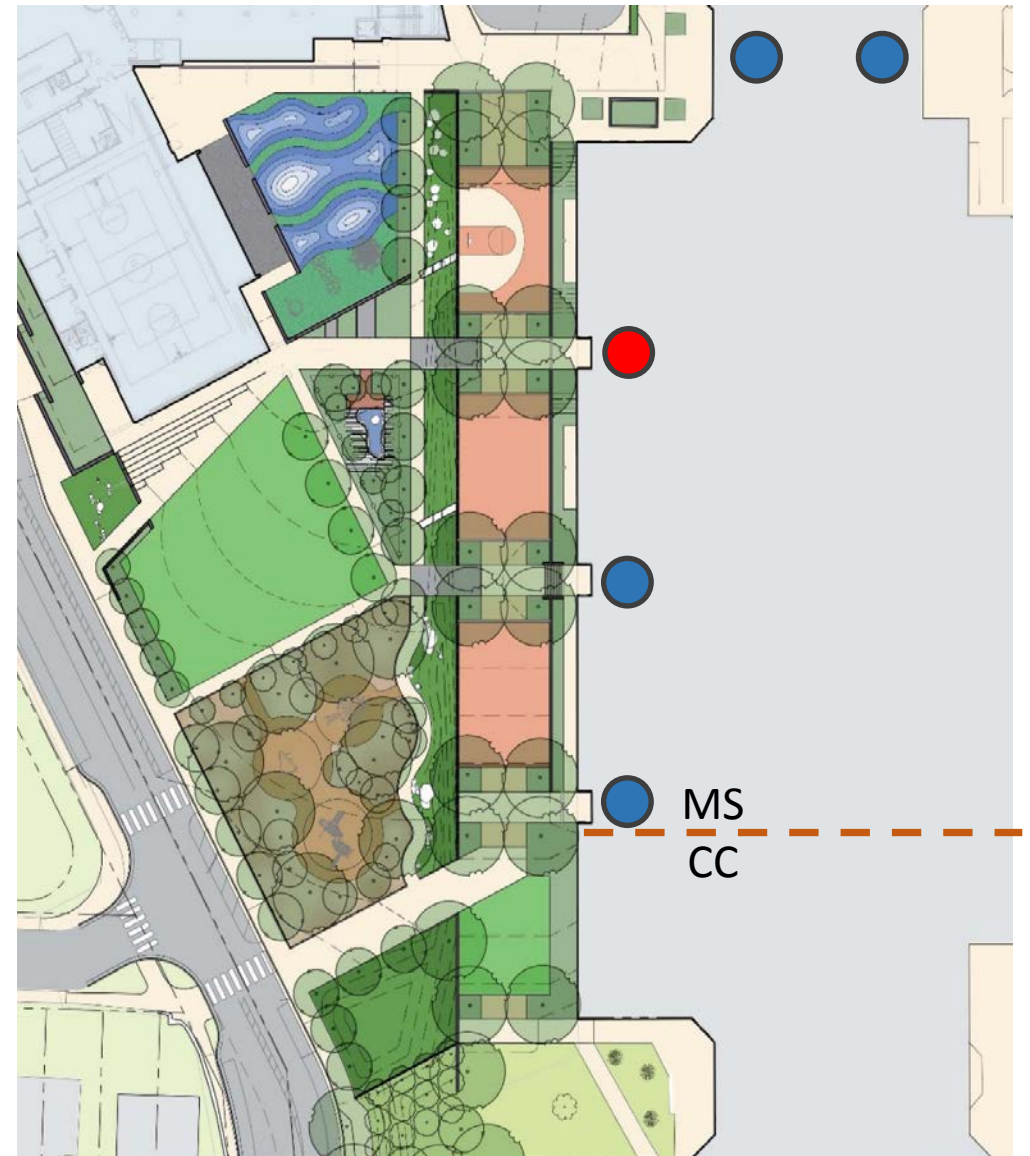
45,439 sf

45,518 sf

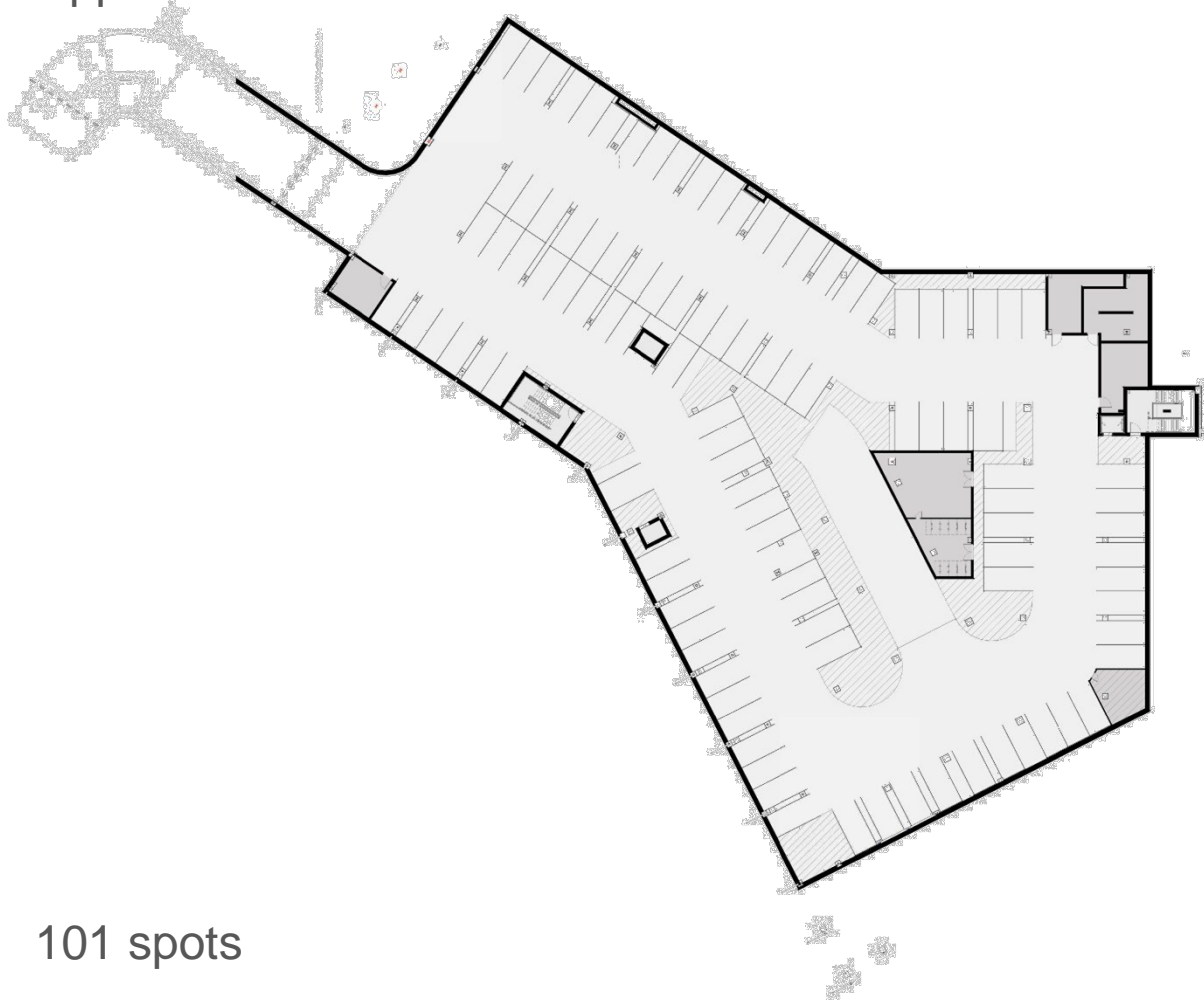
Existing condition



Final Design

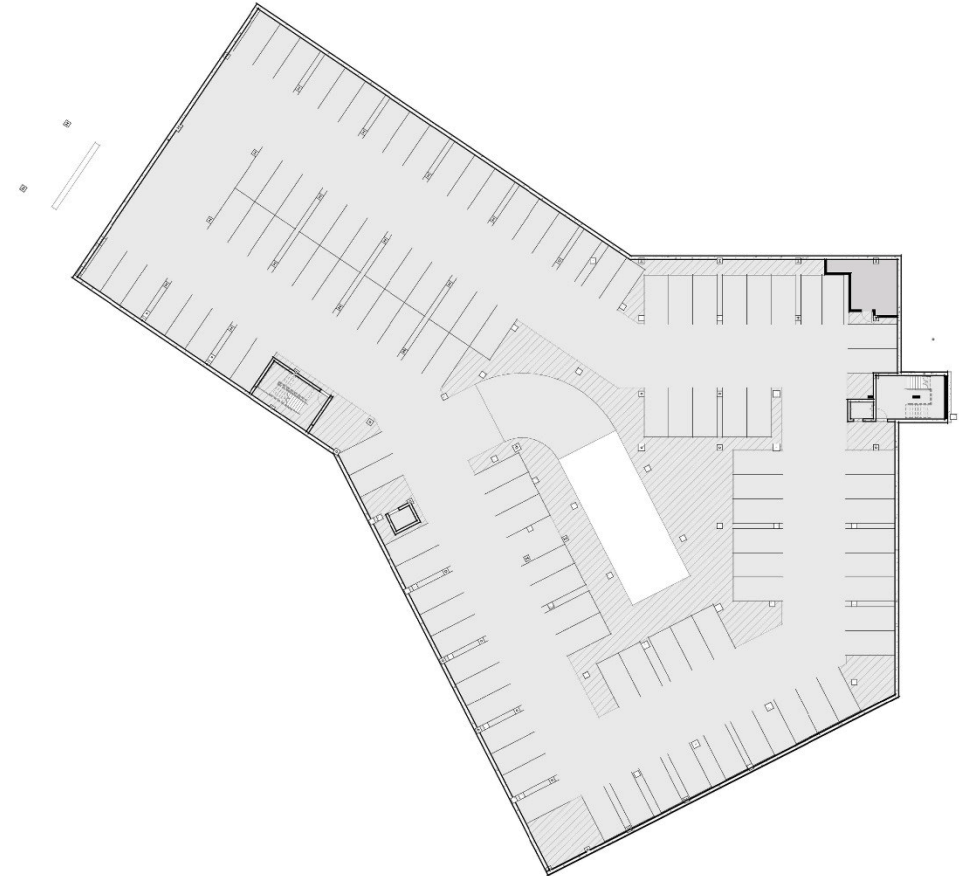


Upper level



101 spots

Lower level



113 spots

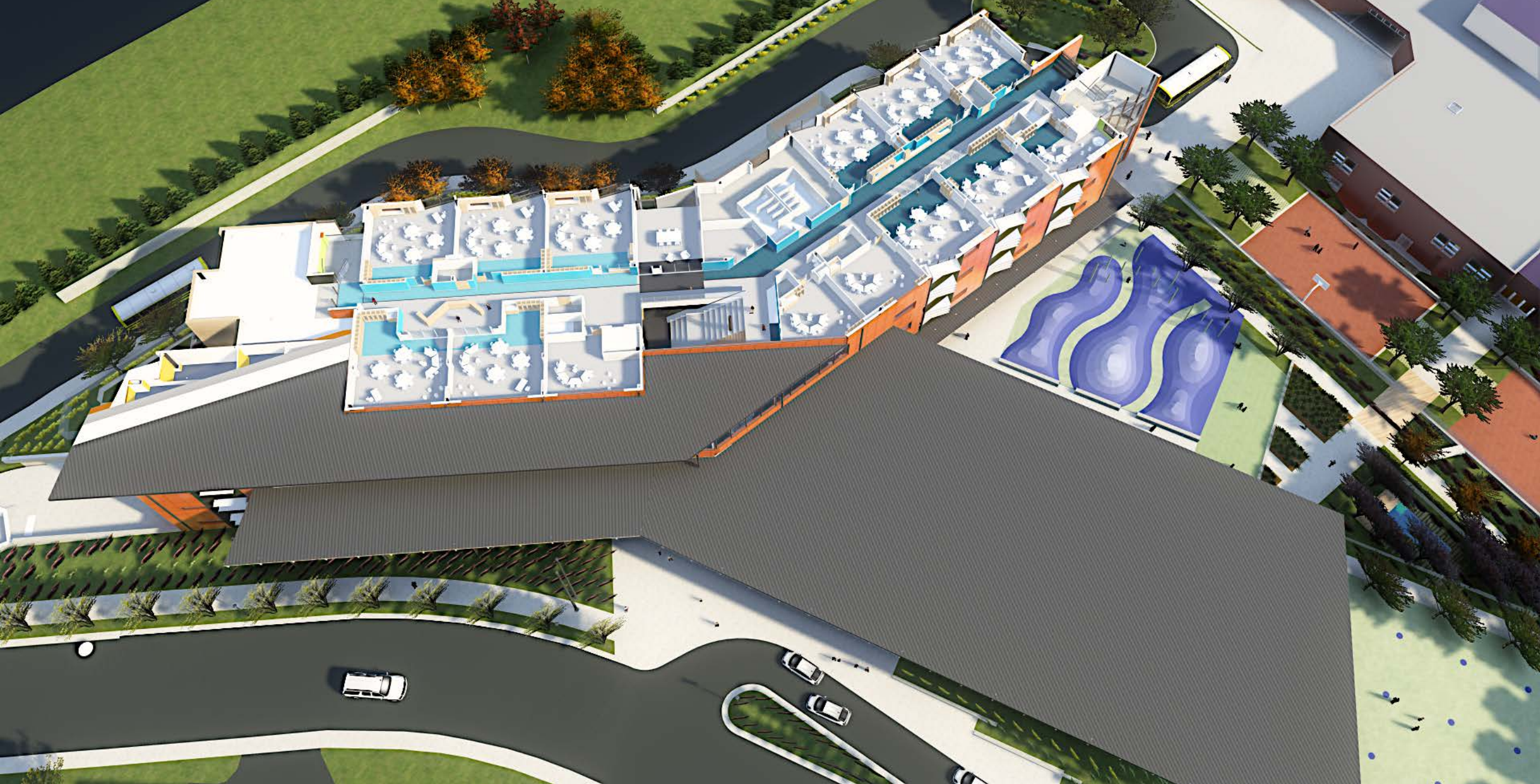
$101 + 113 + 13 \text{ surface} = 227$. This is the amount of spots shown in Use Permit submission

$227 + 20 \text{ on street} = 247 + 23 \text{ corner lot} = 270$. 268 spots are recommended

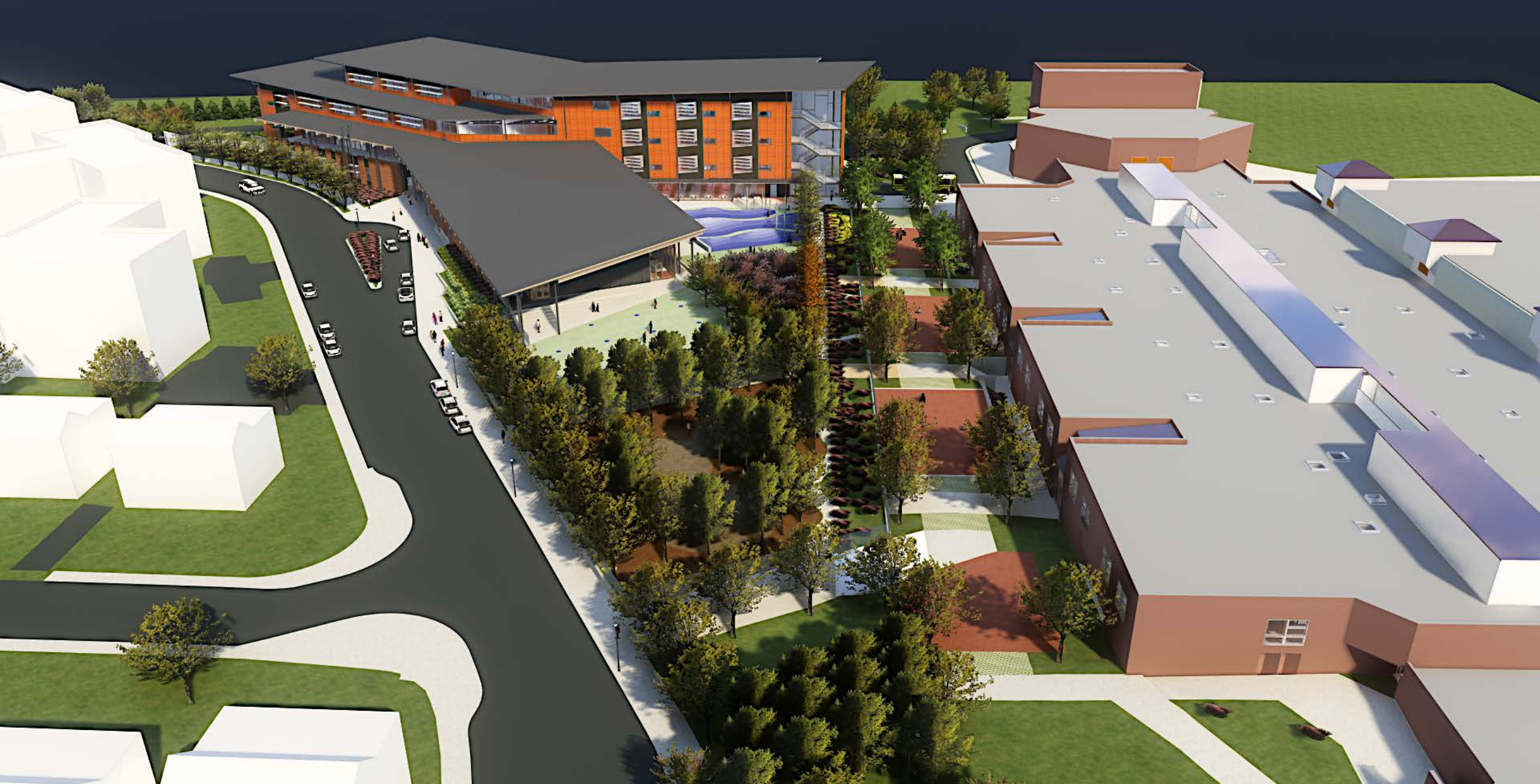




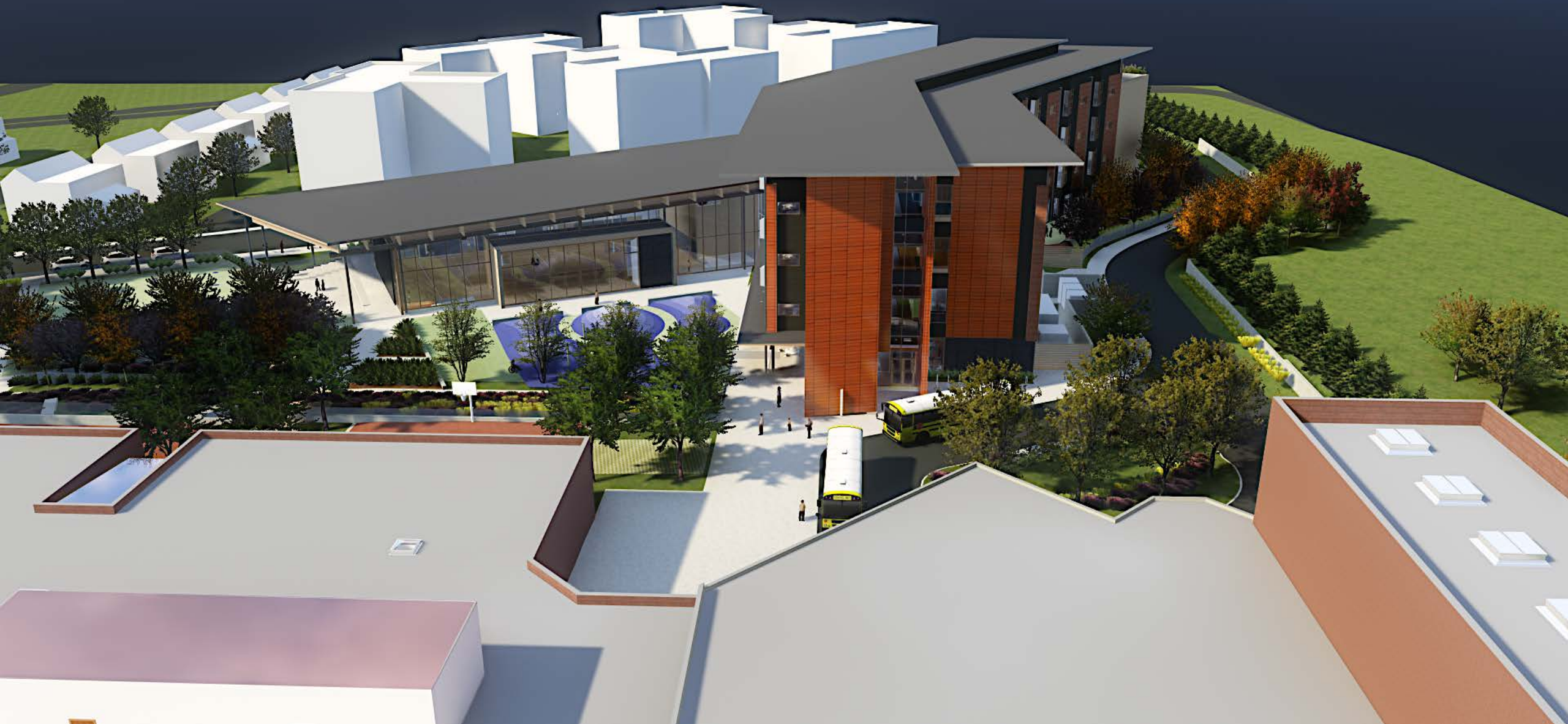








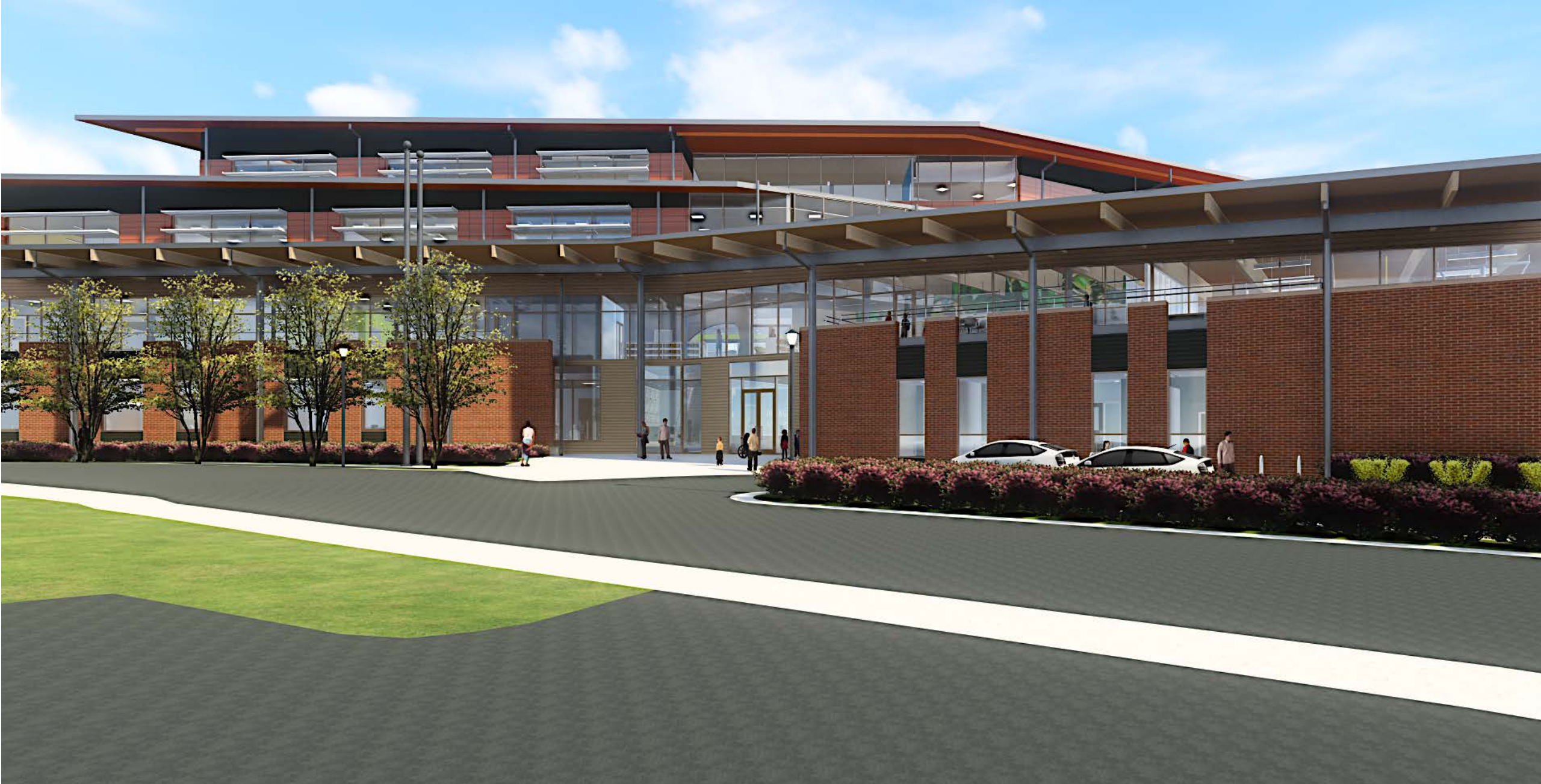
















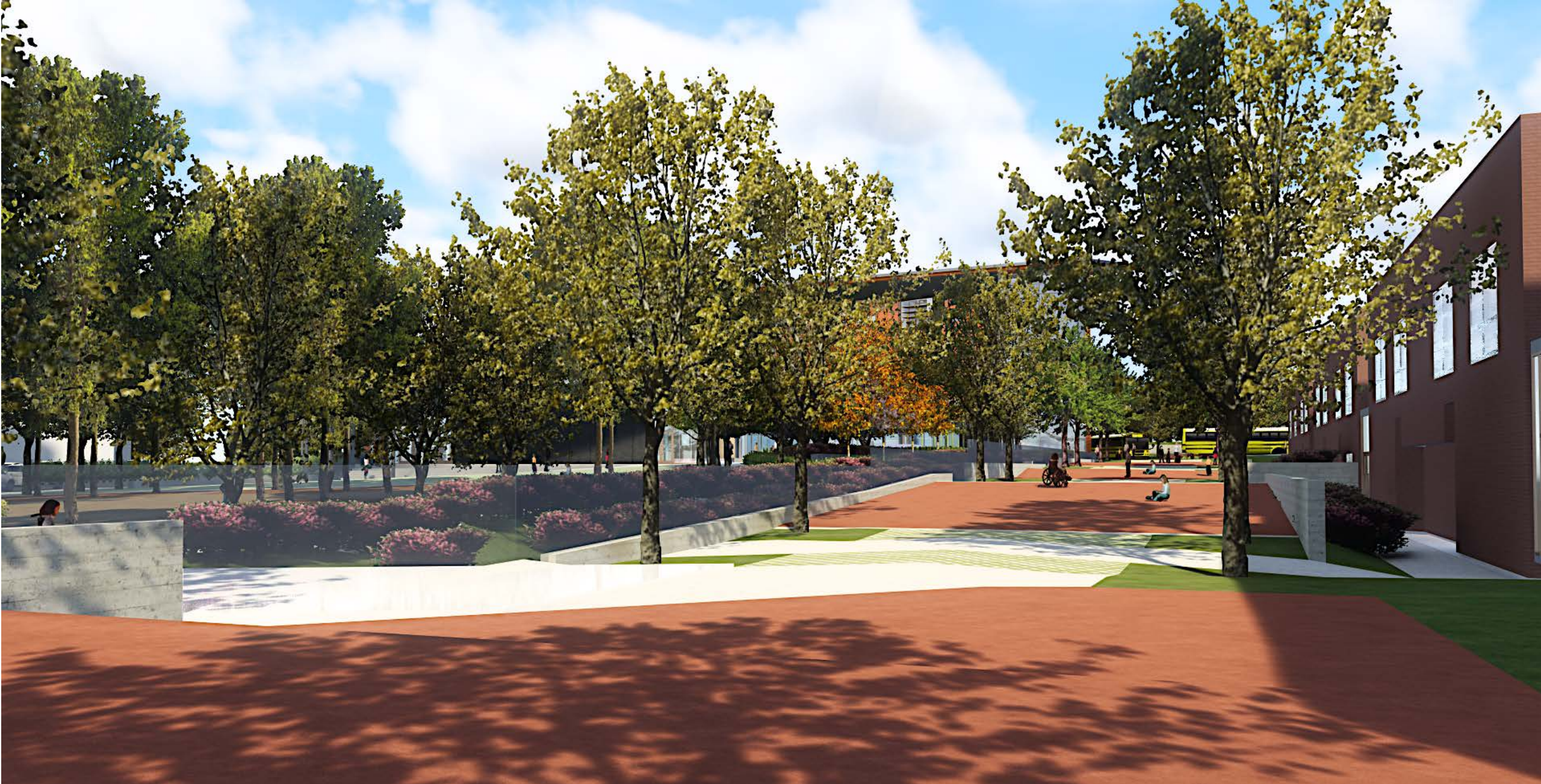






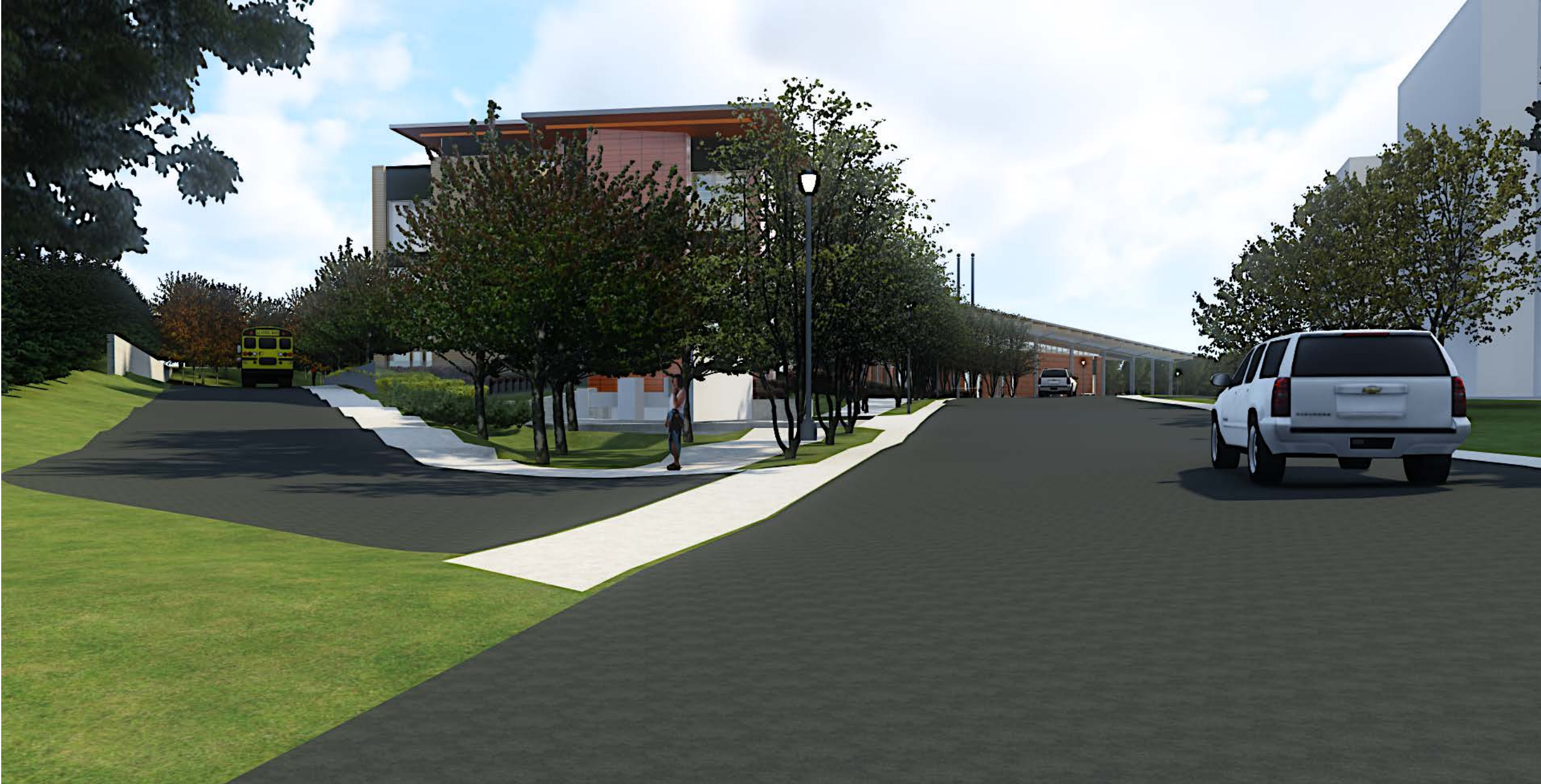


































Logistics Plan Legend

- ① Middle School/Theater Main Point of Entry
- ② Middle School Main Delivery Entrance
- ③ Theater Main Delivery Entrance
- ④ ADA Entrance for Middle School/Theater
- ⑤ Parent Dropoff/Pickup Zone

- 4' Pedestrian Lane for emergency egress from West side of TJMS
- Fire Department Access (16' wide)
- Construction Trailers
- Middle School Staff/Visitor Parking (# of spaces)

- Construction Site Fencing (6' chain link w/ privacy screening)
- Construction Haul/Delivery Routes
- Middle School/Theater Access Pathways
- Closed Parking Lot during Bus Dropoff/Pickup
- Bus Dropoff/Pickup Zone



NEXT STEPS

- 3/14 Use Permit electronic copy re-submission
- 3/15 Use Permit hard copy re-submission
- 3/23 Urban Forestry Commission (UFC)
- 3/27 Environment & Energy Conservation Commission (E2C2) action
- 3/28 Park & Recreation Commission (PRC)
- 4/3 Transportation Commission (TC) action
- 4/5 Planning Commission (PC)
- 4/22 County Board approval

PROJECT COMMUNICATION

Monthly project updates will be posted on the APS Project Website during construction:

<https://www.apsva.us/design-and-construction/new-elementary-school-jefferson-site/>

For further information please contact:

APS NES @TJ Project Manager

Steve Stricker

571-220-0048

steven.stricker@apsva.us