Stratford School Addition

Access Driveway
Presentation Overview

- Environmental Impacts
- Fire Access
- Transportation Impacts
- Staff Recommendations
## Environmental Impacts

<table>
<thead>
<tr>
<th>Impact</th>
<th>Driveway</th>
<th>Non-Driveway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impervious Area (Pavement)</td>
<td>20,000 SF</td>
<td>6,000 SF</td>
</tr>
<tr>
<td>Open Space* (Total on Site**)</td>
<td>277,000 SF</td>
<td>291,000 SF</td>
</tr>
<tr>
<td>Sitework- Cut and Fill</td>
<td>12,000 CY</td>
<td>8,000 CY</td>
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<tr>
<td>Sitework- Grading</td>
<td>22,000 SF</td>
<td>6,000 SF</td>
</tr>
<tr>
<td>Trees Removed (Total on Site**)</td>
<td>166</td>
<td>112</td>
</tr>
<tr>
<td>Tree Replacement Calculation</td>
<td>211</td>
<td>126</td>
</tr>
</tbody>
</table>

*Includes Walkways/Sidewalks

**APS + DPR Property

*Note: A non-driveway option has not been engineered; these numbers are approximations provided by APS Staff.*
Limits of Grading

With Driveway Connection to Old Dominion

Steep Slopes from Driveway Grading
Limits of Grading

No Driveway Connection to Old Dominion

Additional Parking Lot Area
Driveway Tree Impact

Urban Forestry Staff counts about 54 trees to be impacted due to a proposed driveway with an equivalent replacement value of approximately 85 trees.
Tree Impact

Total trees to be removed on site with driveway: 166
Replacement value: 211

Total trees to be removed on site without driveway: 112
Replacement value: 126

Highest number trees removed/replaced on recent APS project: 147 removed; 150 replaced
“Preserve existing wooded parks and natural areas, and plant trees in parks, natural areas and other public open spaces to improve Arlington’s overall tree canopy.”


Preserving small forest patches plays an important role in ecological health for wildlife, reducing water and air pollution, and carbon sequestration.

Trees impacted are of high value native species, such as Northern Red Oak, Slippery Elm, Black Cherry, and Swamp White Oak.
• Proposed addition requires entire building be updated to current Fire Code standards.

• Fire access can be achieved with or without driveway.
  – Driveway connection to Old Dominion is not required by the Fire Code.
  – Proposed driveway is not close enough to building to provide required ladder truck access.
Portion of driveway that would provide Fire Access

Approximately 2,500 SF structural base for fire access

30' perimeter offset possible fire lane required
Aerial access not required
Fire Access without Driveway

- 30’ perimeter offset
- Possible fire lane required
- Aerial access not required

Approximately 4,000 SF structural base for fire access within courtyard

Additional Grass-Pave or other material for Fire Access
Master Transportation Plan (MTP)

- **Goal 2 – Move More People Without More Traffic.**
  “Provide more travel choices and reduce the relative proportion of single-occupant-vehicle (SOV) travel”

- **Goal 6 – Advance Environmental Sustainability.**
  “Reduce the impact of travel on community resources including air and water quality”

The proposed driveway prioritizes parent-student drop-off activity over other modes of travel: walking, biking, school bus, transit, and remote drop-off.
Transportation Tradeoffs

AM Outbound With Driveway (7:15 AM – 8:15 AM)

With a driveway, additional pedestrian-vehicle conflicts at Old Dominion Drive.

190 at Lorcom
351 at Driveway
161 at Five Points

Toole Design Group
TIA 02.19.2016
Without a driveway, additional pedestrian-vehicle conflicts at the Vacation Lane intersections at Lorcom Lane and at Military Road.
The objective of either access option is to minimize the additional traffic at the school site, which adversely impacts access by other modes.

- Robust Transportation Demand Management (TDM) Plan
- Pedestrian and bicycle infrastructure improvements near school
- Crossing guards at challenging intersections
- Promotion of remote drop-off locations
- Exploration of new transit opportunities for students including ART bus fare cards
- Analyze limiting Vacation Lane drop-off activities 20 minutes prior to first bell
The driveway causes adverse environmental impacts to the site and is not essential for transportation access.