MEMORANDUM

TO: Dr. Patrick K. Murphy, Superintendent

FROM: Jeffrey Chambers, Director, Design and Construction

THROUGH: John Chadwick, Assistant Superintendent, Facilities and Operations

SUBJECT: **School Board Follow-Up #18.60 (SB), dated May 31, 2018**
              Comparing Cost per Student between Proposed 800 Seat Addition at the
              Career Center and Wakefield High School

DATE: June 6, 2018

Please compare the total project cost per student between the proposed 800 seat addition at the Career Center and Wakefield High School.

Summary

This memorandum provides a cost per student comparison between Wakefield High School and the proposed high school at the Career Center included as Scenario A-1 in the proposed FY 2019-28 CIP (Career Center Scenario A-1). Any direct comparison is imperfect because of key fundamental differences between the facilities such as built versus estimated, new construction versus renovation/addition, single high school program versus multiple programs, and 2011 dollars versus 2019 dollars. Based on the assumptions explained below, the cost per student at Wakefield is $62,336 and the cost per student at the Career Center is $78,340.

Calculating Cost per Student for Wakefield High School

The student capacity for Wakefield used for the calculation is 1,903 students, which was the capacity of the school when the project was completed. The total project cost used

for the calculation is $118,626,000, based on the project funding approved by the School Board.

Total Project Cost	$118,626,000
Student Capacity	÷ 1,903
Cost per student	**$62,336***

* Represented in 2011 dollars, since that is when bids were received for the project.

Calculating Cost per Student for Career Center Scenario A-1

The estimated student capacity was based on the following assumptions since the new construction as well as the renovated existing spaces will serve all students occupying the building at one time during the school day.

- 800 Full Time High School Students
- 600 Full Time Arlington Tech Students
- 300 CTE Students at any given time (900 ÷ 3 periods)
- 150 Full Time Students in other programs in the building
    1,850 Student Capacity (required when facility opens)

The assumed total project cost (in 2019 dollars) was generated by an estimate prepared by an APS consultant: CBRE/Heery, a Construction Manager Advisor (CMA). This estimate was prepared for the FY 2019-28 CIP process and used the following criteria.

- 800 seats with relocation & demolition of existing CTE Shops, educational spaces, competition gym and renovation of 50,000 sq. ft. of the existing building:

$102,475,101

- Performing arts facility: $ 7,452,951
- Parking garage with artificial turf on top at existing parking : $ 35,000,677

Total Project Cost: **$144,928,729**

Total Project Cost	$144,928,729
Student Capacity	÷ 1,850
Cost per student	**$78,340***

* Represented in 2019 dollars, which would have to be escalated to the date of actual completion of the building.

A general cost per sq. ft. calculation cannot readily provide specific breakdown on costs associated with demolishing and replacing CTE spaces. The cost estimate was broken down by the quantity of work for the entire project and not by square footage of separate areas in the building. The construction cost was added to historical "soft costs"

percentages to get the total project cost for the size of the building. This equates to $563.05 total project cost per sq. ft. for the 800 seat addition ($102,475,101 ÷ 182,000 sq. ft.). Based on this logic, the opinion of cost for the demolition of the 35,000 sq. ft. existing CTE shops and construction of new equivalent spaces could be **$19,706,750.19**, assuming the new sq. ft. is equal to the existing.