

# STEVENSON-CARSON SCHOOL DISTRICT

## Preliminary Cost Benefit Analysis

September 24, 2018

The Stevenson-Carson School District's long-range facility planning committee developed several capital improvement concepts to represent some basic approaches toward school improvement plans to meet the educational needs of the community. The following is an opinion of school facility improvement costs based on recent construction market information, conditions, apparent trends and industry observations. The School District and planning team are looking at facility improvements that may include combinations of modernization/renovation/remodel, new additions and or new replacement as appears to indicate the most appropriate and affordable value for the School District considering the short-term, mid-term and long-term timelines.

### **Modernization and Replacement Projects:**

The main cost benefit analysis as follows, relates to the general comparison of basic modernization versus basic replacement of school facilities. While it may seem counter-intuitive, costs for modernization/remodel projects are often comparable and or more than new construction. Some primary factors leading to this outcome includes the difficulty of providing educational facilities that can properly support 21<sup>st</sup> century learning models in older facilities as well as the priority Life Safety & Code related upgrades. Other main factors lie with the complexities and unknowns of modifying existing structures compared to the straightforward, sequential, and standardized practices of new construction. In comparing the two methods:

- A/E fees are often more for modernization than for new construction.
- Costs for investigations of existing building systems are avoided with new construction.
- Costs for intricate demolition are avoided with new construction.
- Bringing an old facility up to current code is much more difficult and expensive as compared to designing and constructing a new building to meet current code.
- ADA compliance is expensive to achieve in outdated buildings as compared to designing and constructing accessible facilities as a matter of course in new construction.
- Replacing the major systems of a building (i.e. mechanical, plumbing, electrical, fire sprinklers, data, technology, security systems etc.) are more expensive than providing new systems in new construction.
- Costly Construction Phasing is often required to provide uninterrupted use of school facilities during construction for modernization projects. Working in an occupied facility requires careful staging and special accommodations to maintain the safety and relative comfort of the occupants. Such adjustments are not necessary with new construction.
- The complexity of modernizations often require less-than-efficient sequencing of trades. Scheduling and sequencing of new construction work is far more efficient than scheduling and sequencing of modernizations and remodels. The savings that could be realized by this alone could be 5% of the cost of construction.

- The industry recognizes that a range of 3% to 5% for Change Orders in new construction is acceptable whereas a range for Change Orders in modernizations and remodels carry an acceptable range of 5% to 10%.

The following opinions of cost provide an order of rough magnitude for the purposes of evaluating the options for appropriate facility improvement approaches. The costs indicated include a magnitude range to accommodate various factors for yet to be determined levels of scope, relative market costs and project timetables etc. Costs indicated are Construction Only and do not include Soft Costs, Escalation Factors or Taxes. It also must be made clear that recent market conditions have proven extremely unpredictable and difficult to forecast, and therefore these cost ranges should only be used to access methods of project approach.

**Facility Improvements for Modernization or Replacement:**

**1. Option 1**

This concept includes all schools to be located on the current high school site and moves all district facilities to the Stevenson Elementary School site (see site diagram). The facilities are intended to be connected to some degree and or integrated as determined advantageous for efficiency. This connection might be for a shared but divided Core Facility and Administration areas.

- 1.1. Adding a major new addition that could include two story as a portion or in entirety.

HS New Additions:

Approx. area = 47,000 sf @ \$425 - 500/sf ----- \$19,975,000 - \$23,500,000

- 1.2. This would include modernizing all existing high school facilities that remain -

HS Modernization/ Remodel:

Approx. area = 68,000 sf @ \$375 - 450/sf ----- \$25,500,000 - \$30,600,000

- 1.3. Include a new middle school building that would be connected to the high school building and would likely be multi-story. This requires new related sitework.

New MS:

Approx. area = 45,000 sf @ \$425 - 500/sf ----- \$19,125,000 - \$22,500,000

- 1.4. This would include new transportation addition to Stevenson Elementary School and site.

Stevenson ES Addition:

Approx. area = 8,000 sf @ \$275 - 325/sf ----- \$2,200,000 - \$2,600,000

- 1.5. This would include relocating district offices, transportation and other district facilities to Stevenson Elementary School and site.

Stevenson ES Remodel:

Approx. area = 12,000 sf @ \$100 - 150/sf ----- \$1,200,000 - \$1,800,000

- 1.6. Demo Carson ES, Maintain Athletic Fields and option to lease the old WREC building.

\$1,000,000 - \$1,200,000

**Total ----- \$69,000,000 - \$82,200,000**

2. Option 2

This concept includes a separate new middle school on the high school site with major new additions and modernizations to the high school. District facilities stay where they currently exist. All elementary schools are consolidated into the Stevenson Elementary School with a major new additions.

2.1 Adding a major new classroom addition that could include two story as a portion or in entirety.

HS New Additions:

Approx. area = 64,000 sf @ \$425 - 500/sf ----- \$27,200,000 - \$32,000,000

2.2 This would include modernizing all existing high school facilities that remain -

HS Modernization/ Remodel:

Approx. area = 43,000 sf @ \$375 - 450/sf ----- \$16,125,000 - \$19,350,000

2.3 Include a separate new middle school building that would likely be multi-story. This requires new related sitework.

New MS:

Approx. area = 45,000 sf @ \$425 - 500/sf ----- \$19,125,000 - \$22,500,000

2.4 Add new classroom, athletic & cafeteria addition to Stevenson Elementary School and site.

Stevenson ES Addition:

Approx. area = 24,000 sf @ \$425 - 500/sf ----- \$10,200,000 - \$12,000,000

2.5 This would include modernizations to portions of existing areas of Stevenson Elementary School & site.

Stevenson ES Modernization/ Remodel:

Approx. area = 6,000 sf @ \$100- 150/sf ----- \$600,000 - \$900,000

2.6 Demo Carson ES, Maintain Athletic Fields with the option to lease the old WREC building.

\$1,000,000 - \$1,200,000

**Total ----- \$73,250,000 - \$87,950,000**

3. **Option 3a**

This concept includes all existing schools to be modernized with Stevenson and Carson Elementary Schools swapping building/ site locations while adding new additions at each elementary facility. Carson being the Middle School.

3.1 HS New Additions: None identified

Approx. area = 0 sf @ \$425 - 500/sf ----- \$0 - \$0

3.2 This would include modernizing all existing high school facilities that remain -

HS Modernization/ Remodel:

Approx. area = 85,000 sf @ \$375 - 450/sf ----- \$31,875,000 - \$38,250,000

3.3 This would include new modernizations and additions to Carson Elementary School and site.

Carson MS Addition:

Approx. area = 12,000 sf @ \$425 - 500/sf ----- \$5,100,000 - \$6,000,000

3.4 This would include new modernizations and additions to Carson Elementary School and site.

Carson MS Modernization/ Remodel:

Approx. area = 49,200 sf @ \$375 - 450/sf ----- \$18,450,000 - \$22,140,000

3.5 Add new classroom, athletic & cafeteria addition to Stevenson Elementary School and site.

Stevenson ES Addition:

Approx. area = 24,000 sf @ \$425 - 500/sf ----- \$10,200,000 - \$12,000,000

3.6 This would include modernizations to portions of existing areas of Stevenson Elementary School & site.

Stevenson ES Modernization/ Remodel:

Approx. area = 6,000 sf @ \$100- 150/sf ----- \$600,000 - \$900,000

3.7 Option to lease the old WREC building.

**Total** ----- **\$66,225,000 - \$79,290,000**

4. **Option 3b**

This concept includes all existing schools to be modernized with Stevenson and Carson Elementary Schools swapping building/ site locations while adding new additions at each elementary facility. This option includes moving the Middle School to the existing WREC facility with a full modernization and new Classrooms addition and Kitchen/ Cafeteria addition.

4.1 HS New Additions: None identified

Approx. area = 0 sf @ \$425 - 500/sf ----- \$0 - \$0

4.2 This would include modernizing all existing high school facilities that remain -  
HS Modernization/ Remodel:

Approx. area = 85,000 sf @ \$350 - 450/sf ----- \$31,875,000 - \$38,250,000

4.3 This would include new modernizations and additions to existing WREC facility and site.

Middle School Addition:

Approx. area = 14,900 sf @ \$425 - 500/sf ----- \$6,332,500 - \$7,450,000

4.4 This would include new modernizations and additions to existing WREC facility and site.

Middle School Modernization/ Remodel:

Approx. area = 48,730 sf @ \$350 - 400/sf ----- \$17,055,500 - \$19,492,000

4.5 Add new classroom, athletic & cafeteria addition to Stevenson Elementary School and site.

Stevenson ES Addition:

Approx. area = 24,000 sf @ \$425 - 500/sf ----- \$10,200,000 - \$12,000,000

4.6 This would include modernizations to portions of existing areas of Stevenson Elementary School & site.

Stevenson ES Modernization/ Remodel:

Approx. area = 6,000 sf @ \$100- 150/sf ----- \$600,000 - \$900,000

4.7 Optional use of existing Carson Elementary for other uses.

**Total** ----- **\$66,063,000 - \$78,092,000**

Above information includes rough order of magnitude opinions of cost for value & cost benefit and comparison analysis purposes and shall be refined and updated as the planning and scoping process progresses.