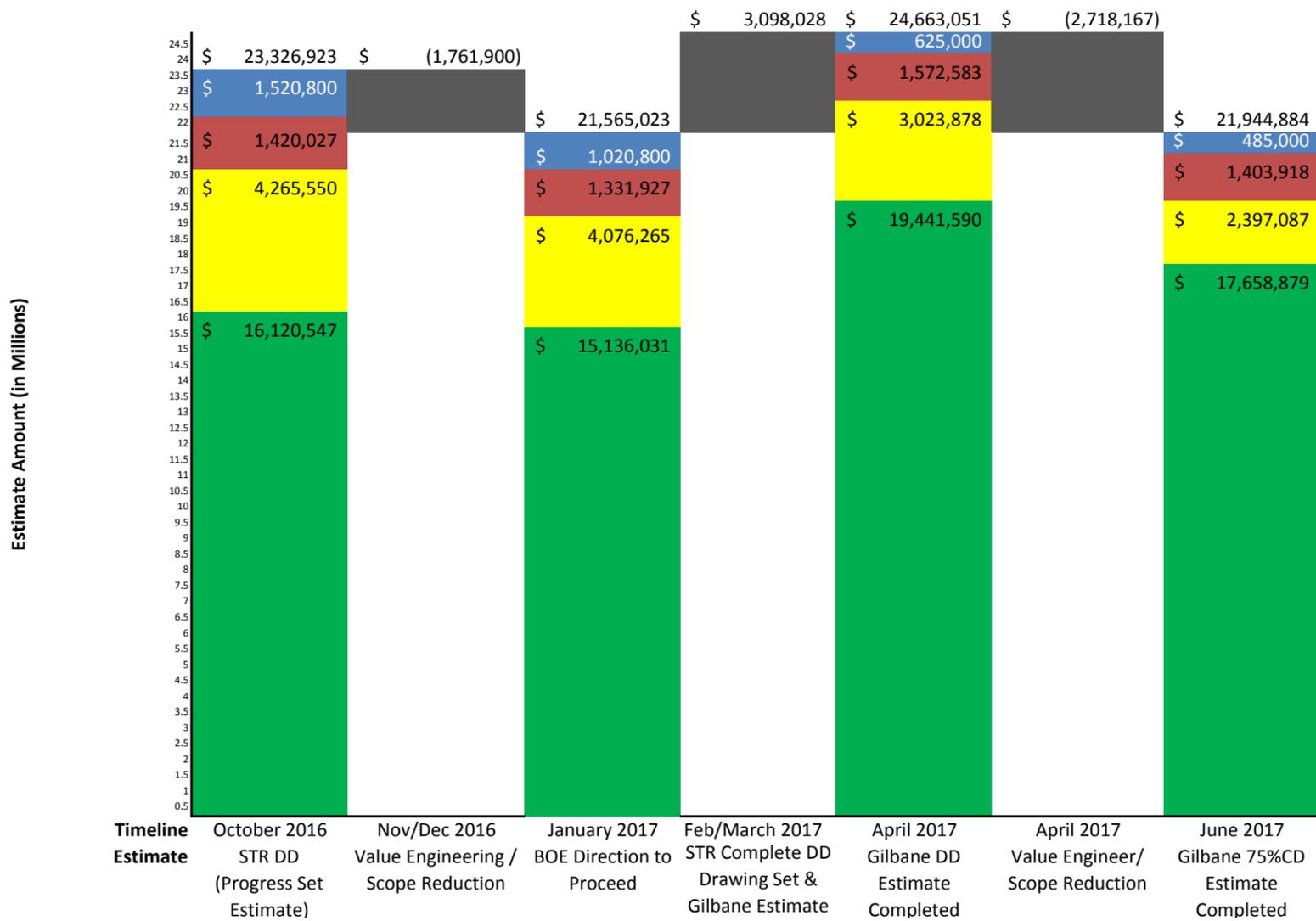


Legend	
Construction Direct Cost	<span style="color: green;">█</span>
Other Construction Cost (Contingency & CM Services)	<span style="color: yellow;">█</span>
Design Cost	<span style="color: red;">█</span>
Owner Cost	<span style="color: blue;">█</span>



**Timeline Explanation:**

**STR Design Development Estimate - October 2016** (based on 7/22/16 in-progress design documents as of project hold date)

- 1 Estimate was presented to the Board of Education and STR was directed to make changes so that the cost would be reduced to meet a \$21.5 Million Budget

**Value Engineering & Scope Reduction Exercises - November thru January 2017**

- 1 STR and D128 estimated and prioritized potential scope reductions. Gilbane validated potential cost savings. Gilbane performed a cursory review of the unit prices included in STR's DD estimate. It was recommended that the design team proceed so that a detailed estimate could be completed by Gilbane
- 2 Eliminated the straight road extension to connect the new west drive entrance. This work will be bid in [Alternate 1](#).
- 3 Eliminated security booth at the pool entry.
- 4 Eliminated the drop off circle at the entrance to the pool
- 5 Eliminated the 3-meter diving board, diving scoreboard and one set of starting blocks. This equipment will be purchased by others outside of District funds.
- 6 Reduced the tree replacement allowance based on understanding with Village of Libertyville
- 7 Changed the pool finish from 100% ceramic tile to Diamond Brite + ceramic tile. The pool will be bid as all ceramic tile finish in [Alternate 4](#).
- 8 Changed the classroom function to a storage room. The components needed for this to be used as a classroom function will to be bid in [Alternate 3](#).

**Gilbane Design Development Estimate - April 2017**

- 1 This was the first detailed estimate based on the updated drawing set, which included significantly more detail than previous drawing sets.
- 2 This estimate included the current bidding market, which Gilbane had recently been seeing large increases in bid pricing and contractors being more selective on which projects they are bidding (i.e. less competition).
- 3 Significant differences from the Gilbane and STR estimates were noted in the following areas:
  - Site Utilities - There were existing utilities located that were not original known. Relocating unknown utilities alone added \$190,000.
  - Steel - Based on recent market fluctuations the estimated cost/ton of steel (furnished and installed) increased over 10%
  - Concrete - Based on recent market fluctuations the estimated cost/cubic yard (furnished and installed) of concrete increased over 10%
  - Masonry - Recent masonry cost increases (approximately 5%) have been noticed based on lack of labor availability and need for overtime to compensate.
  - Roofing - The roofing type requested was modified bitumen which required several layers and was very labor intensive.
  - HVAC - The new design added the Paddock evacuator system for removing pool chloramines. The updated drawings also showed actual equipment selections and locations so that quantities could more accurately be estimated. The additional mechanical piping alone increased the estimate by over \$100,000.

**Value Engineering & Scope Reduction Exercises - April 2017**

- 1 Significant Changes Included in the Scope Reduction and Value Engineering were:
  - VE #1: \$146,581 - Deleted the public bathrooms. The bathrooms that are currently located in adjacent areas to the pool will be used by spectators. This work will be bid as [Alternate 2](#).
  - VE #2: \$187,792 - Deleted the east connection to building. The students coming from the east will need to walk further to get to the pool, however, this will not affect ADA access the different levels of the pool addition. This work will be bid as [Alternate 2](#).
  - VE #3.1: \$36,479 - The west air handling units will be mounted on the roof instead of adding a new interior floor level for a mechanical mezzanine. Air handling units are commonly mounted on the roof and LHS has several roof top air handling units already. NOTE: The large Pool air handling units will remain inside the building.
  - VE #5,6,7: \$282,468 - These eliminated architectural features.
  - VE #10.1: \$679,812 - Change the plate girders to joists. The steel joist structure will be similar to the Vernon Hills pool. This structure maintains the same structural capabilities as the girders, however, do not require as much steel.
  - VE #13: \$100,000 - Raise the pool addition so that the pool deck is at the same elevation as the west entry into the building. This will eliminate the floor level transitions, number of elevator stops and the bottom of the pool will no longer be below the water table.
  - VE #19: \$95,163 - Delete the redundant backup boiler. Space and access will be provide in the event that the District decides to install a redundant boiler.
  - VE #24: \$275,232 - Use an EPDM (ethylene propylene diene monomer rubber), roof system versus a modified bit roof system. LHS currently has roofs that are EPDM and these roof systems can obtain 25-30 year warranty periods.

**Gilbane 75% Construction Document Estimate - June 2017**

- 1 This estimate was based on a significantly more detailed set of drawings. All accepted scope reductions and value engineering items were incorporated into the updated estimate.

**Other Estimate Considerations**

- 1 Potential savings from using administration building for CM personnel in lieu of construction trailers
- 2 Potential saving for not relocating existing utilities that feed the administration building (the estimate currently includes \$155,000 for relocation)
- 3 The current 75% CD estimate includes \$529,766 in Design and Estimating contingency.
- 4 Added an additional ~\$100,000 for cameras and security after meeting with D128 staff. Review if this scope could be reduced.
- 5 Added \$100,000 for an owner's representative. Review if this is needed.