



# FAQs – Maryland Statewide Facilities Assessment (SFA)

Updated March 25, 2024

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## I. The Nature and Purposes of the SFA

### A. What is the SFA?

The Statewide Facilities Assessment (SFA) is the State’s continual and ongoing program to assess the physical condition and educational sufficiency of all approximately 1,400 active public PK-12 school facilities in the state pursuant to the mandate given to the IAC in Maryland law.<sup>1</sup> The SFA was established in 2018 in the 21st Century School Facilities Act following recommendations from the 21st Century School Facilities Commission (“Knott Commission”), and the IAC employed a contractor to conduct the baseline assessment of all the facilities in the state in 2020-2021. Ongoingly, the SFA involves sending IAC staff assessors to visit approximately 25% of each local education agency’s (LEA’s) facilities each year to update the data by way of direct human observation of the conditions of and the spaces within the facilities as well as through the evaluation of data provided by the LEAs and/or collected by the IAC. Under Maryland law, each LEA is required to cooperate with the Interagency Commission to update the facility assessment and to contribute data as requested by the IAC to update the assessment.<sup>2</sup>

The SFA is not a forensic engineering analysis of facilities. It does not assess every aspect of facilities and does not assess them on every level that a facility owner (i.e., the LEA) might assess them. The SFA is not designed or intended to replace the in-depth assessment of facilities that an LEA might perform on a periodic or ongoing basis. The SFA does not generate 1) estimates of deferred maintenance or project costs to repair any deficiencies found; 2) a list of projects to be completed to improve the conditions of the

<sup>1</sup> Md. Code Ann., Educ. Art. § 5-310(e)-(f).

<sup>2</sup> Md. Code Ann., Educ. Art. § 5-310(f)(2).

facilities assessed; or 3) data on every individual facility component that an owner might track.

Instead, the SFA is a relatively high-level assessment of the key parts and attributes of each facility that most significantly impact teaching and learning, performed in such a way that the resulting data are comparable across all facilities in the state and across time. The SFA collects and produces objective, unbiased data on the condition and educational sufficiency of facilities at the major-component, system-group, facility, LEA, and Statewide levels. Through these data, the SFA paints a summary picture of the condition and educational sufficiency of each facility and communicates to local and State decision makers the locations, characteristics, and levels of the facilities needs in each school district and across the state.

## **B. What is the SFA for?**

The SFA data are intended generally to inform and support both local and State decision making around facilities planning and maintenance as well as capital planning and budgeting. The SFA provides data on the major facility components and attributes that contribute to each facility's ability to support the intended teaching and learning uses, and summarizes the condition and educational sufficiency of each facility on a basis and in a manner such that each is comparable against the other facilities in the state. The SFA data are not intended to produce final decisions about funding school-construction projects but rather to equip local and State decision makers to ask additional questions before making funding decisions.

At the portfolio level, the SFA offers significant value to local and State decision makers by providing an aggregate view of the condition of each LEA's—and the statewide—portfolio of facilities that operates as a gauge of the current condition of the portfolio. Just as a home thermostat measures the current temperature and helps occupants determine whether to adjust the HVAC system settings or not, the SFA provides an annual measure of the condition and educational sufficiency of facilities to support local and State decision makers in determining whether and how to adjust the inputs and investments into school facilities to achieve and/or maintain a selected target level of condition and educational sufficiency. This view is essential for State decision makers as they work to identify appropriate levels of State funding for school facilities statewide.

In addition, for LEAs and county governments, the data can contribute usefully to cost-benefit analyses in making facility- and portfolio-level decisions within a context of limited facilities funding and can help to support decisions around what to repair or replace and when. And, for the State, the SFA can help the State target scarce available State capital resources for maximum benefit and assist the IAC in making equitable allocations of available State capital dollars to assist LEAs in meeting their facilities needs. It does this by producing the data on which to base an annual ranking of all the facilities in the state by their score on a combined measure of condition and educational sufficiency such that the

highest-need facilities are identified at the top of the list. No earlier than fiscal year 2027, this ranked list may be used by the IAC to determine which facilities might receive State capital dollars from the Nancy K. Kopp Public School Facilities Priority Fund. The General Assembly established the Priority Fund through the Built to Learn Act of 2020 to operate parallel to the State Capital Improvement Program (CIP),<sup>3</sup> but no funds have yet been appropriated to the Fund.

**C. How does the SFA differ from the facility-condition assessments conducted by some LEAs?**

The SFA uses a depleted-value approach for calculating facility condition index (FCI) figures rather than an estimated-cost-of-repair approach because the former generates longitudinally comparable data on condition while the latter does not and results in data that “goes stale” and therefore becomes valueless within a few years. While an estimated-cost-of-repair approach involves spending millions of dollars to create a snapshot of current facilities deficiencies—many or most of which cannot and will not be remedied within current and expected budgets—and therefore is neither cost-effective nor affordable, the depleted-value approach obtains only the data needed to identify the highest needs and to help prioritize the allocation of scarce local and State resources.

## **II. Potential Use of SFA Data for Allocations of State Capital Funds**

**A. In light of the January 2022 recommendations of the Assessment & Funding Workgroup, how will the IAC utilize the data from the SFA?**

Under current law, the Priority Fund is not slated to receive its first appropriation of funds until fiscal year 2027 at the earliest and the IAC cannot adopt regulations establishing the use of the facility-assessment results in annual school construction funding decisions until May 1, 2026 at the earliest and for use in funding decisions no earlier than FY 2027. The SFA data accordingly are not used determinatively for any IAC funding-allocation processes at this time. However, the IAC is sharing with each LEA the SFA data associated with that LEA for the LEA’s consideration and potential use.

**B. Will the SFA results (and Maryland Condition Index (MDCI) or combined facility scores) be a factor in the BTL bond-funded projects?**

As stated above, SFA results and MDCI scores cannot be used determinatively in funding decisions until FY 2027 at the earliest. As a result, the IAC will not use the SFA results to determine funding for project allocations made under the BTL program at least through FY 2026 and potentially beyond.

## **III. Types of Data Collected and Generated**

**A. What kind of data are collected and generated within the SFA?**

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<sup>3</sup> Md. Code Ann., Educ. Art. § 5-326(k).

SFA data fall into two primary categories: 1) data on physical components (“assets” and building systems) and 2) data on the facility’s spaces and/or attributes (or lack thereof). The data in both categories contribute to measuring the condition of the facility and to measuring the educational sufficiency of the facility (which itself depends in part on the condition of the facility).

**B. Regarding assets, what are the key data points?**

Each assessed major building-system component or “asset” is assigned an Asset Type that has a standardized Name, is associated with a standardized System Group, and has a standardized Expected Useful Lifespan (EUL) measured in years, a Unit Cost, and a Unit of Measure (UoM). All assessable Asset Types are listed in the [Master List of Asset Types](#). In addition, each asset is assigned a Year in Service (YiS), a quantity, an Asset Status (In Service, Reassessed, Retired, or Inactive), and an Observed Remaining Useful Lifespan (ORUL). From these data points, the SFA derives additional data points, including Asset Age, Calculated Remaining Useful Life (CRUL), the Projected Lifespan as a Percentage of EUL (PLP) an asset is projected to reach, Asset Percent Degraded or Asset-level FCI, Current Replacement Value (CRV), FCI CRV, and PLP CRV.

**C. Regarding spaces, what are the key data points?**

Inventoried spaces in a facility are given a descriptive name and their area in square feet is measured and recorded. Spaces that are assessed against the Maryland Educational Facilities Sufficiency Standards (EFSS) or are identified within the SFA for quantification are assigned one of 21 Space Types other than Support Spaces as listed in the [Master List of Space Types](#). Spaces within a facility that are *not* assessed against the EFSS and are not intended for quantification within the SFA but nevertheless are listed in the space inventory for the facility are categorized as Support Spaces and are not counted in educational-sufficiency calculations.

## **IV. Facility Condition Index (FCI) Scores**

**A. What is the Facility Condition Index (FCI) score?**

The FCI score is the percentage of expected useful lifespan (EUL) that is depleted. Hence, FCI scores range from 0% to 100%. The higher the score, the more depleted the asset is, and the poorer the condition.

**B. What data points go into calculating the FCI?**

Using data and information supplied by the LEA as well as direct observations, assessors identify the major building components or “assets” in the facility and list them in the facility’s asset inventory. Each asset is identified using one of the asset types in the IAC’s RS Means/Gordian-based [Master List of Asset Types](#). Each asset type has a standardized Name, System Group, Expected Useful Lifespan (EUL), Unit Cost, and Unit of Measure (UoM).

For each asset, the assessor then assigns an appropriate number of units reflecting the scope of the asset, a Year in Service (YIS), and an Observed Remaining Useful Lifespan (ORUL) figure that reflects the number of years that the assessor believes the asset can continue to be functional for its intended purpose. This data point is the assessor's judgment of the condition of the asset at the time of the assessment as it aligns with the IAC's SFA Standard Operating Procedures and SFA Assessment Rubric.

The assessor does not assign a Calculated Remaining Useful Lifespan (CRUL) figure. The CRUL is the asset's actual age subtracted from the Expected Useful Lifespan. Although the IAC's data set does include a CRUL figure that is mathematically derived for each asset from its EUL, YiS, and the Calendar Year Observed, the CRUL figure is not used to calculate the FCI. This is because, as experience across the state has shown, the actual lifespan of an asset in service can vary significantly from its EUL depending upon a number of factors, including variations in the quality of the materials used to assemble it and the quality of the work going into its assembly and installation, the particular conditions in which it exists or operates, the extent of loads or wear and tear on it, and the degree to which the owner conducts needed maintenance on the asset, to mention a few. As a result, an asset does not automatically become nonfunctional when its age equals its EUL and instead may function for significantly fewer or more years than the EUL for that asset type.<sup>4</sup>

The ORUL accordingly is the most useful available measure of condition because it estimates—based upon direct, recent observation of actual condition, not theoretical condition based upon age—the future point in time when the asset is likely to become nonfunctional. As such, the ORUL supports capital planning and budgeting far more effectively than the CRUL can ever do.

In a year/cycle in which a facility is not assessed via site visit, the ORUL of each asset in the facility is automatically reduced by one to temporarily substitute for the reduction in condition that is expected to occur as the asset ages. Then, when the next assessment (refresh cycle) occurs, the assessor observes the asset, considers reported information, and assigns a new ORUL based upon the actual observed condition. In doing so, the assessor may increase or decrease the ORUL as appropriate to reflect the useful lifespan that, in their professional judgment, is remaining.

Generally speaking, an asset with an ORUL of 5 or less is considered to be on the "lower end of fair condition" and it would be expected to be on a list of assets that the LEA is considering or planning to replace. In the IAC's experience, this is generally when an asset starts to have issues with functionality, reliability, or obsolescence. The ORUL of an asset cannot go below zero. An ORUL of zero is only assigned when the asset can be considered

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<sup>4</sup> The data from the baseline SFA data set as well as subsequent Refresh Cycles show that the average asset in the statewide portfolio is on track to last in the range of 18-25% longer than its EUL.

to be either nonfunctional and will remain so without repairs being performed OR is clearly likely to become nonfunctional in the immediate future.

The Year in Service (YiS) represents the year when the asset was put in service. YiS information may be compiled from a variety of sources including equipment nameplates, inspection stickers, LEA-provided information, and the assessor's best judgment given their knowledge of the facility and its history.

Both the YiS and ORUL are metrics that can be "averaged" through the use of an estimation calculator to account for a partial renovation/renewal or the replacement of some components within a multi-component asset. Assessors determine what amount or percentage of the system was replaced and use the Assessment Calculator to determine an ORUL and YiS that is weighted so that the larger part of the asset (old or new) has a heavier impact. This is how an assessor would determine the YiS or ORUL in the case of a partial roof replacement or the replacement of all restroom fixtures within in the context of a larger plumbing-system asset.

### C. How is an FCI score calculated?

There are two FCI calculations that occur within the SFA: those performed on an individual asset level and those on a weighted group-roll-up level.

The **asset-level FCI calculation** is a simple percent-degraded formula. It represents the percent of the expected lifespan of the asset that has been consumed by use and age. It is calculated using the following formula:

$$\frac{\text{Expected Useful Lifespan (EUL)} - \text{Observed Remaining Useful Lifespan (ORUL)}}{\text{Expected Useful Lifespan (EUL)}}$$

The FCI calculation in the above formula **only** occurs at the asset level. All other FCI calculations are weighted calculations of groupings of assets. Groups of assets can include all assets in a School, LEA, or of a specific type, such as HVAC, plumbing, roofs, etc.

The process for calculating **weighted FCIs for groupings of assets** is described below using a facility's flooring system as an example. This type of calculation would be used to determine the FCI at the System Group, Facility, LEA, and State-wide levels.

The building system group FCI is a weighted calculation that groups similar assets within System Groups for further analysis. For example, the Flooring system group may include Terrazzo, Carpet, and VCT assets. Each asset receives a field-rated ORUL which calculates a percent degraded, or asset-level FCI. To calculate the System Group FCI, additional variables are needed – the Current Replacement Value (CRV) and the FCI CRV contribution

value. To calculate the FCI CRV contribution value, the asset-level FCI is multiplied by the asset's Current Replacement Value (CRV) as shown in the table below:

Asset	Asset FCI	CRV	FCI CRV
Terrazzo	60%	\$100,000	\$60,000
Carpet	50%	\$50,000	\$25,000
VCT	75%	\$75,000	\$56,250

These values are used as weighting factors, meaning assets with a higher CRV will have a larger impact on grouped FCI calculations.

The asset's CRV is based on the quantity of the asset multiplied by its unit cost. The FCI CRV is calculated by using the following formula

$$\text{Asset FCI} * \text{CRV} = \text{FCI CRV}$$

The formula to calculate the FCI of the entire Flooring system is the sum of all the FCI CRVs divided by the sum of the CRVs.

$$\frac{\Sigma(\text{FCI CRV})}{\Sigma(\text{CRV})} = \frac{60,000+25,000+56,250}{100,000+50,000+75,000} = 63\%$$

**Note:** Use of the sigma ( $\Sigma$ ) in the above formula indicates the sum of all assets relevant to the final result. A System Group FCI formula would include all assets in that System Group; a facility's FCI would include all assets in that facility; an LEA's FCI would be calculated from all assets in the LEA.

#### **D. What assets are included in the facility-level FCI score?**

Building-system- and facility-level FCI calculations only include active assets, and do not include Space/Locational deficiencies, or HB 1290 Hazard/Missing Equipment Deficiencies. Active assets are those with an Asset Status of In Service or Reassessed, but not Retired or Inactive.

The [Master List of Asset Types](#) defines the asset's Name, System Group, Expected Useful Lifespan (EUL), Unit Cost, and Unit of Measure (UoM) of all assets that are able to be included within the SFA. The assets listed in the Master List of Asset Types, as well as their EULs and Unit Costs, are based upon data from RSMMeans/Gordian.

Each facility asset is associated with one of the seventeen major building system groups listed below.



#	System Group
1	Ceilings
2	Conveyances
3	Electrical Distribution
4	Flooring
5	HVAC
6	Interior Construction
7	Interior Doors and Hardware
8	Life Safety
9	Modular Buildings
10	Plumbing Fixtures
11	Program Support Equipment
12	Relocatable Classrooms
13	Roofs
14	Site
15	Skin
16	Structural
17	Wall Finishes

**E. Where are the detailed backup data for these figures?**

Finalized data in an Excel spreadsheet is sent out at the close of each [annual refresh cycle](#) to LEA stakeholders. It includes all data relevant to the calculation of the FCI for each building-system component (or “asset”). This information includes the Year in Service, the Expected Useful Lifespan (EUL) figure, the Observed Remaining Useful Lifespan (ORUL) figure, and the estimated quantity applicable to the asset. In addition, it includes the FCI figures for each asset and each major building system in each school, including the Current Replacement Value (CRV) of each asset and each major building system.

**F. What constitutes good or poor scores?**

With regard to *overall* FCI score, not *building-system* FCI score, the rough rule of thumb is that a facility having an FCI

- Of 15% or lower equates to being functionally “like new” in the sense that the facility should be functional for its intended purpose for at least 30 more years;<sup>5</sup>

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<sup>5</sup> See National Council on School Facilities, Definitions of Key Facilities Data Elements (2015): Renewal is defined as “[r]enovation of an entire campus to like-new condition (equal to an Facility Condition Index\* of 15% or lower) during a period of time not to exceed four years, including its support infrastructure both on-site and off-site.”



- In the 30% range has little to nothing that inhibits its daily function in supporting the delivery of educational programs and services, and is viewed by users as being comfortable and functional overall;
- In the 40% range is beginning to suffer from minor problems on a regular basis and is beginning to require an increasing level of reactive maintenance;
- In the 50% range is beginning to suffer from more serious problems, has systems with deficiencies requiring major repair or replacement, and is beginning to be viewed by users as being worn and/or dilapidated; and
- In the 60%-plus range is viewed by users as being worn and/or dilapidated and is suffering from major functionality issues, is requiring frequent and costly reactive maintenance work, and is likely to be considered for renewal or replacement.

**G. How do our FCI scores compare to statewide numbers?**

The Statewide FCI average for all schools is approximately 52% based upon FY 2023's Refresh Cycle 2 data. Some of the poorest physical condition schools in the State have an FCI in the 77%-88% range.

**V. Projected Lifespan as a Percentage (PLP) of the Expected Useful Lifespan**

**A. What is the Projected Lifespan as a Percentage (PLP) of Expected Useful Lifespan?**

When associated with an asset, the PLP is a figure that indicates—as of the date of the assessment—the projected age of the asset at the end of its observed remaining useful lifespan (ORUL) as a percentage of the EUL that is assigned to that asset type.

**B. How is the PLP calculated?**

The PLP figure for an asset is calculated as follows:

$$PLP = \frac{\text{Asset Age [Calendar Year Observed - YiS]} + ORUL}{EUL}$$

When associated with a facility, the PLP is a cost-weighted average of the PLPs of all of the active assets in the facility.

**C. How is the PLP used?**

The PLP is generated for every active asset in each facility and a cost-weighted average PLP is generated for each facility. The facility-level average PLP is used to determine eligibility for the Maintenance Add-on to the State Cost Share in the IAC's capital-project funding allocation process for those facilities whose most recent rating in the IAC's Maintenance-Effectiveness Assessment (MEA) was at least Adequate.

## VI. Updating/Refreshing the SFA Data

### A. How are the SFA data for each school updated/refreshed?

Those data points in the SFA that typically change or may change during the course of a year are updated on an annual basis in order to create annual snapshots of the condition and educational sufficiency of all the facilities such that they can be compared against each other within a given year as well as compared over the course of years. Those data points that do not typically change during the course of a year are updated if and when an LEA reports a change or the IAC identifies that the data have changed and need to be updated. The data can be grouped into the following three main categories.

#### **Facilitographic Data**

These data include basic facility information including the facility's Public School Construction (PSC) Number, Address, School Name, GPS coordinates, LifeCycle Status, and School Type. These data are verified annually for all facilities against data from the IAC's Facility Inventory, which itself is updated as needed by the LEA or by IAC staff as appropriate when changes occur. Student-enrollment information is updated annually from approved MSDE figures.

#### **Asset Data**

Asset data generally are updated on an as-needed basis, with the exception of the asset-condition (FCI) data, which are updated annually to reflect the continually changing nature of the condition of assets. For approximately 25% of the schools in each LEA, the data are updated through a site visit by an IAC assessor who observes the assets and spaces in the facility and assigns or updates the relevant data points to reflect the conditions and attributes observed. For the remaining 75% of the schools in each LEA that are not receiving an on-site visit by an IAC assessor, key condition data points are updated mathematically. Specifically, assets not receiving an updated ORUL figure via an on-site assessment or LEA-reported update will by default have their ORUL figure reduced by one year unless the IAC receives information from the LEA that indicates that a different adjustment is required to accurately reflect the condition of the asset or changes made by the LEA to the facility. It is the responsibility of the LEA to report any changes to the facility (asset replacement/failures, space-use changes, and the addition or removal of relocatables) that they believe need to be included in the SFA in a non-assessment year and to provide the necessary documentation to support the suggested adjustment.

#### **Space and Facility Attribute Data**

Similar to asset data, space data is updated via on-site assessment or LEA-reported updates. While on-site, for each space, an assessor will verify the Space Name, SpaceType, and square footage, as well as any changes to attribute data pertaining to the space.. For those schools not assessed by an IAC assessor in a given year, it is the responsibility of the LEA to report any changes to space data, including regarding the use of the space..

**B. How are changes to facility assets through maintenance and/or replacement reflected in the data?**

Each year, during a specified window of time (expected in typical years to parallel the site-visit period and to be of a duration of about 9-10 months), LEAs are asked to provide updates on any asset or space data that have changed since the most recent site visit by an IAC assessor or that the LEA believes needs updating or correction. Currently, the LEA must communicate this information to the IAC's SFA Data Coordinator; once the IAC's pending online data system is active, the LEA will be able to submit a change request including all needed supporting data through the online portal. IAC staff will review and make appropriate changes to the data in the system.

**C. How are the final data for each Refresh Cycle communicated to the LEA?**

After all updates to the statewide data set have been made for the annual cycle and the IAC's internal QA/QC process has been completed, IAC staff finalize the data set and email to each LEA a data file containing a copy of the SFA FCI data for all of their schools.

## Appendix A: Master List of Asset Types (Refresh Cycle 1 and Subsequent)

#	System Group	Asset Name	EUL	Unit Cost	UoM
1	Ceilings	Fiberglass Panel Ceiling	25	\$8.05	SF
2	Ceilings	Gypsum Board/Plaster Ceiling	30	\$4.84	SF
3	Ceilings	Splined Acoustical Tile (ACT) Ceiling	25	\$6.75	SF
4	Ceilings	Suspended Acoustical Tile (ACT) Ceiling	25	\$7.60	SF
5	Ceilings	Textured Spray Coating Ceiling	20	\$8.45	SF
6	Ceilings	Wood Ceiling	30	\$30.50	SF
7	Conveyances	Hydraulic Elevator/Controller/Cab	25	\$50,000.00	STOPs
8	Conveyances	Traction Elevator/Controller/Cab	25	\$75,000.00	STOPs
9	Conveyances	Wheelchair Lift	25	\$28,000.00	EA
10	Electrical Distribution	Electrical Service - MDP - High Density	40	\$20.00	GSF
11	Electrical Distribution	Electrical Service - MDP - Low Density	40	\$16.00	GSF
12	Electrical Distribution	Electrical Service - MDP - Medium Density	40	\$18.00	GSF
13	Electrical Distribution	Electrical Service - MDP/Gen/UPS - High Density	40	\$24.00	GSF
14	Electrical Distribution	Electrical Service - MDP/Gen/UPS - Low Density	40	\$20.00	GSF
15	Electrical Distribution	Electrical Service - MDP/Gen/UPS - Medium Density	40	\$22.00	GSF
16	Electrical Distribution	Lighting - High Density & Standard Fixtures	20	\$13.00	SF
17	Electrical Distribution	Lighting - Low Density & Standard Fixtures	20	\$6.00	SF
18	Electrical Distribution	Lighting - Medium Density & Standard Fixtures	20	\$8.00	SF
19	Electrical Distribution	Lighting - Very High Density or High-End Fixtures	20	\$17.00	SF
20	Electrical Distribution	Security & Low Voltage Systems - Average	15	\$9.00	GSF
21	Electrical Distribution	Security & Low Voltage Systems - High Density	15	\$12.00	GSF
22	Electrical Distribution	Solar PV Panel w/Inverter	20	\$2,000.00	EA
23	Electrical Distribution	Switchgear w/Sub Panels - High Density	40	\$22.00	GSF
24	Electrical Distribution	Switchgear w/Sub Panels - Low Density	40	\$18.00	GSF
25	Electrical Distribution	Switchgear w/Sub Panels - Medium Density	40	\$20.00	GSF
26	Electrical Distribution	Switchgear w/Sub Panels/Gen/UPS - High Density	40	\$27.00	GSF
27	Electrical Distribution	Switchgear w/Sub Panels/Gen/UPS - Low Density	40	\$23.00	GSF
28	Electrical Distribution	Switchgear w/Sub Panels/Gen/UPS - Medium Density	40	\$25.00	GSF
29	Flooring	Carpet	12	\$4.00	SF

#	System Group	Asset Name	EUL	Unit Cost	UoM
30	Flooring	Ceramic Tile Floor	40	\$17.30	SF
31	Flooring	Concrete - Painted Floor	10	\$1.96	SF
32	Flooring	Quarry Tile Floor	50	\$19.55	SF
33	Flooring	Terrazzo Floor	50	\$28.00	SF
34	Flooring	Vinyl Composition Tile (VCT) Floor	20	\$2.73	SF
35	Flooring	Vinyl Composition Tile (VCT) Floor - Suspect ACM	15	\$5.39	SF
36	Flooring	Vinyl Sheeting Floor	15	\$3.80	SF
37	Flooring	Wood Sports Floor	30	\$23.00	SF
38	HVAC	Boiler(s)/System - Coal	30	\$62.00	MBH
39	HVAC	Boiler(s)/System - Dual Fuel	30	\$62.00	MBH
40	HVAC	Boiler(s)/System - Electric	30	\$57.00	MBH
41	HVAC	Boiler(s)/System - Fuel Oil	30	\$60.00	MBH
42	HVAC	Boiler(s)/System - Gas	30	\$62.00	MBH
43	HVAC	Chiller(s) / Cooling Tower(s) - Air Sourced	25	\$1,200.00	TON
44	HVAC	Chiller(s) / Cooling Tower(s) - Water Sourced	25	\$1,500.00	TON
45	HVAC	Electrical Heat (NOT part of Central System)	35	\$50.00	MBH
46	HVAC	Even Mix of Package Units & Split Systems	18	\$1,900.00	TON
47	HVAC	Even Mix of Piped and Forced Air, 2-Pipe System	30	\$14.00	GSF
48	HVAC	Even Mix of Piped and Forced Air, 4-Pipe System	30	\$17.00	GSF
49	HVAC	Forced Air System, 2-Pipe System	30	\$18.00	GSF
50	HVAC	Forced Air System, 4-Pipe System	30	\$22.00	GSF
51	HVAC	Geothermal System (Heating and/or Cooling)	20	\$145.00	MBH
52	HVAC	Off-Site Chilled Water Plant (Distribution ONLY)	25	\$420.00	TON
53	HVAC	Off-Site Steam Plant (Distribution ONLY)	30	\$35.00	MBH
54	HVAC	Package Units (RTUs)	20	\$7,000.00	TON
55	HVAC	Piped System - Unit Ventilators/Fan Coils, 2-Pipe	30	\$10.00	GSF
56	HVAC	Split Systems	15	\$2,000.00	TON
57	Interior Construction	Brick Interior Wall	50	\$35.70	SF
58	Interior Construction	Concrete Block (CMU) Interior Wall	50	\$11.00	SF
59	Interior Construction	Concrete Block (CMU), Glazed Interior Wall	50	\$32.08	SF
60	Interior Construction	Concrete Interior Wall	50	\$28.30	SF
61	Interior Construction	Gypsum Board/Plaster Interior Wall	20	\$7.14	SF
62	Interior Construction	Storefront/Glazing System - Interior Wall	30	\$58.00	SF

#	System Group	Asset Name	EUL	Unit Cost	UoM
63	Interior Doors and Hardware	Aluminum-Framed Fully-Glazed - Interior Door	40	\$2,104.00	EA
64	Interior Doors and Hardware	Steel - Interior Door	40	\$1,166.00	EA
65	Interior Doors and Hardware	Steel w/Glazing - Interior Door	40	\$1,854.00	EA
66	Interior Doors and Hardware	Wood Solid-Core - Interior Door	40	\$1,214.00	EA
67	Interior Doors and Hardware	Wood Solid-Core w/Glazing - Interior Door	40	\$1,554.00	EA
68	Life Safety	Fire Alarm System, Advanced Addressable	20	\$6.00	SF
69	Life Safety	Fire Alarm System, Basic/Zoned	20	\$1.50	SF
70	Life Safety	Fire Alarm System, Simple Addressable	20	\$2.00	SF
71	Life Safety	Fire Alarm System, Standard Addressable	20	\$3.00	SF
72	Life Safety	Sprinkler System, High Density/Complexity	40	\$8.76	SF
73	Life Safety	Sprinkler System, Low Density/Complexity	40	\$3.40	SF
74	Life Safety	Sprinkler System, Medium Density/Complexity	40	\$5.11	SF
75	Modulars	Modular Bldg. - Classroom/Office - Basic	20	\$115.00	SF
76	Modulars	Modular Bldg. - Classroom/Office - Standard	20	\$225.00	SF
77	Plumbing Fixtures	Supply & Sanitary, High Density (w/Fixtures)	40	\$20.00	SF
78	Plumbing Fixtures	Supply & Sanitary, Low Density (w/Fixtures)	40	\$7.00	SF
79	Plumbing Fixtures	Supply & Sanitary, Medium Density (w/Fixtures)	40	\$15.00	SF
80	Plumbing Fixtures	Supply & Sanitary, Very Low Density (w/Fixtures)	40	\$1.50	SF
81	Progr. Support Equipment	Casework - Premium Quality	22	\$510.00	LF
82	Progr. Support Equipment	Casework - Standard Quality	20	\$421.00	LF
83	Progr. Support Equipment	Casework - Sub-Standard Quality	15	\$421.00	LF
84	Progr. Support Equipment	Commercial Kitchen Equipment - Cooking	15	\$40,000.00	LS
85	Progr. Support Equipment	Commercial Kitchen Equipment - Serving Only	15	\$15,000.00	LS
86	Progr. Support Equipment	Commercial Kitchen Equipment - Warming Only	15	\$25,000.00	LS
87	Progr. Support Equipment	Swimming pool	20	\$80.00	SF
88	Relocatables	Relocatable Bldg. - Classroom/Office - Basic	15	\$110.00	SF
89	Relocatables	Relocatable Bldg. - Classroom/Office - Standard	15	\$125.00	SF
90	Roofs	Asphalt Shingle Roof	20	\$8.00	SF
91	Roofs	Built-Up Roof	20	\$28.00	SF

#	System Group	Asset Name	EUL	Unit Cost	UoM
92	Roofs	Clay Tile Roof	50	\$29.00	SF
93	Roofs	Green w/Hot-Applied Rubberized Asphalt Roof	20	\$35.00	SF
94	Roofs	Inverted Roof Membrane Assembly (IRMA)	20	\$10.00	SF
95	Roofs	Metal Roof	50	\$39.00	SF
96	Roofs	Modified Bituminous Roof	20	\$26.00	SF
97	Roofs	Roof Skylight	30	\$50.00	SF
98	Roofs	Roof Structure	75	\$30.00	SF
99	Roofs	Single-Ply EPDM Membrane Roof	20	\$25.00	SF
100	Roofs	Single-Ply TPO/PVC Membrane Roof	20	\$25.00	SF
101	Roofs	Slate Roof	75	\$49.00	SF
102	Site	Asphalt Pavement - Pedestrian	30	\$6.00	SF
103	Site	Asphalt Pavement - Vehicular	25	\$6.50	SF
104	Site	Athletic Surface - Artificial Turf	20	\$13.38	SF
105	Site	Athletic Surface - Lawn Area	15	\$0.48	SF
106	Site	Concrete Pavement - Pedestrian	50	\$8.00	SF
107	Site	Concrete Pavement - Vehicular	50	\$9.00	SF
108	Site	Gravel Parking Lot	7	\$1.40	SF
109	Site	Pavers - Pedestrian	35	\$33.00	SF
110	Site	Pavers - Vehicular	30	\$33.00	SF
111	Site	Playground Surface - Packed Sand	20	\$1.20	SF
112	Site	Playground Surface - Rubber	20	\$21.00	SF
113	Site	Playground Surface - Rubber Chips	20	\$2.98	SF
114	Site	Playground Surface - Rubber Tiles	20	\$18.00	SF
115	Site	Playground Surface - Wood Chips	15	\$0.90	SF
116	Site	Sports Courts, Asphalt	15	\$6.50	SF
117	Site	Sports Courts, Concrete	30	\$12.00	SF
118	Skin	Brick - Exterior Wall	50	\$39.80	SF
119	Skin	Concrete Block (CMU) - Exterior Wall	50	\$26.00	SF
120	Skin	Concrete Cast-in-Place - Exterior Wall	50	\$31.00	SF
121	Skin	Concrete Tilt-Up - Exterior Wall	50	\$18.00	SF
122	Skin	Curtain Wall - Exterior Wall	50	\$110.00	SF
123	Skin	Exterior Door, Aluminum-Framed Fully-Glazed	40	\$4,500.00	EA
124	Skin	Exterior Door, FRP (Fiber Reinforced Plastic)	35	\$4,200.00	EA



#	System Group	Asset Name	EUL	Unit Cost	UoM
125	Skin	Exterior Door, Steel	40	\$3,735.00	EA
126	Skin	Exterior Door, Wood	25	\$2,865.00	EA
127	Skin	Exterior Overhead Door, Aluminum	30	\$5,000.00	EA
128	Skin	Exterior Overhead Door, Steel	30	\$3,200.00	EA
129	Skin	Exterior Overhead Door, Wood	30	\$3,000.00	EA
130	Skin	Exterior Service Door, Steel	40	\$3,400.00	EA
131	Skin	Exterior Siding, Aluminum	40	\$11.00	SF
132	Skin	Exterior Siding, Fiber Cement	45	\$9.00	SF
133	Skin	Exterior Siding, Vinyl	30	\$10.00	SF
134	Skin	Exterior Siding, Wood Clapboard	30	\$16.00	SF
135	Skin	Glass Block - Exterior Wall	40	\$50.00	SF
136	Skin	Metal/Insulated Panels - Exterior Wall	45	\$22.00	SF
137	Skin	Stone - Exterior Wall	50	\$60.00	SF
138	Skin	Storefront, Metal-Framed w/Door(s)	30	\$55.00	SF
139	Skin	Stucco - Exterior Wall	50	\$20.00	SF
140	Skin	Window, Metal-Frame	30	\$60.00	SF
141	Skin	Window, Ribbon Metal-Framed	30	\$55.00	SF
142	Skin	Window, Wood-Frame	30	\$70.00	SF
143	Structural	Basement Wall, Concrete	100	\$36.48	SF
144	Structural	Basement Wall, Masonry	100	\$26.17	SF
145	Structural	Basement Wall, Stone	100	\$72.17	SF
146	Structural	Concrete Cast-in-Place Structural Framing	100	\$40.00	SF
147	Structural	Concrete Pre-Cast Structural Framing	100	\$40.00	SF
148	Structural	Concrete Slab-on-Grade	100	\$8.00	SF
149	Structural	Masonry Bearing Walls Structural Framing	100	\$30.00	SF
150	Structural	Shallow Foundation - Concrete Footings	100	\$120.00	LF
151	Structural	Shallow Foundation - Concrete Footings 3+ Stories	100	\$140.00	LF
152	Structural	Shallow Foundation - Concrete Slab-on-Grade	100	\$16.00	SF
153	Structural	Steel Columns & Beams Structural Framing	100	\$45.00	SF
154	Structural	Steel, Light Gauge Structural Framing	100	\$26.00	SF
155	Structural	Wood, Conventional Stud Structural Framing	100	\$14.68	SF
156	Structural	Wood, Heavy Timber Structural Framing	100	\$31.95	SF
157	Wall Finishes	Acoustical Paneling Interior Wall	25	\$12.00	SF

#	System Group	Asset Name	EUL	Unit Cost	UoM
158	Wall Finishes	Ceramic Tile Interior Wall	40	\$18.00	SF
159	Wall Finishes	Fiberglass Panel Interior Wall	50	\$12.00	SF
160	Wall Finishes	Quarry Tile Interior Wall	50	\$26.00	SF
161	Wall Finishes	Vinyl Interior Wall Covering	15	\$2.50	SF
162	Wall Finishes	Wood Interior Wall Paneling	30	\$12.00	SF

## Appendix B: Master List of Deficiency Asset Types

Additional asset types were created to account for deficiencies found in the facility that are related to systems or equipment that are missing or insufficient under the IAC’s Educational Facilities Sufficiency Standards. Deficiency costs for these items are also listed below. The cost factors below are not representative of actual remediation costs but instead are used as comparative weighting factors and are in line with other asset unit costs used in the SFA. Included here for reference, deficiency costs are a factor in calculating MDCI scores, which cannot be used determinatively for funding decisions until FY 2027 at the earliest.

#	Name	Description	Unit Cost	UoM
1	Sufficiency Deficiency	A Sufficiency Deficiency is added to a facility when it is not projected to have enough space as required by Educational Sufficiency Standards. Missing square footage, like not enough classroom space, uses a \$400 per SF deficiency multiplier.	\$405	SF
2	Hard Surface Court	Hard Surface Courts are required by Educational Sufficiency Standards for Elementary and Middle Schools. They are assigned a \$100,000 deficiency.	\$100,000	EA
3	Unpaved Recreation Areas	Unpaved Recreation Areas are required by Educational Sufficiency Standards for Elementary Schools. They are assigned a \$50,000 deficiency.	\$50,000	EA
4	Missing Play Fields	Play Fields are required by Educational Sufficiency Standards for Middle Schools and High Schools. These are assigned a \$75,000 deficiency cost. This item is also used for missing playground equipment, which is only required for Elementary Schools.	\$75,000	EA
5	Kitchens	Educational Sufficiency Standards require schools to have a Kitchen for preparing or serving food. A deficiency cost of \$80,000 is used for missing kitchens.	\$80,000	EA
6	Parking Spaces	Educational Sufficiency Standards set the requirements for Parking. A deficiency of \$1,500 is assigned per missing space.	\$1,500	EA

#	Name	Description	Unit Cost	UoM
7	Add Cooling Capacity	Used when the LEA identifies the facility as having no Air Conditioning; applies to the square footage of the areas of the facility that are categorized in a Space Type other than Support Space, Modular, or Relocatable (divided by 300 to attribute 300sf to each ton of cooling capacity).	\$2,000x	Ton
8	Lead Paint Remediation	Cost is applied for the remediation of exposed Lead Paint.	\$20.00	SF
9	Asbestos Remediation	Cost is applied for the remediation of exposed, friable asbestos.	\$65.00	SF
10	Temperature Issues	Used when the facility cannot consistently meet the requirement of 68-75 degrees at full occupancy.	\$13.33	SF
11	Humidity Issues	Used when the facility cannot consistently meet the requirement of 30-60 percent RH at full occupancy.	\$13.33	SF
12	CO2 Issues	Used when the facility cannot consistently meet the requirement of less than 1,200ppm at full occupancy.	\$13.33	SF
13	Acoustics Issues	Used when background noise within classroom spaces exceeds 55db.	\$6.00	SF
14	Lighting Issues	Used when the facility lighting system does not meet the requirement of 50fc.	\$11.00	SF
15	Kitchen Equipment (missing)	Used when the kitchen does not have the equipment necessary to deliver food service. Current required equipment: telephone, potable water, sink for handwashing, and sink for utensil washing/food prep.	\$0.50	SF
16	Emergency Communication System	Used when the facility does not have an Emergency Communication System, defined as a Fire alarm and emergency-notification system as required by applicable State fire codes and emergency procedures and a two-way internal communication system between a central location and each classroom, isolated office space, and all other regularly occupied spaces.	\$2.50	SF
17	Health Room Attributes	Used when the Health Suite does not meet the Educational Sufficiency Standards. The current standard for Health Rooms are areas for waiting, examination and treatment, resting, storage, and an accessible toilet room, separate room for private consultations and as a health service professional's office, lockable cabinets for medical records and medication, at least one sink in addition to the sink in the toilet room. Additionally, all sinks must provide both hot and cold water.	\$400,000	per school

#	Name	Description	Unit Cost	UoM
18	Lab Safety Equipment	Used when Lab Safety Equipment required for the curriculum is missing. Labs are defined as both Science spaces and Career and Technical Education spaces. Current requirements for lab spaces are: Has all safety equipment required for curriculum, complies with state/federal regulations and LEA Safety Plan, follows industry standard guidelines including but not limited to Natl Institute for Occupational Health and Safety (NIOSH) and National Science Teaching Association (NSTA).	\$5.00	SF
19	Potable Water	Used when the facility's built-in fresh water delivery system either fails to deliver any water or causes potable municipal water to become non-potable through distribution; set asset ORUL to 0.	N/A	N/A

## Appendix C: Master List of Space Types

Space Type
Administrative
Auditorium
Career Development
Dining
Fine Arts
General Classroom
General Classroom - Modulars
General Classroom - Relocatables
General Classroom (Open Plan)
Gymnasium
Health Services
Kitchen
Library/Media Center
Locker Room

<b>Space Type</b>
Maintenance / Janitorial Space
Pupil Services
Science
Special Education
Storage (Non-Classroom)
Technology and Computer Science
Workspace/Lounge
Support Space (N/A)

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