

ASSESSMENT COST GUIDELINES – 2017

A. HEATING SYSTEM

The Assessment Consultant shall evaluate the HVAC system and determine the requirements for each building or building addition using the funding chart below.

HVAC System Replacement:	\$ 26.12 sf	(includes demo of existing system and reconfiguration of piping layout and new controls, air conditioning)
Convert To Ducted System	\$ 8.00 sf	(includes costs for vert. & horz. chases, cut openings, soffits, etc. Must be used in addition to HVAC System Replacement if the existing HVAC system is non-ducted)
Heating System (Only):	\$ 8.50 sf	(for boilers, pump & piping replacement, not AHU)
Controls (Only):	\$ 2.50 sf	

Heating System Component replacement:

(describe “Components” along with opinion of probable costs within recommendation section)

Additional Comments:

- Systems which are not compliant with the OSDM are acceptable, providing they can meet OBBC fresh air requirements and are in safe/good working order. They should have a long-term additional life expectancy.
- Radiators must be removed.
- Rooftop units that are over 10 years old are to be replaced.
- If the controls are older than 1975, or not DDC, replace them.
- Heating system cost includes demolition of the existing system and reconfiguration of piping layout.
- Use “convert to ducted system” when changing from a non-ducted system. Do not repeat in Item “C”. Use only in conjunction with “HVAC System Replacement”.

Coordination Comments:

- If total HVAC system replacement is required, Item “C” shall be zero.
- If HVAC system is being replaced, replace acoustic ceilings under item J. GENERAL FINISHES and lighting under Item K. INTERIOR LIGHTING.
- If upgrading/adapting the heating system to accommodate cooling, use Item “C” Ventilation/AC.
- If replacing mechanical system add electrical service and connections under “D”.
- If replacing unit ventilator system verify whether adjacent casework needs to be replaced under “J. GENERAL FINISHES”.
- In situations where existing conditions prevent installation of ductwork due to deck height, etc., assessor should still budget for adding ductwork. This allowance in conjunction with full HVAC replacement will provide an adequate budget in cases where alternate viable systems may be required during actual design.
- Preliminary estimates to convert existing buildings to Geo-Thermal Systems indicate that the Complete HVAC System Replacement and Convert to Ducted System budgets (totaling **\$34.12**) should be sufficient for most facilities. However, Geo-Thermal System conversions will need to be analyzed on a case by case basis and additional costs beyond the **\$34.12** per sq. ft., if required, should be included as an “Other” with explanation for the additional costs.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Heating and Ventilation System:	\$ 16.00 sf	(includes demo of existing system and reconfiguration of piping layout and new controls)
Roof Top Unit	\$ 11.00 sf	(without air conditioning)
	\$ 13.00 sf	(with air conditioning)

B. ROOFING

The Assessment Consultant shall document the age of existing roof(s) and note any known problems. Look for stained ceilings on the inside of each building as an indication of potential roof problems.

Asphalt Shingle:	\$	3.00 sf	
Asphalt Shingle with Ventilated Nail Base:	\$	8.20 sf	
Deck Replacement:	\$	5.25 sf	(wood or metal, including insulation)
Built-up Asphalt:	\$	13.20 sf	
Membrane (all types/fully adhered):	\$	8.70 sf	(unless under 10,000 sf)
Standing Metal Seam:	\$	16.50 sf	
Repair/replace cap flashing & coping:	\$	18.40 lf	
Gutters/Downspouts:	\$	13.10 lf	
Remove/replace existing roof			
Drains and Sump:	\$	1200.00 ea	
Overflow Roof Drains and Piping:	\$	2500.00 ea	
Roof Insulation:	\$	3.20 sf	(non-tapered insulation for use in areas without drainage problems)
Roof Insulation:	\$	4.70 sf	(tapered insulation)
Roof Access Hatch:	\$	2,000.00 ea	(remove and replace)
Roof Access Ladder with Fall			
Protection Cage:	\$	100.00 lf	(remove and replace)
Roof Access, Ladder & Fall			
Protection Cage:	\$	3,850.00 ea	(provide when no roof access currently exists)
Correct Ponding Water on Roof by			
Remove/Replace Existing Ponding			
Area:	\$	12.50 sf	(provide tapered insulation for limited area use to correct ponding)
 <u>Hazardous Material Replacement Costs:</u>			
Roofing Replacement	\$	8.00 sf	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Costs listed above include tear off of existing roof (non-asbestos containing shingles and/or underlayment). The systems include flashings.
- Replace membrane roofs that are (7) years old or older.
- Replace built-up roofs that are (15) years old or older.
- Replace asphalt shingle roofs that are (10) years old or older.
- Foam Roofing systems are to be budgeted for replacement. Use Membrane roof replacement at \$8.70/sf.
- Replace tile roofs with asphalt shingles; add deck if necessary.

Coordination Comments:

- Use only one roof system type to replace multiple systems used on a single facility, except for pitched roofs. The replacement roof should be in-kind to the most dominant roofing type being replaced.

C. VENTILATION/AIR CONDITIONING

The Assessment Consultant shall verify that all buildings or additions to buildings have air conditioning.

Air Conditioning System:	\$ 16.60 sf	
Dust Collection System:	\$ 25,000.00 ea	(complete w/installation)
Restroom Exhaust System:	\$10,500.00 ea	(including new ductwork and fans; do not include if complete HVAC system in Item A selected)
Kiln Exhaust System:	\$ 5,000.00 ea	
Art Program Paint Hood:	\$ 12,000.00 ea	
Chemical Exhaust Hood System for Science Laboratories:	\$ 15,000.00 ea	

Other:
(describe “Other” items along with opinion of probable costs within recommendation section)

Additional Comments:

- Add air to a school that has an acceptable heating system; this may require adapting the heating system to accommodate cooling.
- All wood shop areas are required to have dust collection systems in addition to HVAC upgrades.
- To completely replace heating and air conditioning systems, see Item A above.
- Window units are not acceptable.
- Do not include budget for Restroom Exhaust System if complete HVAC system in Item A selected.

Coordination Comments:

- If the building contains Air Conditioning and partial Air Conditioning component replacement exceeds \$11.12 per sf then replace entire Air Conditioning System at \$16.60 per sf
- If replacing Air Conditioning, replace acoustic ceilings under Item J. GENERAL FINISHES and lighting under Item K. INTERIOR LIGHTING.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Welding Exhaust System:	\$ 50,000.00 per system
Paint Booth Exhaust System:	\$ 12,000.00 per system
Vehicle Emission System:	\$ 15,000.00 per system
Paint Hood System:	\$ 7,500.00 per system
Exhaust for Gas-fired Equipment:	\$ 3,500.00 per system

Other (describe “Other” items along with opinion of probable costs within recommendation section)

Additional Comments:

- To completely replace heating and ventilation systems, see Item “A” above.
- Dust Collection System to be installed in Carpentry and Wood Product Technologies labs.
- Welding Exhaust System to be installed in Agriculture Production, Building & Property Maintenance, Industrial Maintenance, Natural Resources, Power Equipment Technology, Welding & Cutting, Engineering Technologies, Manufacturing Engineering Technology and Agriculture Industrial Equipment labs.
- Paint Booth Exhaust System to be installed in Aircraft Maintenance, Agriculture Production and Auto Collision Repair labs.
- Vehicle Emission System to be installed in Auto Specialization, Auto Technology and Medium/Heavy Truck Technician labs.
- Exhaust for Gas-fired Equipment to be installed in Plumbing and Pipefitting lab.

D. ELECTRICAL SYSTEMS

The Assessment Consultant shall verify that the electrical is adequate for estimated electrical loads (refer to Minimum Amperage Chart below).

System Replacement:	\$ 16.23 sf	(Includes demo of existing system. Includes generator for life safety systems. Does not include telephone or data or equipment)
<u>Components</u>		(Use items below ONLY when the entire system is NOT being replaced)
Panel Replacement:	\$ 3,500.00 unit	(power or lighting sub-panel only)
Transformer Removal:	\$ 1,500.00 lump sum	(per phase/can)
New Pad Mounted Transformer:	\$ 15,000.00 lump sum	(1000 KVA – includes demo of existing system)
Step-down Transformer:	\$ 3,000.00 lump sum	
Additional Circuits:	\$ 800.00 per circuit	
Additional Receptacles:	\$ 250.00 each	
Lightning Protection:	\$ 0.30 sf	
Grounding:	\$ 0.25 sf	

Other:
(describe “Other” items along with opinion of probable costs within recommendation section)

Minimum Amperage Chart		
Building Square Footage	Minimum Amperage 480v 3 phase	Minimum Amperage 208v
0-10,000	400	1,000
10,000 – 20,000	400	1,000
20,000 – 30,000	600	1,200
30,000 – 40,000	800	1,600
40,000 – 50,000	1,000	2,000
50,000 – 60,000	1,200	2,400
60,000 – 70,000	1,400	3,000
70,000 – 80,000	1,600	3,500
80,000 – 90,000	1,800	
90,000 – 100,000	2,000	

For each 10,000 sf increment over 100,000 sf increase 480-volt service size by 200.

Additional Comments:

- If electrical system is over 35 years old, replace entire system.
- If black oil-filled transformers are PCB contaminated, they must be replaced.
- New pad mounted transformer cost includes demolition of existing transformer.
- Replace single-phase service with three-phase service, if available.
- Electrical system replacement budget includes technology associated components, including back boxes, cable tray and grounding.

Coordination Comments:

- If Electrical Component replacement exceeds \$10.87 per sf, then replace entire Electrical System at \$16.23 per sf.
- Individual component costs should not be applied when a full system replacement has been indicated.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Bus Duct:	\$ 150.00 per lf	
“Emergency Shut Off Switch” Push Button	\$ 8000.00 each	(Allows instructor to de-energize panelboards, bus duct or other electrical equipment in Type 5-7 lab spaces)
208v 3 Phase Service	\$ 15,000 lump sum	(Includes 300 lin. ft. conduit. Does not include new transformer, upgraded panels or switch gear.)
480v 3 Phase Service	\$ 20,000 lump sum	(Includes 300 lin. ft. conduit. Does not include new transformer, upgraded panels or switch gear.)

Additional Comments:

- Bus Duct to be installed in Electrical Trades Lab.
- 208v 3 phase and 480v 3 phase electrical service to be installed in Electrical Trades, Industrial Maintenance, Manufacturing Operations, Welding & Cutting, Manufacturing Engineering Technology, and Precision Machinery.
- The “Emergency Shut Off” Switch should be added to programs in Types 5-7 to allow the instructor to de-energize panelboards, bus ducts or other electrical equipment. Where necessary, include “Emergency Shut Off” switch for equipment.

E. PLUMBING AND FIXTURES

The Assessment Consultant shall determine if there are pressure problems and number of systems if additions are present, and address all other concerns using the cost indicated below. Do not put any cost of handicapped compliance in this area. – The Assessment Consultant shall determine if there are sufficient numbers of plumbing fixtures based upon plumbing code in effect at time of assessment. Determine fixture count by dividing the square footage of the building by the allowable square footage per student in the Design Manual.

Back Flow Preventer:	\$ 5,000.00 unit	
Water Treatment System:	\$ 15,000.00 unit	(Domestic Water System, softening only, per system)
Water Treatment System:	5,500.00 unit	(Chlorination type, per unit)
Domestic Supply Piping:	\$ 3.50 sf	(remove/replace)
Sanitary Waste Piping:	\$ 3.50 sf	(remove/replace)
Domestic Water Heater	\$ 5,100.00 unit	(remove/replace)
Toilet:	\$ 3,800.00 unit	(new)
Toilet:	\$ 1,500.00 unit	(remove/replace) See Item O
Urinal:	\$ 3,800.00 unit	(new)
Urinal:	\$ 1,500.00 unit	(remove/replace)
Sink:	\$ 2,500.00 unit	(new)
Sink:	\$ 1,500.00 unit	(remove/replace)
Electric Water Cooler:	\$ 3,000.00 unit	(double ADA)
Replace Faucets and Flush Valves	\$ 500.00 unit	(average cost to remove replace)
Two Station Modular Lavatory	\$ 3000.00 unit	(remove/replace)
Three Station Modular Lavatory	\$ 4000.00 unit	(remove/replace)

Other:

(describe “Other” items along with opinion of probable costs within recommendation section)

Additional Comments:

- Some schools with additions have more than one service.
- If domestic supply piping is galvanized pipe, replace the distribution system.
- Current codes require back-flow preventors, if there are none, add to system.
- Floor mounted toilet fixtures are acceptable if in safe/good working order and have a long-term additional life expectancy.

- Meet with school representatives and inquire about condition and history of under-slab sanitary. If problems are suspected, ask district about having a pipe inspection via camera photography to better determine condition. Also, enter item in the “Summary of Significant Findings.”
- Replace ALL non low flow type fixtures in order to improve water efficiency and to meet the LEED pre-requisite #1 Water Use Reduction requirement.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Safety Shower/Eyewash:	
Remove & Replace Existing:	\$ 450.00 each
New Installation:	\$ 2,500.00 each
Utility Sink:	\$ 2,400.00 unit
Hose Bibbs:	\$ 800.00 unit
Wash Fountain:	\$ 3,600.00 unit
Natural Gas Connections:	\$ 800.00 each
Compressed Air Connections:	\$ 15,000.00 system
Grease Trap or Oil Interceptor	\$ 6,000.00 each

Additional Comments:

- All high bay labs will have safety shower/eyewash, utility sink, hose bibbs and wash fountains.
- Natural Gas Connections to be included in Building and Property Maintenance, Heating and Ventilation Technician and Plumbing & Pipefitting labs.
- Compressed Air Connections to be included as necessary and per the program space plates.

F. WINDOWS

*The Assessment Consultant should visually determine the area of windows to be replaced, by establishing an estimate based on approximate area of windows times number of units. The **Ohio School Facilities, Ohio School Design Manual** supports integral blinds.*

Insulated Glass/Panels:	\$ 65.00 sf	(includes blinds)
Skylights:	\$ 125.00 sf	(remove and replace)
Translucent Panels:	\$ 125.00 sf	(remove and replace)
Curtain Wall/Storefront System:	\$ 65.00 sf	(remove and replace)
Greenhouse Replacement	\$ 85.00 sf	(demo and replace; based on area of greenhouse floor)
<u>Hazardous Material Replacement Costs:</u>		
Door and Window Panel		
Replacement:	\$ 200.00 ea	

Other:

(describe “Other” items along with opinion of probable costs within recommendation section)

Additional Comments:

- All single pane glass windows are to be replaced.
- All non-thermally broken window units are to be replaced.
- The above cost includes demolition of existing windows and installation of new panel screens and replacement windows.
- Replace glass block, which is part of an integral window system, only if the windows are being replaced, or if the glass block is in disrepair; replace glass block with windows. All other glass block, which is in good condition, may remain.
- Exterior transom windows and sidelights to be included in window area.

G. STRUCTURE

The Assessment Consultant shall look for cracking and differential movement of the building and any additions. In addition, check any existing crawl space(s) for deterioration of structure. Determine if the district has experienced any structural problems. **Do not go down in pipe tunnels.**

Waterproofing:		
Spray Applied:	\$ 6.00 sf	(includes excavation and backfill)
Membrane:	\$ 7.00 sf	(includes excavation and backfill)
Drainage Tile Systems/Foundation Drainage:	\$ 18.00 lf	(includes excavation and backfill)

Other:
 (describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Calculation for this item will be made on a case-by-case basis.
- Indicate the reasons for any found deficiencies and their associated cost.
- Immediately report any conditions that appear "unsafe".

H. STRUCTURE WALLS AND CHIMNEYS

The Assessment Consultant shall look for any cracking, shifting, spalling or movement. Determine if the district has experienced any structural problems.

Tuckpointing:	\$ 5.25 sf	(wall surface)
Exterior Masonry Cleaning:	\$ 1.50 sf	(wall surface)
Exterior Masonry Sealing:	\$ 1.00 sf	(wall surface)
Exterior Caulking:	\$ 5.50 lf	(removing and replacing)
Replace Brick Veneer System:	\$ 35.00 sf	(total removal and replacement including pinning and shoring)
Lintel Replacement:	\$ 250.00 lf	(total removal and replacement including pinning and shoring)
Sill Replacement:	\$ 45.00 lf	(remove and replace)
Pre-finished Aluminum Coping Replacement:	\$ 22.50 lf	(removing existing coping and replacing)
Stone and Masonry	\$ 100.00 lf	(remove and replace)
Install Control Joints:	\$ 60.00 lf	

Other:
 (describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Calculation for this item will be made on a case-by-case basis.
- Indicate the reason(s) for any found deficiencies and their associated cost.
- Tuckpoint up to natural breaks in walls, such as corners or control joints.
- If other less common exterior skin materials are observed to be problematic, such as metal panels or pre-cast concrete, enter items in the "Summary of Significant Findings."

I. STRUCTURE: FLOORS AND ROOFS

Replace Wood Floor System:	\$ 45.00 sf	
Fire Rated Drywall over Existing Wood Ceiling Joists:	\$ 3.50 sf	(per square face feet of required drywall)
Repair Soffits:	\$ 24.00 sf	
Remove/Replace Damaged Concrete		

Slab on Grade:	\$ 8.00 sf	
<u>Hazardous Material Replacement Costs:</u>		
Soil Replacement	\$ 141.00 cy	(only to be used when back filling existing crawl spaces Where hazardous materials were abated)

Other:
(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Structural wood floor supporting joists must be replaced and will result in replacing the addition with a new building.
- Roof wood structures are permitted to remain if separated with OBBC compliant fire separation assemblies.
- Calculation for this item will be made on a case-by-case basis.
- **CAUTION:** Replacing the structural floor requires gutting the entire addition and will require other systems to be affected as follows:

Coordination Comments:

- A. Heating System: HVAC System Replacement (\$26.12/sf)
- D. Electrical System: System Replacement (\$16.23/sf)
- J. General Finishes: Complete Replacement of Finishes and Casework (varies based on type of school)
- K. Interior Lighting: Complete Building Replacement (\$5.00/sf)
- L. Security Systems (\$1.50/sf)
- M. Emergency/Egress Lighting (\$1.00/sf)
- N. Fire Alarm (\$1.50/sf)
- T. Hazardous Materials: When replacing a wood floor system, include additional testing for possible hazardous material abatement.
- W. Technology: Non-OSDM Compliant (\$ variable/sf)

J. GENERAL FINISHES

The cost to replace all the finishes in a school building are listed below. Define requirement for casework within description.

<u>Partial Finish Replacement:</u>		
Paint:	\$ 2.00 sf	(floor area/prep and installation)
Acoustic Ceiling:	\$ 2.90 sf	(drop in/standard 2x4 ceiling tile per area)
	\$ 3.50 sf	(tear-out and replace per area)
Vinyl Enhanced Tile (VET):	\$ 4.10 sf	(tear out and replace per area; to be used in lieu of VCT)
Carpet:	\$ 3.50 sf	(tear-out and replace per area)
Tackboard:	\$ 0.30 sf	(per building area)
Chalkboard/Markerboard:	\$ 0.30 sf	(per building area)
Lockers:	\$ 1.73 sf	(high & middle school per building area)
	\$ 1.00 sf	(elementary/cubbies per building area)
Lockers:	\$ 250.00 ea	(individual unit replacement)
<u>Complete Replacement of Finishes (excludes casework):</u>		
Elementary	\$ 11.80 sf	(elementary, per building area, with removal of existing)
Middle	\$ 12.60 sf	(middle, per building area, with removal of existing)
High	\$ 12.60 sf	(high school, per building area, with removal of existing)
<u>Complete Replacement of Finishes and Casework:</u>		
Elementary	\$ 15.90 sf	(elementary, per building area, with removal of existing)

Middle	\$	15.90 sf	(middle, per building area, with removal of existing)
High	\$	17.70 sf	(high school, per building area, with removal of existing)
<u>Complete replacement of Casework only:</u>			
Elementary	\$	4.00 sf	
Middle	\$	3.25 sf	
High	\$	5.00 sf	
Partial Casework: (base and wall)	\$	450.00 lf	(refer to OSFC, OSDM for requirements)
Toilet Partitions:	\$	1000.00 per stall	(removing and replacing)
Toilet Accessory Replacement	\$	0.20 sf	(per building area)
Plaster refinishing:	\$	14.00 sf	
Repair Drywall:	\$	5.50 sf	
Demo & Reinstall Drywall Partitions:	\$	7.00 sf	
Partition Open Space Classrooms:	\$	\$8.00 sf	(per building sq.ft., CMU in corridors and drywall partitions between classrooms)
Lightweight Concrete Floor			
Infill at Wood Floor Removal	\$	8.00 sf	(includes removal of wood flooring and sleeper system)
Door, Frame and Hardware:	\$	1,300.00 each	(non-ADA)
Resilient Wood/Synthetic Flooring:	\$	12.85 sf	(tear-out and replace per area)
Terrazzo Floor Repair:	\$	25.00 sf	(floor area affected; max. area to be 300 sf)
Basketball Backboard Replacement	\$	3,200.00 each	(non-electric)
	\$	6,500.00 each	(electric)
Bleacher Replacement	\$	110.00 per seat	(based on current enrollment)
Art Program Kiln:	\$	2,750.00 ea	
Remove Demountable Partitions/			
Install New GWB Partitions	\$	9.00 sf	(includes the demolition of the demountable partition, new partition with 5/8" abuse board, 10' high walls braced to structure above and the use of existing electric and data runs; unit price is based on floor area)
Additional Wall Insulation	\$	6.00 sf	(includes the furring out of the existing walls, insulation and abuse resistant GWB)
<u>Hazardous Material Replacement Costs</u>			
Acoustical Plaster Replacement	\$	12.00 sf	
Fireproofing Replacement	\$	5.00 sf	
Hard Plaster Replacement	\$	9.00 sf	
Gypsum Board Replacement	\$	4.00 sf	
Acoustical Panel/Tile Ceiling			
Replacement:	\$	1.50 sf	
Laboratory Table/Counter Top			
Replacement:	\$	150.00 lf	
Door and Window Panel Replacement	\$	200.00 ea	
Non-ACM Acoust. Panel Ceiling			
Replacement:	\$	1.50 sf	
Resilient Flooring Replacement,			
Including Mastic:	\$	2.25 sf	
Carpet Replacement (over RFC)	\$	3.00 sf	
<u>Kitchen Equipment:</u>			
Walk-in Coolers/Freezers:	\$	29,818.00 per unit	
Floor Mixer:	\$	9,476.00 per unit	

CombiOven (double):	\$31,000.00 per unit	
CombiOven (single):	\$15,500.00 per unit	
Convection Oven (double):	\$ 12,600.00 per unit	
Conventional Oven:	\$ 6,200.00 per unit	
Range:	\$ 2,925.00 per unit	
Mixer:	\$ 4,116.00 per unit	
Hot Serving Unit:	\$ 8,148.00 per unit	
Hot Food Cabinet	\$ 6,150.00 per unit	
Cold Serving Unit:	\$ 6,633.00 per unit	
Cold Food Cabinet:	\$ 9,900.00 per unit	
Ice Maker (with bin)	\$ 4,200.00 per unit	
Stationary Serving Unit:	\$ 3,300.00 per unit	
Reach-in Refrigerator/Freezer:	\$ 6,433.00 per unit	
Slicer	\$ 4,965.00 per unit	
Kettle:	\$ 20,016.00 per unit	
Pot Filler:	\$ 1,200.00 per unit	
Disposer:	\$ 2,814.00 per unit	
Dishwasher:	\$ 17,000.00 per unit	
Soft Serve Machine:	\$ 15,000.00 per unit	
Shelving and Tables (stainless)	\$ 3,325.00 per unit	
Kitchen Exhaust Hood:	\$ 56,000.00 per unit	(includes fans, exhaust & ductwork)

Total Kitchen Equipment Replacement: \$ 190.00 sf (square footage based upon only existing area of food preparation, serving, kitchen storage areas and walk-ins. Includes demolition and removal of existing kitchen equipment.)

Total Warming Kitchen Replacement: \$ 112.50 sf (square footage based upon only existing area of food preparation, serving, kitchen storage areas and walk-ins. Includes demolition and removal of existing kitchen equipment.)

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Casework replacement should be on an as needed basis.
- Casework is to comply with Ohio School Facilities, Ohio School Design Manual where practical.
- Assessment Consultant must determine lineal footage of casework to be replaced.
- Do not add items to kitchen, if they do not exist.
- If Terrazzo floor repair area exceeds 300 sf, budget for VET or Carpet instead.
- Partitioning open space classrooms is intended for buildings with an open space design where individual, separated and enclosed classrooms are desired. This includes full height CMU walls in corridors, full height metal stud and drywall partitions between classrooms and doors in lieu of moveable partitions.
- Replace kitchen equipment over 20 years old.
- If two-thirds of the interior doors require replacement, replace all of them.
- When replacing demountable partitions, only count the floor area zones where the demountable partitions occur and indicate in the "Summary of Significant Findings."

Coordination Comments:

- If individual Kitchen Equipment item costs exceed \$127.30 per sf of food preparation, serving, kitchen storage areas and walk-ins, replace all Kitchen Equipment at funding level above for square footage of food preparation, serving, kitchen storage areas and walk-ins. (Use existing kitchen size for calculation).
- If Acoustic Ceilings are being replaced review condition of item K. INTERIOR LIGHTING.

- If Partial Finish Replacement costs exceed two-thirds cost per sf of Complete Finish Replacement, replace all finishes at funding level for Complete Replacement of Finishes.
- When replacing kitchen equipment, evaluate kitchen equipment electrical panel for sufficient capacity.
- When replacing demountable partitions with metal studs & gypsum board, replace all interior doors within these walls.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

Seal Concrete Floor:	\$	0.50 sf	
Ceiling Replacement:	\$	3.85 sf	(high bay area only, combination exposed and acoustical ceiling)
Paint exposed ceiling	\$	1.00 sf	(high bay only)
Paint	\$	1.50 sf	(high bay area only)
Total Flooring Replacement	\$	0.75 sf	(high bay area only)
Total Finish Replacement	\$	8.50 sf	(high bay area only)

K. INTERIOR LIGHTING

The Assessment Consultant shall refer to the design manual to verify that the minimum FC levels are present. Refer to the design manual (page 8600-13 (revised 7/1/99)) for candle levels. The Assessment Consultant shall measure lighting levels in a sampling of educational spaces to determine if upgrades are necessary. Indicate within description a summary of recorded lighting levels.

Building Lighting Replacement	\$5.00 sf	(Includes demo of existing fixtures)
<u>Hazardous Material Replacement Costs:</u>		
Light (Reflector) Fixture Removal	\$3.00 sf	

Additional Comments:

- Replace all incandescent pendant fixtures, U-shaped florescent lamps and T-12 florescent lamps.
- Replace fixtures in poor condition even though foot-candle level is good.

Coordination Comments:

- If Interior Lighting is being replaced, replace Acoustic Ceilings under item J. GENERAL FINISHES.
- If sprinklers are added, remove and replace ceilings and lighting.

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

High Intensity (High Bay) Lighting	\$6.00 Sq. Ft.
Interior Lighting	\$4.00 Sq. Ft.

L. SECURITY SYSTEMS

The Assessment Consultant shall verify that all buildings in the school district have security systems. If none exist, use \$1.85 sf.

Security System	\$	1.85 sf	(complete, area of building)
Partial Security System Upgrade	\$	1.35 sf	(complete, area of building)
Exterior Site Lighting:	\$	1.00 sf	(complete, area of building)

Additional Comments:

- A complete security system will include access control systems, panic alarms, lock down capabilities, etc., and may include fencing (see Ohio School Facilities, Ohio School Design Manual.)

M. EMERGENCY/EGRESS LIGHTING

The Assessment Consultant shall verify that school building has a standby generator supplying emergency power to emergency/egress lighting.

Emergency/Egress Lighting:	\$1.00 sf	(complete, area of building)
New Exit Sign	\$300.00 each	
New Emergency Light	\$350.00 each	

Additional Comments:

- All exit signs are to meet code for size and location.
- Emergency lighting must meet code for illumination levels and locations.
- New Emergency/Egress lighting must have generator back up. Unless total electric replacement is required, coordinate generator with Item U Life Safety.

N. FIRE ALARM

The Assessment Consultant shall verify that all assessment facilities have a minimum of an addressable type alarm system with strobe type devices in all occupiable spaces and pull stations at all exits.

Fire Alarm System:	\$ 1.50 sf	(complete new system, including removal of existing)
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Additional Comments:

- All corridor/room devices shall be the strobe/horn type.
- If there is not an existing system, or if present system is outdated and does not meet code, add a new system.
- If present system does not have additional expansion capability, consider replacement.
- Alarm system shall be connected to an automatic digital communicator monitored by a central station.

O. HANDICAPPED ACCESS

Wheelchair confined students and staff must have access to all instructional areas of every school. All toilet facilities, drinking fountains and door hardware must be ADA compliant.

Handicapped Hardware:	\$ 350.00 set	(includes installation/hardware only)
Signage:	\$ 0.20 sf	(per building area)
Ramps:	\$ 40.00 sf	(per ramp/interior-exterior complete)
Lifts:	\$ 15,000.00 unit	(complete)
Elevators:	\$ 42,000.00	(per stop, \$84,000 minimum)
Electric Water Coolers:	\$ 1,800.00 unit	(replacement double ADA)
	\$ 3,000.00 unit	(new double ADA)
Toilet/Urinals/Sinks:	\$ 3,800.00 unit	(new ADA)
	\$ 1,500.00 unit	(replacement ADA)
Toilet Partitions:	\$ 1,000.00 stall	(ADA - grab bars, accessories included)
ADA Assist Door & Frame:	\$ 7,500.00 unit	(openers, electrical, patching, etc)
Replace Doors:	\$ 1,300.00 leaf	(standard 3070 wood door, HM frame, door/light, includes hardware)
	\$ 5,000.00 leaf	(rework narrow opening to provide 3070 wood door, HM frame, door/light, includes hardware)

	\$ 5,000.00 leaf	(rework opening and corridor wall to accommodate ADA standards when door opening is set back from edge of corridor and cannot accommodate a wheelchair.)
Remount Restroom Mirrors to Handicapped Height:	\$ 285.00 per restroom	
Provide ADA Shower:	\$ 3,000.00 ea	(includes fixtures, walls, floor drain, and supply line of an existing locker room)
Provide Toilet Accessories:	\$ 1,000.00 per restroom	

Other:
(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Upgrade costs include associated required electrical upgrades.
- Ramps can be used if there is run-out room.
- Existing floor-to-floor chair lifts cannot be used as a substitute for a new elevator.
- Coordinate plumbing fixtures with "E".
- Provide ADA Assisted doors per OBBC.
- Ensure room for expansion, if applicable.

P. SITE CONDITION

The Assessment Consultant shall confirm with district personnel if a deficient site condition exists. Ask the custodian and/or district personnel if the district's parking areas meet city or local codes in reference to paving.

Playground Equipment:	\$ 1.50 sf up to \$100,000	(per building square feet)
Removal of existing Playground Equipment	\$ 2,000.00 lump sum	
Replace Existing Asphalt Paving (heavy duty):	\$ 30.60 sy	(includes drainage/tear out for heavy duty asphalt)
Replace Existing Asphalt Paving (light duty):	\$ 28.60 sy	(includes drainage/tear out for light duty asphalt)
Asphalt Paving/New Wearing Course:	\$ 19.00 sy	(includes minor crack repair in less than 5% of paved area)
New Asphalt Paving (heavy duty):	\$ 27.80 sy	
New Asphalt Paving (light duty):	\$ 25.80 sy	
Parking Space:	\$ 1,100.00 space	(ES & MS: .11 space per student, HS .42 space per student. Parking space includes parking lot drive space.)
Bus Drop-Off:		(Allowance to assist in constructing bus drop-off at buildings where there currently is none)
	ES/MS	HS/CT
	\$110/student	\$68.75/student
		(based on current enrollment)
Concrete Curb:	\$ 18.00 lf	(new)
Concrete Sidewalk:	\$ 4.69 sf	(5" exterior slab)
Stabilize soil erosion	\$ 2.50 sf	(includes stripping and re-grading)
Exterior Hand / Guard Rails:	\$ 43.00 lf	
Sitework Allowance	up to \$200,000	(for unforeseen conditions)
Provide Soft Surface Playground Material:	\$ 30.00 sy	
Replace Concrete Steps:	\$ 32.00 sf	
Provide Exterior Parking Lot Catch Basin:	\$ 2,500.00 ea	

Provide Concrete Dumpster Pad: \$ 2,400.00 ea (for two dumpsters)

Other:

Storm Drainage:

Curb Cuts:

Stabilize Soil Erosion:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Review existing Bus/pedestrian/vehicular traffic separation. Assessment consultant should provide funding for paving and curbing to provide separation.
- Pave a parking lot if not currently paved.
- This could include a bad drainage condition.
- This could include a circulation problem such as handicapped inaccessibility.
- Provide playground equipment to elementaries (only) as indicated in the *Ohio School Facilities, Ohio School Design Manual*.
- Assessment Consultant to review any existing equipment.
- Bus drop off is based on current student enrollment. Combination schools will be determined by enrollment per grade level.
- A sitework allowance to accommodate unforeseen circumstances is to be included on all renovation projects. The assessor is required to manually select this as directed on the webtool instructions.

Q. SEWAGE SYSTEM

The Assessment Consultant shall verify the condition and suitability of the existing sewage system. These items are on a per school basis.

ELEMENTARY SCHOOL COST

<u><i>Square Feet of Building</i></u>	<u><i>Cost per sf</i></u>
<i>43,750 – 50,000 sf</i>	<i>\$ 4.51</i>
<i>50,001 sf – 69,360 sf</i>	<i>\$ 4.68</i>
<i>69,361 sf – 100,000 sf</i>	<i>\$ 3.07</i>
<i>100,001 sf and up</i>	<i>\$ 2.80</i>

MIDDLE SCHOOL COST

<u><i>Square Feet of Building</i></u>	<u><i>Cost per sf</i></u>
<i>52,850 - 67,950 sf</i>	<i>\$ 3.93</i>
<i>67,951 sf – 91,650 sf</i>	<i>\$ 3.44</i>
<i>91,651 sf – 100,000 sf</i>	<i>\$ 3.04</i>
<i>100,001 sf and up</i>	<i>\$ 2.86</i>

HIGH SCHOOL COST

<u><i>Square Feet of Building</i></u>	<u><i>Cost per sf</i></u>
<i>63,000 - 100,000 sf</i>	<i>\$ 3.66</i>
<i>100,001 sf – 133,600 sf</i>	<i>\$ 2.21</i>
<i>133,601 sf – 200,400 sf</i>	<i>\$ 1.79</i>
<i>200,401 sf and up</i>	<i>\$ 1.60</i>

A more accurate probable cost will be achieved by obtaining actual flow rates of a similar type of school with a similar student population and modifying those numbers to the design of the new or renovated building.

Abandonment of Self-

Contained Unit:	\$ 10,000.00 lump sum
Sewage Main:	\$ 45.00 lf (includes excavation and backfilling)

Other:

(describe “Other” items along with opinion of probable costs within recommendation section)

Additional Comments:

- *The size (gallons/day) and type of the treatment plant (re-circulating sand filter or extended aeration) the drainage characteristics of the soil, and the length of sewer piping between the building and treatment components all influence the design and cost.*
- *Another important factor is water-reducing plumbing fixtures. Treatment plants sized for higher flows will not perform satisfactorily and experience negative effects on the equipment provided.*
- Meet with school representatives and inquire about condition and history of the underground sanitary lines. If problems are suspected, ask district about having a pipe inspection via camera photography to better determine condition. Also enter the item in the “Summary of Significant Findings.”

R. WATER SUPPLY

The Assessment Consultant shall verify that there are no problems in this area.

Domestic Water Booster Pump:	\$ 35,000.00 lump sum	
Pressure Tank:	\$ 1.50 per gallon	(new)
	\$ 2.00 per gallon	(removal/replacement)
Domestic Water Main	\$ 40.00 lin. ft	(new)
Well:	\$ 45,000.00 unit	
Well Pump:	\$ 2,500.00 unit	(5HP unit)
	\$ 10,000.00 unit	(25-30 HP unit)
Water Quality Test	\$ 500.00	(includes 2 tests)

Other:

(describe “Other” items along with opinion of probable costs within recommendation section)

Coordination Comments:

- Coordinate with Item “U” – Life Safety
- If District uses a well for potable water, determine if arsenic contamination is an issue. Contact OSFC if Arsenic Filtration System is required.

S. EXTERIOR DOORS

Assessment Consultant shall visually inspect and recommend for replacement, if needed.

Door Leaf/Frame and Hardware:	\$ 2,000.00 per leaf	(includes removal of existing)
Overhead door and hardware	\$ 2,500.00 per leaf	(8x10 sectional, manual operation)
<u>Hazardous Material Replacement Costs:</u>		
Fire Door Replacement	\$ 1,100.00 each	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- All exterior door and hardware must be ADA compliant.
- Replace all wood exterior doors.
- Coordinate transoms and sidelights with Item "F" Windows.

T. HAZARDOUS MATERIAL

Effective June 1, 2001 Assessors will use the Environmental Hazards Form to establish estimates for Item T.

Additional Comments:

- **IMPORTANT NOTE TO REGIONAL PROGRAM CONSULTANTS:** If the building is intended to become a part of a district's Master Plan, the Regional Program Consultant shall review the Enhanced Environmental Report and make any budget adjustments required due to replacement of abated materials. The adjustments should be made per the specific line items in sections A through W herein, under the *Hazardous Material Replacement Costs* heading in each section.
- OSFC policy is to remove all hazardous materials.

U. LIFE SAFETY

The Assessment Consultant shall review exit corridors and include funding for eliminating existing dead-end corridor conditions. Include descriptive analysis and opinion of probable costs in recommendation section. The Assessment Consultant shall confirm that all buildings contain sprinklers. Stairs must be in two-hour rated enclosures and travel distances may require an additional means of egress. Stair railings must pass the 4" ball test. The present code requires that the guards of stair railing(s) shall not allow a sphere of 4" to pass through the balusters. An exception is made only for the triangular opening where the tread /rise / railing bottom meet to allow a 6" size sphere to pass through. In addition, the design of a guardrail should not be such that would create a "ladder effect" allowing a student to climb the railing system and therefore possibly fall over it. If water supply is from a well, assure an additional well, well pump, storage tank and generator will be required to serve the fire suppression sprinkler system.

Sprinkler / Fire Suppression System:	\$ 3.20 sf	(includes increase of service piping, if required)
Interior Stairwell Closure:	\$ 5,000.00 per level	(includes associated doors, door frames and hardware)
New Exterior Stair Enclosure	\$ 42,500.00 per level	(all inclusive)
Demo of existing stairway:	\$12,000 per floor	(per stairway, two floor minimum \$12,000, includes demo and floor construction, see coordination comment)
As required to provide adequate fire suppression system:		
Water Main	\$ 40.00 ln. ft.	(new)
Well Pump (Electric):	\$ 30,000.00 unit	
Well Pump for Fire Pump	\$ 20,000.00 unit	
Generator:	\$ 50,000.00 unit	(75 KW w/fence and pad/day tank only, life safety only)
Storage Tank:	\$ 50,000.00 unit	(30,000-35,000 gallon tanks)
Well:	\$ 45,000.00 unit	
Handrails:	\$ 5,000.00 level	
Retrofit existing kitchen hood with		
Fire suppression system	\$ 6,500.00 per hood	
Provide Fire Extinguisher and Wall Cabinet:	\$ 585.00 ea	(includes preparation of wall to receive recessed cabinet)
Replace Fire Extinguisher:	\$ 400.00 ea	

Other:

(describe "Other" items along with opinion of probable costs within recommendation section)

Additional Comments:

- Demo of existing stairway includes the removal of an interior stairway requiring enclosure due to fire code that cannot be enclosed because of space or other issues. The stairway will then be removed and the space used for other purposes. The cost includes the removal of the stair and any guard or handrails, installing structural steel, decking and concrete infill.
- Stairway enclosures not required for two-story buildings.

Coordination Comments:

- If a Fire Suppression System is being provided, replace Interior Lighting under item K. INTERIOR LIGHTING.
- If a Fire Suppression System is being provided, replace Acoustic Ceilings under item J. INTERIOR FINISHES.
- When specifying a fire protection system for a building currently using a well for domestic water include well pump, generator and storage tank.
- Coordinate with Item "R" Water Supply.
- If complete electrical replacement is required, do not add generator.

V. LOOSE FURNISHINGS

Based on the CEFPI appraisal form, if loose furnishings are rated less than 8 under Environment for Education on Item 6.17 apply funding as listed below. If CEFPI Item 6.17 is above 8, no funding should be received.

Use the following graduated scale:

CEFPI Rating	\$/Sf Allowance
8	\$1.00
7	\$2.00
6	\$3.00
4 to 5	\$4.00
0 to 3	\$5.00

(Graduated scale based on evaluation of furnishing)

HIGH BAY/INDUSTRIAL SPACE – LAB TYPES 5, 6, 7:

High Bay Loose Furnishings allowance is \$1.00 per sqft

Add \$19,500 for Welding Tables in the Welding lab in addition to the \$1.00 per sqft for loose furnishings.

W. TECHNOLOGY

The Assessment Consultant shall determine whether the school is fully compliant with the Ohio School Design Manual (OSDM). Provide assessment funding based on the figures below.

Non-OSDM Compliant:

ELEMENTARY SCHOOL TECHNOLOGY COST

<u>Square Feet</u>	<u>Cost per sf</u>
< 50,000 sf	\$13.18
50,001 sf –69,360 sf	\$11.51
69,361 sf – 100,000 sf	\$10.18

100,001 sf and up \$ 9.84

MIDDLE SCHOOL TECHNOLOGY COST

<u>Square Feet</u>	<u>Cost per sf</u>
< 67,950 sf	\$10.29
67,951 sf – 91,650 sf	\$ 9.47
91,651 sf – 100,000 sf	\$ 8.66
100,001 sf and up	\$ 8.47

HIGH SCHOOL TECHNOLOGY COST

<u>Square Feet</u>	<u>Cost per sf</u>
< 100,000 sf	\$8.82
100,001 sf – 133,600 sf	\$8.54
133,601 sf – 200,400 sf	\$6.79
200,401 sf and up	\$5.80

Additional Comments:

- Technology renovation calculation is based on current square feet. Combination schools will be determined by enrollment per grade level.
- Technology renovation budgets include technology cabling, network electronics (wireless), phone system, paging & central sound system, wireless clock system, all A/V system components (such as classroom projectors, video distribution & sound), specialized audio systems for large group areas, and interactive curriculum technology (such as smart board/stand, interactive tablet, student response system, document camera).

Coordination Comments:

- Technology renovation calculation is based on current building size and current building enrollment (i.e. elementary, middle or high school). Combination schools will be determined by square feet per grade level.

X. NON-CONSTRUCTION COST – (Same as 2015)

Non-Construction costs are listed below. A construction contingency of 7% will be added to the A through W Costs.

<i>Land Survey</i>	<i>0.03%</i>
<i>Soil Borings/Phase I Envir. Report</i>	<i>0.10%</i>
<i>Agency Approval Fees (Bldg. Code)</i>	<i>0.25%</i>
<i>Construction Testing</i>	<i>0.40%</i>
<i>Printing – Bid Documents</i>	<i>0.15%</i>
<i>Advertising for Bids</i>	<i>0.02%</i>
<i>Builders Risk Insurance</i>	<i>0.12%</i>
<i>Bond Fees</i>	<i>0.00%</i>
<i>Design Professionals Compensation</i>	<i>7.50%</i>
<i>CM Compensation</i>	<i>6.00%</i>
<i>Commissioning and Maintenance Plan Advisor</i>	<i>0.60%</i>
<i>Non-Construction Contingency</i>	<i><u>1.12%</u></i>

Non-Construction Total 16.29%

Regional Cost Factors

*As of **February 17, 2017** Regional Cost Factors have been adjusted as follows:*

<i>Region 0 – Central Ohio</i>	<i>1.0000</i>
<i>Region 1 – Southwestern Ohio</i>	<i>0.9602</i>
<i>Region 2 – West Central Ohio</i>	<i>0.9939</i>
<i>Region 3 – Northwestern Ohio</i>	<i>1.0464</i>

<i>Region 4 – North Central Ohio</i>	<i>1.0151</i>
<i>Region 5 – South Central Ohio</i>	<i>1.0013</i>
<i>Region 6 – Southeastern Ohio</i>	<i>1.0084</i>
<i>Region 7 – East Central Ohio</i>	<i>1.0278</i>
<i>Region 8 – Northeastern Ohio</i>	<i>1.0369</i>

Note: The changes for **2017** are color-coded as follows:

Green: **Cost or Narrative Change**