

| Petersburg School District District Wide Identified Scope of Work | Estimated Product Cost | Estimated Other (general, overhead, profit, contingency) | Estimated Total Cost | Notes |
|---|------------------------------|---|-------------------------|---|
| C= District Wide Outside E=Elementary MH=Middle High School T=Vocational Building D=District | | | | |
| SITE AND INFRASTRUCTURE | | | | |
| Vehicular Surfaces C1 Monitor and Clean Out Storm Drains. Perform campus wide site and topography survey- identify traffic features. | \$10,000 | \$13,328 | \$23,328 | This would be Aaron M with the Borough. |
| Pedestrian Surfaces C2 Perform campus wide site and topography survey to identify existing sidewalk locations. Identify responsible party for sidewalks and roads | \$10,000 | \$13,328 | \$23,328 | This needs to be done, but we need to verify with the Borough, Aaron M re: responsibility. |
| Landscaping & Irrigation C3 Perform a campus wide site and topography survey to identify existing drainages and utility locations | \$10,000 | \$13,325 | \$23,325 | There is a lot of water coming off of middle school classrooms west, east, and south side and thus entering into the boiler room. |
| Fencing & Gates C4 Perform a campus wide site and topography survey to identify fence locations | \$5,000 | \$6,664 | \$11,664 | Not needed at this time |
| Site Furnishing & Equipment C5 Perform a campus wide site and topography survey to identify existing site features | \$2,500 | \$3,332 | \$5,832 | Not needed at this time. |
| Site Furnishing and Equipment C5 Remove and dispose metal bench Install new metal bench | \$1,360 | \$1,800 | \$3,160 | Summer Maintenance |
| Play Structure C6 Reattach the play structure to the foundation elements | \$5,000 | \$6,664 | \$11,664 | Summer Maintenance |
| Freestanding Shelters C7 Re-grout existing canopy column bases. | \$5,000 | \$6,653 | \$11,653 | In-House |
| Freestanding Shelters C7 Scrape away paint and rust to determine the best way to restore or repair the column base. \$11,653 | \$5,000 | \$6,653 | \$11,653 | In-House |
| Freestanding Shelters C7 Prime and paint all structural steel. \$35,046 | \$15,000 | \$20,045 | \$35,045 | In-House |
| Freestanding Shelters C7 Install adequate connection at the "T" of the walkway canopy. \$11,653 | \$5,000 | \$6,653 | \$11,653 | In-House |

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| Freestanding Shelters C7 Investigate source of roof water intrusion, tighten roof screws | | \$2,000 | \$2,559 | \$4,559 | In-House |
| Water System C8 Perform a campus wide site and topography survey to identify existing utility locations | | \$7,500 | \$9,996 | \$17,496 | Not necessary |
| Sanitary Sewer C9 Perform a campus wide site and topography survey to identify existing drainage and utility locations. | | \$7,500 | \$9,996 | \$17,496 | Not necessary |
| Water System C8/ Sanitary Sewer C9 Replace insulated enclosure around water and sewer line at Voc-Ed building | | \$2,500 | \$3,332 | \$5,832 | In-House |
| Storm Water, C10 Perform a campus wide site and topography survey to identify existing draining and utility locations. (Borough) | | \$7,500 | \$9,996 | \$17,496 | This would be Aaron M with the Borough. |
| Lighting and Equipment, C11 Perform a campus wide site and topography survey to identify light poles and determine ownership (Borough) | | \$2,500 | \$3,332 | \$5,832 | Aaron Marohl- Borough District is responsible for shorter light poles on Charles, Dolphin, and 1st street. Borough is responsible for tall light poles |
| SITE AND INFRASTRUCTURE | | \$241,016 TOTAL | | | |
| SUBSTRUCTURE | | | | | |
| Piling & Pile Cap, E1 Add pile to beam connectors and support floor beams in out-of plane direction | | \$10,000 | \$13,328 | \$23,328 | In-House or Local Contract |
| Under Building Drainage, E2 Direct water out from under the building by installing a sump pump to assist with drainage to the existing culvert. | | \$2,710 | \$3,608 | \$6,318 | Local Contract |
| Under Building Drainage, E2 Redesign building skirting to promote cross ventilation. *Code Deficiency* | | \$10,000 | \$13,332 | \$23,332 | In-House |
| Foundation Walls, MH2 Install adequate reinforcing around the cut opening and ensure that the opening width is capable of handling auditorium load requirements. | | \$3,000 | \$3,998 | \$6,998 | Local Hire |
| Piling & Pile Cap, T1 Install a form material in the interstitial space between the slab and the soils beneath | | \$10,000 | \$13,328 | \$23,328 | Local Contractor |

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| Piling & Pile Cap, D1 Add pile to beam connectors | \$30,000 | \$39,984 | \$69,984 | Local Hire |
| SUBSTRUCTURE \$153,288 TOTAL | | | | |
| SUPER STRUCTURE | | | | |
| Main Floor, E3 Cut deterioration from glulam beams and treat. | \$3,000 | \$3,998 | \$6,998 | * Aaron will take a look at this to determine work level involved. |
| Main Floor, E3 Protect remainder of glulam beams that extend beyond the building envelope and add intermediate framing where necessary, depending on extent and rot that must be removed | \$5,000 | \$6,664 | \$11,664 | * On north end of building closest playground/garden |
| Special Floors, E4 * Demolish bridge sections between sidewalk and south entrances to the building, and dispose. * Replace bridge sections with hot dipped galvanized steel. | \$99,200 | \$132,214 | \$231,414 | |
| Pitched Roofs, E6 Install frame around exterior mechanical room door to handle out of plane loading on the CMU wall. | \$2,500 | \$3,332 | \$5,832 | Jon is already working on some of this. |
| Pitched Roofs, E6 Install sheathing directly to top of the timber roof deck to resist seismic loading. | \$1,500 | \$1,999 | \$3,499 | In-House. Referencing mechanical and boiler room near library. |
| Canopy Roofs, E7 Modify framing at the connection of the stair/deck canopy to be able to resist lateral loading to prevent collapse. | \$5,000 | \$6,664 | \$11,664 | In-House or Local Contract |
| Canopy Roofs, E7 Repair south canopy columns and adequately protect to prevent further deterioration. | \$6,500 | \$8,806 | \$15,306 | In-House or Local Contract |

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| Canopy Roofs, E7 Tie south canopy to the elementary building to prevent separation and collapse during a seismic or wind event. | \$2,000 | \$2,713 | \$4,713 | Need more information from LCG re: tie south canopy. But likely in-house or local hire |
| Stair Structure, E8 Replace stairs and landings/decks at north corridor entry, stairs from Hallway 105B, and stairs out of Classroom 15. *Code Deficiency* | \$17,500 | \$23,324 | \$40,824 | In-House or Local Contract |
| Stair Railings, E9 Replace stair railings with code compliant handrail and guardrail *Code Deficiency* | \$22,320 | \$29,748 | \$52,068 | In-House or Local Contract |
| Main Floor, MH4 Remove wrestling mats and have the floor inspected. "The wrestling mat in the gym has a large hump in the middle of it corresponding with the beam and column line below, indicating that the framing members below have shifted." | \$1,500 | \$1,999 | \$3,499 | We believe it is the OSB board that was put down without enough expansion. Floor should be pulled up and redone. will be costly. |
| Pitched Roofs, MH6 Install adequate boundary elements to tie the diaphragm to the steel framing and lateral force resisting system. Ensure that all metal decking is adequately attached to their supports. Summer 25? Code Deficiency | \$24,194 | \$32,246 | \$56,440 | |
| Special Roofs, MH7 Replace the high school kitchen canopy with a permanent canopy with adequate foundation that meets snow load requirements. Code Deficiency | \$15,000 | \$19,992 | \$34,992 | Local Hire |
| Building Lateral Force Resisting System MH8 Replace or reengineer connection where brace was modified or relocate door and reinstall original brace- Gym to weight room door | \$5,000 | \$6,664 | \$11,664 | Phase 2 CIP |
| Stair Structure, MH9 Repair crumbling steps at Middle School main entrance. | \$5,000 | \$6,664 | \$11,664 | Local Hire |
| Pitched Roofs, T3 Replace the deteriorated sheathing on the roof. Replace trusses to meet current snow load requirements. Code Deficiency | \$693,143 | \$923,821 | \$1,616,964 | |
| Special Roofs, T4 Recommend a complete replacement of entrance canopy. Code Deficiency | \$10,000 | \$13,328 | \$23,328 | |

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| Main Floor, D2 Relevel the exterior beam lines to prevent the vertical displacement noticed in the floors. | | \$7,500 | \$9,996 | \$17,496 | Local Hire |
| Ramps, D3 Reconstruct ramp to be code compliant when it reaches end of life. Code Deficiency | | \$21,000 | \$27,989 | \$48,989 | Local Hire |
| Pitched Roofs, D4 Roof finish material is starting to fail, and roof will need to be replaced. Inspect attic at time of roof replacement for adequate venting above insulation. Code Deficiency | | \$109,696 | \$146,204 | \$255,900 | |
| Special Roofs, D5 Install strapping from front canopy to building 16" oc | | \$1,600 | \$2,122 | \$3,722 | |
| Special Roofs, D5 Relevel canopy and repair connection at ridge of front canopy | | \$2,016 | \$2,684 | \$4,700 | |
| Special Roofs, D5 Install blocking between the trusses at the middle beam support. | | \$294 | \$387 | \$681 | In-House |
| Stair Structure, D6 Rear deck needs to be replaced with a permanent foundation and framing. | | \$10,800 | \$14,394 | \$25,194 | Need to just put concrete footing pads down-in-house |
| Stair & Ramp Railings, D7 Install handrail at front entry stair. Code Deficiency | | \$320 | \$426 | \$746 | In-House |
| Stair & Ramp Railings, D7 There is no easy way to retrofit the ramp so when it is reconstructed in the future it needs to be redesigned. Code Deficiency | | | | \$0 | Future Work |
| | | SUPER STRUCTURE \$2,499,961 | | TOTAL | |
| EXTERIOR ENCLOSURE | | | | | |
| Exterior Walls, E10 Siding is cracked at the outside wall of Hallway 105B. Repair siding to prevent water intrusion into exterior wall assembly. | | \$12,300 | \$16,286 | \$28,586 | In-House or Local Contract |
| Exterior Walls, E10 Install 221 sq ft of venting in crawl space skirting boards. | | \$4,862 | \$6,588 | \$11,450 | In-House or Local Contract |

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| Fascias & Soffits, E11 Monitor and repaint areas of fascia and soffits. Paint is starting to peel from sections of fascia at the MPR. | \$2,500 | \$3,332 | \$5,832 | In-House. Is part of the annual preventative maintenance program. |
| Exterior Walls, MH12 Stucco needs patch and repair. When second floor windows in 1985 addition are replaced and raised, stucco needs to be repaired or replaced with more durable material. | \$15,000 | \$19,712 | \$34,712 | Aaron will look to find a temporary patch to address. |
| Exterior Walls, MH12 Replace metal siding on 1975 building. | \$420,000 | \$560,056 | \$980,056 | CIP |
| Windows, MH14 Replace failing second story windows. | \$100,000 | \$133,327 | \$233,327 | CIP |
| Windows, MH14 Replace Teacher's Lounge windows. | \$18,000 | \$17,066 | \$35,066 | CIP |
| Windows, MH14 Replace windows in the 1975 building. | \$22,500 | \$29,961 | \$52,461 | CIP |
| Exterior Personnel Doors, MH 15 Replace door and frame * Gym exterior door- the frame and door are rusting, gasket is deteriorating, and daylight visible through gaps Code Deficiency * Corridor door 127- door is deteriorating and rusted out at the bottom. * Auditorium exterior exiting door- the door is rusted out and not longer attached to the wall. | \$10,500 | \$14,034 | \$24,534 | Phase 2 CIP |
| Exterior Personnel Doors, MH 15 Replace Teacher's Lounge glass in exterior door | \$2,500 | \$3,292 | \$5,792 | PHASE 2 CIP |
| Specialty Exterior Doors, MH16 Replace door * Boiler Room 03 door- door is rusting and falling apart | \$13,500 | \$17,993 | \$31,493 | Phase 2 CIP |
| Exterior Walls, T7 Repair portions of siding as part of ongoing maintenance. | \$22,100 | \$29,455 | \$51,555 | |
| Exterior Walls, T7 Install drywall over peg board or remove peg board and install drywall wall finish at outside walls. Peg boards used as wall finish can direct extraordinary amounts of water | \$2,880 | \$3,995 | \$6,875 | Suggest Dave's class accomplish this task |

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| Exterior Personnel Doors, T10 Replace two sets of exterior wood man doors. Code Deficiency | \$1,900 | \$2,507 | \$4,407 | PHASE 2 CIP |
| Exterior Personnel Doors, T10 Install threshold to single doors. Code Deficiency | \$900 | \$1,194 | \$2,094 | PHASE 2 CIP |
| Exterior Personnel Doors, T10 Install exterior gaskets to single doors. Code Deficiency | \$900 | \$1,194 | \$2,094 | PHASE 2 CIP |
| Exterior Personnel Doors, T10 Install door sweeps on hollow metal doors. Code Deficiency | \$780 | \$776 | \$1,556 | PHASE 2 CIP |
| Special Doors, T11 Replace bottom seal on all the overhead doors. Replace jamb weather stripping on all | \$1,170 | \$2,796 | \$3,966 | |
| Louvers, Screens & Shading Devices, T12 Remove louvers and infill wall opening to prevent heat loss. | \$625 | \$833 | \$1,458 | |
| Exterior Walls, D8 Replace vinyl siding with more durable material as it reaches the end of its life cycle. | \$46,464 | \$61,944 | \$108,408 | Local Hire |
| Exterior Walls, D8 Address water intrusion into the crawl space. Install sump pump and drain piping to crawlspace to address water. Code Deficiency | \$2,000 | \$2,648 | \$4,648 | Relocate downspouts |
| EXTERIOR ENCLOSURE \$6,630,292 TOTAL | | | | |
| ROOF SYSTEMS | | | | |
| Pitched Roofing, E14 Clean TPO membrane per manufacturers recommendations | \$4,974 | \$6,628 | \$11,602 | In-House |
| Pitched Roofing, T13 Replace roof sheathing as needed (50%) | \$13,830 | \$18,523 | \$32,353 | |
| Pitched Roofing, T13 Replace trusses as needed (50%) | \$165,960 | \$220,860 | \$386,820 | |
| Pitched Roofing, T13 Replace metal roofing and trim | \$350,474 | \$231,312 | \$581,786 | |
| Pitched Roofing, T13 Install perforated vinyl vented soffits on west and south side | \$4,290 | \$5,699 | \$9,989 | |
| Gutters & Downspouts, T14 Replace wood fascia board for gutter slope and remove and reinstall gutter. | \$5,720 | \$7,623 | \$13,343 | |

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| Pitched Roofing, D12 Replace metal roof and install ice and water shield. Seal vapor barrier penetrations. Inspect roof assembly to ensure proper ventilation path. Code Deficiency | \$108,946 | \$144,741 | \$253,687 | |
| Gutters & Downspouts, D13 Direct water from the downspouts away from the building crawlspace. | \$500 | \$666 | \$1,166 | In-House |
| | | ROOF SYSTEMS | \$1,290,746 | TOTAL |
| INTERIORS | | | | |
| Fixed Partitions, E16 Minor renovation to install a teacher's lounge kitchenette in teacher's lounge | \$7,500 | \$9,996 | \$17,496 | In-House or Local Contract |
| Personnel Doors, E17 Replace floor mounted door holders with magnetic or type with a keeper mechanism to reduce damage to door veneer. | \$7,050 | \$9,284 | \$16,334 | |
| Personnel Doors, E17 Install kickplates on both sides of doors. | \$11,750 | \$15,654 | \$27,404 | In-House or Local Contract |
| Personnel Doors, E17 Secure Boiler Room door frame to the wall | \$550 | \$722 | \$1,272 | In-House or Local Contract |
| Casework/Millwork, E20 Casework has life remaining with proper maintenance and refinishing. Install hardware on classroom casework drawers. | \$28,800 | \$38,385 | \$67,185 | In-House |
| Fixed Partitions, MH18 Install braces and ties from top of CMU walls to floor diaphragm above, 16" oc Code Deficiency | \$11,200 | \$14,927 | \$26,127 | CIP- ADA Accessibility-It is recommended that at the next cycle of locker room renovations entrance to the locker room is reconfigured for accessibility. |
| Fire Separation Walls, MH19 * Fire caulk around all metal pipe penetrations. Code Deficiency * Install fire collars around non-metal pipes Code Deficiency * Seal penetrations on both sides of the fire wall Code Deficiency | \$1,125 | \$1,499 | \$2,624 | In-House |

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| Interior Personnel Doors, MH20 Replace damaged doors into the middle school stairs. * Replace damaged single door * Replace damaged double door | \$8,200 | \$10,929 | \$19,129 | Phase 2 CIP |
| Interior Special Doors, MH21 Replace doors * Doors and frames at the 1975 building line need to be replaced. Code Deficiency * Doors/frame out of the Gym and into the weight room need to be replaced. Code Deficiency | \$6,000 | \$8,022 | \$14,022 | Phase 2 CIP |
| Interior Special Doors, MH21 Replace door gaskets * Door from the Gym into the Rec Center lobby needs new gaskets. Code Deficiency * Wrestling room door gaskets need to be replaced. Code Deficiency | \$500 | \$653 | \$1,153 | Phase 2 CIP |
| Floor Finishes, MH22 Repair VCT flooring in the Art room | \$1,500 | \$1,999 | \$3,499 | In-House |
| Floor Finishes, MH22 Repair sections of tile flooring in 1975 building (Locker room 150, Toilet 147.) | \$500 | \$666 | \$1,166 | In-House |
| Floor Finishes, MH22 Install a floor transition strip at the auditorium floor. Code Deficiency | \$500 | \$666 | \$1,166 | In-House |
| Wall Finishes, MH23 Fix damage to wall tile in Toilet 115 and mission section of tiles in Toilet 215 | \$2,000 | \$2,666 | \$4,666 | In-House |
| Ceiling Finishes, MH24 Patch, repair, and paint gypsum board ceiling at storage room 148 | \$1,500 | \$1,999 | \$3,499 | In-House |
| Ceiling Finishes, MH24 Repair existing ceiling tile to match existing edges at band room 131 | \$2,500 | \$3,332 | \$5,832 | In-House |
| Interior Specialties, MH25 Replace toilet room grab bar to ADA accessible code. | \$8,800 | \$11,729 | \$20,529 | CIP-ADA- to be done as toilets areas are renovated. |
| Casework/Millwork, MH26 Replace casework and countertop * Biology with chemical resistant * Chemistry with chemical resistant Art Room- it is showing signs of extensive use and at end of life. | \$120,000 | \$160,162 | \$280,162 | CIP. |

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| Casework/Millwork, MH26 Replace casework and countertop * Art Room | \$77,000 | \$102,399 | \$179,399 | |
| Seating, MH27 Repair broken Auditorium chairs with manufacturer's replacement parts. Folding mechanisms and brackets are starting to break down. Administration recommends a full replacement of auditorium seating. ~\$80,000 | \$20,000 | \$46,656 | \$66,656 | Recommend full replacement- working with community partners such as Petersburg Arts Council, Rasmussen, etc. |
| Personnel Doors, T15 Replace a closer on classroom door into the shop. Install necessary gasketing on the fire door. | \$700 | \$933 | \$1,633 | |
| Floor Finishes, T18 Remove and dispose remaining vinyl flooring at small shop. Code Deficiency The concrete floor finish is wearing off and will need to be repainted in the future to aid in dust control and cleanup. | \$2,033 | \$2,710 | \$4,743 | Aaron will check to see if this is asbestos based but then in-house summer project |
| Wall Finishes, T19 All penetrations through walls on north and west walls need to be caulked and fireblocked to ensure continuity of the system. Replace peg board with drywall at small shop. | \$2,880 | \$3,839 | \$6,719 | |
| Ceiling Finishes, T20 Acoustic ceiling tiles in the classroom are stained with water. Replace tiles and monitor leaks | \$750 | \$1,000 | \$1,750 | |
| Ceiling Finishes, D17 Replace tiles as needed (minor roof leak staining on the tile in the Kitchenette) | \$3,381 | \$4,507 | \$7,888 | In-House |
| INTERIORS \$782,053 TOTAL | | | | |
| MECHANICAL | | | | |
| Plumbing Fixtures, E23 Replace P-trap serving the sink located in the Teacher's Lounge. | \$110 | \$144 | \$254 | In-House or Local Contract |
| Plumbing Fixtures, E23 Provide insulation on lavatory sink traps and exposed hot/cold water supplies. | \$2,700 | \$3,596 | \$6,296 | In-House or Local Contract |

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| Plumbing Fixtures, E23 * Remove and relocate urinals for appropriate installation height for child age group. \$15,289 * Provide individual sensor operated flush valves to serve urinals. \$7,858 | \$11,700 | \$15,447 | \$27,147 | Local Contract |
| Plumbing Fixtures, E23 Remove and replace toilets in kindergarten classrooms with toilets that are appropriate height for child age group. | \$2,700 | \$3,596 | \$6,296 | Aaron will look into. If it's an easy swap it will be done in-house |
| Plumbing Fixtures, E23 Install grab bar to serve ADA complaint toilet stall. | \$900 | \$11,697 | \$12,597 | |
| Plumbing Fixtures, E23 Install grab bar to serve ADA complaint toilet stall. | \$900 | \$11,697 | \$12,597 | |
| Plumbing Equipment, E25 Provide air gap fitting to serve dishwasher drain | \$150 | \$196 | \$346 | In-House |
| Plumbing Equipment, E25 Provide seismic restraint system to serve hot water generators and associated expansion tank | \$300 | \$392 | \$692 | In-House |
| Plumbing Equipment, E25 Replace broken hot water generator aquastate. | \$250 | \$330 | \$580 | In-House |
| Plumbing Equipment, E25 Provide air gap fitting to serve dishwasher drain | \$150 | \$196 | \$346 | In-House |
| Plumbing Equipment, E25 Provide seismic restraint system to serve hot water generators and associated expansion tank. | \$300 | \$392 | \$692 | In-House |
| Plumbing Equipment, E25 Replace broken hot water generator aquastate. | \$250 | \$330 | \$580 | In-House |
| Heating Equipment, E27 Provide expansion tank with seismic restraint, or replace expansion tank. | \$2,500 | \$3,312 | \$5,812 | In-House |
| Heating Equipment, E27 Replace hydronic circulation pumps with variable speed circulation pumps. Provide a suction diffuser at inlet of the pump. Reconfigure piping to provide multi-purpose valve at outlet side of pump in accordance with manufacturer's installation instructions. | \$15,000 | \$20,014 | \$35,014 | |

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| Heating Equipment, E27 Replace terminal heating devices and associated isolation valves, balance valves, and control valves/control valve body. | | \$18,000 | \$23,998 | \$41,998 | | |
| Heating Distribution System, E28 Replace deteriorated piping insulation "Condition of piping insulation varied from poor to good, with most of the insulation located in the crawlspace being in deteriorated condition." | | \$33,158 | \$44,194 | \$77,352 | | |
| Ventilation Equipment, E29 Proved access door large enough to provide unobstructed passageway for future removal. | | \$500 | \$671 | \$1,171 | In-House | |
| Ventilation Equipment, E29 Locate return air smoke detector on return air ductwork. Code Deficiency | | \$110 | \$150 | \$260 | Johnson Electrical for smoke detector | |
| Ventilation Equipment, E29 Range hood and associated exhaust ductwork routed to exterior of building at teacher's lounge. Code Deficiency | | \$2,400 | \$3,202 | \$5,602 | Local Contract | |
| Ventilation Equipment, E29 Remove and replace crawlspace ventilation unit and return fan. | | \$2,500 | \$3,326 | \$5,826 | | |
| Ventilation Equipment, E29 Remove the ceiling cabinet fan from the nurses room. Prove supply and exhaust air from the heat recovery ventilator to maintain negative room pressure relative to adjacent spaces. | | \$1,100 | \$1,482 | \$2,582 | | |
| Ventilation Distribution System, E30 Provide volume dampers to serve all supply air and exhaust air grilles/registers/diffusers for appropriate airflow balancing. Rebalance each heat recovery unit, and ventilation unit | | \$16,579 | \$50,789 | \$67,368 | | |
| Control Systems, E31 * Pneumatic Controls: Remove pneumatic controls, tubing , and associate air compressor to replace with DDC controls. Provide new NFPA 13 compliant air compressor to serve dry type fire protection. "Pneumatic controls and actuators are in poor condition. They are past their serviceable life, and in many cases do not function properly." * Electric Controls: Remove and replace electric controls with DDC type controls. | | \$253,659 | \$338,076 | \$591,735 | | |
| Riser and Equipment, E32 Install new NEPA 13 compliant air compressor to serve dry type fire protection system. | | \$2,500 | \$3,332 | \$5,832 | Local Hire | |

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| Fuel Supply (Gas & Oil), E34 * Remove and relocate fuel oil tank to meet NFPA 30 clearance requirements. * Remove underground fuel oil piping to replace with NFPA 30 complaint double wall piping. * Provide isolation valve on fuel oil supply at fuel oil tank. * Provide flexible connector on fuel oil supply for seismic restraint. * Excavate and backfill trench, including marking tape. Code Deficiency | | \$7,080 | \$9,433 | \$16,513 | Local Contract |
| Fuel Supply (Gas & Oil), E34 * Provide concrete housekeeping pad for propane tank. * Remove and reinstall propane tank. * Provide tank with seismic restraint. Code Deficiency | | \$4,550 | \$5,961 | \$10,511 | In-House |
| Fuel Supply (Gas & Oil), E34 Remove single stage pressure regulator and replace it with two stage. Code Deficiency | | \$275 | \$366 | \$641 | In-House |
| Mechanical - Elementary Only Subtotal | | | | | \$936,640 |
| Plumbing Fixtures, MH29 Provide insulation on lavatory sink traps and exposed hot/cold water supplies. | | \$5,700 | \$7,597 | \$13,297 | In-House |
| Plumbing Equipment, MH31 BASEMENT MECHANICAL ROOM Replace hot water generator and provide expansion tank to serve new hot water generator. | | \$10,500 | \$14,052 | \$24,552 | Local Contractor |
| Plumbing Equipment, MH31 MECHANICAL 301 Provide hot water circulation piping to connect to tempering valve for minimum flow requirements. | | \$700 | \$930 | \$1,630 | Local Contractor |
| Plumbing Equipment, MH31 BASEMENT MECHANICAL ROOM Reconfigure hot water circulation piping to connect to tempering valve to provide minimum | | \$2,000 | \$2,573 | \$4,573 | In-House |
| Plumbing Equipment, MH31 MECHANICAL 301 Secure mezzanine expansion tank with seismic restraint. | | \$500 | \$594 | \$1,094 | In-House |
| Plumbing Equipment, MH31 BASEMENT MECHANICAL ROOM Replace pressure relief valve serving hot water generator. | | \$300 | \$396 | \$696 | In-House |

| Petersburg School District District Wide Identified Scope of Work | Estimated Product Cost | Estimated Other (general, overhead, profit, contingency) | Estimated Total Cost | Notes |
|--|------------------------------|---|-------------------------|----------|
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| Plumbing Equipment, MH31 MECHANICAL 301 Reset/adjust hot water supply temperature set points on how water system equipment to provide 120-degree of hot water downstream of the tempering valve. | \$150 | \$198 | \$348 | In-House |
| Plumbing Equipment, MH31 MECHANICAL 301 Repair leak on hot water generator piping. | \$700 | \$930 | \$1,630 | In-House |
| Waste and Vent Piping, MH32 Replace waste and vent piping with future building renovations | \$483,882 | \$644,918 | \$1,128,800 | |
| Heating Equipment MH33 Install new seismic restraint to existing expansion tank | \$500 | \$643 | \$1,143 | |
| Heating Equipment MH33 Replace boiler room exhaust fan | \$3,000 | \$3,859 | \$6,859 | |
| Heating Equipment MH33 Replace basement mechanical room supply fan | \$6,500 | \$7,397 | \$13,897 | |
| Heating Equipment MH33 Replace basement boiler room unit heater and associated pneumatic control valve with electric/DDC control valve | \$5,000 | \$6,754 | \$11,754 | |
| Heating Equipment MH33 Install grilles to provide convective air flow where finned tube is located within casework | \$15,000 | \$19,939 | \$34,939 | |
| Heating Equipment MH33 Replace hydronic circulation pump with variable speed type, including section diffusers, flexible connections, and isolation valves | \$40,000 | \$53,385 | \$93,385 | |
| Heating Equipment MH33 Install pump bypass via three-way terminal heating unit control valves | \$10,000 | \$13,185 | \$23,185 | |
| Heating Equipment MH33 Replace isolation valves, control valves, balance valves, and associated branch piping serving perimeter baseboards and terminal heating devices. | \$161,294 | \$214,826 | \$376,120 | |
| Ventilation Equipment, MH35 Provide range hood and associated exhaust ductwork to serve range located in teachers' lounge in Middle School | \$1,200 | \$1,479 | \$2,679 | |

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| Ventilation Equipment, MH35 MECHANICAL 303 Provide new return air smoke detector or relocate existing smoke detector from supply air ductwork to return air ductwork (Typ. 2) Code Deficiency | \$1,000 | \$1,333 | \$2,333 | |
| Ventilation Equipment, MH35 MECHANICAL 303 Remove and replace exhaust fans * 1,230 CFM exhaust fan * 350 CFM exhaust fan * 300 CFM exhaust fan * 200 CFM exhaust fan * 150 CFM exhaust fan | \$11,280 | \$15,034 | \$26,314 | |
| Ventilation Equipment, MH35 MECHANICAL 303 Remove and replace pneumatic actuators and associated dampers on heating/cooling distribution ductwork with electronic dampers and connect to DDC control system. | \$16,000 | \$21,324 | \$37,324 | |
| Ventilation Equipment, MH35 MECHANICAL 303 Remove and replace supply and return fans with new fan walls, dampers, duct mounted heating coils and DDC control. * 13,500 CFM supply fan * 5,000 CFM supply fan * 1,300 CFM supply fan * 5,000 CFM supply fan | \$455,200 | \$628,013 | \$1,083,213 | |
| Ventilation Equipment, MH35 MECHANICAL 303 Remove existing supply and return fans and replace with central ventilation unit with variable air volume boxes for distribution to applicable zones | \$1,612,940 | \$2,149,726 | \$3,762,666 | **Recommendation--One central ventilation unit** |
| Ventilation Equipment, MH35 MECHANICAL 302 Replace supply and return fans or rebuild existing supply and return fans with new fan walls, dampers, duct mounted heating coils and DDC controls. * 10,150 CFM supply fan * 9,100 CFM supply fan | \$287,011 | \$382,513 | \$669,524 | |

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| Ventilation Equipment, MH35 MECHANICAL 302 Remove and replace pneumatic actuators and associated dampers on heating/cooling distribution ductwork with electronic dampers and connect to DDC control systems. | \$5,760 | \$7,677 | \$13,437 | |
| Ventilation Equipment, MH35 MECHANICAL 302 Provide new return air smoke detector from supply air ductwork to return air ductwork | \$500 | \$666 | \$1,166 | |
| Ventilation Equipment, MH35 MECHANICAL 221 Install return air smoke detector. | \$1,000 | \$1,333 | \$2,333 | |
| Ventilation Equipment, MH35 MECHANICAL 221 Remove and replace exhaust fan * 515 CFM exhaust fan | \$2,620 | \$3,491 | \$6,111 | |
| Ventilation Equipment, MH35 MECHANICAL 221 Remove and replace pneumatic actuators and associated dampers on heating/cooling distribution ductwork to replace with electronic dampers and connect to DDC control system. | \$11,200 | \$14,927 | \$26,127 | |
| Ventilation Equipment, MH35 MECHANICAL 221 Replace supply and return fans or rebuild existing supply and return fans with new fan walls, dampers, duct mounted heating coils, and DDC controls. * 7,500 CFM supply fan * 4,150 CFM supply fan * 6,300 CFM supply fan * 6,200 CFM supply fan * 3,500 CFM supply fan | \$368,300 | \$490,870 | \$859,170 | |
| Ventilation Equipment, MH35 MECHANICAL 221 Consideration should be given to removal of existing individual supply and return fans for replacement with central ventilation unit with variable air volume boxes for distribution to applicable zones. | \$287,011 | \$382,513 | \$669,524 | |

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| Fire Protection Riser & Equipment, MH38 Remove air compressor and provide dedicated air compressor that is NFPA 13 compliant to serve the fire protection system, including modification to existing piping. | \$5,000 | \$6,664 | \$11,664 | |
| Fire Protection Sprinklers & Piping, MH39 Install two escutcheon skirts missing in the Band Room | \$200 | \$267 | \$467 | In-House |
| Compressed Air & Vacuum Systems, MH41 Replace the pneumatic control system with direct digital control (DDC) system to connect existing building DDC controls. Provide dedicated NFPA 13 compliant air compressor to serve the fire protection systems. | \$616,951 | \$822,273 | \$1,439,224 | CIP- The air compressor is from the original building construction and past its service life, |
| | | | Mechanical - MMS/PHS Only Subtotal | \$10,351,178 |
| Approximately \$3.4 M of the total looks to be reduced by following the recommendation of a replacement of 1 ventilation unit. | \$3,399,255 | | | |
| Plumbing Fixtures, T21 Remove, replace, and relocate interior hose bibb to facilitate repair of interior face of exterior wall and prove appropriate backflow protection. Code Deficiency | \$1,250 | \$1,673 | \$2,923 | |
| Plumbing Fixtures, T21 Remove and replace exterior hose bibb. | \$1,650 | \$2,159 | \$3,809 | |
| Plumbing Fixtures, T21 Provide dedicated emergency eyewash (x4) meeting UPC requirements. | \$8,200 | \$10,975 | \$19,175 | Local Contractor |
| Plumbing Fixtures, T21 Clean and remove wood shavings and dust that has accumulated in the wood shop area floor drains and associated waste piping. Provide floor drain covers to serve floor drains. Code Deficiency | \$300 | \$396 | \$696 | |
| Plumbing Piping, T22 Remove and reconfigure water meter piping to provide proper piping layout with bypass. | \$1,000 | \$1,331 | \$2,331 | Local Contractor & Borough |
| Plumbing Piping, T22 Remove and replace piping insulation that is in poor condition and provide new insulation on piping not currently provided with insulation. | \$5,000 | \$6,657 | \$11,657 | In-House |
| Plumbing Piping, T22 Provide hot water circulation piping to serve toilet rooms and handwash sinks to reduce wait time for water heater. | \$7,500 | \$9,996 | \$17,496 | Local Contractor |

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| Heating Equipment, T24 Remove and replace the electric unit heater and associated thermostat serving the classroom area. Consider providing a hydronic unit heater. | | \$3,500 | \$4,664 | \$8,164 | |
| Heating Equipment, T24 Remove and replace the electric heater serving the toilet room. Consider providing a hydronic unit heater. | | \$2,500 | \$3,334 | \$5,834 | |
| Heating Equipment, T24 Remove and replace the electric baseboard serving the toilet room. Consider providing a hydronic unit heater. | | \$2,500 | \$3,334 | \$5,834 | |
| Heating Equipment, T24 Provide a control valve actuator to serve the vertical unit heater located in the wood shop area. | | \$850 | \$1,125 | \$1,975 | |
| Heating Equipment, T24 Remove horizontal unit heaters serving the metal shop for replacement with vertical unit heaters to maintain manufacturers minimum mounting height. | | \$6,000 | \$7,979 | \$13,979 | |
| Ventilation Equipment, T26 * Install 2,000 CFM make-up air unit. Code Deficiency | | \$10,000 | \$13,304 | \$23,304 | |
| Ventilation Equipment, T26 Remove and replace toilet exhaust fans. | | \$450 | \$600 | \$1,050 | |
| Ventilation Equipment, T26 Verify air handling unit controls are set up to prevent recirculation of return air from the shop area. | | \$150 | \$193 | \$343 | |
| Ventilation Equipment, T26 Remove and replace intake ductwork, louver, and 500 CFM wall mounted exhaust fan serving storage room (size assumed) | | \$3,000 | \$3,991 | \$6,991 | |
| Ventilation Equipment, T26 Install 250 CFM exhaust ventilation fan and ductwork to hazardous material storage cabinets. Code Deficiency | | \$2,500 | \$3,326 | \$5,826 | |
| Dust Collection Systems, T31 Remove Shop-Vacs from elevated platforms. Connect and extend ductwork from the dust collector to serve equipment and/or workstations presently served by the shop-vacs. | | \$10,000 | \$13,328 | \$23,328 | |
| Welding Exhaust System, T33 * Install welding booth enclosure and reconfigure ventilation for welding booth. | | \$12,500 | \$16,649 | \$29,149 | |

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| Welding Exhaust System, T33 Install blast gate dampers and balancing dampers on welding exhaust ductwork. | \$1,750 | \$2,317 | \$4,067 | |
| Welding Exhaust System, T33 Remove and replace 500 CFM exhaust fan at welding booth | \$12,500 | \$16,649 | \$29,149 | |
| | | Mechanical - Vo-Tech Only Subtotal | | \$217,080 |
| Plumbing Piping, D19 Reconfigure water service piping to provide proper layout with bypass. | \$1,000 | \$1,332 | \$2,332 | Local Hire |
| Plumbing Piping, D19 Remove and replace cold water piping insulation in the crawlspace with a more suitable material and protective jacket; closed cell foam type insulation or similar. | \$2,000 | \$2,664 | \$4,664 | Local Hire |
| Plumbing Piping, D19 Replace water meter and the electrical connections | \$1,000 | \$1,332 | \$2,332 | Petersburg Borough |
| Plumbing Equipment, D20 Provide listed tempering valve to serve water heater. Code Deficiency | \$1,000 | \$1,329 | \$2,329 | Aaron will look into the tempering valve. In-house |
| Plumbing Equipment, D20 Provide floor drain to serve water heater drain pan. Code Deficiency | \$750 | \$1,002 | \$1,752 | Contractor |
| Waste & Vent Piping, D21 Remove and reroute underground water and/or sewer service piping to maintain 10-foot clearance between services per UPC requirements. | \$10,000 | \$13,328 | \$23,328 | Contractor |
| HVAC Equipment, D22 Provide 36"x36" concrete pad to secure outdoor unit, above grade. | \$1,500 | \$2,025 | \$3,525 | In-House |
| HVAC Equipment, D22 Provide flexible connectors on refrigerant piping serving the outdoor units (contractor) | \$1,500 | \$2,025 | \$3,525 | Contractor |
| HVAC Equipment, D22 Field investigate and install wall mounted controller to serve indoor unit | \$1,000 | \$1,332 | \$2,332 | Contractor |
| HVAC Distribution Systems, D23 Provide insulation on refrigerant piping inside the building per the manufacturer's installation instructions. | \$5,000 | \$6,664 | \$11,664 | in-house *not a big priority* |
| Control Systems, D24 Program and test equipment control to verify control mode, scheduling, and that temperature set points are functioning appropriately for the equipment served. | \$5,000 | \$6,664 | \$11,664 | In-House |
| | | Mechanical - District Only Subtotal | | \$69,447 |

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| MECHANICAL \$11,574,345 TOTAL | | | | |
| ELECTRICAL | | | | |
| Panels & Motor Control Centers, E37 Provide code required labeling, to include arc-flash warnings, calculated available fault current, the amperage panelboards are rated for, etc. at each panelboard. Code Deficiency | \$2,000 | \$2,674 | \$4,674 | Local Contract |
| Panels & Motor Control Centers, E37 Provide a ground bar in all panels that do not currently have one. | \$2,800 | \$3,732 | \$6,532 | In-House |
| Panels & Motor Control Centers, E37 Install UL-listed handle ties on breakers requiring them, per NEW 240.15(B) and NEC 110.3(B) Code Deficiency | \$20,000 | \$26,630 | \$46,630 | In-House |
| Panels & Motor Control Centers, E37 If new electrical loads are anticipated or added, remove and replace new panelboards with 54 spaces. Code Deficiency | \$10,000 | \$13,315 | \$23,315 | |
| Conduit & Feeders, E39 Replace damaged feeders in Panel M3, Grounding to panel M3. | \$2,750 | \$3,665 | \$6,415 | Local Contract |
| Light Fixtures, E40 Test all existing emergency lights and exit signs for proper operation and replace batteries and fixtures where needed. Code Deficiency | \$2,000 | \$2,673 | \$4,673 | In House <i>* Already occurring</i> |
| Light Fixtures, E40 Provide emergency lights in the classrooms that do not have any, in the electrical and mechanical spaces, and at the exterior egress and other rooms, areas, and halls where not currently installed, but required. Code Deficiency | \$18,000 | \$23,984 | \$41,984 | Local Contract |
| Light Fixtures E40 Locate the inverter supplying power to the fixtures in the MPR and replace the batteries. Code Deficiency | \$2,500 | \$3,313 | \$5,813 | In-House |
| Light Fixtures E40 Replace existing fluorescent style fixtures with newer energy efficient LED style fixtures. | \$4,250 | \$5,647 | \$9,897 | In-House |

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| Devices and Connections, E42 Provide code required labeling, to include arc-flash warnings and calculated available fault current, at each panelboard. Code Deficiency | | \$16,000 | \$21,327 | \$37,327 | |
| Devices and Connections, E42 Provide nameplates at each of the panelboards to identify them and where they are supplied from. | | \$8,000 | \$10,611 | \$18,611 | |
| Devices and Connections, E42 Provide ground bars in all panels that do not have them. | | \$2,800 | \$3,713 | \$6,513 | |
| Devices and Connections, E42 Provide permanent nameplates at each equipment disconnect, identifying the load it controls and where it is supplied from Code Deficiency | | \$5,000 | \$6,684 | \$11,684 | |
| Devices and Connections, E42 Remove and replace the circuit breaker supplying power to the kitchen range with a new circuit breaker with ground fault protection. Code Deficiency | | \$500 | \$636 | \$1,136 | In-House |
| Devices and Connections, E42 Remove and replace all receptacles throughout the building with new listed tamper-resistant type 20 amp 120 Volt receptacles. | | \$33,000 | \$44,033 | \$77,033 | In-House |
| Devices and Connections, E42 Remove and replace all device covers at the receptacles located outdoors with new metallic, extra duty rated, weather proof while -in-use covers. Code Deficiency | | \$1,750 | \$2,334 | \$4,084 | In-House |
| Devices and Connections, E42 Remove and replace all receptacles in mechanical and electrical rooms and spaces, with new 20 Amp 120 Volt GFCI tamper-resistant types receptacles. Code Deficiency | | \$2,800 | \$3,713 | \$6,513 | In-House |
| Devices and Connections, E42 Remove and replace the non-GFCI receptacles within 6' of the sinks and on the exterior of the building with new 20 Amp 120 Volt GCI tamper-resistant type receptacles. | | \$8,000 | \$10,610 | \$18,610 | In-House |
| Devices and Connections, E42 Provide red identification marking at the circuit breaker supplying power to the fire alarm system. Code Deficiency | | \$50 | \$64 | \$114 | In-House |

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| Devices and Connections, E42 Provide a lock-on type device at the circuit breakers supplying power to the fire alarm system. | \$210 | \$318 | \$528 | In-House |
| Devices and Connections, E42 Install permanent markings to disconnect in boiler room to indicate their purpose and circuit sources | \$1,000 | \$1,280 | \$2,280 | |
| Devices and Connections, E42 Replace circuit breaker supplying power to kitchen range with ground fault | \$500 | \$640 | \$1,140 | |
| Conduit & Wiring, E43 Install grounding system throughout school. | \$5,000 | \$6,664 | \$11,664 | |
| Data & Communication, E45 Replace the batteries in the existing UPS supplying power to the telecom rack. Code Deficiency | \$3,000 | \$3,996 | \$6,996 | Jon is already working on some of this. |
| Data & Communication, E45 Provide a network card to the existing UPS so that it can be remotely monitored Code Deficiency | \$1,500 | \$1,998 | \$3,498 | Jon is already working on some of this. |
| Data & Communication, E45 Install a new larger floor mount telecommunication rack to allow for easier access and space for upgradability Code Deficiency | \$1,200 | \$1,595 | \$2,795 | Jon is already working on some of this. |
| Security System, E46 Install new intrusion detection system | \$49,737 | \$66,240 | \$115,977 | Just a recommendation. We have a system in place and upgrade as needed |
| Security System, E46 Install exterior CCTV camera | \$10,000 | \$13,248 | \$23,248 | Just a recommendation. We have a system in place and upgrade as needed |
| Security System, E46 Install interior CCTV system | \$15,000 | \$19,922 | \$34,922 | Just a recommendation. We have a system in place and upgrade as needed |

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| Intercom Systems, E48 Replace the existing Rauland Telecente with a newer, more modern intercom and lockdown system. Code Deficiency | \$66,316 | \$88,386 | \$154,702 | Door security Updgrade Phase II |
| Power Generation & Distribution, E49 If backup power generation is desired, we recommend installing an adequately sized generator with an appropriately sized transfer switch. New 150 KVA generator, including transfer switch, feeders, and modification to service and distribution system to connection. | \$90,000 | \$119,952 | \$209,952 | |
| Grounding System, E50 Install ground bar in all panels Install equipment grounding system (already listed in Conduit & Wiring) | \$2,800 | \$3,742 | \$6,542 | |
| | | | Electrical- Elementary Only Subtotal | \$905,802 |
| Main Distribution Panels & Switchgear, MH42 Replace 1,600 amp main distribution panel on exterior of building and reconnect all subpanels. Code Deficiency | \$35,000 | \$46,488 | \$81,488 | CIP |
| Main Distribution Panels & Switchgear, MH42 Install new permanent plaques or directories at each of the electrical service disconnects denoting all other electrical services, feeders, and branch circuits supplying the building as required by NEC 230.2(E). Code Deficiency | \$2,000 | \$2,659 | \$4,659 | |
| Main Distribution Panels & Switchgear, MH42 Install code required labeling to service disconnect, distribution equipment, and each panel board, including arc flash warning and calculated available fault current. Code Deficiency | \$2,000 | \$2,659 | \$4,659 | |
| Main Distribution Panels & Switchgear, MH42 Install arc-fault reduction at the 1600 amp exterior switchboard. Code Deficiency | \$30,000 | \$39,886 | \$69,886 | |
| Panels & Motor Control Centers, MH43 Install code required labeling, to include arc-flash warnings and calculated available fault current at each panelboard. Code Deficiency | \$5,000 | \$6,706 | \$11,706 | |
| Panels & Motor Control Centers, MH43 In all panels, install group grounded conductors with the respective circuit's ungrounded branch circuit conductors. Code Deficiency | \$15,000 | \$20,033 | \$35,033 | |
| Panels & Motor Control Centers, MH43 Install ground bar in all panels | \$8,750 | \$11,693 | \$20,443 | |

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| Panels & Motor Control Centers, MH43 Replace 54 circuit panels for new or additional loads | \$20,000 | \$26,653 | \$46,653 | |
| Panels & Motor Control Centers, MH43 Provide a lock-on type device at the circuit breakers supplying power to the fire alarm system. Code Deficiency | \$210 | \$258 | \$468 | |
| Panels & Motor Control Centers, MH43 Provide red identification marking at the circuit breaker supplying power to the fire alarm system. Code Deficiency | \$50 | \$60 | \$110 | |
| Panels & Motor Control Centers, MH43 Install new circuit directories at all panels | \$5,250 | \$6,964 | \$12,214 | |
| Panels & Motor Control Centers, MH43 Provide nameplates at each panelboard identifying the panel and where it is supplied from. Code Deficiency | \$3,750 | \$4,987 | \$8,737 | |
| Light Fixtures, MH46 Provide emergency lights in all classrooms, restrooms, mechanical spaces, electrical spaces, at the exterior egress, and halls where not currently installed, but required. Provide raceway and branch circuitry and connect to unswitched leg of area lighting circuitry. Code Deficiency | \$36,000 | \$47,914 | \$83,914 | Local Contractor |
| Light Fixtures, MH46 Provide additional exit signs where required. Code Deficiency | \$5,500 | \$7,382 | \$12,882 | In-House & Local Contractor |
| Light Fixtures, MH46 Provide additional LED light fixtures with battery backups outside each exterior door. | \$7,700 | \$10,200 | \$17,900 | In-House & Local Contractor |
| Light Fixtures, MH46 Replace existing fluorescent style fixtures with newer energy efficient LED style fixtures. (Boiler room and mechanical room) | \$42,500 | \$56,638 | \$99,138 | In-House |
| Lighting Controls, MH47 Replace all damaged switch cover plates and repair or replace malfunctioning occupancy sensors to ensure optimal performance. Code Deficiency | \$16,129 | \$21,469 | \$37,598 | In-House |
| Lighting Controls, MH47 Relocate storage racks obstructing occupancy sensor switches or install ceiling mounted occupancy sensors in combination with existing wall-mounted switches to enhance detections accuracy. Code Deficiency | \$210 | \$280 | \$490 | In-House |

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| Power Overview, MH49 Replace duplex receptacle into tamper resistant outlets throughout school. Code Deficiency | | \$90,000 | \$119,952 | \$209,952 | In-House | |
| Power Overview, MH49 Replace exterior duplex receptacle into weatherproof, GFCI duplex receptacle Code Deficiency | | \$3,500 | \$8,164 | \$11,664 | In-House | |
| Power Overview, MH49 Replace mechanical and electrical room duplex receptacle into GFCI receptacle Code Deficiency | | \$8,750 | \$11,721 | \$20,471 | In-House | |
| Power Overview, MH49 Install permanent name plate at equipment disconnect identifying load it controls and where it is supplied from. Code Deficiency | | \$5,000 | \$5,000 | \$10,000 | In-House | |
| Fire Alarm, MH51 Add additional speaker/strobes in the hallways for better coverage. Code Deficiency | | \$7,000 | \$9,330 | \$16,330 | | |
| Fire Alarm, MH51 Install smoke detectors in all classrooms. Code Deficiency | | \$15,000 | \$19,992 | \$34,992 | | |
| Fire Alarm, MH51 Install speaker/strobes in all classrooms. | | \$14,000 | \$18,659 | \$32,659 | | |
| Fire Alarm, MH51 Replace the circuit breaker supplying the fire alarm system with a breaker suitable for being locked in the on position. Code Deficiency | | \$500 | \$666 | \$1,166 | | |
| Fire Alarm, MH51 Remove the residential style smoke detectors and replace them with smoke detectors connected to the building Simplex 4100ES fire alarm panel. Code Deficiency | | \$1,400 | \$1,866 | \$3,266 | | |
| Fire Alarm, MH51 Investigate and clear 'trouble'lights on fire alarm panel. | | \$110 | \$101 | \$211 | | |
| Data & Communication, MH52 Replace the batteries in the existing UPS supplying power to the telecom rack. Code Deficiency | | \$3,000 | \$3,998 | \$6,998 | In-House | |
| Data & Communication, MH52 Provide a network card to the existing UPS so that it can be remotely monitored. Code Deficiency | | \$1,500 | \$1,963 | \$3,463 | Jon is already working on a lot of this | |

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| Data & Communication, MH52 Install additional telecommunication outlets in the classrooms as required for computers and equipment. Code Deficiency | \$22,500 | \$29,988 | \$52,488 | Jon is already working on a lot of this |
| Data & Communication, MH52 Install additional wireless access points in larger rooms and common areas throughout the building. Code Deficiency | \$6,300 | \$8,397 | \$14,697 | Jon is already working on a lot of this |
| Data & Communication, MH52 Relocate existing switches into the centralized telecommunication room and pull new category 6 cable to the existing jacks. Code Deficiency | \$40,324 | \$40,324 | \$80,648 | Jon is already working on a lot of this |
| Security System, MH53 Install a building intrusion detection system, with door contacts, glass break sensors, motion sensors, sirens, and a dialer to monitor and alert of a break in. | \$120,971 | \$161,230 | \$282,201 | This is completed as identified as a need throughout the year. |
| Security System, MH53 Install exterior CCTV cameras (25) | \$25,000 | \$33,320 | \$58,320 | This is completed as identified as a need throughout the year. |
| Security System, MH53 Install interior CCTV cameras (35) | \$35,000 | \$46,648 | \$81,648 | This is completed as identified as a need throughout the year. |
| Intercom System, MH55 Replace the existing Rauland Telecenter with a newer, more modern intercom and lockdown system. Code Deficiency | \$161,294 | \$214,973 | \$376,267 | Phase 2 CIP |
| Power Generation & Distribution, MH56 If backup power generation is desired, we recommend installing an adequately sized generator with an appropriately sized transfer switch. New 150 KVA generator, including transfer switch, feeders, and modification to service and distribution system to connection. | \$90,000 | \$119,952 | \$209,952 | |
| Grounding System, MH57 Install equipment grounding system | \$10,000 | \$13,495 | \$23,495 | |
| Grounding System, MH57 Install ground bar in all panels | \$8,750 | \$11,496 | \$20,246 | |
| | Electrical- Middle/High Only Subtotal | | | \$2,099,112 |

| Petersburg School District District Wide Identified Scope of Work | | Estimated Product Cost | Estimated Other (general, overhead, profit, contingency) | Estimated Total Cost | Notes | |
|---|--|---------------------------------------|---|---------------------------------|------------------------------|-------------------|
| | | C= District Wide Outside | E=Elementary | MH=Middle High School | T=Vocational Building | D=District |
| Main Distribution Panels & Switchgear, T34 Provide code required labeling to the service disconnect and distribution equipment to include arc-flash warning and calculated available fault current, at each panelboard. Code Deficiency | | \$500 | \$666 | \$1,166 | | |
| Main Distribution Panels & Switchgear, T34 Provide proper labeling on the emergency power off button clearly identifying its purpose. Code Deficiency | | \$150 | \$166 | \$316 | | |
| Main Distribution Panels & Switchgear, T34 Install arc-fault reduction at the 1600 Amp switchboard. Code Deficiency | | \$30,000 | \$39,856 | \$69,856 | | |
| Panels and Motor Control Centers, T35 Provide code required labeling, to include arc-flash warning and calculated available fault current, at each panelboard. Code Deficiency | | \$2,000 | \$2,645 | \$4,645 | | |
| Panels and Motor Control Centers, T35 Remove and replace the branch circuit conductors supplied by the 50 Amp circuit breaker in Panel C with new branch circuit conductors, rated for 50 Amps. Code Deficiency | | \$500 | \$687 | \$1,187 | | |
| Panels and Motor Control Centers, T35 Install group grounded conductors with the respective circuit's ungrounded branch circuit conductors. Code Deficiency | | \$5,000 | \$6,666 | \$11,666 | | |
| Panels and Motor Control Centers, T35 Install ground bar in all panels. Code Deficiency | | \$2,450 | \$3,227 | \$5,677 | | |
| Panels and Motor Control Centers, T35 If it is anticipated that new electrical loads will be added, in the future, or additional spare capacity is needed in the electrical panels, remove and replace the panelboards with new panelboards with 54 spaces. | | \$10,000 | \$13,280 | \$23,280 | | |
| Panels and Motor Control Centers, T35 Install UL-listed handle ties on breakers requiring them, per NEC 240.15(B) and NEC 110.3(B) Code Deficiency | | \$17,500 | \$23,281 | \$40,781 | | |
| Panels and Motor Control Centers, T35 Remove or relocate the welding table in front of Panel C so that this panel has NEC required working space. Code Deficiency | | \$250 | \$317 | \$567 | Talk to Dave to move | |
| Light Fixtures, T38 Provide emergency lighting in the classroom and car shop. Code Deficiency (contractor) | | \$18,000 | \$23,972 | \$41,972 | | |

| Petersburg School District District Wide Identified Scope of Work | Estimated Product Cost | Estimated Other (general, overhead, profit, contingency) | Estimated Total Cost | Notes |
|---|------------------------------|---|-------------------------|--------------------------------------|
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| Light Fixtures, T38 Provide additional emergency lighting fixtures in the shops and classroom as needed to provide the required illumination levels and uniformity ratio on the path of egress. Code Deficiency (contractor) | \$8,000 | \$10,649 | \$18,649 | |
| Light Fixtures, T38 Provide additional LED light fixtures, in new locations on the exterior of the building, to provide additional illumination to provide a sense of security. Code Deficiency | \$7,000 | \$9,334 | \$16,334 | Local Contractor |
| Lighting Controls, T39 Provide occupancy sensors throughout the building so that fixtures will be turned off when not needed and provide energy savings. | \$12,500 | \$16,703 | \$29,203 | In-House |
| Lighting Controls, T39 Provide switching controls for the office lighting that are currently always on. | \$420 | \$516 | \$936 | Aaron wil check on this. In-House |
| Devices & Connections, T41 Provide conduit knockout seals for all unused openings on panels and junction boxes. Code Deficiency | \$2,000 | \$2,666 | \$4,666 | In-House |
| Devices & Connections, T41 Install covers for all junction boxes. Code Deficiency | \$1,000 | \$1,318 | \$2,318 | In-House |
| Devices & Connections, T41 Replace duplex receptacle in the shop areas with tamper resistant GFCI receptacles and all receptacles in the classroom should be replaced with tamperproof receptacles. Code Deficiency | \$15,000 | \$19,986 | \$34,986 | In-House |
| Devices & Connections, T41 Remove extension cords and provide new receptacles with raceway and branch circuitry back to and connected to new circuit breakers in the panelboards. Code Deficiency | \$2,000 | \$2,666 | \$4,666 | Local Contractor |
| Devices and Connections T41 Provide engraved nameplates at each equipment disconnect, identifying its purpose, the load it serves, and where it is supplied from. Code Deficiency | \$2,000 | \$2,666 | \$4,666 | |
| Fire Alarm, T43 Install an annunciator panel near the front entry. Code Deficiency Remove and relocate or provide new fire alarm detection devices in each beam pocket. Code Deficiency | \$11,500 | \$15,322 | \$26,822 | |

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| Data & Communications, T44 Provide a new UPS to supply the telecom rack to reduce brown outs, so that when there is a loss of power, existing systems can be properly shut down. Code Deficiency | \$1,000 | \$1,332 | \$2,332 | Jon- In-House |
| Data & Communications, T44 Install a new larger floor mount telecommunication rack to allow for easier access and space for expandability. Code Deficiency | \$1,200 | \$1,601 | \$2,801 | Jon- In-House |
| Data & Communications, T44 Install additional telecommunication outlets in the classroom as required for computers and equipment. Code Deficiency | \$2,000 | \$2,664 | \$4,664 | Jon- In-House |
| Security Systems, T45 If vandalism or burglary is a concern, install a building intrusion detection system, with door contract, glass break sensors, motion sensors, sirens, and a dialer to monitor and alert for a break in. | \$13,125 | \$17,480 | \$30,605 | In-House- as needed |
| Security Systems, T45 Provide additional exterior cameras to provide coverage for all walkways around the building. | \$4,000 | \$5,324 | \$9,324 | In-House- as needed |
| Security Systems, T45 Provide additional interior cameras to provide coverage for all areas where shop equipment is stored or used. | \$8,000 | \$10,648 | \$18,648 | In-House- as needed |
| Intercom System, T47 If an intercom system is desired, we recommend installing a new intercom system. | 17500 | 23324 | \$40,824 | Phase 2 CIP |
| Power Generation & Distribution, T48 If backup power generation is desired, we recommend installing an adequately sized generator and appropriately sized transfer switch. | 65000 | 86632 | \$151,632 | |
| Grounding Systems, T50 Install ground bar to all panels, list equipment grounding system | 3950 | 5265 | \$9,215 | |
| | Electrical- Vocational Only Subtotal | | | \$614,404 |
| Panels & Motor Control Centers, D26 Provide code required labeling, to include arc-flash warning and calculated available fault current at the load center. Code Deficiency | \$500 | \$661 | \$1,161 | |

| Petersburg School District District Wide Identified Scope of Work | Estimated Product Cost | Estimated Other (general, overhead, profit, contingency) | Estimated Total Cost | Notes |
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| Panels & Motor Control Centers, D26 Remove and replace the PVC conduit for the telecommunication equipment so that it is outside of the NEC required working clearance. Code Deficiency | \$2,500 | \$3,327 | \$5,827 | |
| Panels & Motor Control Centers, D26 If it is anticipated that new electrical loads will be added, in the future, or additional spare capacity is needed, remove and replace the load center with a larger 42 space panelboard. | \$5,000 | \$6,664 | \$11,664 | |
| Light Fixtures, D29 Remove and replace all emergency lights with new emergency lights. | \$3,750 | \$5,000 | \$8,750 | In-House |
| Light Fixtures, D29 Provide emergency lights in Conference 104, Secretarial 105, in mechanical and electrical spaces, and at the exterior egress and other rooms, areas, and halls where not currently installed, but required. Prove raceway and branch circuitry and connect to unswitched leg of area lighting circuitry. | \$5,000 | \$6,666 | \$11,666 | In-House |
| Light Fixtures, D29 Remove and replace all expired self-luminous exit signs with new UL listed self-luminous exit signs or provide new exit signs with 120 volt power and internal battery packs with new branch circuitry connected to the area's local lighting circuit. Properly dispose of existing self-luminous exit signs. | \$700 | \$932 | \$1,632 | In-House |
| Light Fixtures, D29 Install new emergency exterior lighting fixtures. | \$3,200 | \$4,269 | \$7,469 | In-House |
| Light Fixtures, D29 Replace exterior weatherproof light fixture | \$1,400 | \$1,864 | \$3,264 | Already Done |
| Lighting Controls, D30 Provide occupancy sensors throughout the building so that fixtures will be turned off when not needed. | \$5,000 | \$6,669 | \$11,669 | In-House |
| Devices & Connectors, D32 Remove and replace all receptacles located outdoors with new listed weather-resistant, ground fault type circuit interrupter type 20 Amp 120 Volt receptacles. Code Deficiency | \$1,000 | \$1,333 | \$2,333 | In-House |
| Devices & Connectors, D32 Remove and replace all device covers at the receptacles located outdoors with new metallic, extra duty rated, waterproof while-in-use covers. Code Deficiency | \$500 | \$666 | \$1,166 | In-House |

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| Devices & Connectors, D32 Remove and replace on-GFCI receptacle in the kitchen with new 20 Amp 120 Volt GFCI type receptacles. Where receptacles are not located in readily accessible locations, remove and replace the circuit's supplying circuit breaker with a new 20 Amp 120 Volt GFCI type circuit breaker. Code Deficiency | | \$700 | \$933 | \$1,633 | In-House |
| Devices & Connectors, D32 Remove and replace all receptacles in mechanical and electrical rooms and spaces with new 20 Amp 120 Volt GFCI type receptacles. Code Deficiency | | \$500 | \$666 | \$1,166 | In-House |
| Devices & Connectors, D32 Remove extension cords and provide new receptacles with raceway and branch circuitry back to and connected to new circuit breakers in the panelboard. Code Deficiency | | \$750 | \$999 | \$1,749 | Contractor |
| Fire Alarm, D38 Remove fire alarm or install a new fire alarm compliant with NFPA Code Deficiency | | \$6,300 | \$8,397 | \$14,697 | In-House |
| Data & Communications, D35 Replace or repair the existing UPS | | \$2,000 | \$2,666 | \$4,666 | In-House |
| Security Systems, D36 If vandalism or burglary is a concern, install a building intrusion detection system, with door contacts, glass break sensors, motion sensors, sirens, and a dialer to monitor and alert of a break in. | | \$2,700 | \$3,565 | \$6,265 | In-House As needed |
| Security Systems, D36 Provide additional exterior cameras to provide coverage for all walkways around the building. | | \$4,000 | \$5,277 | \$9,277 | In-House As needed |
| Security Systems, D36 Provide additional interior cameras to provide coverage for all hallways in the building. | | \$4,000 | \$5,277 | \$9,277 | In-House As needed |
| Intercom System, D38 If an intercom system is desired, we recommend installing a new intercom system. | | \$3,600 | \$4,798 | \$8,398 | Not necessary |
| Power Generation & Distribution, D39 If backup power generation is desired, we recommend installing an adequately sized generator and an appropriately sized transfer switch. | | \$20,000 | \$26,565 | \$46,565 | |

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| Grounding System, D41 *Provide a new grounding electrode system with connections to all grounding electrodes present. Code Deficiency *If local or school district guidelines require an equipment grounding conductor to be run in each conduit, provide an appropriately sized grounding conductor in each conduit containing feeders or branch circuitry. | \$1,350 | \$1,799 | \$3,149 | |
| | | | Electrical - District Only Subtotal | \$173,443 |
| | | | ELECTRICAL \$3,792,761 TOTAL | |
| TOTAL FOR DISTRICT-WIDE SCOPE OF WORK | | | | \$26,964,462 |