



**CROTON-HARMON UFSD
2015 BUILDING CONDITION SURVEY
CROTON-HARMON HIGH SCHOOL
SED # 66-02-02-03-0-001**



Important Information: Please read the following information to better understand the information contained in the Comprehensive Facilities Report.**General Notes:**

1. The report consists of (2) two main documents: (1) the "Summary" Report which gives a listing of each work item identified with a brief description and (2) the "Detail" Report that gives a more comprehensive description of each work item identified. These (2) two documents are complimentary and form the overall Comprehensive Facilities Report.

Categories

Level 1- These items have been identified to fit into one of the following categories:

1. Non-code compliant and recommended for upgrade.
2. Beyond serviceable/useful life.

Level 2- These items have been identified to fit into one of the following categories:

1. Non-code compliant but not requiring upgrades at this time.
2. Beyond serviceable/useful life, however, still functioning and likely to last at least 4 more years.

Level 3- These items have been identified to fit into one of the following categories:

1. Items identified that can be considered for upgrades/renovations but are not required by building codes or ADA compliance requirements.
2. Items that are nearing the end their useful life but not posing any current concerns.

Level 4- These items have been identified to fit into one of the following categories:

1. Items identified that would enhance the building or site but are not mandatory to accommodate academic instruction.
2. Items identified that are currently functioning but should be considered for future upgrades.

Level 5- These items have been identified as possible work to be completed as part of the yearly Operations and Maintenance budget.

Pricing notes

*** Pricing for this report has been calculated as follows:**

1. A unit price based upon architect's available cost data multiplied by the appropriate quantity for the system such as each (EA), Square Feet (SF) or Linear Feet (LF).
2. A lump sum (LS) based upon the scope of work and architect's best judgment based on past similar projects.
3. Each identified project is estimated as if it was to be completed as a unique project. At this time, cost estimates do not reflect potential savings if multiple projects were completed within an overall project scope.
4. Cost estimates presented herein are for planning purposes at this time. If/ when a group of projects is identified for consideration, costing will be re-examined for potential savings.
5. Estimates do not take into consideration the source of funding.
6. The project totals include a design contingency of 20% to allows for the fact that projects often contain more elements when they are fully designed than could have been anticipated earlier in the design process.
7. Estimates do not include a project contingency at this time. A project contingency is for unknowns during construction. The project contingency allows for unknown factors that could increase construction and related costs beyond the estimate. If/ when a group of projects is identified for consideration, costing will be re-examined to determine if additional monies should be included to cover these unknown factors.

IDENTIFICATION NUMBER	DESCRIPTION SUMMARY (For further explanation of work see "Detail" report)	TOTAL QUANTITY	UNIT	\$/ UNIT	ITEM COST*	PRIORITY	Level 1	Level 2	Level 3	Level 4	Level 5
SITE SYSTEMS											
SS 1	Rebuild repair stone site wall	1	LS	\$200,000	\$200,000	1.1	\$200,000				
SS 2	Site parking:										
	Main Asphalt Parking lot: Replace	1	LS	\$230,000	\$230,000	1.4				\$230,000	
	Gravel Parking lot: Upgrade	1	LS	\$210,000	\$210,000	1.4				\$210,000	
SS 3	Site fencing: Repair/Replace	1	EA	\$16,000	\$16,000	1.5					\$16,000
SS 4	Site Drainage: Improve	1	LS	\$200,000	\$200,000	1.2		\$200,000			
SS 5	Emergency Egress Stair: Replace	1	LS	\$60,000	\$60,000	1.2		\$60,000			
SS 6	Storage Container: Provide Ventilation and Panic hardware	1	EA	\$3,000	\$3,000	1.5					\$3,000
SS 16	Storage Building: replace storage container with building	1	LS	\$250,000	\$250,000	1.4				\$250,000	
SS 17	Sidewalk: add new concrete sidewalk along track between HS and MS	2000	SF	\$20	\$40,000	1.3			\$40,000		
	Sub-total Site Systems				\$1,209,000		\$200,000	\$260,000	\$40,000	\$690,000	\$19,000
EXTERIOR BUILDING ENVELOPE											
EB 1	Paint metal stairs and roof	70	SF	\$10	\$700	1.5					\$700
EB 2	Replace rusted lintels	13	EA	\$2,000	\$26,000	1.3			\$26,000		
EB 3	Repair brick at roof ladder	40	SF	\$100	\$4,000	1.2		\$4,000			
EB 4	Windows: Replace	2400	SF	\$100	\$240,000	1.4				\$240,000	
	Sub-total Exterior Building Envelope				\$270,700		\$0	\$4,000	\$26,000	\$240,000	\$700
BUILDING INTERIORS - CODE, HEALTH & SAFETY, ACCESSIBILITY											
BIC 1	Wire Glass (Code): Replace	250	SF	\$300	\$75,000	1.3			\$75,000		
BIC 2	Interior Wood Doors: Replace	65	EA	\$2,200	\$143,000	1.1	\$143,000				
	Sub-total Building Interiors - Code, Health & Safety, Accessibility				\$218,000		\$143,000	\$0	\$75,000	\$0	\$0
BUILDING INTERIORS - BUILDING IMPROVEMENTS / REPAIRS											
BIR 1	Ceilings: Replace	6000	SF	\$10	\$60,000	1.3			\$60,000		
BIR 2	Concealed Spline Ceiling: Replace	5970	SF	\$10	\$59,700	1.3			\$59,700		
BIR 3	Carpet: Replace	3000	SF	\$8	\$24,000	1.5					\$24,000
BIR 4	Replace Gymnasium bleachers	1	LS	\$100,000	\$100,000	1.1	\$100,000				
BIR 5	Replace Gymnasium floor	8600	SF	\$16	\$137,600	1.1	\$137,600				
BIR 6	Library-Improve acoustics and reconfigure layout	1	LS	\$500,000	\$500,000	1.2		\$500,000			
BIR 7	Multi use-Toilet Rooms: Renovate	4	EA	\$125,000	\$500,000	1.3			\$500,000		
BIR 8	Cafeteria: Increase Seating Capacity: Construct/Renovate	1	LS	\$600,000	\$600,000	1.2		\$600,000			
BIR 9	Casework:Replace	50	LF	\$375	\$18,750	1.3			\$18,750		
BIR 14	Flat Screen Monitors: Upgrade from Smart boards	40	EA	\$6,000	\$240,000	1.3			\$240,000		
	Sub-total Building Interiors - Building Improvements / Repairs				\$2,240,050		\$237,600	\$1,100,000	\$878,450	\$0	\$24,000

IDENTIFICATION NUMBER	DESCRIPTION SUMMARY (For further explanation of work see "Detail" report)	TOTAL QUANTITY	UNIT	\$/ UNIT	ITEM COST*	PRIORITY	Level 1	Level 2	Level 3	Level 4	Level 5
PLUMBING											
P1	1924 Building: Galvanized Pipes and Valves: Replace	1	LS	\$30,000	\$30,000	1.4				\$30,000	
P2	1924 Building: Boiler Room Floor Drains: Upgrade	1	LS	\$25,000	\$25,000	1.4				\$25,000	
P3	1924 Building: Main Water Service and Valves: Upgrade	1	LS	\$130,000	\$130,000	1.2		\$130,000			
P4	1996 Addition: Dedicated Domestic Water Heater: Upgrade	1	SF	\$150,000	\$150,000	1.3			\$150,000		
Sub-total Building Interiors - Building Improvements / Repairs					\$335,000		\$0	\$130,000	\$150,000	\$55,000	\$0
ELECTRIC											
E1	Main Gymnasium Lighting	20	EA	\$2,600	\$52,000	1.3			\$52,000		
E2	Auditorium General Lighting (include ceiling)	1	EA	\$200,000	\$200,000	1.3			\$200,000		
E3	Auditorium Theatrical Light Rigging	1	EA	\$300,000	\$300,000	1.3			\$300,000		
E4	Auditorium Theatrical Lighting System (include control)	1	EA	\$300,000	\$300,000	1.3			\$300,000		
E5	Sound Systems in both gymnasiums	2	EA	\$32,500	\$65,000	1.3			\$65,000		
E6	Fire Alarm System	1	EA	\$500,000	\$500,000	1.2		\$500,000			
E7	Add card access to HS main office	1	EA	\$7,000	\$7,000	1.3			\$7,000		
E8	Add wireless points in all classrooms/common areas	50	EA	\$2,000	\$100,000	1.3			\$100,000		
Sub-total Electric					\$1,524,000		\$0	\$500,000	\$1,024,000	\$0	\$0
MECHANICAL / HVAC											
M1	1924 Building: Provide Ducted Powered Exhaust	1	LS	\$150,000	\$150,000	1.1	\$150,000				
M2	1924 Building: Provide Required Outdoor Air Ventilation	1	LS	\$225,000	\$225,000	1.1	\$225,000				
M3	1924 Building: Special Ed 105 and 105A: Provide energy recovery unit ventilation and air conditioning	1	EA	\$50,000	\$50,000	1.1	\$50,000				
M4	1924 Building: Science Rooms 310, 311, 312: Provide Dedicated Powered Exhaust	1	LS	\$40,000	\$40,000	1.1	\$40,000				
M5	1924 Building: Rooms 214 thru 218: Provide Ducted Powered Exhaust	1	LS	\$55,000	\$55,000	1.2		\$55,000			
M6	1924 Building: Steam and Condensate Piping: Replace in-kin	1	LS	\$2,000,000	\$2,000,000	1.3			\$2,000,000		
M7	1924 Building: Remaining Pneumatic Controls to DDC: Upgrade	1	LS	\$50,000	\$50,000	1.4				\$50,000	
M8	1924 Building: Boiler Room: Replace existing burners with dual-fuel type	2	EA	\$70,000	\$140,000	1.31			\$140,000		
M9	1924 Building: Community Room: Provide Ventilation and A/C Systems	1	LS	\$150,000	\$150,000	1.4				\$150,000	
M10	1970 Addition: SGI and Offices: Provide Exhaust and A/C Systems	1	LS	\$30,000	\$30,000	1.1	\$30,000				
M11	1970 Addition: Custodian's Office and Conference Room: Provide Energy Recovery Unit Ventilation System	1	LS	\$45,000	\$45,000	1.1	\$45,000				
M12	1970 Addition: Music/Choral Room: Provide Energy Recovery Unit ventilation System	1	EA	\$150,000	\$150,000	1.2		\$150,000			
M13	1996 Addition: Conference Room and Faculty Room: Replace Existing HVAC Unit	1	EA	\$75,000	\$75,000	1.2		\$75,000			
M14	2003 Renovated Area: Guidance Room, Art Room, Café/Stud	1	LS	\$75,000	\$75,000	1.2		\$75,000			
M15	Server Rooms: Provide Independent Cooling Systems	3	EA	\$10,000	\$30,000	1.1	\$30,000				
M16	Corridors: Provide Ducted Powered Ventilation Throughout	1	LS	\$300,000	\$300,000	1.1	\$300,000				
M17	CO2 Monitoring: Provide CO2 Sensors	80	EA	\$500	\$40,000	1.4				\$40,000	
M18	Cafeteria: Provide Air Conditioning	1	LS	\$125,000	\$125,000	1.3			\$125,000		
M19	1924 Building: Converting heating system to hot water requires boiler conversion and terminal unit replacement throughout	1	LS	\$800,000	\$800,000	1.3			\$800,000		
Sub-total Mechanical / HVAC					\$4,530,000		\$870,000	\$355,000	\$3,065,000	\$240,000	\$0

IDENTIFICATION NUMBER	DESCRIPTION SUMMARY (For further explanation of work see "Detail" report)	TOTAL QUANTITY	UNIT	\$/ UNIT	ITEM COST*	PRIORITY	Level 1	Level 2	Level 3	Level 4	Level 5
	Subtotal						\$1,450,600	\$2,349,000	\$5,258,450	\$1,225,000	\$43,700
	Design Contingency (20%)						\$290,120	\$469,800	\$1,051,690	\$245,000	\$8,740
	Subtotal						\$1,740,720	\$2,818,800	\$6,310,140	\$1,470,000	\$52,440
GRAND TOTAL \$12,392,100											
	Escalation 0%						\$0				
	Escalation 5%							\$140,940			
	Escalation 10%								\$631,014		
	Escalation 15%									\$220,500	
	Escalation 20%										\$0
	Subtotal						\$1,740,720	\$2,959,740	\$6,941,154	\$1,690,500	\$52,440
	Soft Costs (30%)						\$522,216	\$887,922	\$2,082,346	\$507,150	\$0
	TOTAL						\$2,262,936	\$3,847,662	\$9,023,500	\$2,197,650	\$52,440
GRAND TOTAL \$17,384,188											



Architectural Survey



SS 1 Stone Site Wall:
Restore and rebuild stone site walls. Reset loose stones and remove and replace deteriorated mortar joints.



SS 2 Asphalt Paving
Repave main parking lot and pave asphalt parking lot to improve site parking.



SS 3 Site Fencing
Chain link site fencing is showing signs of age including rusted and damaged sections of wire fabric. Work includes replacement of damaged areas.



SS 4 Site Drainage
Improve site drainage to reduce storm runoff to the adjacent neighboring properties.



SS 5 Egress Stair
The corrugated metal walls of the exterior egress Stair enclosure are rusting and damaged. Replace existing metal stairs and walls with new stairs and enclosure that would be opaque partially to allow for natural light during the day.



SS 6 Site Storage
The State Education Department requires storage containers to be provided with ventilation and door hardware that can be opened from the inside without a key.



SS 6 Site Storage

Power equipment is stored outside at several locations including the courtyard. A maintenance storage building is needed to properly house the District's equipment. A building is proposed at the Carrie E. Tompkins ES site.



SS 16 Storage Building:
Replace existing storage container with storage building.



SS 17 Sidewalk:

No paved path exists between the High school and Middle School. Add sidewalk along gravel running track to provide a paved walkway between the Middle school and High school that can be easily maintained and cleared of snow in the winter.



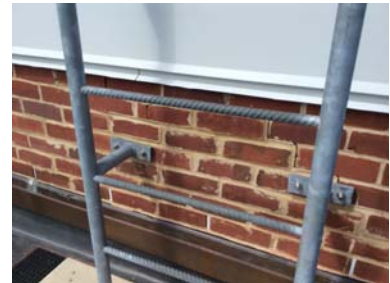
EB-1 Paint Stairs and Canopy

The Band Room stairs and canopy should be repainted to protect them from rusting



EB-2 Replace Rusted Lintels

Lintels at the music wing addition are starting to expand due to rusting. Lintels should be replaced before they expand further and crack the brick veneer.



EB-3 Brick Repairs

Brick veneer has pulled away at ladder. Brick veneer needs to be removed and rebuilt.



EB-4 Windows

Windows at the 1924 building were installed during a renovation project that appears to have been completed during the early 1990's. The windows are at the end of their useful life. Work would include replacement with energy-efficient insulating type windows.



BIC 1 Wire Glass

Wire glass is no longer allowed by the State Education Department. Although replacement is not mandatory, it is recommended that large areas of glass be replaced with approved safety glazing as time and budget permit.



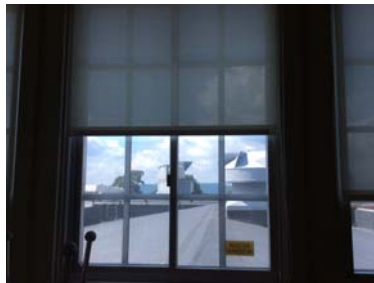
BIC 2 Interior Wood Doors

Interior wood doors at the end of their useful life. Fatigue at the hinges and latch hardware is causing the doors to stick or not latch properly. Replacement is recommended



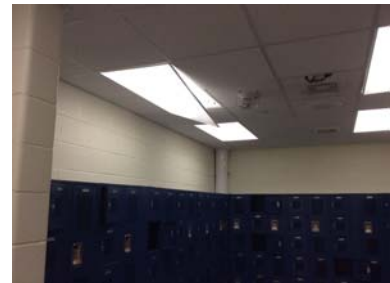
BIC 2 Interior Wood Doors

Interior wood corridor doors with vents do not provide smoke separation and are no longer allowed by the State Education Department. Replacement is recommended.



BIC 5 Rescue Windows

Window treatments at rescue windows should be labeled with rescue window labels.



BIR 1 Ceilings

Suspended acoustic ceilings are beginning to show signs of wear and water staining. Work would include the replacement of these ceiling areas.





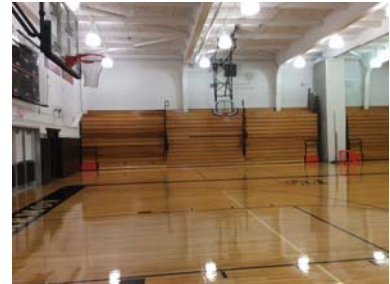
BIR 2 Ceilings

Concealed spline ceilings were installed when the building was first built and restrict access above ceiling for maintenance. Work would include the replacement of these ceiling areas.



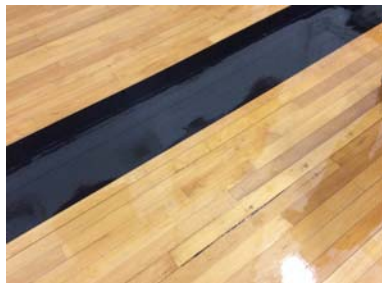
BIR 3 Carpet

Worn and stained carpet at the end of its useful life should be removed and replaced.



BIR 4 Wood Gymnasium

Bleachers: Replace
Wood Gymnasium Bleachers are worn from age and difficult to open and close



BIR 5 Gymnasium floor: Replace

Wood Gymnasium floor is original to the gymnasium addition. Floor has been repaired and refinished many times and is in need of replacement.



BIR 6 Library

Acoustics in the library are unsatisfactory. The District has plans to reduce the number of books housed in the library. Library renovations are recommender to improve acoustics and the use of the space due to programmatic changes.



BIR 7 Multi-Use Toilet Renovations

Several toilet rooms are from the original construction. Work would include the renovation of original plumbing fixtures, flooring, ceramic tile walls, old ceilings, etc. with new.



BIR 8 Cafeteria; Increase Seating Capacity:

There is not enough seating during lunch periods in the existing cafeteria. Recommendations include additional lunch periods and expansion of the cafeteria capacity through renovations and additions.



BIR 9 Replace Casework Cabinets, shelving, etc. (casework) is from the original 1924 construction and is coming to the end its useful life. Work would include the replacement of casework items.








BIR 14 Flat Screen Monitors:

Upgrade smart boards to flat screen monitors at all classrooms.



Plumbing/ Electrical/ Mechanical Survey

 <p>P1 Domestic Water Piping (1924 Building) Replace existing galvanized steel piping and valves.</p>	 <p>P2 Upgrade Boiler Room Floor Drains (1924 Building) Provide new floor drain in proper locations and run new piping to existing sump pump.</p>	 <p>P3 Water Service (1924 Building) Replace existing domestic water service and valves.</p>
 <p>P4 Domestic Water Heater (2004 Addition) Provide dedicated gas fired heater for domestic water heater system (to allow main boiler to shut down when not required for space heating).</p>	 <p>E1 Main Gym Lighting: Replace existing gym lighting with new. Broken and cracked lamp sockets were found.</p>	 <p>E2 Auditorium General Lighting: Replace general auditorium lighting with new due to old age.</p>





E3 Auditorium Theatrical Lighting Rigging:
Provide motorized rigging for servicing theatrical light fixtures.



E4 Auditorium Theatrical Lighting System:
Replace theatrical lighting fixtures and dimmer system with new due to old age.



E5 Sound system in both gyms:
Replace stand-alone sound system in both main and aux. gym due to old age. Tie new system to PA.



E6 Fire Alarm System:
Replace fire alarm system with new due to end of life. The capacity has reached its limit.



E7 Add card access to main office:
Add internal card access to main office for after hour use.



E8 Add wireless points in classrooms and common areas:
Provide new WAP (wireless access point) in classrooms and common areas.



M1 Exhaust (1924 Building)

Provide ducted powered exhaust system.



M2 Ventilation (1924 Building)

Provide required outdoor air for occupancy.



M3 Special Ed 105 and 105A (1924 Building)

Provide energy recovery unit ventilation and air conditioning.



M4 Science Rooms 310, 311, 312 (1924 Building)

Provide dedicated powered exhaust system.



M5 Rooms 214 thru 218 (1924 Building)

Provide ducted powered exhaust system.



M6 Heating System (1924 Building)

Replace existing steam and condensate piping.



M7 Controls (1924 Building):

Upgrade remaining pneumatic controls to DDC type and connect to existing BMS.



M8 Boiler Room (1924 Building):

Replace existing burners with new dual-fuel type.



M9 Community Room (1924 Building):

Provide packaged rooftop unit air conditioning.



M10 SGI and Offices (1970 Addition):

Provide powered exhaust and Air conditioning



M11 Custodian's Office and Conference Room (1970 Addition):

Provide energy recovery unit ventilation system.



M12 Music/Choral Room (1970 Addition):

Provide energy recovery unit ventilation system.



M13 Conference Room and Faculty Room (1924 Building):
Replace existing HVAC unit.



M14 Guidance Room, Art Room, Café/Study, Auxiliary Gym (2004 Renovated Area):
Provide powered exhaust systems.



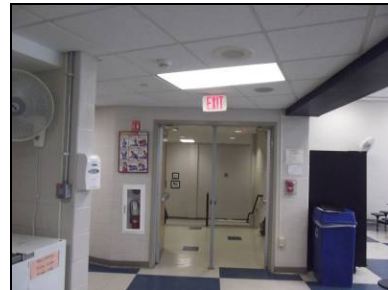
M15 Server Rooms:
Separate existing cooling system for multiple Server rooms and provide independent cooling system for each room.



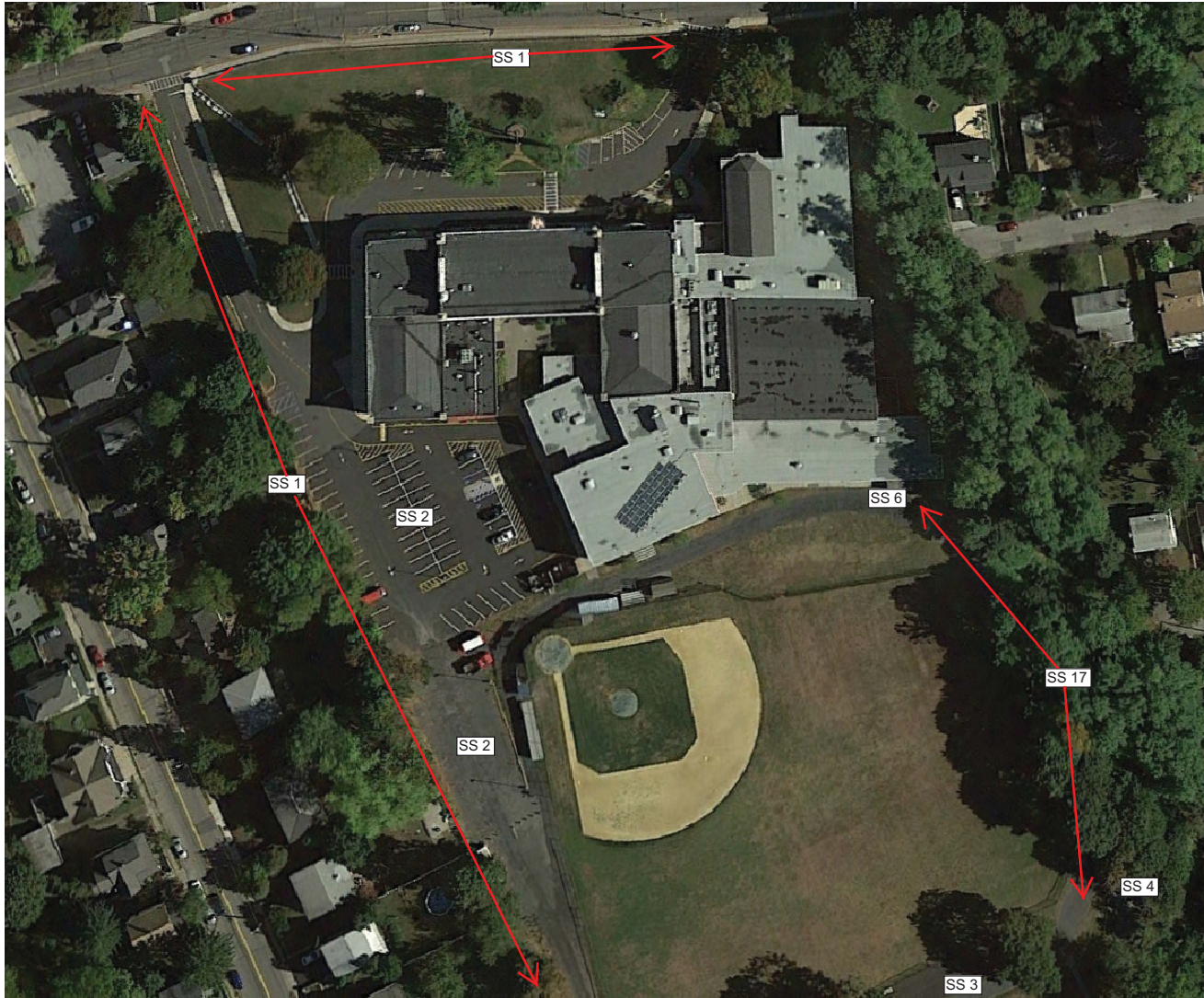
M16 Corridors:
Provide ducted powered exhaust in Corridors throughout.



M17 CO2 Monitoring:
Provide CO2 wall sensors in Classroom spaces.



M18 Cafeteria:
Provide Air Conditioning



Croton-Harmon UFSD 2015 Five Year Plan Croton Harmon High School

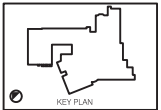
KSQ Project #151400240



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REVISIONS

ISSUED	DATE	SCALE

SHEET NAME SITE PLAN

SHEET NUMBER HS- A100