DRAFT
SCOTT COUNTY SCHOOL BOARD
MINUTES OF SPECIAL MEETING
THURSDAY, FEBRUARY 28, 2013

The Scott County School Board met for a Special Meeting on Thursday, February 28, 2013, at the Scott County Career & Technical Center Auditorium in Gate City, Virginia, with the following members present:

James Kay Jessee, Chairman
William "Bill" R. Quillen, Jr., Vice Chairman
Jeffrey "Jeff" A. Kegley
Gail L. McConnell
L. Stephen "Steve" Sallee, Jr.
Herman "Kelly" Spivey, Jr. (arrived at 6:25 p.m.)

ABSENT: None

OTHERS PRESENT: John I. Ferguson, Superintendent; Will Sturgill, School Board Attorney; Jason Smith, Supervisor of Personnel and Middle School Education; Loretta Q. Page, Clerk Of The Board/Budget Specialist/Head Start Clerk; K.C. Linkous, Deputy Clerk Of The Board/Human Resource Manager; Suzanne Goins, Virginia Professional Educators Regional Director; Justin Forrester, Scott County Education Association President; Robert Sallee, Supervisor of Building Services; Ralph Quesinberry, Scott County Career & Technical Center Supervisor/Principal; Rodney Darnell, Scott County Career & Technical Center Custodian, and Billy Nash, Maintenance Employee.

CALL TO ORDER/MOMENT OF SILENCE/*PLEDGE OF ALLEGIANCE*: Chairman Jessee called the meeting to order at 5:00 p.m. The audience observed a moment of silence and cited the *Pledge of Allegiance.*

APPROVAL OF AGENDA: On a motion Mr. Kegley, seconded by Mr. Sallee, all members voting aye, the Board approved the agenda as presented.

OPENING REMARKS FROM SUPERINTENDENT FERGUSON: Superintendent Ferguson stated that tonight's meeting is for the purpose of discussing the Back of the Envelope Audit and possible actions regarding moving forward with Performance Contract. He explained that three ESCO's (Energy Service Companies) were interviewed this past week: Siemens, Comfort Systems and Ameresco. He reported that the interviews included the committee, and county office personnel. He also reported that the committee voted and made their recommendation and requested that Mr. Smith present this information. He further reported that Mr. Robert Sallee, Supervisor of Building Services, will present information on why he feels it is in the best interest of Scott County Schools to pursue this endeavor.

COMMITTEE REPORT ON BACK OF THE ENVELOPE AUDIT - ENERGY SERVICES COMPANY (ESCO) INTERVIEWS FOR PERFORMANCE CONTRACT: Jason Smith, Supervisor of Personnel and Middle School Education/BOE Committee Representative, reported that this has been a long process and probably looked at for a year. He explained that the Board made a decision to ask ESCO's to submit a BOE Audit. He reported that there was a few ESCO's in the beginning of the process that dropped out and some added for competitive balance later on in the process. He also reported that the school division ended up with three companies making it to the interview process: Siemens, Ameresco and Comfort Systems. He further reported that the committee was made up of Robert Sallee, Supervisor of Building Services; himself; Tommy Musick, Scott County Career & Technical Center Instructor; Billy Nash, Maintenance Employee; Loretta Page, Clerk of the Board/Budget Coordinator; Sharon Holland, Building Services Secretary; and Beverly Stidham, Purchasing Specialist. He noted that Superintendent Ferguson was also involved with the interviews, although he was not a voting member and neither were Jeff Kegley, School Board Member; Kathie Noe, County Administrator; and Bill Dingus, County Director of Public Works, who also set in on interviews.

Mr. Smith reported that this has been a very extensive process. He explained that the smallest amount of time spent with an ESCO interview was two and a half hours, the longest being four hours, and

another that lasted three hours. He pointed out that the committee spent a lot of time listening to presentations and interviews. He reported that at the end of the process the committee met to discuss pro's and con's, reviewed what was presented and formed ideas from each other, so that the committee could make the best decision for the Board as the school division proceeds forward. He explained that there were seven votes from committee members that were opened (February 28, 2013) and tallied by Mrs. Vickie Lane. He reported committee votes as follows: Ameresco – 4 votes, Comfort Systems – 3 votes and Siemens – 0 votes. He also reported that the two things that came out of the committee minutes were (1) the committee felt that Performance Contract is a good viable option for our county and hopes that the Board will consider going forward; and, the committee felt that by doing so energy costs will be cut; and, by cutting energy costs, allow the school division to put in some facility upgrades in buildings without incurring any more funds to be taken out of the already stretched budget; and, (2) based on the voting of the selection committee, the committee recommends moving forward with Ameresco. He explained that this is a summary of what was reviewed as a committee. He stated that he would answer questions, provide minutes, and clarify whatever he could regarding the process. He also pointed out that Mr. Robert Sallee does have a presentation that includes a summary of each ESCO, their financial, etc. so that the Board will have more information. He noted that should there be something he can't answer other committee members are present.

BOE PRESENTATION FROM SUPERVISOR OF BUILDING SERVICES: Mr. Robert Sallee, Supervisor of Building Services, reported that Ameresco, Comfort Systems USA, and Siemens submitted the Back of the Envelope proposals as requested. He also reported that all proposals were reviewed and he presented a summary of the ESCO's (Energy Service Company) individual proposed project information known as ECM's (Energy Conservation Measures). He explained that project guidelines required each ESCO to design a project so it will be a cash neutral project with no capital funding required by Scott County Schools. He presented an ECM Upgrades Analysis and the Cash Flow and Pro Forma Financial Analysis. ***(See Appendix A)***

COMMENTS FROM CHAIRMAN JESSEE: Chairman Jessee asked if there are any further questions or discussion. He stated that he thought what the Board needed to do is make a decision on whether to go ahead with Performance Contracting and; then, secondly, decide who the Board is going with, if we do.

APPROVAL TO PROCEED WITH PERFORMANCE CONTRACT CONTINGENT UPON APPROVAL OF THE COUNTY BOARD OF SUPERVISORS: Mr. Quillen made a motion to proceed with the Performance Contract contingent upon approval of the County Board of Supervisors; motion was seconded by Mr. Sallee, all members voting aye.

Superintendent Ferguson stated that that is key for the school system whenever Robby and Mr. Smith and Charlie Barksdale go down there; and, to do this action, there's no question as representatives of the school system our school board is willing to take that next step. He expressed appreciation for their vote.

Chairman Jessee asked if the Board wanted to decide who to go with. He explained that the Board has basically two recommendations, one for Ameresco and one for Comfort Systems.

APPROVAL OF COMFORT SYSTEMS USA – PERFORMANCE CONTRACT: Mr. Kegley nominated that the Board go with Comfort Systems based on what he sat through on the presentations; motion was seconded by Mr. Sallee, all members voting aye. Chairman Jessee asked members to show a vote of hands and indicated that the vote was unanimous.

ADJOURNMENT: On a motion by Mr. Kegley, seconded by Mr. McConnell, all members voting aye, the Board adjourned at 6:56 p.m.

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APPENDIX A

Performance Contracting Presentation:
Robert Sallee, Supervisor of Building Services

Performance Contracting

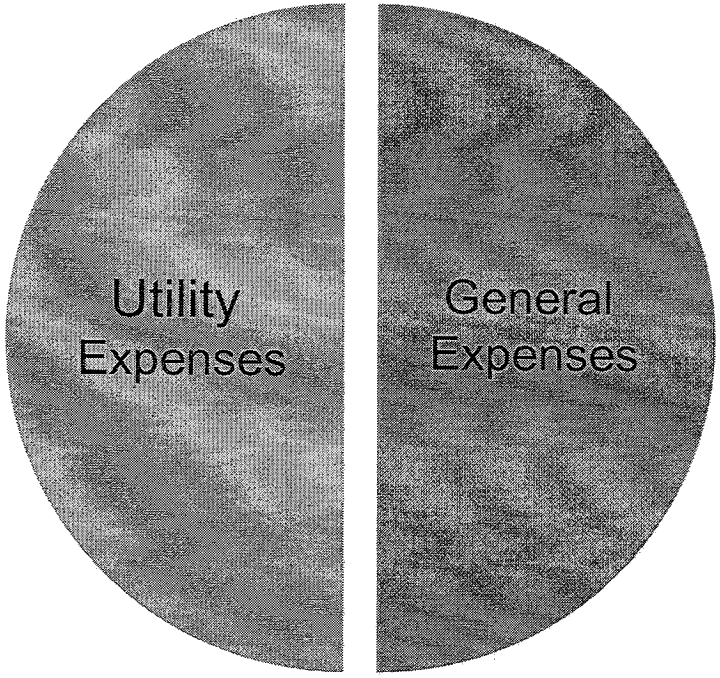
- Performance Contracting is a process where an approved Energy Service Company (ESCO) performs a compressive energy audit of an organizations facility, and recommends energy upgrades that will pay for themselves over a period of time with money saved. The ESCO will guarantee the savings over the contract period, and will pay the difference if the savings are not met.

Why Scott County Schools

- Improve the learning environment for students
- Opportunity to upgrade the mechanical systems
- Saving kilowatts, gallons of water, & tons of coal (which equates to dollars) to pay for the project

Maintenance Budget

BEFORE PC



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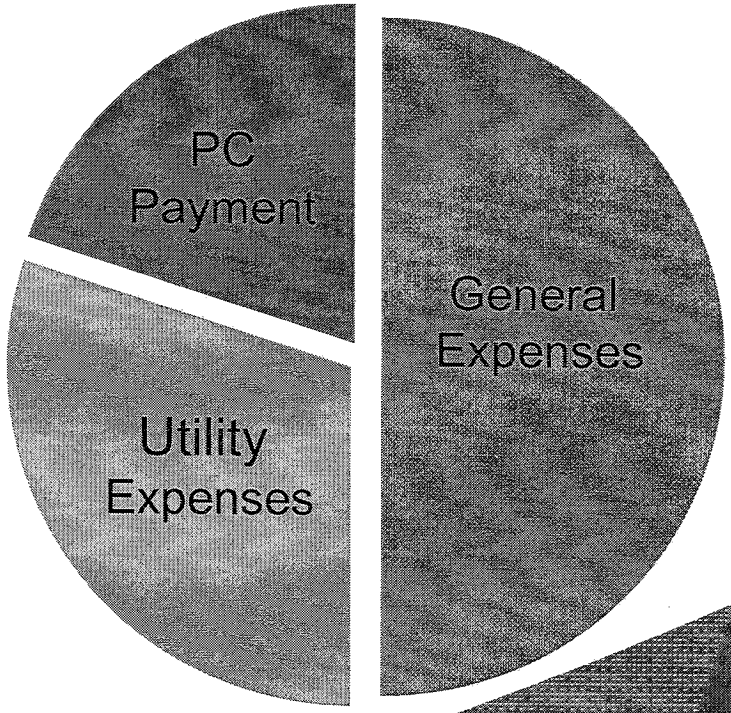

The Back of the Envelope (BOE)

- 3 ESCO's- Ameresco, Comfort Systems USA, and Siemens
- Each ESCO has visited all of the schools
- Discussed operations and problems in the school
- Proposed ECM's (Energy Conservation Measures)
- The project guidelines- ESCO's shall propose cash neutral/cash positive project with no capital funding

ECM Proposals

ECM Description	Ameresco					Comfort Systems USA					Siemens			
Upgrades	DPS	GCHS	GCMS	RCI		DPS	GCHS	GCMS	RCI		DPS	GCHS	GCMS	RCI
Building Automation Control	Yes	-	-	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Domestic water heater upgrade	-	-	-	-		Yes	Yes	Yes	Yes		-	-	-	-
Lighting System upgrade	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Mechanical system upgrade	-	Yes	Yes	Yes		-	Yes	Yes	Yes		-	Yes	Yes	-
Water conservation upgrade	Yes	Yes	-	Yes		Yes	Yes	Yes	-		Yes	Yes	-	Yes

ECM Proposals

ECM Description	Ameresco					Comfort Systems USA			
Upgrades	DPS	GCHS	GCMS	RCI		DPS	GCHS	GCMS	RCI
Building Automation Control	Yes	-	-	Yes		Yes	Yes	Yes	Yes
Domestic water heater upgrade	-	-	-	-		Yes	Yes	Yes	Yes
Lighting System upgrade	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Mechanical system upgrade	-	Yes	Yes	Yes		-	Yes	Yes	Yes
Water conservation upgrade	Yes	Yes	-	Yes		Yes	Yes	Yes	-

Ameresco Building Automation Controls (BAC)

BAC system is scheduled for DPS & RCI for major HVAC equipment. Equipment will utilize Direct Digital Controllers (DDC) to control equipment that will be accessible through a web based Tridium system that provides equipment status, alarms, and temperature setpoints.

<u>Duffield Primary</u>

- Coal fired boiler
- Zone heating hot water pumps
- (25) Split AC systems
- (2) Packaged heat pumps
- (2) Hallway electric heaters
- Kitchen freezer and cooler for temperature monitoring

<u>Rye Cove Intermediate</u>

- (12) Networking thermostats for heat pumps
- (6) Hallway electric heaters
- (2) Heating and Ventilation units located in the gym
- (3) Package terminal AC units
- Kitchen freezer and cooler for temperature monitoring
- CO2 based demand controlled ventilation for the cafeteria and gyms

Ameresco Lighting Upgrade

96% of the lighting fixtures will be retrofitted or replaced with more efficient fluorescent or LED technologies

- Utilize 4' T8 & T5 lamps with universal voltage electronic ballast
- Incandescent fixtures will be retrofit with screw in adapters, quad pin CFLs or LEDs
- The majority of the T12 fixtures are in good condition and will be retrofitted
- Existing T8 fixtures will be retrofitted with high efficient ballast and reduced wattage bulbs
- High Bay T5 fixtures will be used to replace the HID lights in the gym and cafeteria
- Occupied areas that have nearly doubled the light needed will be de-lamped to meet IESNA (Illuminating Engineering Society of North America) standards
- Incandescent style exit signs will be replaced with LED exit signs
- Exterior building mounted lights will be retrofit and/or replaced with CFLs and school owned pole lights will be replaced with LED
- Lighting controls customized for various areas such as occupancy controls, photocell sensors, and dual sensing controls that look for motion, and listen for activity will be used in specifically designed areas
- All linear fluorescent lamps installed will be low mercury and have a high color rendering index to achieve the highest quality light source

Ameresco Mechanical Upgrade

Gate City High

- 96 steam radiators located through the school will receive self-contained thermostatic control valves. Also 44 main steam traps will be replaced and 96 will be retrofit to help steam flow through the system as designed

Gate City Middle

- The chiller will be replaced with a new high efficient air cooled chiller. The new chiller utilizes a variable speed drive and an environmentally favorable 134-A refrigerant.

Rye Cove Intermediate

- Two old 15 ton multi-zone units will be replaced with seven packaged rooftop high efficient heat pumps. The new heat pumps will be connected to the existing duct work. The new heat pumps will be equipped with economizer controls to utilize outside air for free cooling when possible.

Ameresco Water Conservation Upgrade

- Existing 3.5gpf and 1.6gpf toilets with diaphragm flush valves will be replaced with new 1.28gpf china and matching piston type flush valve
- Existing wash down design urinals with 1.0gpf and 1.5gpf diaphragm flush valves will be retrofit to .5gpf piston type flush valve
- ADA floor mounted toilets will be replaced with ADA height toilets
- Existing blowout design urinals will receive new .125gpf china and matching flush valves
- Bathroom sinks will be retrofit with .5gpm flow controls
- Classroom sinks will be retrofit with 1.0gpm flow controls
- Kitchen sprayers will be retrofit with 1.42gpm sprayers
- Faucets that cannot accept flow controls will be replaced with new faucets
- Showers will also be retrofit with low flow controls
- New toilets will be installed with new stop valves
- All new urinal flush valves will be installed with new stop valves
- New urinals installed will include new hanging brackets and waste gaskets, any exposed openings will be filled with grout or caulking

School	Toilets	Urinals	Sinks	Showers
Duffield	27	8	37	-
GC High	31	16	29	26
GC Middle	-	-	-	-
Rye Cove Int	15	5	26	-
Total	113	53	119	36

CS USA Building Automation Controls (BAC)

BAC system is scheduled for DPS, GCH, GCM, & RCI that will be a web based direct digital control system. The system will be accessible with any web connected computer, pad or smartphone. The system will be a graphical interface that will provide historical data, critical alarm notification, remote monitoring, time of day, and night set back control. The system will control or monitor the following:

Duffield Primary

- (11) Split Air Conditioning Systems
- (16) Split heat pumps
- (6) Boiler zone heating water pumps
- Boiler cycling controls
- Practice (old) gym heating and ventilation units
- New gym package heat pumps
- Cafeteria heating and ventilation unit
- (6) Corridor Heaters
- Monitor only (1) walk in cooler and (1) freezer temps
- (2) 119 gallon domestic hot water heaters

Gate City High

- (15) Split systems
- Library unit
- (2) Coal boilers
- (5) Steam header zone control valves
- (3) Business area self-contained units
- (2) Rooftop units for ITV room and room 250
- Administration and guidance office units
- (1) ISS area split system
- Corridor radiators
- (1) Domestic hot water heater

CS USA Building Automation Controls (BAC) continued

Gate City Middle

- (3) VVT Variable Volume and Temperature Air-handlers
- (4) Constant Volume Air Handlers
- (54) VVT Zone Dampers for classrooms
- (3) Heating and Ventilation Air Handlers
- (2) Package Air to Air Heat Pumps
- (1) Split System Heat Pump
- Monitor only Kitchen (2) Walk-in Coolers & (1) Walk-in Freezer
- (2) Domestic Hot Water Heaters

Rye Cove Intermediate

- Rooftop unit #1 & (7) associated VAV boxes
- Rooftop unit #2 & (6) associated VAV boxes
- Library rooftop Heat pump
- Science Lab Rooftop Heat pump
- Café Rooftop Heat pump
- Kitchen Split System
- (3) Office Package Terminal Units
- (2) Gym Heat and Ventilation Units
- General Exhaust Fans
- Corridor and Stage Wall Heaters
- Monitor only (1) Walk in Cooler & (1) Walk in Freezer
- (2) Domestic Hot Water Heaters

CS USA Domestic Water Heater Control

The hot water heaters will be controlled from the new BACs , and the controls will provide a time of day control used to stage in the heating elements during high demand. Hot water will be readily available when needed, but the elements and recirculating pumps will be turned off during unoccupied time periods.

- Duffield Primary- Two 119 gallon hot water heaters with 60,000watts total capacity
- Gate City High- One119 gallon hot water heater with 40,500watts total capacity
- Gate City Middle- Two 400 gallon hot water heaters with 216,000watts total capacity
- Rye Cove Intermediate- Two 119 gallon hot water heaters with 54,000watts total capacity

CS USA Lighting Upgrade

- Replace all T12 fluorescent lamps and ballast (4' & U shaped), 8' bulbs will be changed to 4' to standardize bulbs
- Replace 32watt T8 bulbs and 1st generation ballast with 28watt bulbs and new generation ballast (proven to be more efficient)
- Installation of specular reflectors in fluorescent fixtures
- Replace HID (gym) lighting with new T5 fixtures
- Replace incandescent bulbs with new (CFL) compact fluorescent or LED screw in lamps
- Replace incandescent and/or CFL exit signs with new LED exit signs
- Replace exterior fixtures with new LED fixtures
- Installation of occupancy sensors
- Installation of daylight harvesting controls
- Installation of vendmiser and snackmiser controls on snack machines during unoccupied time to control lights and compressors
- Retrofit lighting fixtures by cleaning, replacing missing, broken, or discolored lens, and replacing the sockets where required
- Redesigning the building to eliminate lamps, ballast, or fixtures while maintaining the proper lighting levels as recommended by IES (Illuminating Engineering Society)
- Provide a manufactures warranty on all 4' T8 lamps and ballast for 5 years

CS USA Lighting Upgrade

- Total of 2,811 fixtures in the four schools surveyed
- Duffield Primary- Duffield Primary has 637 fixtures, with lighting levels ranging between 23 and 116 foot candles (50 fc desired)
- Gate City High- Gate City High School has 634 fixtures, with lighting levels ranging between 12 and 122 foot candles (50 fc desired)
- Gate City Middle- Gate City Middle School has 990 fixtures, with lighting levels ranging between 18 and 117 foot candles (50 fc desired)
- Rye Cove Intermediate- Rye Cove Intermediate has 432 fixtures, with lighting levels ranging between 27 and 157 foot candles (50 fc desired)

CS USA Mechanical Upgrade

Gate City High

- Five new main steam zone control valves in the boiler room
- New control valves, steam traps and automation controls will for hallway radiators.
- The radiators in the classrooms with a second heat source will be removed and isolated
- The boilers will be connected to the BAC system
- New library package AC unit with and a new duct mounted steam coil for heating

Gate City Middle

- (10) Air-handlers will be mechanically refurbished with new interior insulation, cleaning or replacement of heating & cooling coils, fan shaft bearings, drive belts, fresh air & return air damper repairs, new heating and chill water valves, and painted with a antimicrobial paint. The 3 air-handlers serving the classroom areas will receive a variable frequency drive to provide fan speed control.

Rye Cove Intermediate

- Replace two rooftop units with (1) 15.5 ton & (1) 17.5 ton commercial grade rooftop unit with variable volume controls, fresh air economizer and electric heat. The two units will serve 13 zones/classroom & office areas, and the electric heat will be located in each zone to allow for individual zone thermostatic control. Each zone will have CO2 sensors for fresh air ventilation into the building.
- Replace the science lab rooftop package unit with a rooftop heat pump with fresh air economizer, and CO2 sensor for demand control fresh air ventilation

CS USA Water Upgrade

Duffield Primary

- 21 Toilets- Replacement of all 3.75gpf floor mounted, floor outlet commercial water closets with high efficiency 1.28gpf
- 3 Toilets- Replacement of all 3.75gpf floor mounted, floor outlet commercial ADA water closets with high efficiency 1.28gpf
- 10 Toilets- Replacement of all 3.75gpf floor mounted "Baby Bowl" water closets with high efficient 1.28gpf
- 10 Urinals- retrofit of existing flush valves from 1.5gpf to a commercial grade .5gpf
- 32 Faucets- replacement of existing faucet aerators from 2.5gpf to .5gpf

Gate City High

- 28 Toilets- Replacement of all 3.75gpf floor mounted, floor outlet commercial water closets with high efficiency 1.28gpf
- 4 Toilets- Replacement of all 3.75gpf floor mounted, floor outlet commercial ADA water closets with high efficiency 1.28gpf
- 1 Toilet- Replacement of 3.75gpf gravity floor mounted, floor outlet water closets with Pro Flow 1.0gpf pressure assisted water closet
- 15 Urinals- Retrofit of existing flush valves from 1.5gpf to a commercial grade .5gpf
- 25 Faucets- Replacement of existing faucet aerators from 2.5gpf to .5gpf

Gate City Middle

- 40 Toilets- Replacement of all 3.75gpf floor mounted, floor outlet commercial water closets with high efficiency 1.28gpf
- 10 Toilets- Replacement of all 3.75gpf floor mounted, floor outlet commercial ADA water closets with high efficiency 1.28gpf
- 24 Urinals- Retrofit of existing flush valves from 1.5gpf to a commercial grade .5gpf
- 26 Faucets- Replacement of existing faucet aerators from 2.5gpf to .5gp
- 17 Showers- Replacement of existing shower heads from 2.75gpm to a flow of 1.5gpm

Siemens Building Automation Controls (BAC)

A new BAC system is proposed for DPS, GCH, GCM, & RCI that will be used to shut down various zones and HVAC units during unoccupied times, with an option to override if necessary. The BAC system will be programmed with energy conservation strategies with start/stop optimization, unoccupied setback, and equipment scheduling. Additional upgrades included:

Duffield Primary

- Start/Stop optimization
- Unoccupied setback
- Equipment scheduling
- Valve positions
- Damper positions
- Temperature monitoring
- Hot water temperature reset

Gate City High

- Start/Stop optimization
- Unoccupied setback
- Equipment scheduling
- Valve positions
- Damper positions
- Temperature monitoring
- Economizers on Air Handlers
- Hot water temperature reset

Siemens Building Automation Controls (BAC) continued

Gate City Middle

- Start/Stop optimization
- Unoccupied setback
- Equipment scheduling
- Valve positions
- Damper positions
- Temperature monitoring
- Economizers on Air Handlers
- Hot water temperature reset

Rye Cove Intermediate

- Start/Stop optimization
- Unoccupied setback
- Equipment scheduling
- Damper positions
- Temperature monitoring
- Economizers on Air Handlers

Siemens Lighting Upgrade

- All high bay HID fixtures will be replaced with new energy efficient fluorescent T8 or T5 and include a lens or wire guard
- All decorative HID fixtures will be retro fit with ceramic pulse start metal halide
- All T12 will be retrofit with low power ballast, energy saver 28watt T8 fluorescent lamps & ballast (new fixtures only where existing fixtures are deemed to be in poor condition)
- All T8 32watt lamps will be replaced with low power ballast and 28watt energy saver lamps and reflectors where possible
- All 8' and U-tube fluorescent fixtures will be converted to 2' & 4' straight tube fluorescent
- Re-lamp incandescent and halogen fixtures with CFL or LED
- Replace any incandescent exit sign with LED
- Replace exterior lighting with LED where opportunities are available
- Install lighting controls in areas such as bathrooms, gyms, classrooms, offices, and meeting rooms, if the audit shows the savings

Siemens Mechanical Upgrade

Gate City High

- Siemens proposes to install new control valves for the convectors and three new zone control valves to operate only the section of the building being occupied, and 50 new convector steam valves. Temperature control for these valves will be installed on the new BAC system

Gate City Middle

- Siemens project includes a new chiller, duplex chilled water pump, and 11 new hot water valves.