

# BARTLETT YANCEY HIGH SCHOOL FACILITIES STUDY

## Summary of Probable Construction Costs – January 2018

### A. New Administration, Classroom and Science Lab Addition

Description	Quantity	Unit	Unit Cost	Total Cost
• Demolition Hall 1, 2 and 3 (Inc. Asbestos Removal)		Lump Sum		\$250,000
• New Two (2) Story Building <ul style="list-style-type: none"> <li>○ Staff Parking and Parent Drop Off</li> <li>○ Improve Road from Vocational Building to New Addition</li> <li>○ Digital Marquee</li> </ul>	118,561	SF	200	\$23,712,200
• Enclosed Corridors <ul style="list-style-type: none"> <li>○ Existing Dining to New Building</li> <li>○ New Building to Vocational</li> <li>○ Vocational to Vocational Addition</li> <li>○ Vocational Addition to East Wing</li> </ul>	6,194	SF	125	\$774,250
• Canopies <ul style="list-style-type: none"> <li>○ Bus Parking to New Gym</li> <li>○ East Wing to Civic Center</li> </ul>	5,600	SF	50	\$280,000
• Temporary Used Mobile Units for Construction Phasing (12 month lease) <ul style="list-style-type: none"> <li>○ 2 – 12 classroom modular units and 1 – 8 classroom modular unit</li> </ul>		Lump Sum		\$802,720
<b>Total Construction Costs</b>				<b>\$25,819,170</b>
• Related Project Costs <ul style="list-style-type: none"> <li>○ Construction Contingency</li> <li>○ A/E Fees</li> <li>○ Geotechnical, Construction Testing and Special Inspections</li> <li>○ Surveying</li> <li>○ Utilities (Electrical Service, Water, Sewer)</li> </ul>				\$3,872,875
<b>Total Project Costs Part A</b>				<b>\$29,692,045</b>

### B. Renovations

Description	Quantity	Unit	Unit Cost	Total Cost
• New Gymnasium <ul style="list-style-type: none"> <li>○ Expand Lobby into Senior Dining</li> <li>○ Generator</li> </ul>		Lump Sum		\$1,437,477
• Old Gymnasium <ul style="list-style-type: none"> <li>○ Gym, Lobby, Wrestling Practice, Storage</li> </ul>		Lump Sum		\$695,785
• Existing Kitchen/Dining Area <ul style="list-style-type: none"> <li>○ Art, HE, Dance, Health Classrooms</li> <li>○ General Storage, Book Storage, etc.</li> </ul>	8,172	SF	125	\$1,021,500
• Vocational Building		Lump Sum		\$482,941
• Vocational Addition		Lump Sum		\$97,760
• East Wing		Lump Sum		\$1,066,500
• Civic Center		Lump Sum		\$1,609,725
• Alternative Education <ul style="list-style-type: none"> <li>○ Classroom/Toilet Addition</li> </ul>		Lump Sum		\$190,000
<b>Total Construction Costs</b>				<b>\$6,601,688</b>
• Related Project Costs <ul style="list-style-type: none"> <li>○ Construction Contingency</li> <li>○ A/E Fees</li> </ul>				\$990,253
<b>Total Project Costs Part B</b>				<b>\$7,591,941</b>

## C. Site Improvements

Description	Quantity	Unit	Unit Cost	Total Cost
• Athletic Facilities				
○ Concessions, Restrooms, Locker Rooms	7,000	SF	175	\$1,225,000
○ Storage/Weightlifting	5,000	SF	150	\$750,000
○ Relocate Softball Field		Lump Sum		\$50,000
○ Home Bleachers and Press Box		Lump Sum		\$320,000
○ 8 Lane Track - Paving, Surface and Lane Markings		Lump Sum		\$250,000
• Miscellaneous				
○ Chain Link Fencing and Gates	3,500	LF	24	\$84,000
○ Decorative Fencing and Gates	500	LF	40	\$20,000
○ Drive Gate	1	EA	5,000	\$5,000
○ Dumpster Pad		Lump Sum		\$2,500
○ Expand Bus Parking Lot	1,500	SY	35	\$52,500
○ Paved Walkway to PCC	266	SY	35	\$9,310
		<b>Total Construction Costs</b>		<b>\$2,768,310</b>
• Related Project Costs				\$415,246
○ Construction Contingency				
○ A/E Fees				
		<b>Total Project Costs Part C</b>		<b>\$3,183,556</b>
		<b>Total Project Costs Parts A, B and C</b>		<b>\$40,467,542</b>

## D. Cost Estimate Information

1. Inflation: Add 4% per year to construction costs for inflation after January 2019.
2. Renovations costs listed under Part B include the following:
  - New Gymnasium
    - Replace: bleachers, acoustical tile ceilings, light fixtures, HVAC equipment and controls, gym vinyl backed insulation, exterior EIFS, trophy cases.
    - Recoat metal roof and expand lobby into senior dining area.
    - FA and security improvements (access control, CCTV, intrusion detection, intercom).
    - Generator to serve gym, kitchen and dining.
  - Old Gymnasium
    - Replace: gym windows, electrical panels and wiring.
    - Renovate locker room area
    - New HVAC system and controls
    - FA and security improvements (access control, CCTV, intrusion detection, intercom).
  - Existing Kitchen/Dining Area
    - Complete interior demolition and renovation to accommodate home economics, art, dance, 2 health classrooms.
    - New HVAC system and controls.
    - FA and security improvements (access control, CCTV, intrusion detection, intercom).
  - Vocational Building
    - Replace: windows, acoustical tile ceilings in classrooms and corridors, light fixtures, HVAC equipment and controls
    - Renovate toilets
    - Install Fritz tile in main corridor
    - FA and security improvements (access control, CCTV, intrusion detection, intercom).
  - Vocational Addition
    - New HVAC controls only
    - FA and security improvements (access control, CCTV, intrusion detection, intercom).

- East Wing
  - Replace: windows, replace flat roofs, acoustical tile ceilings, light fixtures, HVAC equipment and controls.
  - Renovate toilets.
  - Demo mobile storage unit.
  - FA and security improvements (access control, CCTV, intrusion detection, intercom).
- Civic Center
  - Replace: bleacher type seats, roof, acoustical tile ceilings, light fixtures, windows, HVAC equipment and controls
  - Band Room: clean/grind terrazzo floor, add acoustical wall and ceiling panels, add instrument storage cabinets
  - FA and security improvements (access control, CCTV, intrusion detection, intercom).

### 3. Mechanical System Description and Estimated Costs (Costs included in Part B “Renovations”)

- Vocational Building
  - Classrooms: approximately 7,000 SF  
The existing mechanical systems consist of multiple Dx split systems with hot water heating coils. These systems shall be replaced with in kind equipment. New controls shall be added to this facility. Estimated Cost \$15/SF.
  - Shops: approximately 10,035 SF  
The existing mechanical systems consist of hot water fan coils and cabinet heaters to provide heating only to this area. This area is currently not cooled. There are some ductless mini splits being utilized to condition office spaces within the shop area. These systems shall be replaced with in kind equipment. New controls shall be added to this facility. Estimated Cost \$10/SF.
- Vocational Addition: 7,728 SF  
The existing mechanical systems consist of multiple Dx split systems heat pumps, gas heaters and ductless mini-split system. These systems are newer and are not to be replaced at this time. New controls shall be added to this facility. Estimated Cost \$10/SF
- East Wing: 21,620 SF  
The existing mechanical systems consist of multiple constant volume Dx packaged roof top units with hot water heating coils and multiple Dx split systems with hot water heating coils. These systems shall be replaced with in kind equipment. There is also an existing cast iron boiler and pumps that serve this building along with the vocational building. These boilers shall replace with high efficiency condensing type boilers and the pumps shall be replaced with in kind equipment. Zoning shall be reviewed at time of design, we anticipate this to require two more roof top units to be added. New controls shall be added to this facility. Estimated Cost \$25/SF.
- Civic Center: 21,770 SF  
The existing mechanical systems consist of multiple constant volume Dx packaged roof top heat pump units with electric heat and two constant volume modular indoor air handling units with remote Dx condensers and electric heat. These systems shall be replaced with in kind equipment. New controls shall be added to this facility. Estimated Cost \$20/SF
- Old Gym/Locker: 11,370 SF  
The existing mechanical systems consist of Hot Water Cabinet Unit Heaters. This area is currently not cooled. The boiler serving this building is located in Hall 1 which is being demolished. New constant volume Dx packaged ground mounted heat pump units with electric heat shall be added to heat and cool the gym. New constant volume DX split systems units with electric heat shall be added to heat and cool the weight training and lobby areas and two modular indoor air handling units with remote condensers and electric heat. New controls shall be added to this facility. Estimated Cost \$22/SF
- Kitchen/Dining: 8,172 SF  
The existing mechanical systems consist of two ground mounted Dx packaged units with gas heat. A new variable volume Dx packaged ground mounted heat pump units shall be added to heat and cool the renovated spaces. New variable volume terminal boxes with electric reheat shall be utilized for zoning of the renovated spaces. This building is getting completely renovated and all new ductwork will be required. New controls shall be added to this facility. Estimated Cost \$30/SF

- **New Gym: 23,954 SF**  
The existing mechanical systems consist of two constant volume modular indoor air handling units with remote Dx condensers and hot water heating coils to provide the heating and cooling to the gym. The surrounding support spaces are only heated by cabinet unit heaters and fan coil units with hot water. These systems shall be replaced with in kind equipment. A new constant volume Dx packaged ground mounted unit with hot water coils shall be added to heat and cool the new lobby addition. New controls shall be added to this facility. Estimated Cost \$25/SF.

#### 4. Security Improvements

Providing a secure environment for students at Bartlett Yancey High School was a primary emphasis of the study. The final design incorporates the following:

- Creates a secure public entry to the school.
- Connects the individual buildings with enclosed corridors.
- Incorporates electronic technologies such as closed circuit television (CCTV), access control, alarm notification and unified communications.
- Decorative fencing in select areas.
- Drive gates

Access control and alarm systems help to deter events from occurring but if they do, they provide audible and visual notification to the administrator. CCTV helps to quickly identify the location and severity of the situation. Unified communications allow the administrator to effectively communicate visually and audibly with emergency responders, students, staff and parents.

**Date:** August 7, 2017 and August 21, 2017

**To:** File

**From:** Alan Burchette, AIA

**Subject:** Discussion with Jerry Hatchett Concerning Bartlett Yancey High School

**Message:**

1. Items Discussed on August 7, 2017

- Replace first, second, and third grade halls with a new two story facility
  - Regular classrooms, administration/guidance, science labs, media center
  - Replace due to age, type of construction, no space for ductwork
- Approximately \$20M dollar project

2. Items Discussed on August 21, 2017

- The courtyard is not a good area for additions
  - A lot of underground utilities go through courtyard
- Study end products should be floor/site plan, rendering, and cost estimate
  - No need for a physical assessment of existing building
- Consider locating a soccer field behind new addition
- New gym metal roof is rusting and EIFS needs to be replaced
- Jerry prefers a central boiler, chiller, VAV boxes
- Final plans have to be reviewed by DPI and Department of Insurance
- The old gym is connected to boiler in main building that will be torn down
- Building committee likes the new media center at NC State

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**Date:** September 21, 2017

**To:** File

**From:** Alan Burchette, AIA

**Subject:** Architects Meeting with Building Committee

**Attendance:**

Architects: Brian Bradner and Alan Burchette / Dewberry, Jeff Bond / Solex, Jeff Johnson / Alley, Williams, Carmen & King

Building Committee: Dr. Sandra Carter, Jerry Hatchett, Debra Maxey, Pricilla Presley, Emily Buchanan, JoAnna Gwynn, Donna Hutson

**Message:**

1. Items Discussed

- Currently 832 students in 195,000 SF (including Civic Center)
- Replace 78,000 SF with new construction
  - Demo Halls 1, 2, 3, and Media Center
  - Maybe demo kitchen/dining
  - Total 195,415 SF entire school
- Science Lab
  - UNC Department of Design use moveable tables on casters
  - Storage room between two science labs
  - Good chairs
  - Good lighting
  - Epoxy resin countertops
  - Computer at each group of lab tables
  - A lot of power (data, water, gas (propane))
  - Each science lab should have a lab and separate classroom area
  - Limit gas to one small tank per science lab
  - Currently seven science labs and one chemistry lab
  - Biology lab – tall lab stations
  - Natural light
  - Make all science labs same except for chemistry lab
- School has five water meters

- Library
  - Place in a prominent location
  - Multiple activities
  - Work room
  - Tech lab
  - Lots of light, colorful space, natural light
  - Coffee shop
  - Lots of power/data outlets
  - Could be a two story library
  - Upscale furniture, on roller
  - Storage space
- Do not want a two story box for the new building: lot of glass, lot of windows
- Canopy at drop off area at administration
- Cafeteria
  - May demo existing kitchen/dining or convert to wrestling practice, weight lifting, or home economics
  - Hub for students
  - High tables and regular tables
- Main Entry
  - Vestibule
  - Administration offices to left
  - SRO office at entry
  - Data manager
  - East Guilford has a nice administration area
- Do study first so know how much to ask from public in bond referendum
- Security
  - Keyless entry, cameras, intercom
- Proposed new building: open areas like a mall, two stories with skylights
- Old gym only area on a boiler
- Enclose corridors between buildings for security
- May need to phase the project
- Increase parking
- New entry off main road, circle drive at drop off canopy
- Electronic sign at main road for events
- Look at all buildings and entire site including drives and parking

- Athletics included in the study
- Project includes Halls 1, 2, 3, cafeteria, restrooms, enclose walkways between buildings, upgrade furniture, upgrade wiring, landscaping, circle entry, field house, weight room, dressing room, bath rooms, concessions
- Relocate bus parking lot and student parking lot
- Total campus master plan
- Improvements to athletics could be a second phase
- Don't rush study, think big, look at phasing project
- Civil center needs upgrading
- Can we add a running lane to running track
- CTE building built in 1988 (vocational building): light levels low in classrooms at shop areas
  - Terrazzo floor splotchy, no cracks, bad terrazzo job
- Drama classroom in Civic Center
- Look at acoustics in band room
- Students number in slight decline over time
- Get dance class out of basement (water damage of wood floor)
- Look at location of band room
- East wing use to be 9<sup>th</sup> grade classroom wing
- Alternative school needs expanding and add boy's and girl's restroom
- Like short locker bays so place items on top (book bags)
- DPI gives minimum standards for corridors
- Do not like idea of glass in classrooms walls facing corridor
- Landscape courtyard if we enclose corridors at all buildings
- Leave room for expansion for science for PCC
- Like stained concrete floors
- Like terrazzo in corridors
- Technology: plan for future growth (max 10 year down road)
- Low and carefree maintenance finishes
- Jerry does not have floor plan of entire facility, only plans of each building, not pieced together
  - No plans of east wing and Halls 1, 2, and 3
- Ok to bring in temporary leased trailers complete with ramps and steps for phasing
- Do a good phasing plan for construction
- School Board may ask Monday night how long it will take to do one study





## MEMORANDUM

- Owner needs help with grant application costs of project
- Monday night 6:30
  - Hand out proposals
  - Make opening statement brief 5 to 10 minutes, go over our qualifications

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**Date:** October 19, 2017

**To:** File

**From:** Alan Burchette, AIA

**Subject:** BYHS Study – Meeting to Review Study Process

**Attendance:** Dr. Sandra Carter, Mel Battle, Jerry Hatchett, Brian Bradner, Alan Burchette

**Message:**

1. Dewberry reviewed the proposed study process, study participants, schedule, and next steps in process prior to the first meeting.
  - Alan/Jerry to tour high school (buildings and site)
  - Jerry to contact Clinton City Schools in Sampson County for floor plan and photos of their new middle/high school.
2. In addition to the above the following items were discussed:
  - East wing was constructed in 1987
  - Need to enclose walkways between buildings similar to Oakwood
  - Security if very important
    - Langston Focus School in Danville used 8'-0" high wrought iron fencing and gates to secure the school
  - Consider add alternatives for the new dining/kitchen area
    - Owner considering a food court arrangement for dining
  - Could convert existing cafeteria to a wrestling practice and weight lifting area
  - Existing track needs another lane to hold regional track meets
    - Not a high priority to host regional track meets
  - Consider replacing home and visitors football field bleachers, press box, concessions, and restrooms
  - If we flip softball field could locate concessions and restroom between the track, baseball, and softball field
    - Flipping softball field is not a high priority
  - Install gate between PCC and BYHS campus so students can walk and not have to drive
  - Consider moving bus parking to student parking lot and student parking lot to bus parking
    - Would help supervision of student parking
  - Add a circle drive, drop off area, and canopy in front of the school for parents dropping off and picking up students
    - Owner to provide the average number of students being dropped off in morning by parents

**MEMORANDUM**

- Need better location for alternative education to improve drop off and pick up
  - Currently in small building behind vocational building
- Safety, security, media center, cafeteria, layout of science labs and classrooms very important
- Provide a generator for gym/cafeteria to be used as a shelter in an emergency
- Look at main entry drive to the of school off Main Street
- The drive and small lot behind the gym are not needed
- Want capacity for video conferencing and distance learning
- Install cameras throughout the school, keyless entry
- Provide a digital marquee along Main Street for scheduled events
- Provide monitors throughout school for announcements
- Provide a building automation system with remote access similar to Dillard
- Bus lot could be used for location of mobile units during construction

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## MEMORANDUM

**Date:** November 28, 2017

**To:** File

**From:** Alan Burchette, AIA

**Subject:** BYHS Study Design Review Meeting with Building Committee

**Attendance:**

Dr. Sandra Carter, Jerry Hatchett, Mel Battle, JoAnna Gwynn, Debra Maxey, Elizabeth Pressley, Emily Buchannan, Lisa Lassiter

**Message:**

1. Add a drive way gate near New Vocational Building.
2. Add canopy from East Wing to Civic Center.
3. Move in-school suspension to first floor.
4. Add classroom and toilet to right side of alternative education building.
5. Number of science labs provided is the correct number (six plus one chemistry)
  - Provide separate prep room for chemistry.
6. Provide wrestling practice off old gym with storage and lobby area.
  - Bleachers were removed on one side of the gym to accommodate wrestling mats.
7. Add a 50'x50' weight lifting room to the new 50'x50' storage building at track.
8. Home bleachers and press box to be replaced.
  - Provide seating for 600.
9. Heat and cool all connecting corridors.
10. Students that park in student lot will enter the school between East Wing and New Vocational Addition.
11. Plan to provide enough mobile units to replace all classrooms in halls 1, 2 and 3.
12. Add decorative fencing around back of new gym.
13. The only existing chain link fencing is located between Piedmont Community College and Bartlett Yancey High School.
  - Add chain link fencing at property line at rear and two sides.
  - Provide decorative fencing in select areas that face Main Street and back of New Gym.
14. Move data manager down two (2) offices so students can enter from lobby and exit into main building.
15. Provide decorative fencing at outdoor dining area to rear drive.
16. Extend roof at dining to create a 10'-0" overhang similar to loading area roof.
17. Locate four (4) dumpsters adjacent to kitchen door that back up to new connecting corridor or Vocational Building.



## MEMORANDUM

18. Provide 400 lockers in locker bays in new facility.
  - Most students don't use lockers.
  - East Wing has lockers.
19. Next Meeting
  - Review exterior rendering.
  - Review cost estimate.

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**MEMORANDUM**

**Date:** January 3, 2018

**To:** File

**From:** Alan Burchette, AIA

**Subject:** Meeting to Review the Final Report

**Attendance:**

Dr. Sandra Carter, Jerry Hatchett, Mel Battle, Sylvia Johnson

**Message:**

1. Add additional parking in front of school.
2. Expand bus lot towards softball field.
3. Enhance the design of front entry canopy
  - Add brick on columns.
  - Add larger profile coping.
4. Add student toilets on second floor new classroom building.
5. Add cost to remove asbestos from Hall 1, 2 and 3.
  - Mainly in floor tile / mastic and pipe insulation.
6. Show digital sign in color rendering.
7. Send Jerry a link to ALUCOBOND: composite aluminum wall panels.
8. Provide skylights above the two second floor science labs.
9. Provide paved walkway to Piedmont Community College.
10. Provide 10 copies of final report.
  - Deliver by noon Monday, January 8, 2018.
11. Make presentation to School Board at 6:30 p.m. on January 8, 2018.
  - Plans, Revit model and color rendering.

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