Project Planning for John A. Holmes High School

Edenton-Chowan Public Schools

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Facilitative Design©

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Meeting Agenda:

- 2008 High School Project
- 2015 Facility Needs Survey
- Current High School Facility
- School Capacity and High school capacity
- Program and costs for a new school
- Addition/Renovation project: 2008 and Blended Approach
- Issues for a New and an Addition/Renovation project
- Project and Cost Comparisons
- Funding Mechanisms
- Reality Check and Next Steps
- Project Phasing
- 2008 Scenario Plans
- Discussion

2008 High School Project

(Moseley Architects, June 2008)

- New School Program Worksheet:
  - Proposed1,000 student (Classroom and Core Capacity)
  - 1,200 Gymnasium seats and 480 Auditorium seats
  - 130,120 SF Net + 50,747 SF Circ/etc. = 180,667 SF Total (181 SF/Stud.)
- Concept 5A, Final Proposal:
  - Proposed1,000 student (Classroom and Core Capacity)
  - 1,200 Gymnasium seats and 480 Auditorium seats
  - 161,548 SF new + 31,321 SF renov. = 192,869 SF Total (193 SF/Stud.)

New Construction	161,548 SF (165.41/sf)	= $26,722,395
Site Work	146,548 SF (20.77/SF)	= $ 3,043,977
Demolition	102,711 SF (8.05/SF)	= $ 826,331
Renovation	31,321 SF (90.76/SF)	= $ 2,842,817
Soft Costs	17.6%	= $ 5,872,262
Total Project Cost		= $39,307,782

2015 Facility Needs Survey

- The Facility Needs Survey is a state mandated compilation of data to develop a 10 Year Facility Plan that is updated every 5 Years.
- DF Walker Elementary School
  - Built in 2000
  - Noted as “Good” condition; no future projects were indicated
- White Oak Elementary School
  - Built in 1997
  - Noted as “Good” condition; no future projects were indicated
- Chowan Middle School
  - Built from 1950 to 1991; noted as “Poor-Fair-Good”; replace MCR’s & class size
  - $2.1 mil noted for Years 0-5 for Renovations
  - $8.1 mil noted for Years 6 to 10 for Additions and Renovations
- J.A. Holmes High School
  - Built from 1950 to 1983; noted as ”Poor-Fair”
  - $41.9 mil for Years 0-5 for a new school; replace obsolete facilities and Building Code/Life Safety issues

Current High School Facility

- 130,482 SF; 16 acres
- 629 Students; 207 SF/Stud.; 754 capacity
- 40 classrooms; 78% utilization; 18 stud./teaching station
- Office spaces do not meet current needs
- Security - Open campus with an abundance of entry points and too many building access points
- ADA issues need to be addressed
- Maintain the Asbestos Management Plan (AHERA)
- Auditorium and Gymnasium are outdated and are too small
- Cafeteria and kitchen are outdated and are too small
- Media Center does meet current needs and is too small
- Interior space conditioning type is not consistent
- Not all areas have air conditioning

School Capacity

- Classroom Capacity
  - (Qty. of Classrooms) X (Avg. Students per classroom)
- Core Capacity
  - Size of Cafeteria ((Core/3 servings) X (14 sf/student))
  - Size of Media Center ((Core) X (6 sf/student))

  (Which takes precedent – Cafeteria or Media Ctr.?)
- School Capacity
  - Judgement Call; consider the Classroom and Core
  - Can the ADM be accommodated within the Core and are there enough classrooms?
  - Student/Staff safety during inclement weather and class changes (proximity)

High School Capacity

Handout #1

HIGH SCHOOL CAPACITY WORKSHEET (4 x 4 Block Schedule @ 77%)

School Name: JA Holmes High School @ 600 | School Code:

Capacity Generating Spaces:	Number of Teaching Stations	Capacity per Teaching Station	Optimal Capacity
Academic Classrooms: (Eng., For.Lang.,Soc. Studies., Math, Science)	15	X 22 =	330
Science Labs: (Science Classrooms Listed as Academic Classrooms)	5	X 18 =	90
Arts Education Classrooms: (Visual Arts, Band, Chorus, Dance, Drama)	3	X 22 =	66
Business/Office Education Classrooms: (Typing/Keybd, Computer App., Business, etc.)	3	X 22 =	66
Main Gym (count as 2 teaching stations)	2	X 2 X 25	100
Auxillary Gym (count as 1 teaching station + PE Classroom)	1	X 25	25
Service/Marketing Classrooms/Labs: (Consumer/Health Occup.,Home Econ., Marketing)	1	X 15	15
Workforce Development Labs: (Do not count associated classrooms)	3	X 15	45
Self-contained Exceptional Children Clrms:		X 10 =	0
Non-Capacity Spaces:			
Resource (Pull-Out Programs) Classrooms:		X 0 =	0
In-School Susp., Extra-Curric. Rooms:		X 0 =	0
Weight, Wrestling Rooms		X 0 =	0
Classroom used with a Vocational Lab:		X 0 =	0
(Do not count H.S. non-capacity spaces as teaching stations)			
TOTAL	33		737

New School Program

Handout #2

	DPI 600 (5/3/16)	DPI 800 (5/3/16)	600 Classroom/800 Core
Number of students	600	800	600
Core capacity	600	1,000	800
Exceptional Children (S/C)	1	1	1
Video Production fac.			
Dance/Drama	1	1	1
Gymnasium # seats	600	1,000	800
Wrestling (Y/N)	N	N	N
Auditorium (Y/N)	Y	Y	Y
Auditorium seats	240	400	400
Dining Servings	3	3	3

	TS	SF	No.	Total	TS	SF	No.	Total	TS	SF	No.	Total
Academic Classrooms:												
English	5	850	5	4,250	7	850	7	5,950	5	850	5	4,250
Foreign Language	2	850	2	1,700	2	850	2	1,700	2	850	2	1,700
Social Studies	4	850	4	3,400	5	850	5	4,250	4	850	4	3,400
Math	4	850	4	3,400	6	850	6	5,100	4	850	4	3,400
Science:												
Physical Science	1	1,200	1	1,200	2	1,200	2	2,400	1	1,200	1	1,200
Biology	2	1,200	2	2,400	2	1,200	2	2,400	2	1,200	2	2,400
Chemistry	1	1,500	1	1,500	1	1,500	1	1,500	1	1,500	1	1,500
Physics	1	1,200	1	1,200	1	1,200	1	1,200	1	1,200	1	1,200
Other Science	0	1,200	0	0		1,200	0	0	0	1,200	0	0
Prep rooms		250	2	500		250	3	750		250	2	500
M/SCI Computer Lab	0	850	0	0		850	0	0	0	850	0	0
sub-total	**20**			**19,550**	**26**			**25,250**	**20**			**19,550**

New School Program/Cost Handout #3

	DPI 600 (5/3/16)				DPI 800 (5/3/16)				Blend (600/800)			
Number of students				600				800				600
Core capacity				600				1,000				800
Exceptional Children (S/C)				1				1				1
Video Production fac.												
Dance/Drama				1				1				1
LA/SS/M/Sci Classrooms				20				26				20
Other Teaching Stations				13				15				13
Gymnasium - No. of Seats				600				1,000				800
Wrestling (Y/N)				N				N				N
Auditorium (Y/N)				Y				Y				Y
Auditorium seats				240				400				400
Dining Servings				3				3				3
Total Net Sq. Ft.				87,114				105,911				91,169
Walls, toilets, circ., mech @ 37.0%				32,232				39,187				33,733
Grand Total Square Footage				119,346				145,098				124,902
Land Acquisition (4k/acre)		46 Acres		$184,000		48 Acres		$192,000		46 Acres		$184,000
Construction Cost				$29,597,853				$35,984,321				$30,975,579
Soft Cost (17%)				$5,031,635				$6,117,335				$5,265,849
Project Budget				**$34,813,488**				**$42,293,656**				**$36,425,428**
Sq.Ft./Student				199				181				208
Optimal capacity				745				917				745
Total teaching stations	33				41				33			
Students/teaching station	18				20				18			

1. "Typical Space Profiles" are examples of possible school space programs that apply the NC Public Schools Facilities Guidelines. Profiles **are not** standards or mandates.
2. Costs do not include off-site improvements,
3. Probable Construction Cost is based on escalated 2015 data reported to DPI and other similar data.
4. "Blend" would involve construction of a 600 Classroom Capacity school with a Core Capacity for 800. School can increase classroom usage (increase capacity) with Block Scheduling when and if needed.

Updated 2008 Scenario Addition/Renovation Program

Handout #4

	Updated 2008 Scenario
Number of students	1,000
Core capacity	1,000
Exceptional Children (S/C)	2
Video Production fac.	
Dance/Drama	1
LA/SS/M/Sci Classrooms	25
Other Teaching Stations	15
Gymnasium - No. of Seats	1,200
Wrestling (Y/N)	Y
Auditorium (Y/N)	Y
Auditorium seats	480
Dining Servings	3

Updated 2008 Scenario Addition/Renovation Cost

Handout #4

New Construction		161,548	sf	40,063,904
Renovation		31,321	sf	4,071,730
Demolition		102,711	sf	986,026
Sitework		146,548	sf	3,693,010
Total Construction				$48,814,669
Soft Costs (17%)				$8,298,494
Total Updated Project Cost				**$57,113,163**

1. Construction Cost is based on escalated 2015 data reported to DPI and other similar data.
2. Soft Cost includes A/E fees, surveys, construction testing, furniture and equipment, contingency, etc.

Blended Approach Addition/Renovation Program

Handout #5

	Blend and Options
Number of students	600
Core capacity	800
Exceptional Children (S/C)	1
Video Production fac.	
Dance/Drama	1
LA/SS/M/Sci Classrooms	20
Other Teaching Stations	13
Gymnasium - No. of Seats	800
Wrestling (Y/N)	N
Auditorium (Y/N)	Y
Auditorium seats	400
Dining Servings	3

Blended Approach Addition/Renovation Cost

Handout #5

New Admin Suite		7,640	sf	$1,894,720
New Classrooms (2 Story)		12,000	sf	$2,976,000
New Dining/Kitchen		6,353	sf	$1,575,544
New Auditorium		7,100	sf	$1,760,800
New Gymnasium/Phys. Ed.		20,800	sf	$5,158,400
New Media Center		7,476	sf	$1,854,048
New CTE		10,500	sf	$2,604,000
Renovate 2 Story Classroom Bldg.		31,321	sf	$4,071,730
Demolition		102,711	sf	$986,026
Sitework		146,548	sf	$3,693,010
Total New Sq. Ft.		71,869	sf	
Walls, toilets, circ., mech (37%)		26,592	sf	$6,594,699
Construction Cost				$33,168,977
Soft Costs (17%)				$5,638,726
Project Budget				**$38,807,703**

1. Construction Cost is based on escalated 2015 data reported to DPI and other similar data.
2. Soft Cost includes A/E fees, surveys, construction testing, furniture and equipment, contingency, etc.

Handout #6

DPI Average School Cost - 2010 to 2017

AVERAGE SCHOOL COSTS

	#	Total Cost	Building Area		Cost/sq.ft.
Year : 2017					
Elementary	6	$127,503,995	595,200		$214.22
Elem/Middle	1	$25,183,584	130,319		$193.25
Middle	1	$39,780,754	224,000		$177.59
Totals/Avg:	8	**$192,468,333**	**949,519**	sq.ft.	**$202.70**
Year : 2016					
Elementary	6	$121,395,530	626,076		$193.90
Elem/Middle	1	$35,529,187	187,978		$189.01
Middle	3	$103,440,115	568,186		$182.05
Totals/Avg:	10	**$260,364,832**	**1,382,240**	sq.ft.	**$188.36**
Year : 2015					
Elementary	8	$143,342,030	762,514		$187.99
Elem/Middle	1	$26,140,080	129,283		$202.19
Middle	5	$133,835,739	752,027		$177.97
High	2	$111,064,948	512,194		$216.84
Totals/Avg:	16	**$414,382,797**	**2,156,018**	sq.ft.	**$192.20**
Year : 2014					
Elementary	5	$82,265,786	481,495		$170.85
Middle	5	$132,025,595	624,547		$211.39
High	1	$57,234,177	328,979		$173.98
Totals/Avg:	11	**$271,525,558**	**1,435,021**	sq.ft.	**$189.21**

Costs are contract amounts for new schools and do not include land, furnishings, design fees, surveys, testing or legal expense. All schools are not included - only reports received.

SCHOOL PLANNING, NCDPI
07-Dec-17

Issues for a New vs. Addition/Renovation

- Decision – new versus addition/renovation project
  - Community/Staff/User Group input to Board(s)
  - Board(s) decision
- New School Project:
  - Everything is new
  - The program will meet current and future needs
  - Campus/building security easily incorporated into new design
  - Less expensive to incorporate technology rich classrooms (CoT)
  - Construction will cost less per square foot
  - More energy efficient
- Addition/Renovation Project:
  - History – memories – community "Node"
  - Stay at current location
  - More difficult to incorporate up-to-date campus/building security
  - Continued need for Asbestos Management Plan (AHERA)
  - Do not need to go through land purchase process
  - Spread out Cash Flow over longer period of time

Project Comparison

Handout #7

	A/R Blended				A/R Updated 2008 Scenario				New HS (600/800)			
Number of students				600				1,000				600
Core capacity				800				1,000				800
Exceptional Children (S/C)				1				2				1
Video Production fac.												
Dance/Drama				1				1				1
LA/SS/M/Sci Classrooms				20				25				20
Other Teaching Stations				13				15				13
Gymnasium - No. of Seats				800				1,200				800
Wrestling (Y/N)				N				Y				N
Auditorium (Y/N)				Y				Y				Y
Auditorium seats				400				480				400
Dining Servings				3				3				3
New Construction		71,869		17,823,512		161,548		40,063,904		91,169		22,609,912
Renovated Area		31,321		4,071,730		31,321		4,071,730		0		0
Demolition		102,711		986,026		102,711		986,026		0		0
Sitework		146,548		3,693,010		146,548		3,693,010		0		0
Walls, toilets, circ., mech @ 37.0%		26,592		6,594,699		0		0		33,733		8,365,667
Grand Total Square Footage		129,782				192,869				124,902		30,975,579
Land Acquisition (4k/acre)				$0						46 Acres		$184,000
Construction Cost				$33,168,977				$48,814,669				$30,975,579
Soft Cost (17%)				$5,638,726				$8,298,494				$5,265,849
Project Budget				**$38,807,703**				**$57,113,163**				**$36,425,428**
Construction Time		3 years				3 years				2 years		
Escalation (7% per year)				$3,482,743				$5,125,540				$2,168,291
Total Project Budget				**$42,290,445**				**$62,238,703**				**$38,593,719**
Sq.Ft./Student				216				193				208
Optimal capacity				745				917				745
Total Teaching station	33				41				33			

Construction Cost Comparison

- 2008 Project
  - New Construction 165.41/SF
  - Site Work 20.77/SF
  - Demolition 8.05/SF
  - Renovation 90.76/SF
  - Soft Costs 17.6%
- 2015 Facility Needs Survey
  - New Construction 183.02/SF
  - Site Work 23.79/SF
  - Demolition 16.20/SF
  - Renovation 26.73/SF
  - Soft Costs 20.4%
- Current Scenarios
  - New Construction 248.00/SF
  - Site Work 25.20/SF
  - Demolition 9.60/SF
  - Renovation 130.00/SF
  - Soft Costs 17%

Funding Mechanisms

- Tier 1 Funds
  - $15,000,000
  - Will it be available; any restrictions?
  - Project must be very near to “shovel ready”
- Local Bond Referendum
  - Decision
  - What amount? Get current cost estimate or update budget before amount is finalized
  - Will it pass?
- County - Capital Funding

Reality Check and Next Steps

- Issues related to build new or renovate
  - New:
    - Start fresh and everything is new and meets current needs
    - No slow downs due to avoiding students attending classes or school schedules
    - The program of spaces will meet current/future educational trends
    - Cost less per square foot due to easier construction; shorter build-out timeframe
    - Quicker turn around for a completed project
  - Addition/Renovation:
    - Stay at current location – History, memories, "Community Node"
    - Do not need to go through land purchase process
    - Spread out Cash Flow over longer period of time by 1 year
    - Messy construction process; school schedule; student interfacing; close coordination with the removal of ACBM's (for the protection of students, staff, and contractors)

Reality Check and Next Steps

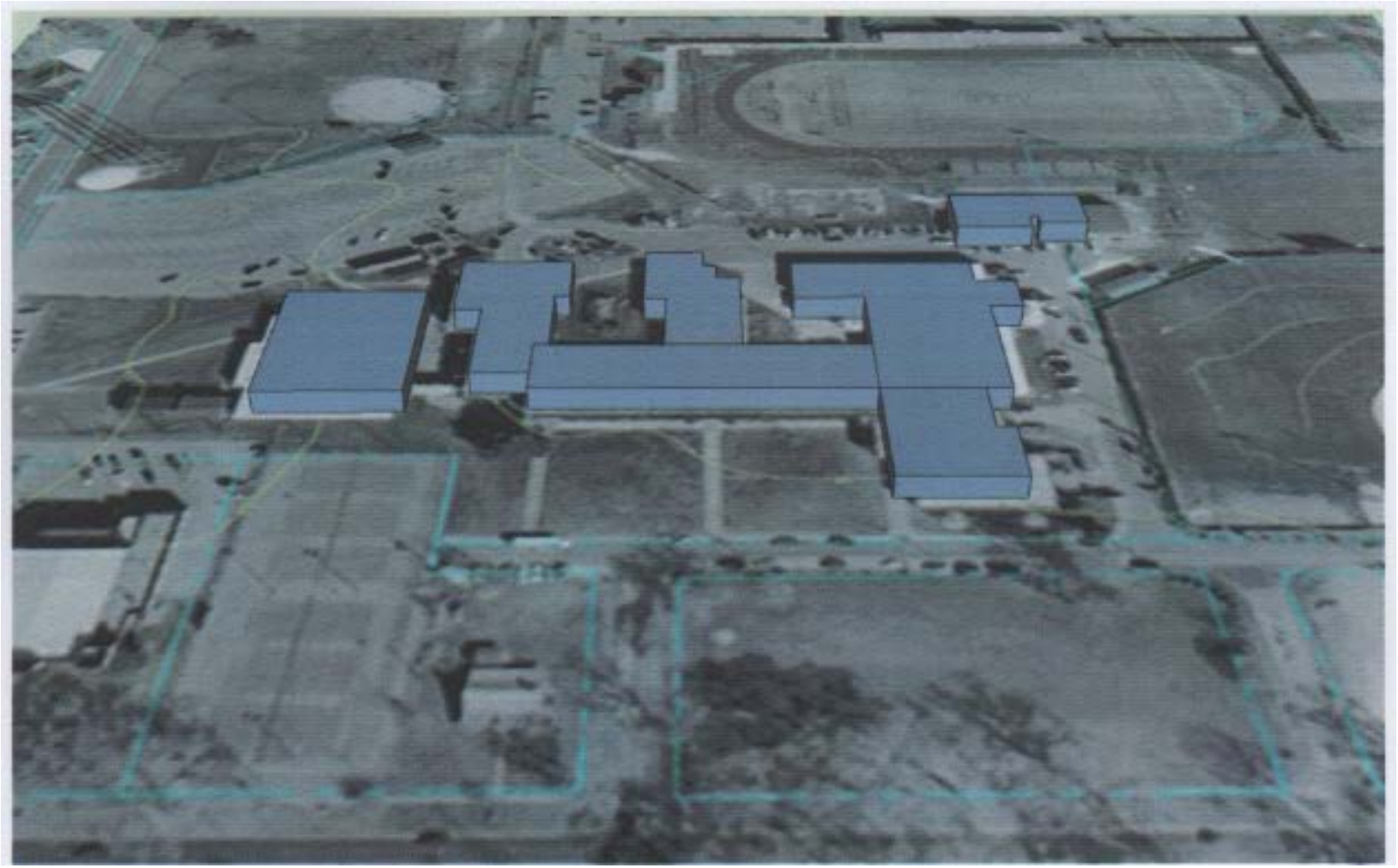
- Decision – new versus addition/renovation project
  - Board(s) based decision
  - Community/User Group/Staff input
- What can realistically be done with possible fund types.
  - Tier 1 Funds - $15,000,000
  - Local Bond/County Capital Funding – updated budget or a current cost estimate must be done just before a decision is made
- The Bond Project
  - Bond Package can be put together without hiring an architectural firm
  - Community meetings to educate and gather support
  - Define the Scope of the project; helps establish funding needs; Work with the BoCC, County Manager/CFO, and LGC for timing/amount
  - Ask for more than you may need; you don't have to spend it all
  - Construction cost for new and renovation is not very predictable
- The Project (post bond)
  - Retain an architectural firm
  - Involve the community and users in design process – Interactive Design

Project Phasing

- New vs. Renovation/Addition:
  - New: 2 year construction process
    - Acquire property
    - Retain A/E firm for design
    - Design/Bid
    - Build
    - Move-in
  - Addition/Renovation: 3 year construction process
    - Retain A/E firm
    - Design/Bid
    - Build Auditorium/Dining/Media Ctr.
    - Demolish Auditorium/Media Ctr.; Build Gymnasium
    - Demolish Gym/Dining; Build classroom addition, new Admin Suite and new CTE building; renovate 2 story classroom building

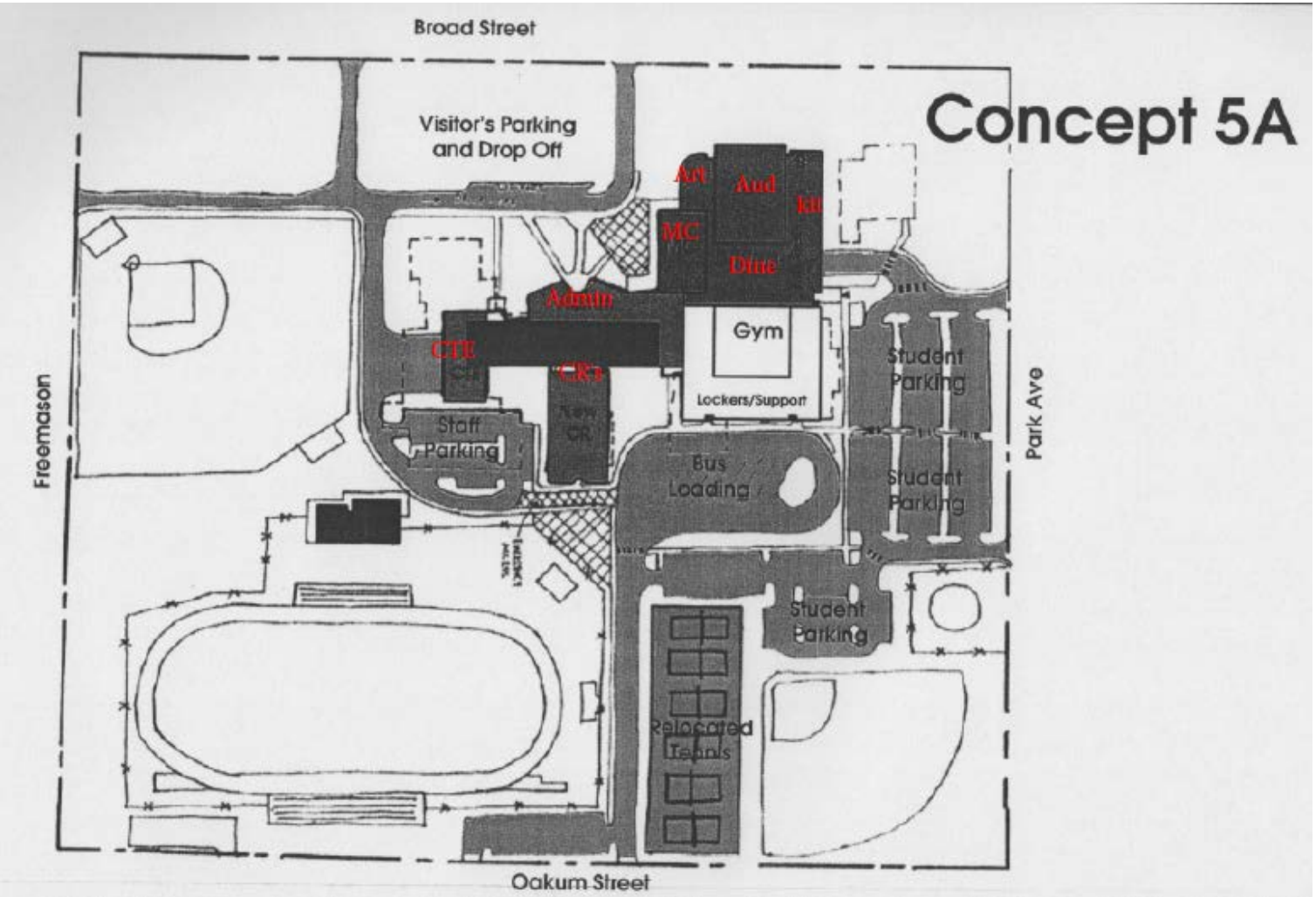
Existing Facility

(2008 Moseley Architects image)



Completed A/R

(2008 Moseley Architects image)



Completed A/R

(2008 Moseley Architects image)

Discussion Period

- Decision to build a new school or do an addition/renovation project
- Assess existing school to determine real needs for A/R project (school profile)
- Funds that will be needed for the selected project
- Amount needed from the county, a local bond, or both