

**INTRAGOVERNMENTAL MEMORANDUM OF UNDERSTANDING  
BY AND BETWEEN  
THE KNOX COUNTY COMMISSION,  
THE MAYOR OF KNOX COUNTY  
AND  
THE KNOX COUNTY BOARD OF EDUCATION**

**THIS INTRAGOVERNMENTAL** Memorandum of Understanding and Agreement is made and entered into this 1<sup>st</sup> day of July, 2015 among Knox County, a political subdivision of the State of Tennessee, a Home Rule Public Corporation and Charter Government and its elected entities, Knox County Commission, the Mayor of Knox County and the Knox County Board of Education.

**WITNESSETH**

**WHEREAS** the County Commission desires to support the Mayor's initiatives to enhance and improve public education in Knox County; and

**WHEREAS**, the Mayor wishes Knox County teachers to receive appropriate compensation for their dedicated service; and

**WHEREAS**, the Mayor desires that the Hardin Valley and Gibbs communities receive the middle schools that their communities need; and

**WHEREAS**, the Mayor desires to place the Andrew Johnson Building back on the County and City tax rolls, thereby promoting economic development in Knox County; and

**WHEREAS**, the Mayor desires to assist Knox County Board of Education in a mutual effort to enhance fiscal responsibilities; and

**WHEREAS**, the Knox County Board of Education desires to achieve Excellence for Every Child, values Knox County Schools' (KCS) teachers and seeks to ensure a competitive and professional level of compensation for them; and

**WHEREAS**, the Knox County Board of Education makes decisions that are fiscally and educationally responsible, and desires to provide the best possible learning environment for KCS students.

**NOW, THEREFORE** the parties do hereby mutually agree as follows:

**TEACHER COMPENSATION**

1. Knox County will pay Knox County Schools \$3 million on or after November 24, 2015 for the purpose of a one-time planned APEX bonus for teachers which shall free up recurring revenue to enable teachers to receive a raise of approximately 2 percent. This one-time payment will be treated as a transfer, which, by definition, is not a component included in Maintenance of Effort. This will be in addition to \$1 million of cuts Knox County Schools will make, which amount will be contributed to the raise.
2. Knox County Commission will amend the Mayor's 2016 Proposed Budget to include this one-time bonus.

3. Knox County will pay to the Schools' payroll account, the sum of three million dollars (\$3,000,000.00) on or after November 24, 2015.
4. Knox County Board of Education agrees that the aforementioned one million dollars (\$1,000,000.00) in cuts shall fund raises for certified teachers.
5. Knox County Board of Education agrees the raises herein set out shall be in addition to the normal step raises to which certified teachers are otherwise entitled and awarded.

#### **CONSTRUCTION OF HARDIN VALLEY and GIBBS MIDDLE SCHOOLS**

6. Knox County Commission shall amend the proposed 2016-2020 Capital Improvement Plan to include the building of both Hardin Valley & Gibbs Middle Schools.
7. Knox County will design and build Hardin Valley Middle School in an amount not to exceed thirty-four million, five hundred thousand dollars (\$34,500,000.00). The procedure shall be by a public "design/build" procurement process as dictated by Knox County Charter and Knox County Code. This capital expenditure amount shall be included in the annual debt service of the Knox County Board of Education.
8. Knox County will design and build Gibbs Middle School in an amount not to exceed thirty million, dollars (\$30,000,000.00). The procedure shall be by a public "design/build" procurement process as dictated by Knox County Charter and Knox County Code. This capital expenditure shall be in two (2) parts, the first part is twenty-one million dollars (\$21,000,000.00) which shall be included in the annual debt service of the Knox County Board of Education. Any amount in excess of this first part (\$21,000,000.00) shall be included in the Knox County debt service. The Board of Education portion of the bonds shall be issued and used first.
9. The bid requests will be for high-quality, modern school buildings and construction techniques in accordance with state standards and with every effort made to meet local design standards.
10. The construction of each school shall be tracked by separate organization codes, with all expenditures being charged correctly.
11. The annual totals on the revised Schools Capital Improvement Plan (attached hereto as Exhibit A) shall not be amended until Fiscal Year 2021, unless by mutual agreement of all parties.

#### **SALE OF ANDREW JOHNSON BUILDING**

12. Knox County Commission and the Knox County Mayor desire to develop a plan to sell the Andrew Johnson Building and for the Knox County Schools operations to relocate to another facility. Knox County Purchasing will locate amenable sites and present them to the Board of Education for consideration. The Knox County Schools and Knox County Government commit to working cooperatively in this effort to select an appropriate new site and relocate the school system's headquarters.

#### **FISCAL RESPONSIBILITY**

13. Both the Knox County and Knox County Board of Education finance departments shall work together to provide quarterly reports to the Mayor, the Knox County Board of Education and the Knox County Commission to identify ways and means to reduce education expenditures in order for the Board

of Education to advance the 2020 Plan and make certain the annual operating expenses of the two (2) new middle schools are appropriately and fully funded. These reports shall be presented on a quarterly basis at the Knox County Commission Finance Committee meetings.

14. To achieve these efficiencies, recommendations may include, but are not limited to, the following: cutting failing programs, reducing employees and looking at traditional class schedules.

15. Knox County Board of Education shall implement a written plan to reconstitute its unassigned fund balance to be equal to, at least, one month of school payroll.

16. Beginning in 2017, Knox County Board of Education shall begin a 3 year phase-out of the Mayor's Reading Initiative.

17. If an economic downturn were occur within the next 3 years, the Board of Education shall implement the necessary reductions in expenditures to maintain adequate funding for the operation and debt service of the two (2) new schools referenced herein.

18. The Board of Education shall strive to propose budgets through Fiscal Year 2019 within revenue projections provided by the Knox County Finance Department and agreed upon by the Schools' Finance Department.

**WHEREFORE**, the parties, having passed the appropriate resolution, set their hands this 1st day of July, 2015.

\_\_\_\_\_  
Chairman, Knox County Commission, Brad Anders

\_\_\_\_\_  
Knox County Mayor, Tim Burchett

Michael M McMillan  
Chairman, Knox County Board of Education, Mike McMillan

Approved by  
Knox County Board of Education  
7/1/2015 (JG)

Contract No.: 15-276

APPROVED AS TO LEGAL FORM

\_\_\_\_\_  
Knox County Law Director      Date

## Proposed Capital Improvement Plan

Project Name	FY 16	FY 17	FY 18	FY 19	FY 20	Past 5 Years	Total Estimated Project Cost
<b>Approved Projects:</b>							BOE App'd 4-13-15
1 Physical Plant Upgrades	\$2,500,000	\$3,500,000	\$3,000,000	\$3,500,000	\$3,500,000	\$3,500,000	\$19,500,000
2 Roof /HVAC Upgrades	\$2,500,000	\$3,000,000	\$3,000,000	\$3,500,000	\$3,500,000	\$3,500,000	\$19,000,000
3 Land Acquisition	\$400,000						\$400,000
4 Foundation Stabilization		\$400,000		\$500,000			\$900,000
5 BEP Growth (Modular Classroom Relocation)	\$400,000	\$400,000		\$400,000	\$400,000		\$1,600,000
6 Security Upgrades	\$2,000,000	\$2,500,000	\$2,000,000				\$6,500,000
7 Technology Upgrades	\$350,000						\$350,000
8 School Accessibility		\$200,000					\$200,000
9 Additions/Renovations to Pond Gap	\$6,750,000	\$250,000					\$7,000,000
10 Karns High School Remedial Upgrades	\$750,000						\$750,000
11 New Hardin Valley Middle School	\$1,500,000	\$31,000,000	\$2,000,000				\$34,500,000
12 Drive/Parking Upgrades	\$500,000						\$500,000
13 New Gibbs Middle School	\$1,500,000	\$18,000,000	\$1,500,000				\$21,000,000
14 Renovation/Addition to Adrian Burnett Elementary School				\$4,500,000			\$4,500,000
15 Additions/Renovations to Powell High School		\$3,000,000					\$3,000,000
16							
17 <b>Total KCS Portion</b>	<b>\$19,150,000</b>	<b>\$62,250,000</b>	<b>\$11,500,000</b>	<b>\$12,400,000</b>	<b>\$7,400,000</b>	<b>\$7,000,000</b>	<b>\$112,700,000</b>
18							
19 <b>County Funded Portion</b>							
20 New Gibbs Middle School		\$9,000,000					\$9,000,000
21							
22							
23 <b>Grand Total - School Projects</b>	<b>\$19,150,000</b>	<b>\$71,250,000</b>	<b>\$11,500,000</b>	<b>\$12,400,000</b>	<b>\$7,400,000</b>	<b>\$7,000,000</b>	<b>\$121,700,000</b>

Attachment A to Intergovernmental Memorandum of Agreement (1 July 2015)

Attachment B to the FY2020 Capital Plan Recommendation

	B	C	D	E	F	G	H	I
1	<b>FY20 Capital Improvement Plan Draft</b>							
2								
3								
4								
5	<b>Project Name</b>							<b>Total</b>
6								<b>Budgeted</b>
7			<b>FY 20</b>	<b>FY 21</b>	<b>FY 22</b>	<b>FY23</b>	<b>FY24</b>	<b>Project Cost</b>
8	<b>Approved Projects:</b>							
9	Physical Plant Upgrades		\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$6,000,000
10	HVAC Upgrades		\$1,430,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$7,430,000
11	Roof Upgrades		\$1,120,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	
12	Foundation Stabilization			\$250,000		\$250,000		\$500,000
13	BEP Growth (Modular Classroom Purchase/Relocation)		\$750,000	\$500,000	\$500,000	\$250,000	\$250,000	\$2,250,000
14	Systemwide Drives, Parking and Paving		\$700,000	\$500,000	\$500,000	\$500,000	\$1,500,000	\$3,700,000
15	Environmental Testing and Remediation			\$100,000	\$100,000	\$100,000	\$100,000	\$400,000
16	Halls High School General Renovation			\$1,000,000				\$1,000,000
17	Gibbs High School Stadium Upgrade			\$2,000,000				\$2,000,000
18	Technology Upgrades		\$400,000	\$300,000	\$300,000	\$300,000	\$300,000	\$1,600,000
19	Security Upgrades		\$1,500,000	\$1,500,000	\$750,000	\$750,000	\$750,000	\$5,250,000
20	School Accessibility		\$100,000		\$100,000		\$100,000	\$300,000
21	Tipton Station Crossing		\$1,300,000					\$1,300,000
22	Lonsdale Construction		\$3,000,000	\$14,000,000	\$2,000,000			\$19,000,000
23	Land Acquisition		\$2,500,000					\$2,500,000
24	Northwest Elementary School Construction			\$3,000,000	\$15,000,000	\$4,000,000		\$22,000,000
25	North-Central Elementary Solution							
26		Brickey-McCloud 200 Student Addition		\$3,000,000				\$3,000,000
27		Sterchi Addition 250 student addition				\$1,800,000	\$5,200,000	\$7,000,000
28		Adrian Burnett Construction	\$1,000,000	\$2,800,000	\$12,600,000	\$2,600,000		\$19,000,000
29	<b>Grand Total - School Projects</b>		<b>\$15,800,000</b>	<b>\$32,950,000</b>	<b>\$35,850,000</b>	<b>\$14,550,000</b>	<b>\$12,200,000</b>	<b>\$111,350,000</b>
30								

# Knox County Schools

## PPU 2020 DRAFT

Electrical	Request Description	Below the line	Budgeted
Systemwide	Correct fire alarm and sprinkler deficiencies		
Systemwide	Upgrade fire alarm systems to provide carbon monoxide detection at school with gas fired boilers and water heaters.		
Systemwide	Procurement of electronic signage		
Bearden High	Install new primex clock system		
Gresham Middle	Replace the main switchgear		
Karns Elementary and Annex	Install new intercom system		
West Haven Elementary	Install new fire alarm system with voice evac		
Farragut Intermediate	Install fire alarm notification in handicap areas		
Farragut Middle	Install fire alarm notification in handicap areas		
Farragut Primary	Install fire alarm notification in handicap areas		
<b>Subtotal</b>		<b>\$60,000</b>	<b>\$ 765,000</b>

Flooring	Request Description		Budgeted
Systemwide	Hardwood floor repairs and refinishing at various sites		
Bearden High	Replace the carpet in the library		
Beaumont Magnet	Replace the gym floor		
Central High	Replace the gym floor		
Gibbs High	Replace the carpet in the library		
West Hills	Phase 1- Remove the carpet and replace with VCT		
<b>Subtotal</b>			<b>\$ 335,000</b>

FFE	Request Description		Budgeted
Systemwide	Systemwide F.F.E		
Systemwide	Elevator Renovations		
A.L.Lotts Elementary	Replace the cafeteria tables		
Carter High	Replace the gym bleachers		
Gibbs Middle	Install stage curtains		
Gibbs High	Replace the auditorium seating		
	<b>Subtotal</b>		<b>\$ 710,000</b>

General Construction	Request Description		Budgeted
Systemwide	Replace the whiteboards at various sites		
Systemwide	Portable repairs at various sites		
Systemwide	Replace bathroom partitions and restroom upgrades at various sites		
Systemwide	Stadium and athletic seating repairs and upgrades at various sites		
Hardin Valley Academy	Resurface the running track		
Hardin Valley Elementary	Grind and polish the art room floors		
West Valley Middle	Grind and polish the art room floors		
Ball Camp Elementary	Replace the remaining old windows		
Ball Camp Elementary	Replace the remaining old storefront entrances		
Bearden High	Softball building solution		
Beaumont Elementary	Replace the lockers		
Halls High	Install steps and rails from the fieldhouse to the track		
Hardin Valley Middle	Replace the countertops in all the group restrooms		
Karns Elementary	Replace the tile in the kitchen		
Norwood Elementary	Replace the windows		
South Doyle High	Replace the lockers		
West Hills Elementary	Remove carpet from the hallway walls		
	<b>Subtotal</b>	<b>\$1,360,000</b>	<b>\$ 580,000</b>

Grounds	Request Description		Budgeted
A.L. Lotts Elementary	Remove playground from the courtyard area		
Karns High	Reconstruct the tennis courts		
			<b>\$ 240,000</b>

<b>Plumbing</b>	<b>Request Description</b>		<b>Budgeted</b>
Systemwide	Replace plumbing fixtures at various sites		
Bearden Middle	Replace the main water line		
Gap Creek	Sewage solution		
Ritta Elementary	Connect the sanitary sewer to the KUB sewer system		
	<b>Subtotal</b>		<b>\$ 840,000</b>

<b>Urgent Needs</b>	<b>Request Description</b>		<b>Budgeted</b>
	<b>Subtotal</b>	<b>\$1,420,000</b>	<b>\$ 3,470,000</b>

<b>Total Budgeted Needs</b>	<b>\$ 3,470,000</b>
<b>Funded through accumulated savings in the PPU</b>	<b>\$ 1,470,000</b>
<b>Total Funded through 2020 CIP plan</b>	<b>\$ 2,000,000</b>

Knox County Schools  
**Roofs 2020 DRAFT**

Roofs	D	W/O	Project	Request Description	Below the line	Budgeted
Fair Garden Family Center				Full roof replacement (approx. 24,810 sf - 9,120 sf Modified, 6,720 sf Shingles, 8,970 sf EPDM)		
Karns Middle				Partial roof replacement - Sections A, B, C, D, H, J (approx. 80,000 sf Modified)		
				<b>Subtotal</b>	<b>\$ -</b>	<b>\$ 1,120,000</b>
<b>Grand Total</b>					<b>\$ -</b>	<b>\$ 1,120,000</b>

## Knox County Schools

### HVAC 2020 DRAFT

HVAC	D	W/O	Project	Request Description	Below the line	Budgeted
Systemwide				Cooling tower and chiller repairs at various sites		
Systemwide				Install MDF/IDF ductless split units at various sites		
Austin East High				Replace various units in the courtyard and upper mezzanine		
Farragut Middle/Inter.				Replace the HVAC units in the mezzanine commons area		
Fulton High				Install HVAC in the gym		
Halls High				Replace the HVAC unit in the library		
Halls Middle				Replace the rooftop unit that serves room 245 area		
Holston Middle				Replace the HVAC units in the auditorium		
South Doyle High				Install HVAC in the gym		
<b>Subtotal</b>					\$ -	\$ 1,430,000
Other	D	W/O	Project	Request Description	Below the line	
<b>Subtotal</b>					\$ -	
<b>Grand Total</b>					\$ -	\$ 1,430,000

Attachment E to FY2020 Capital Plan Recommendation  
Knox County Schools  
Asphalt Evaluation Priority List 2018-2019

SCHOOL

GAP CREEK ELEMENTARY Completed FY2019  
GRESHAM MIDDLE Completed FY2019  
VINE MIDDLE To Be Completed FY2019  
BEARDEN MIDDLE To Be completed FY2020  
POWELL ELEMENTARY To Be Completed FY2019  
SOUTH KNOX ELEMENTARY To Be Completed FY2019  
CHILHOWEE ELEMENTARY  
RICHARD YOAKLEY  
RIDGEDALE  
BYINGTON SOLWAY VOCATIONAL  
CARTER HIGH  
FT SANDERS EDUCATIONAL DEVELOPMENTAL CENTER  
GREEN MAG ELEMENTARY  
KARNS ANNEX  
LONSDALE ELEMENTARY  
WHITTLE SPRINGS MIDDLE  
BEARDEN HIGH / VOCATIONAL  
FARRAGUT MIDDLE/INTERMEDIATE  
ROCKY HILL ELEMENTARY  
SOUTH DOYLE YOUNG  
SPRING HILL ELEMENTARY  
BEAUMONT ELEMENTARY  
CARTER MIDDLE  
EAST KNOX ELEMENTARY  
FARRAGUT HIGH  
LINCOLN PARK VOCATIONAL  
SOUTH DOYLE MIDDLE  
STERCHI ELEMENTARY  
WEST HIGH  
A L LOTTS ELEMENTARY  
BELLE MORRIS ELEMENTARY  
COPPER RIDGE ELEMENTARY  
FULTON HIGH  
HALLS MIDDLE  
BLUE GRASS ELEMENTARY  
FAIR GARDEN CENTER  
FARRAGUT PRIMARY  
BEARDEN ELEMENTARY  
BONNIE KATE ELEMENTARY  
CORRYTON ELEMENTARY  
KAEC  
KARNS ELEMENTARY  
POWELL HIGH  
WESTVIEW ELEMENTARY  
NORTHWEST MIDDLE  
SAM E HILL ELEMENTARY

Knox County Schools  
Asphalt Evaluation Priority List 2018-2019

NORTH KNOX VOCATIONAL  
CEDER BLUFF PRE-K  
CHRISTENBERRY ELEMENTARY  
GIBBS HIGH  
HALLS HIGH  
**KARNS MIDDLE**  
NEW HOPEWELL ELEMENTARY  
SOUTH DOYLE HIGH  
WEST HAVEN ELEMENTARY  
CEDAR BLUFF MIDDLE  
HARDIN VALLEY ACADEMY  
NORWOOD ELEMENTARY  
SARA MOORE GREEN ELEMENTARY  
FOUNTIAN CITY ELEMENTARY  
INSKIP ELEMENTARY  
KARNS HIGH  
HOLSTON MIDDLE  
AMHERST ELEMENTARY  
CENTRAL HIGH  
HARDIN VALLEY ELEMENTARY  
MOUNT OLIVE ELEMENTARY  
L&N  
ADRIAN BURN E n ELEMENTARY  
CEDER BLUFF PRIMARY  
MAYNARD ELEMENTARY  
MOORELAND HEIGHTS ELEMENTARY  
POWELL MIDDLE  
RIITA ELEMENTARY  
WEST HILLS ELEMENTARY  
WEST VALLEY MIDDLE  
AUSTIN EAST HIGH  
BALL CAMP ELEMENTARY  
BRICKY McCLOUD ELEMENTARY  
CARTER ELEMENTARY  
DOGWOOD ELEMENTARY  
GIBBS ELEMENTARY  
HALLS ELEMENTARY  
NORTHSHORE ELEMENTARY  
PLEASANT RIDGE ELEMENTARY  
SARAH SIMPSON PROFESSIONAL DEVELOPMENT CENTER  
SEQUOYAH ELEMENTARY  
SHANNONDALE ELEMENTARY  
SUNNY VIEW ELEMENTARY  
POND GAP ELEMENTARY

Knox County Schools  
Asphalt Evaluation 2018-2019

<u>SCHOOL</u>	<u>%GOOD</u>
ADRIAN BURNED ELEMENTARY	95
A L LOTIS ELEMENTARY	75
AMHERST ELEMENTARY	90
AUSTIN EAST HIGH	98
BALL CAMP ELEMENTARY	98
BEARDEN ELEMENTARY	80
BEARDEN HIGH/ VOCATIONAL	65
BEARDEN MIDDLE	30
BEAUMONT ELEMENTARY	70
BELLE MORRIS ELEMENTARY	75
BLUE GRASS ELEMENTARY	78
BONNIE KATE ELEMENTARY	80
BRICKY McCLOUD ELEMENTARY	98
BYINGTON SOLWAY VOCATIONAL	60
CARTER ELEMENTARY	98
CARTER HIGH	60
CARTER MIDDLE	70
CEDER BLUFF PRE-K	85
CEDER BLUFF PRIMARY	95
CEDAR BLUFF MIDDLE	87
CENTRAL HIGH	90
CHILHOWEE ELEMENTARY	50
CHRISTENBERRY ELEMENTARY	85
COPPER RIDGE ELEMENTARY	75
CORRYTON ELEMENTARY	80
DOGWOOD ELEMENTARY	98
EAST KNOX ELEMENTARY	70
FAIR GARDEN CENTER	78
FARRAGUT HIGH	70
FARRAGUT MIDDLE/INTERMEDIATE	65
FARRAGUT PRIMARY	78
FOUNTIAN CITY ELEMENTARY	88
FT SANDERS EDUCATIONAL DEVELOPMENTAL CENTER	60
FULTON HIGH	75
GAP CREEK ELEMENTARY	10
GIBBS ELEMENTARY	98
GIBBS HIGH	85
GREEN MAG ELEMENTARY	60
GRESHAM MIDDLE	20
HALLS ELEMENTARY	98
HALLS HIGH	85
HALLS MIDDLE	75
HARDIN VALLEY ACADEMY	87
HARDIN VALLEY ELEMENTARY	90
HOLSTON MIDDLE	89
INSKIP ELEMENTARY	88

Knox County Schools  
Asphalt Evaluation 2018-2019

KAEC	80		
KARNS ANNEX	60		
KARNS ELEMENTARY	80		
KARNS HIGH	88		
KARNS MIDDLE	85		
L&N	92		
LINCOLN PARK VOCATIONAL	70		
LONSDALE ELEMENTARY	60		
MAYNARD ELEMENTARY	95		
MOORELAND HEIGHTS ELEMENTARY	95		
MOUNT OLIVE ELEMENTARY	90		
NEW HOPEWELL ELEMENTARY	85		
NORTH KNOX VOCATIONAL	84		
NORTHSHORE ELEMENTARY	98		
NORTHWEST MIDDLE	82		
NORWOOD ELEMENTARY	87		
PLEASANT RIDGE ELEMENTARY	98		
POND GAP ELEMENTARY	99		
POWELL ELEMENTARY	40		
POWELL HIGH	80		
POWELL MIDDLE	95		
RICHARD YOAKLEY	50		
RIDGEDALE	50		
RITIA ELEMENTARY	95		
ROCKY HILL ELEMENTARY	65		
SAME HILL ELEMENTARY	83		
SARA MOORE GREEN ELEMENTARY	87		
SARAH SIMPSON PROFESSIONAL DEVELOPMENT CENTER	98		
SEQUOYAH ELEMENTARY	98		
SHANNONDALE ELEMENTARY	98		
SOUTH DOYLE HIGH	85		
SOUTH DOYLE MIDDLE	70		
SOUTH DOYLE YOUNG	65		
SOUTH KNOX ELEMENTARY	40		
SPRING HILL ELEMENTARY	65		
STERCHI ELEMENTARY	70		
SUNNY VIEW ELEMENTARY	98		
VINE MIDDLE	25		
WEST HAVEN ELEMENTARY	85		
WEST HIGH	70		
WEST HILLS ELEMENTARY	95		
WEST VALLEY MIDDLE	96		
WESTVIEW ELEMENTARY	80		
WHITILE SPRINGS MIDDLE	60		

# Attachment F to FY2020 Capital Plan Recommendation

## KCS

Phone Project Status  
Update: Feb. 28, 2018

Projects Complete	
1	A.J. BUILDING / CENTRAL OFFICE Complete
2	A.L. LOTT'S ELEMENTARY Complete
3	ADRIAN BURNETTE ELEMENTARY Complete
4	AMHERST ELEMENTARY Complete
5	BALL CAMP ELEMENTARY Complete
6	BEARDEN ELEMENTARY Complete
7	BEARDEN MIDDLE SCHOOL Complete
8	BEAUMONT MAGNET Complete
9	BELLE MORRIS ELEMENTARY Complete
10	BLUEGRASS ES Complete
11	BONNY KATE ELEMENTARY Complete
12	BRICKEY-MCCLOUD ELEMENTARY Complete
13	BYINGTON SOLWAY CTE CENTER Complete
14	CAREER MAGNET ACADEMY Complete
15	CARTER ELEMENTARY Complete
16	CARTER HIGH SCHOOL Complete
17	CEDAR BLUFF MIDDLE SCHOOL Complete
18	CENTRAL HIGH SCHOOL Complete
19	CHILHOWEE INTERMEDIATE Complete
20	CHRISTENBERRY ELEMENTARY Complete
21	COPPER RIDGE ELEMENTARY Complete
22	DOGWOOD ELEMENTARY Complete
23	EAST KNOX ELEMENTARY Complete
24	FAIR GARDEN FAMILY COMMUNITY CENTER Complete
25	FORT SANDERS EDU DEV. CENTER Complete
26	GAP CREEK ELEMENTARY Complete
27	GIBBS ELEMENTARY Complete
28	GIBBS HIGH SCHOOL Complete
29	GIBBS MIDDLE SCHOOL Complete
30	GRESHAM MIDDLE SCHOOL Complete
31	HALLS MIDDLE SCHOOL Complete
32	HARDIN VALLEY ELEMENTARY Complete
33	HARDIN VALLEY MIDDLE Complete
34	HOLSTON MIDDLE Complete
35	INSKIP ELEMENTARY Complete
36	KARNS ELEMENTARY SCHOOL Complete
37	KARNS HIGH SCHOOL Complete
38	KARNS MIDDLE SCHOOL Complete
39	KNOX COUNTY CENTRAL Complete
40	L&N STEM ACADEMY Complete
41	LONSDALE ELEMENTARY Complete
42	MAINTENANCE / 5TH AVE & RULE Complete
43	MOORELAND HEIGHTS ELEMENTARY Complete
44	MOUNT OLIVE ELEMENTARY Complete
45	NEW HOPEWELL ELEMENTARY Complete
46	NORTHSHORE ELEMENTARY Complete
47	NORTHWEST MIDDLE SCHOOL Complete
48	NORWOOD ELEMENTARY Complete
49	PAUL KELLEY VOL. ACADEMY / LINCOLN PARK Complete
50	PLEASANT RIDGE ELEMENTARY Complete
51	POND GAP ELEMENTARY Complete
52	POWELL ELEMENTARY Complete
53	POWELL HIGH SCHOOL Complete
54	POWELL MIDDLE SCHOOL Complete
55	RIDGEDALE ALTERNATIVE SCHOOL Complete
56	RITTA ELEMENTARY Complete
57	SARAH MOORE GREENE MAGNET Complete
58	SARAH SIMPSON TRAINING CENTER Complete
59	SEQUOYAH ELEMENTARY Complete
60	SOUTH DOYLE MIDDLE SCHOOL Complete
61	SOUTH KNOXVILLE ELEMENTARY Complete
62	SPRING HILL ELEMENTARY Complete
63	SUNNYVIEW PRIMARY Complete
64	VINE MAGNET MIDDLE MAGNET Complete
65	WEST HAVEN ELEMENTARY Complete
66	WEST HIGH SCHOOL Complete
67	WEST HILLS ELEMENTARY Complete
68	WEST VALLEY MIDDLE SCHOOL Complete
69	WHITTLE SPRINGS MIDDLE SCHOOL Complete

Committed Installs FY19	
1	FAIR GARDEN FAMILY COMMUNITY CENTER Complete
2	A.J. BUILDING / CENTRAL OFFICE Complete
3	EAST KNOX ELEMENTARY Complete
4	PAUL KELLEY VOL. ACADEMY / LINCOLN PARK Complete
5	MAINTENANCE / 5TH AVE & RULE Complete
6	NEW HOPEWELL ELEMENTARY Complete
7	L&N STEM ACADEMY Complete
8	CAREER MAGNET ACADEMY Complete
9	KARNS ELEMENTARY SCHOOL Complete
10	FORT SANDERS EDU DEV. CENTER Complete
11	CARTER ELEMENTARY Complete
12	RIDGEDALE ALTERNATIVE SCHOOL Complete
13	ADRIAN BURNETTE ELEMENTARY Complete
14	KNOX COUNTY CENTRAL Complete
15	BELLE MORRIS ELEMENTARY Complete
16	LONSDALE ELEMENTARY Complete
17	WEST HAVEN ELEMENTARY Complete
18	SUNNYVIEW PRIMARY Complete
19	CHILHOWEE INTERMEDIATE Complete
20	RITTA ELEMENTARY Complete
21	BLUEGRASS ES Complete
22	FARRAGUT HS Install 03/27
23	CARTER MIDDLE SCHOOL Install 04/04
24	FARRAGUT IS Install 04/09
25	FARRAGUT PS Install 04/11
26	FARRAGUT MS Install 04/13
27	STERCHI ES Install 04/23

Upcoming Project Plans	
1	SHANNONDALE ES FY20
2	CORRYTON ES FY20
3	FULTON HIGH SCHOOL FY20
4	SOUTH DOYLE HIGH SCHOOL FY20
5	BEARDEN HIGH SCHOOL FY20
6	HALLS ELEMENTARY FY20
7	HARDIN VALLEY ACADEMY FY20
8	ROCKY HILL ELEMENTARY FY20
9	KNOXVILLE ADAPTIVE EDUCATION CENTER FY20
10	AUSTIN EAST HIGH SCHOOL FY20
11	RICHARD YOAKLEY SCHOOL FY20
12	HALLS HS FY20 / VLAN Work Needed
13	NORTH KNOX VOCATION FY20
14	MAYNARD ES FY20
15	WEST VIEW ELEMENTARY FY20
16	CEDAR BLUFF ELEMENTARY FY20
17	Cedar Bluff Pre-K/Teacher Depot FY20 / Network Ready
18	FOUNTAIN CITY ELEMENTARY FY20 / Need VLANs
19	GREEN MAGNET ACADEMY FY20 / Need VLANs
20	SAM E. HILL FAMILY COMMUNITY CENTER FY20 / Need VLANs
21	EASTPORT Network upgrade required

Current Phone Lines	Total Sites/Projects
<b>4,846</b>	<b>96</b>
FY19 In-Progress/Planned	Total Complete
<b>6</b>	<b>69</b>
Uncommitted	Percent Complete
<b>21</b>	<b>71.88%</b>

PRELIMINARY ENGINEERING REPORT

PEDESTRIAN CROSSING  
SOUTH DOYLE HIGH SCHOOL  
TIPTON STATION ROAD

for

KNOX COUNTY SCHOOLS

912 SOUTH GAY STREET

KNOXVILLE, TN 37902

by



Robert G. Campbell & Associates

*Engineering Better Communities. Together.*

Greg Green, P.E.  
Project Manager

## **BACKGROUND**

Robert G. Campbell and Associates (RGC&A) was retained by the Knox County Schools to generate a safe alternative to the existing Pedestrian Crossing for South Doyle High School in south Knox County. The school currently has two at-grade Pedestrian Crossing to connect the campuses on each side of Tipton Station Road. Tipton Station Road is a major collector road with significant traffic (3300 ADT based on MPC traffic counts). The northern campus is used as an auxiliary to the main southern campus.

RGC&A was asked to complete a detailed topographic survey approximately 300 feet each side of Tipton Station from Coatney Road to Water Tower Road. The survey was to locate roads with their pavement markings, sidewalks, buildings, utilities, drainage features, signs and vegetation. We also established the Existing Right of Way along Tipton Station Road and adjoining Property Lines. The survey revealed that Tipton Station Road had significant utility and drainage structures under the 22 feet of asphalt pavement. Each campus had approximately 600-700 feet of road frontage with generally good sight distance. From survey data, the southern campus is approximately 10 to 15 feet lower than the northern campus.

Once the survey was completed, our scope was to develop cost estimates for both overhead and underground pedestrian crossing options.

## **RECOMMENDATION**

Physical separation of motor vehicles and pedestrians is preferred for safety. At a school zone this is especially important as high traffic volumes, vehicle movements, younger drivers and a generally distracted motorist population combine to exacerbate the need for separation. Our recommendation is to build a pre-fabricated bridge over Tipton Station Road to the west of the existing western crosswalk in order to minimize disruptions. In order to meet ADA requirements, the bridge will have a ramp system on the northern side of road and elevator with stairwell on the southern side. Even though the cost of a tunnel is approximately \$200,000 less the risk of relocating underground utilities is often higher. In addition, the lack of transparency of a tunnel creates some opportunity for an un-safe environment.

The safer crossing is useless if existing pedestrian patterns remain in effect. The second part of our recommendation is to use the existing road around the school and create a pedestrian mall that terminates at the one of the existing sidewalks. The termination will be some sort of landscaped or hard physical barrier that makes the use of the current walking trail inconvenient. The mall serves several purposes including moving large amounts of students to the new crossing, providing an outdoor meeting space and allowing emergency vehicle access near the school if needed.

The cost for bridge alternate is approximately \$ 1,183,000. The pedestrian mall along with parking and sidewalks adds an additional \$225,000.

### **OVERHEAD ALTERNATE ANALYSIS**

The first alternative was to construct a Pre-fab Pedestrian Bridge over Tipton Station Road. The first location was placing the bridge near the covered walkway that connects the two campuses as it is the route used by the students. We chose to look at the west side of the existing covered walkway to not disrupt the existing traffic and parking areas along the entrances and exits of both campuses. The proposed bridge would sit up around twenty (20) feet off of Tipton Station Road in order to allow the proper clearance underneath the bridge for larger vehicles.

The main complication for this alternate was keeping the crossing ADA compliant. We looked at placing an ADA compliant ramp on the south side of Tipton Station Road, but the only problem with that is that it would have to be around four hundred (400) feet in length to tie back to existing ground. This length would require the ramp to go well past the first school building along the south side of Tipton Station Road. An ADA compliant ramp along the north side of Tipton Station Road was easier to obtain since that campus sets up ten (10) to twelve (12) feet higher than Tipton Station Road.

We decided to place an Elevator and a Stairway on the south side of Tipton Station Road instead of the lengthy ramp and place the ramp needed on the north side that would tie into the existing covered walkway near the wooden building. The proposed bridge would be one hundred and twenty (120) foot long and built in two sixty (60) foot sections. The first sixty (60) foot section would be the section going over Tipton Station Road and the second sixty (60) section would be used as part of the ramp on the northern side of Tipton Station Road.

A positive note about this alternate is that there would not have to be any underground Utility or Drainage relocation. The exact location of these utilities can be imprecise and create construction and budget issues. There will need to be some overhead electric, cable and telephone lines relocation. The last issue is a minor one, in that Tipton Station Road would have to be shut down while the pre-fab bridge is being sat on the abutments. This should not take more than a few of hours to complete if properly organized. The schematic layout is shown in Exhibit 1.

### **UNDERGROUND ALTERNATE ANALYSIS**

The second alternative we looked at was to place a Pre-Cast Concrete Box underneath Tipton Station Road to act as a Pedestrian Tunnel. This Tunnel would be ten (10) feet wide and eight (8) feet tall. We looked at a couple of different locations for the Tunnel, but we ended up choosing the same location as the Pedestrian Bridge for the many of the same reasons. The Tunnel

would also require ADA compliant ramps be constructed on both sides of Tipton Station Road to access the Tunnel.

Complications with this alternative are similar to the first alternative. The length of the ADA ramp required on the south side of Tipton Station Road was short due to the relative elevation bad. It only required two hundred sixty-five (265) feet of ramp to tie back into the existing ground. The north side of Tipton Station Road was much lengthier due to the same elevation change in the first alternate that made the alternate simpler to tie to the existing ground. The ramp on the north side of Tipton Station Road would have to be four hundred and twenty-five (425) feet in length. Each ramp could be constructed in a zig-zag manner in order to minimize the area required to construct the ramps. Retaining Walls would have to be constructed along with the ramps due to the large difference in elevation between the existing ground and the ramps. Another issue with this alternative would be the requirement for some utility relocations. A Gas Line and Water Line would need to be relocated along with some existing storm drainage that runs along Tipton Station Road. There would not be any overhead utility relocations needed for this alternate. The last issue would be that during the placement of the Pre-cast Tunnel, that Tipton Station Road would have to be closed and rerouted during the excavation and placement of the tunnel. This would probably need to be completed while school is not in session. The schematic layout is shown in Exhibit 2.

#### **PEDESTRIAN PATTERN ANALYSIS**

Students cross Tipton Station at an on-grade pedestrian crossing located on the eastern end of the campus. It appears the majority of students use the existing drive which bisects the southern campus buildings and exits onto Tipton Station near a parking lot on the eastern end of the campus. This route is not uncommon as most pedestrians seek the shortest and most easily traversable distance to their destination. Our analysis sought to minimize the walking distance while directing pedestrians to the safer crossing option and allowing emergency vehicle access between the buildings.

One alternate involved simply replacing the existing drive with a reinforced turf drive and new sidewalks. As we reviewed this, it became apparent that students would probably use the new turf drive as it is still the shortest point after exiting the buildings. The new sidewalks would be largely unused. Another alternate sought to do the same thing, but place a physical barrier nearer the curve in the road, forcing students to use the proposed sidewalk system. This alternate didn't seem to allow ingress for emergency vehicles.

Our preferred option was then to create a pedestrian mall that would terminate near an existing sidewalk coming from the building. We would place a physical barrier such as a wall with landscaping and some seating near the end of this mall. Beyond that, the existing drive would be scarified and grass could be planted. Along the pedestrian mall, benches, school specific

items and landscaping could be placed creating an open space that could easily accommodate large amounts of students. We have proposed a new sidewalk system, but that could be modified to meet specific exit points from the school. By keeping the drive intact, we allow emergency vehicle access near the building. In addition to this, parking was added to replace what appears to be handicap parking near the building so that vehicles are removed from the walking area. We would also remove the existing eastern crosswalk on Tipton Station Road. The schematic layout is shown in Exhibit 3.

## COST ESTIMATES

### PROPOSED CONSTRUCTION FOR THE PEDESTRIAN BRIDGE OVER TIPTON STATION ROAD FOR SOUTH DOYLE HIGH SCHOOL

ITEM	COST
Pedestrian Bridges	\$240,000
Piers and Abutments	\$150,000
Retaining Walls	\$264,000
Elevator	\$300,000
Sidewalks	\$ 15,000
Stairs	\$ 20,000
Drainage	\$ 10,000
Erosion Control	\$ 10,000
<u>Traffic Control</u>	<u>\$ 10,000</u>
<b>TOTAL</b>	<b>\$1,019,000</b>
10% Contingency	\$102,000
<b>GRAND TOTAL</b>	<b>\$1,121,000</b>

**ENGINEERING SERVICES (BRIDGE) -5.5% of the Construction Cost – 5.5% x \$1,121,000  
= \$61,655**

Additional Features around the existing buildings including Additional Parking, Additional Sidewalk, with and without a Canopy, Additional Plaza area and Additional Landscaping area = **\$205,000**

**DESIGN SERVICES (PEDESTRIAN MALL ALTERNATE) - \$20,000**

**COST ESTIMATE FOR PROPOSED CONSTRUCTION FOR THE  
PRECAST CONCRETE TUNNEL UNDERTIPTON STATION ROAD  
FOR SOUTH DOYLE HIGH SCHOOL**

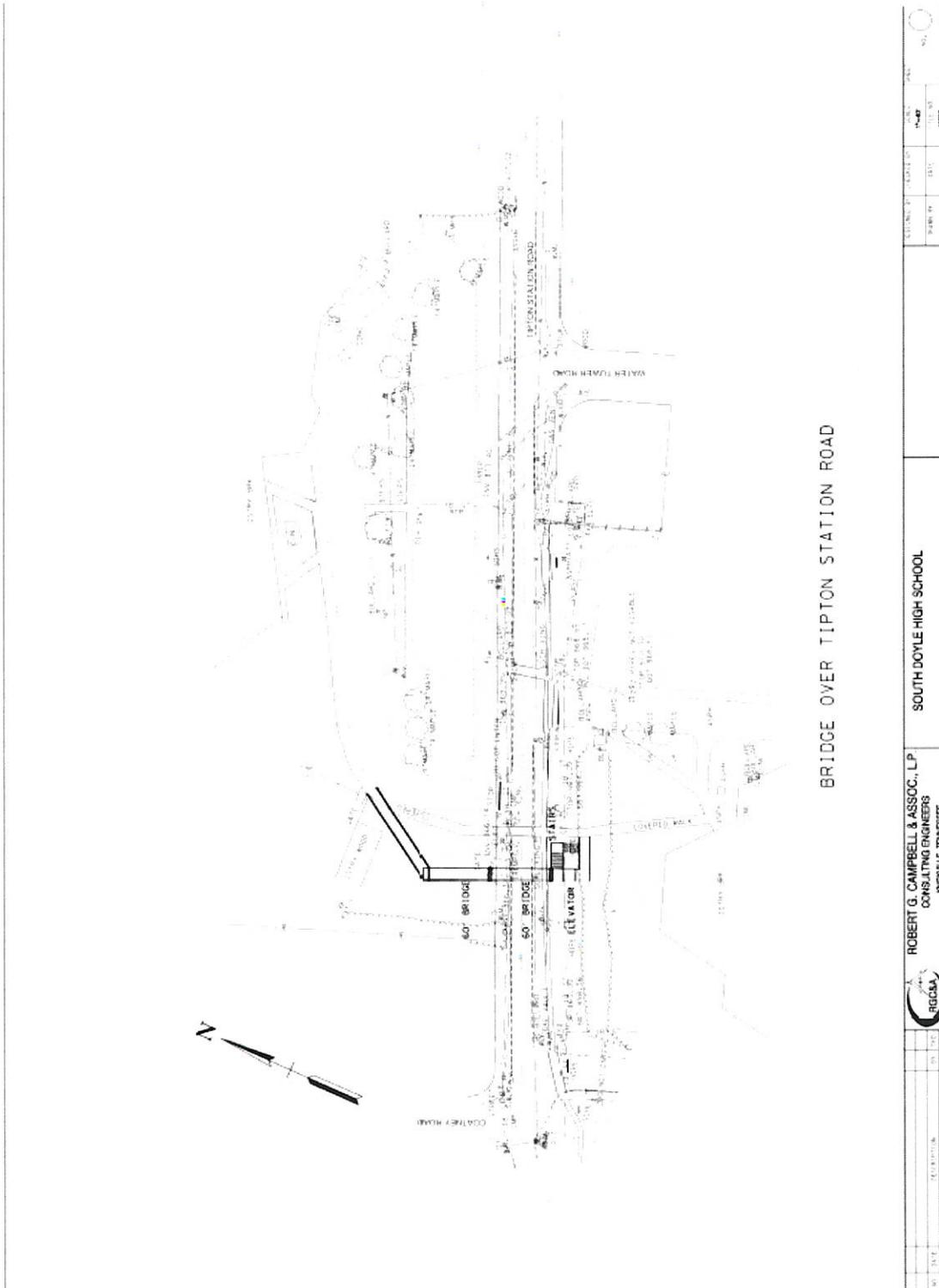
<b>ITEM</b>	<b>COST</b>
Pedestrian Tunnel	\$ 90,000
Retaining Walls	\$630,000
Sidewalks	\$ 60,000
Excavation	\$ 20,000
Drainage	\$ 10,000
Erosion Control	\$ 10,000
<u>Traffic Control</u>	<u>\$ 25,000</u>
<b>TOTAL</b>	<b>\$855,000</b>
10% Contingency	\$86,000
<b>GRAND TOTAL</b>	<b>\$941,000</b>

**ENGINEERING SERVICES (PEDESTRIAN TUNNEL) -5.5% of the Construction Cost –  
5.5% x \$941,000 = \$51,755**

Additional Features around the existing buildings including Additional Parking, Additional Sidewalk, with and without a Canopy, Additional Plaza area and Additional Landscaping area = **\$205,000**

**DESIGN SERVICES (PEDESTRIAN MALL ALTERNATE) - \$20,000**

# EXHIBIT 1 – PEDESTRIAN BRIDGE (LAYOUT)



BRIDGE OVER TIPTON STATION ROAD

DATE	NO.	BY	CHKD.	DATE
10/09	1			10/09

SOUTH DOYLE HIGH SCHOOL

ROBERT G. CAMPBELL & ASSOC., LP  
CONSULTING ENGINEERS  
MEMPHIS, TENNESSEE



NO.	DATE	DESCRIPTION	SCALE

EXHIBIT 1 – PEDESTRIAN BRIDGE (AERIAL)

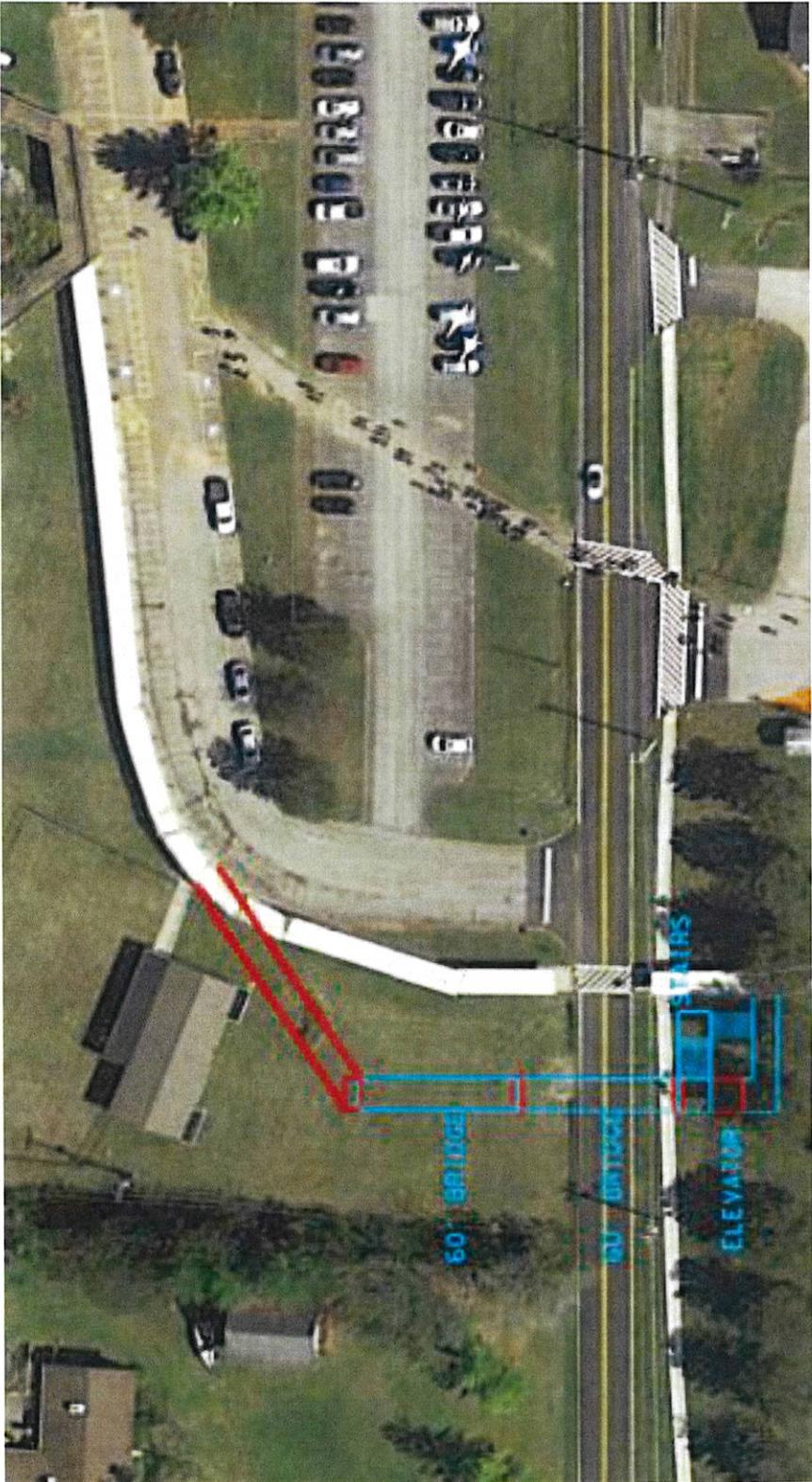
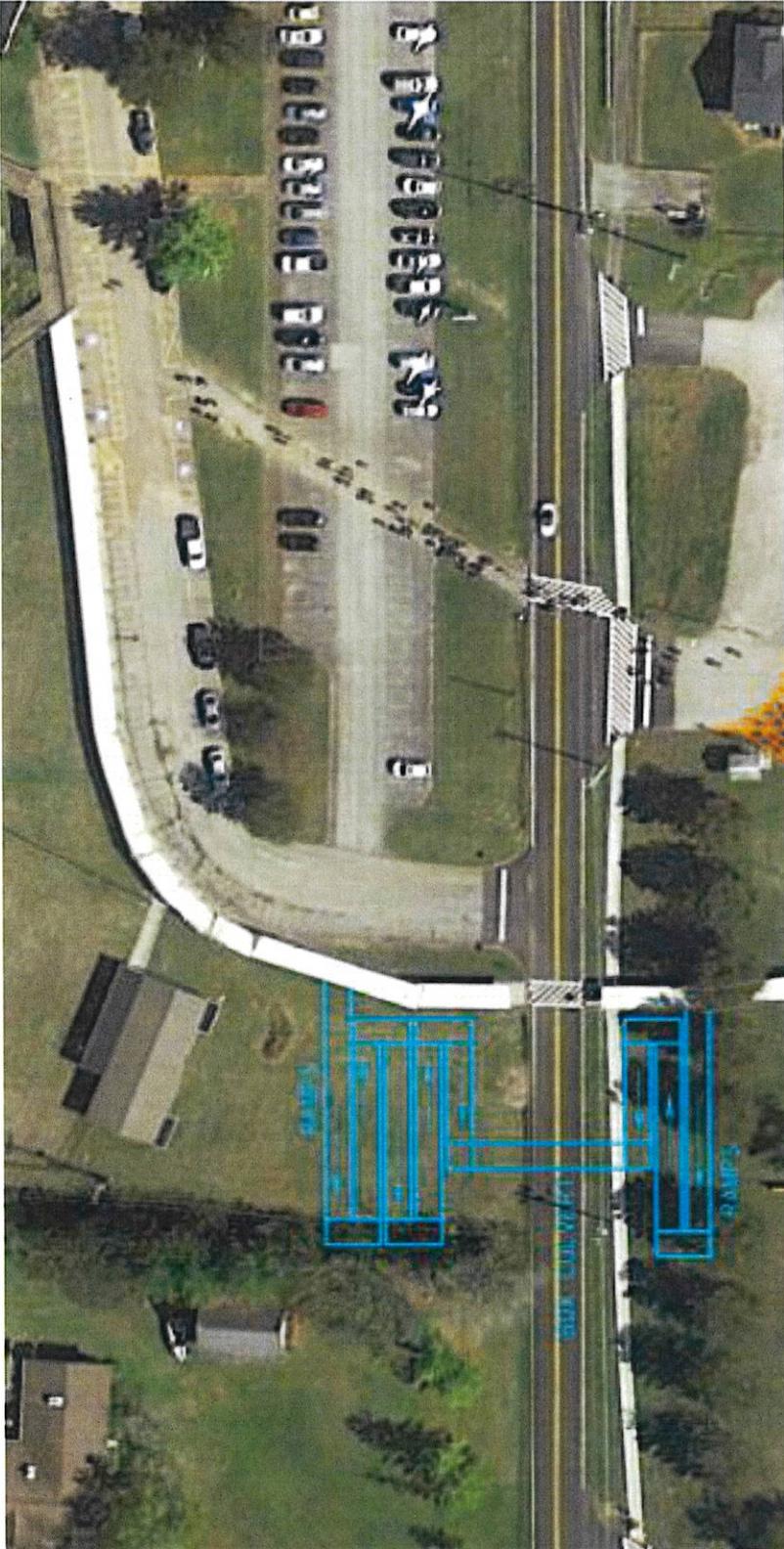




EXHIBIT 2 – UNDERGROUND TUNNEL (AERIAL)





# KNOX COUNTY SCHOOLS

ANDREW JOHNSON BUILDING

*Bob Thomas, Superintendent*



## Memorandum

**For:** Chair and Members  
Knox County Board of Education

**From:** Bob Thomas  
Superintendent

**Date:** April 17, 2019

**Subject:** North-Central and Northwest Elementary Solutions

The Knox County School system is experiencing growth pressure at several of its elementary schools located in the North-Central and Northwest portions of the county. This is not a new dynamic, and population trends as well as growth projections indicate that the pressures in these areas will either increase or hold steady.

### Background

Several elementary schools located generally in the North-Central portion of the county have experienced growth in recent years that is being addressed with portable classrooms and a modest expansion project at Inskip Elementary School. While growth in most of these schools is anticipated to moderate or slightly decline over the next five years, the enrollment will continue to place a strain on the facility and the staff. In most cases, the use of portable classrooms has expanded the buildings classroom capacity beyond the capacity of the core amenities (cafeteria, restrooms, library, gymnasium and administrative space). Seven North-Central Elementary schools currently use 61 modular classrooms in order to meet the needs of their student population, and they also experience high vehicular traffic volumes that tax the campuses and areas streets.

Two northwest area elementary schools, Karns Elementary and Hardin Valley elementary are expected to continue to experience strong growth over the next five years. Modular classrooms are already being used to address growth at Hardin Valley and both campuses are heavily taxed by the level of automobile traffic that must be sustained with current enrollment levels.

School	2017-18 K-5 Students (a/o - 9/8/17) <sup>+</sup>	2018-19 K-5 Students (a/o - 11/28/18) <sup>+</sup>	Additional Pre-K Enrollment (a/o 11/28/18) <sup>#</sup>	5 Year Projected Growth (from 2017-2018)	5 Year Projected Growth Pct	Projected Students 2023	Bldg Capacity (85% of Maximum)*	Modular Classroom Capacity (85% of Maximum)*	Capacity with Modular Classrooms*
Adrian Burnett	504	526	2	-42	-8.33%	462	486	205 (11 Clrms)	692
Brickey McCloud	977	991	63	-61	-6.24%	916	879	0	879
Copper Ridge	489	515	24	-53	-10.84%	436	430	205 (11 Clrms)	636
Hardin Valley	1087	1146	8	117	10.84%	1204	860	113 (6 Clrms)	973
Inskip	546	516	0	-47	-8.61%	499	355	243 (13 Clrms)	598
Karns	1175	1222	75	134	10.24%	1309	1253	0	1253
Norwood	506	482	2	-27	-5.34%	479	374	187 (10 Clrms)	561
Powell	868	840	3	-70	-8.07%	798	654	261 (14 Clrms)	916
Sterchi	423	404	2	-79	-18.68%	344	355	74 (4 Clrms)	430

\* building capacity is affected heavily by instructional programming which can push pupil:teacher ratios to a level that is lower than calculated.

<sup>+</sup> Red fill indicates enrollment trending against the current projection. Green indicates enrollment consistent with the current projection.

<sup>#</sup> Pre-K is not a zoned enrollment and is not reflected in columns 2 and 3

### North-Central Elementary Solution

At this time, the North-Central Elementary Solution remains the only capital priority on the School Board's 2012 Capital Priorities List that has not been addressed and/or funded in the capital budget. The population in this area is creating capacity challenges at several schools

that we continue to address with a variety of imperfect strategies, including temporary or modular classrooms. The elementary schools in this region that are facing challenges include Adrian Burnett, Norwood, Powell, Inskip and to some extent Copper Ridge, and Sterchi.

With most elementary schools in the North-Central region of the county at or close to their physical capacities, we face a broad challenge to design a solution that will be cost effective and meet the needs of all of the schools. In recent years, the facilities and enrollment staffs have looked at a variety of options including a proposed a new elementary school in the Callahan Rd. I-75 area. An addition/renovation project at Adrian Burnett Elementary School has also been proposed to help ensure that we serve students in an appropriate educational facility.

More recently, we analyzed the potential impact of a major renovation and addition at Inskip Elementary School, which could possibly accommodate a few students from the Norwood Elementary School zone, allowing some of the student population at Powell Elementary School to be rezoned to Norwood. The Board has approved the Inskip project, and the addition is currently under construction and nearing completion.

None of the individual options discussed or currently approved are ideal or even sufficient. The approved addition to Inskip Elementary School will fully address the capacity issues at that school. However, any impact on the other schools will be marginal at best, and the challenges for the region will remain.

We have looked closely at possible solutions that would involve additions to existing schools as well as extensive rezoning to accommodate the current and future students populations:

1. Adrian Burnett Elementary School needs an extensive addition/renovation, or to be replaced by a facility that is more aligned to the district's elementary program standards. A project at this school would not easily relieve capacity pressure at other schools due to Adrian Burnett's location and accessibility.

Additionally, it is the opinion of the facilities staff that this extensive level of work

cannot be completed on this very small and crowded campus without a disruptive impact on the education of students over the three to four years it would take to complete a multiphase construction project. The staff believes either the size of the campus needs to be increased or the student population would need to be reduced significantly to facilitate an addition and renovation on a reasonable timeline with minimal impact to the operation of the school. We engaged Johnson Architecture to complete a feasibility analysis to determine how we can best proceed with respect to a project on the Adrian Burnett campus, whether it be an addition/renovation or construction of a replacement school. The report of this analysis is Enclosure 1 to this recommendation.

2. Brickey-McCloud Elementary School is well situated to accept a 200-student classroom addition. This addition combined with a rezoning action of Adrian Burnett Elementary School students could help resolve some of the challenge on the Adrian Burnett campus, but it will not help address the challenges faced by the other schools in the area. Additionally, this action would create a situation where Brickey-McCloud would operate very close to its capacity for the foreseeable future.
3. The campus at Norwood Elementary School is large enough to accommodate a modest addition, but this would be a difficult project as the core amenities (library, cafeteria, gymnasium and administrative suite) are quite small and would also need to be addressed. The size constraints on an addition at Norwood generally indicate that the addition could only accommodate the current and future population if that school. There would be little opportunity to absorb growth from other school zones. Additionally, the density of traffic the school currently generates causes problems on Merchants Drive and any addition would only exacerbate this problem.
4. Sterchi Elementary School is situated such that an addition to this school could be designed to pull students from several of the other schools in the region. Space exists at Sterchi for an addition, but the school is not situated on a through street. All traffic must access the school through residential neighborhoods using narrow streets of very limited capacity.

5. Powell Elementary School is on a very tight landlocked campus with limited opportunity to expand. It is in a similar geographic situation to that experienced at Adrian Burnett Elementary School in that any addition could only be accomplished after the student population was reduced to a level that would permit the removal of the existing portable classrooms. Powell Elementary also has the added complication of handicap accessibility. The existing school is built on several levels making full accessibility extremely challenging and costly.
  
6. Copper Ridge Elementary School has campus space to accommodate a modest addition if it is creatively designed. However, the addition would not be of such size that it could accommodate students from other zones, and the school's remote location would make zoning from any of the other North-Central areas schools impractical if not prohibitive.

Based on the above situational analysis and the attached feasibility report regarding Adrian Burnett, we believe the most cost-effective North-Central Elementary solution (that could be addressed in a single five-year capital plan) is to acquire additional property adjacent to Adrian Burnette Elementary School which would enable a new 600 student school to be built on an expanded campus. With the addition of several acres of land, a new school could be built in a phased project while maintaining the current student enrollment numbers.

Additionally, a new 200 student addition should be built at Brickey-McCloud Elementary School to address the current enrollment pressure at that school and its fluctuating population size. Finally, A 200 plus student addition and expanded core amenities should be built at Sterchi Elementary School to facilitate rezoning a number of students from both Norwood and Powell Elementary Schools. A conceptual zone for an enlarged Sterchi school is Enclosure 2 to this recommendation.

We propose to continue to monitor the enrollment trends at Copper Ridge Elementary School with an eye to possible designing a classroom addition in the fiscal out years.

### **Northwest Elementary Solution**

For a number of years there has been increasing population growth that has created pressure on elementary schools in the northwest portion of Knox County. This is most evident in the student growth that has occurred and that is forecast at Hardin Valley and Karns Elementary Schools. Based on the above projections the schools are expected to grow about 10% over the next five years. As depicted in the table in the previous background section, Hardin Valley Elementary is already operating beyond capacity and Karns Elementary is approaching that mark. Both schools experience significant traffic problems that we have tried to resolve in recent years with only limited success. The traffic issues combined with the limited suitable space on the campuses makes an addition to either school a less than desirable solution.

The Farragut Primary and Intermediate School zones as well as Ball Camp, Amherst, and Powell Elementary School zones are all contiguous with either the Hardin Valley or Karns Elementary zones. All of these schools are functioning at or near capacity, and all except Amherst have significant traffic management issues. The Farragut schools, and Ball Camp Elementary have also been the subject of a recent rezoning action as well. For these reasons, as well as geography, none of these schools is particularly well situated to accept an addition that could relieve some of the pressure on either Hardin Valley or Karns Elementary.

Our analysis indicates that the growth in the Hardin Valley and Karns areas could best be addressed with the construction of a new elementary school for approximately 800 students. This school would best be located in the corridor between Hardin Valley and Karns Elementary Schools that is formed by Beaver Ridge on the south and the Knox County/Anderson County line on the North. Enclosure 3 reflects a conceptual zone for this school.

### **Recommendation, Cost Projection, Priority and Phasing**

Our analysis indicates the construction of two new elementary schools and additions to two others to most cost effectively addresses the student population growth in the North Central and Northwest areas of the county. I respectfully recommend the Board of Education adopt these solutions and seek funding appropriation for the projects as outlined.

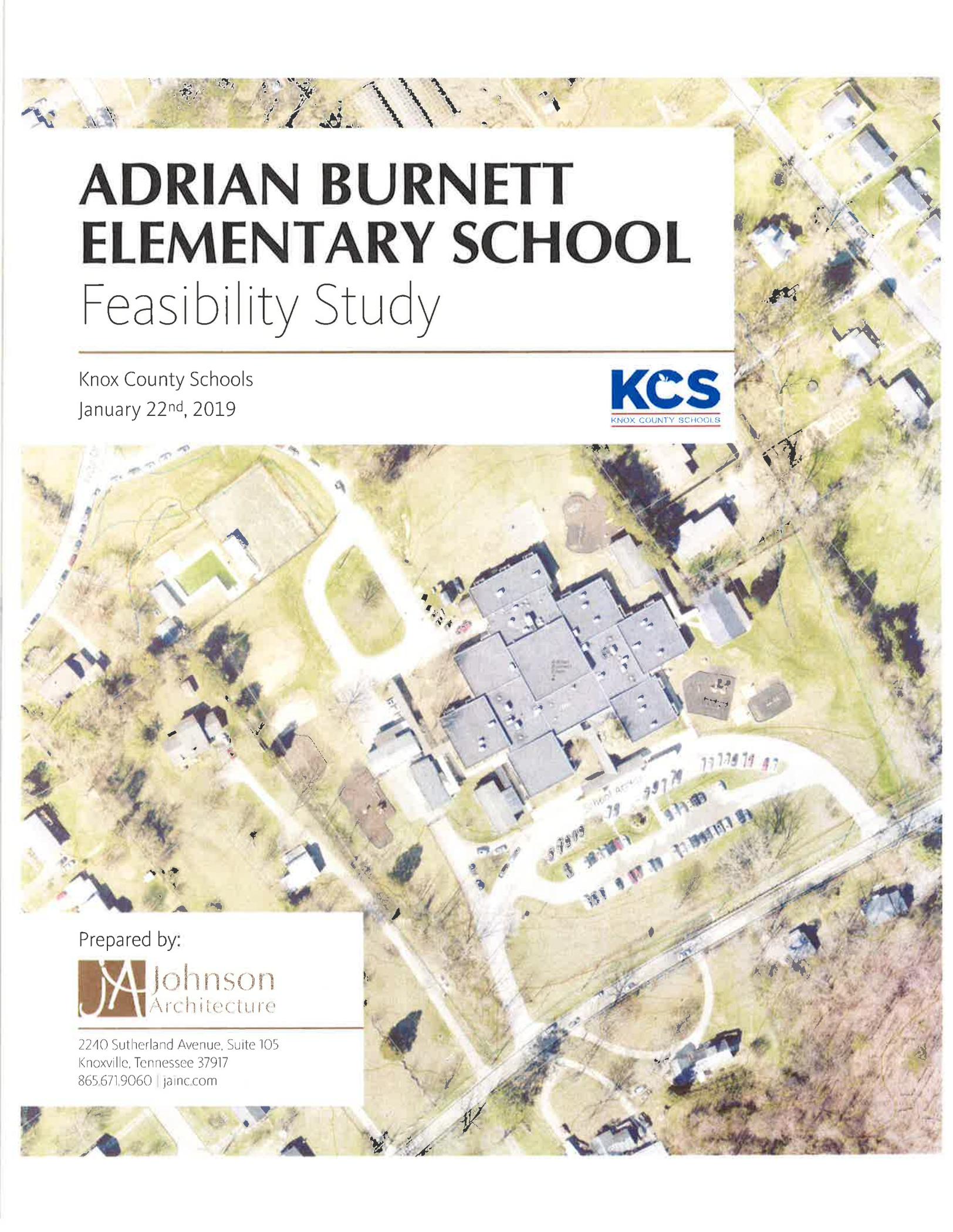
The North-Central Elementary Solution is to address a growth issue that has developed over the last decade which has been inadequately addressed with the use of portable or modular classrooms. As stated above, continued significant growth in this region is not projected in the current 5-year forecast. The Northwest Elementary Solution is to address a current population issue as well as significant growth projected over the next five years. In prioritizing these projects, we recommend immediately funding land acquisition with construction funding for a Northwest elementary school to begin design and construction in FY21. We would propose to begin property acquisition and design of a new Adrian Burnett Elementary School in FY20 and an addition to Brickey-McCloud Elementary to begin in FY21. An addition to Sterchi Elementary School should be considered for funding in FY23.

Based on the Board's current program standards, the new Northwest Elementary School would require a site of approximately 15-20 acres. This number will vary some based on the topography of the selected site and design considerations such as whether the facility will be one story or two story. The building will need to be approximately 100,000 square feet to meet the stated standards and accommodate about 800 students. Detailed project cost projections are Enclosure 4.

The cost of site acquisition will be driven by the area of the county and the size of the parcel. A conservative estimate would be \$1.5 million for the Northwest Elementary site and considerably less for the expansion of the Adrian Burnett campus. It would also be best to conservatively estimate the cost of construction in the current market at \$175.00 per square foot. Furniture, fixtures and equipment (FF&E) would add another \$1 million to \$1.5 million to each project.

Enclosures:

1. Johnson Architecture Analysis of Adrian Burnett Elementary School
2. Sterchi Elementary School Concept Zones A and B
3. Northwest Elementary School Concept Zone
4. Project Worksheet for Northwest Elementary School



# ADRIAN BURNETT ELEMENTARY SCHOOL

## Feasibility Study

Knox County Schools  
January 22<sup>nd</sup>, 2019



Prepared by:



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## **EXECUTIVE SUMMARY**

Johnson Architecture, Incorporated (JAI) was asked to assist Knox County Schools (KCS) in studying the existing Adrian Burnett Elementary School building and site conditions to assess feasible options for school expansion and improvement. Under the oversight of Douglas Dillingham, Director of Facilities and Construction for Knox County Schools this work included:

- **Existing Conditions/Land Use Analysis**
  - This phase included an analysis of the existing conditions of the project site and the adjacent community context.
  - Review and analysis of previous reports regarding conditions of the existing school building made available to JAI by KCS staff.
  - Collection and review of available base mapping for the project site and the adjacent community context, as well studying existing conditions of the site including topography, utilities, vegetation, adjacent development patterns and land uses, circulation systems, and open space systems.
- **Conceptual Feasibility Master Plans & Alternatives**
  - This step represented the synthesis of the physical opportunities of the site with regard to a new facility or additions to the existing facility. Land use and circulation alternatives were studied and reviewed with KCS staff and comments/concerns collected for preferred concept directions for each option.
  - Developing distinct land use concepts and master plan alternatives including building types and locations, roadways and parking, and pedestrian walks and amenities. Additional considerations were made regarding proposed building layouts and designs (both new construction and potential building additions), mix and massing, phasing strategies and constructibility, and functional outdoor use areas.
  - Developing initial construction budgets for master plan alternatives. These estimates were based on typical site development costs and square footage construction costs for the various building types.
  - Meeting with KCS staff to review concept alternatives and receive input to refine plans, as well as solicit comments on the pros and cons of each plan.

## **EXISTING CONDITIONS**

The Adrian Burnett Elementary School structure was built in 1976 and was designed as an open classroom school, with classrooms located in pairs with a partial wall between them. There is a total of twenty-eight classrooms located in the existing building with an approximate gross square footage of 51,025 SF. Over time since the school's original construction, various modular classroom structures have been placed along the perimeter of the school with covered walkways connecting interior corridors to raised portable classroom structures. A total of five modular buildings are located on the site comprising an approximate gross (indoor) square footage of 10,540 SF. KCS has reported a total of eleven portable classrooms are located within these structures. KCS has also reported that the current school enrolls 400-450 students.

The existing building is a slab on grade structure with wood post and beam roof framing and a tectum roof deck. The entire building is located on one level; however, the portable classrooms are raised above the main school's floor elevation, accessed by covered stairs and ramps constructed of wood decking.

The existing structure does not appear to be beyond repair or renovation; however, it is important to refer to a Facility Structural Assessment completed by Bender & Associates, dated June 13, 2011 noted the following observations:

1. *The concrete floors have several minor dips, sags, and raised areas.*
2. *Several roof beams have cracked and checked. The beams have shifted at some areas.*
3. *[In one location] A bolt is missing for the beam to a column connection.*
4. *At some locations the walls have minor cracks.*
5. *The west wall of the gymnasium has been braced.*

### **Related to portable classroom structures:**

6. *A piece of the roof deck at a portable building has deteriorated.*
7. *The exit porches, steps and walks for the portable buildings have deteriorated, sagging rails, rotted members, and shifted columns. Water has ponded and drains toward the building at one location.*
8. *The front canopy has several deteriorated post bases.*
9. *The wood post bases at the dock area have deteriorated. The handrail posts at the dock area have rusted.*

### **Related to site:**

10. *The grade around the building is above the floor in some areas. Also, the grade directs the water toward the front of the building.*

The report provides a numerical evaluation of the building based a scale of 1-100 in a number of categories. This score does not include portable classrooms or any other detached structures. It only applies to the structural condition and does not take into consideration electrical, mechanical, plumbing, ADA or architectural considerations. This Structural Review Worksheet has been referenced on the opposing page, and the entire document has been included in Appendix A.





**STRUCTURAL REVIEW WORKSHEET**

DATE: June 13, 2011

ITEM	SCORE	NOTES
Foundation	82	
Slabs on grade	85	
Exterior Walls	75	
Interior Walls	75	
Elevated Floors	N/A	
Roof Structure	65	
Miscellaneous Structures*	65	
Retaining Walls (not a part of building foundation)	N/A	
Seismic Compliance	Non-Compliant	
<b>Overall Score</b>	<b>68</b>	* Not included in overall score

## **EXISTING – KEY DESIGN ISSUES & EXPANSION CHALLENGES**

From a functional standpoint, the school's existing 'shared classroom' layout creates challenges related to student and teacher distraction. These shared classrooms do not have typical accessories such as storage closets, teacher's office/workroom, or classroom toilets in kindergarten classrooms. The administrative suite is undersized, there is no assembly area, there is an undersized playroom which serves as the school's gymnasium. It has also been reported that students eat their lunch in their classrooms given the current cafeteria configuration and size. Additionally, the existing building does not have a vestibule, and current inefficient corridor layout does not allow for corridor visibility and requires 5 people to see the majority of the corridor.

In terms of the current site layout, the portable classrooms may only be accessed by exterior (open air) covered walkways, which are not at the same floor elevation as the main school building. Students must cross drive and parking areas from temporary classrooms to get to playground, creating safety concerns. Parent queuing space is inadequate, forcing queuing lines to extend onto the residential Felty Drive during pickup and drop-off times.

When studying potential locations for school additions, it becomes apparent that the most easily accessible and constructible sites which do not require demolition of any existing structures are blocked by portable classroom structures. It was determined early-on that the relocation of the portable structures would not be feasible to allow for the expansion of the existing building. Therefore, new classrooms would need to be constructed first to allow for classes being held in portable structures to be relocated before demolition. Additionally, the existing property lines and setbacks create a challenge when finding a functional building expansion location.

### **GOALS**

The design team was tasked with the challenge of creating feasible building expansion options which brought the school's core building program up to a capacity which could serve 650 – 800 students. It was imperative that these options did not affect the existing school operations during construction, and that construction phases were kept to a minimum to minimize distraction and disruption imposed on students and teachers.

Additional design goals were extrapolated from the current schools' design issues, which include:

- Expanded administrative suite with vestibule and controlled access
- Gymnasium and assembly area with platform and storage
- Expanded cafeteria and kitchen
- Expanded media center
- Two music rooms, one art classroom
- Adequately and consistently sized classrooms with all necessary accessories
- Teachers work rooms
- 32 classrooms (including CDC & Resource classrooms) set to serve 600 students
- Planned future classroom expansion areas to allow for a capacity of 800 students
- Completely separate bus and parent queuing lines





## **MASTER PLAN CONCEPTS**

All options are comprised of 32 classrooms (including CDC & Resource classrooms) and set to serve 600 students. The cores have been sized and designed to serve 650-800 students, based upon the Carter Elementary School core program and floor plan which was heavily vetted by JAI with KCS staff to meet all Knox County standards, needs and requirements.

### **OPTION 1 - ADDITION & RENOVATION**

*Site Master-plan & Pricing Projections: Pages 10-11*

This concept consists of three construction phases, the first a new classroom wing at the northeastern corner of the site adjacent to the existing music room, which would include eighteen new classrooms, a teacher's workroom, and new restrooms. The location of the classroom wing was determined to be the only location which did not interfere with existing portable classrooms, while still staying adjacent to the existing school building.

In order to reduce the amount of disruption experienced by students and teachers, this wing would be constructed first, so that all eleven classrooms currently located in portable classrooms and up to seven classrooms within the existing building could be moved into the new wing. With portable classrooms vacated and demolished, the construction of Phase 2 would follow. Phase 2 includes a new gymnasium and stage and food service wing and (with existing classrooms freed up) the renovation and relocation of the cafeteria.

Phase 3, which constitutes a renovation within the existing school building, would be closely scheduled to follow Phase 2, with certain renovations potentially occurring simultaneous to Phase 2 construction. Likely the and music wing renovation would need to occur simultaneous to Phase 2 construction, made possible by existing classroom space freed up by the new classroom wing.

Phase 2 and/or 3 would also include the construction of a new entry vestibule at the front of the school, as well as the renovation of all classrooms and restrooms as well as the expansion of the existing administrative space and media center. All classrooms would be converted from open classroom style to individual classrooms, with consistent classroom accessories to meet KCS standards. Additionally, the existing school building would be re-skinned in brick to create a cohesive architectural style between the additions and renovations, as well as reflect the architecture of other new Knox County schools.

The site layout would remain virtually identical to the current site, with school bus and parent queuing remaining the same. This concept does not necessitate the purchase or procurement of adjacent parcels, however this additional acreage may be helpful to alleviate parent queuing congestion and/or allow the creation of outdoor playfields. A possible future classroom wing has been located on the site plan should the County need to expand at a later date, however this may require the purchase/procurement of an adjacent residential parcel or a site setback variance.

#### **CONCEPT PROS:**

School remains on one level, least square footage of new construction, does not require land acquisition, reuses entire existing building structure

**CONCEPT CONS:** Most phases, most complicated, longest time duration. The renovation will likely occur in the existing building while classes are in session elsewhere in the building, creating the most disruption to students & teachers. This is the least efficient layout in terms of corridor visibility, as well as classrooms being different sizes, with some smaller than KCS standards. Additionally, two existing classrooms to be renovated do not have windows, though windows along the corridor would allow for natural light. Regarding the site, there are still limited play-field areas that do not require students to cross vehicular area, and both the new classroom wing & future classroom expansion locations are very close to existing lot lines, requiring setback variances.

## **OPTION 2 – ADDITION, RENOVATION, & DEMOLITION**

*Site Master-plan & Pricing Projections: Pages 12-13*

This concept is similar in layout to Option 1, however consists of just two construction phases since the new Gymnasium & Cafeteria wing has been slid north (out of the vicinity of the existing portable classrooms) and located within the existing parent queuing loop. The new classroom wing at the northeastern corner of the site is also adjacent to the existing music room, however slid west to allow a larger setback from the existing property line. The new classroom wing would include seventeen new classrooms, a teacher's workroom, new restrooms and service/janitorial space. The existing playroom and music room would be renovated into new art room and music rooms identical to what is shown in Option 1, and to the west a new cafeteria and food service, as well as gymnasium and stage wing would be constructed.

Phase 2 consists of a more extensive renovation of the existing school building, including the simplified reconfiguration of corridors and classroom wings, as well as brand new restroom layouts. Since no new construction is located in the areas of existing portable classrooms, portable classrooms are able to remain in-use while the existing school is being renovated – alleviating student disruption. All classrooms would be sized similarly and all classrooms would have windows with direct view of the exterior. As similar to Option 1, the administrative area and media center have been expanded, while the two inefficient front 'open classroom' wings have been demolished. The entire existing building would be re-skinned in brick to create a cohesive architectural style between the additions and renovations, as well as reflect the architecture of other new Knox County schools.

Should the County need to expand at a later date a possible future classroom wing has been located on the western half of the site, extending a newly created classroom corridor. The construction of this wing would not require the purchase/procurement of any additional property and would not require a site setback variance.

The site layout remains similar to the current site, with school bus queuing remaining the same and a proposed expanded parent queuing loop. Though our diagrams show the purchase or procurement of adjacent parcels for more functional parent queuing, this concept does not absolutely necessitate the procurement of adjacent parcels.

### **CONCEPT PROS:**

School remains on one level, less phases and disruption than Option 1, does not require land acquisition, corridors have been simplified with better teacher visibility, reuses entire existing building structure while still allowing for a more efficient reworked layout, use of existing portable classrooms may allow existing school renovation to take place without classes being held simultaneously within the same building.

### **CONCEPT CONS:**

Still requires very close coordination of renovation in existing school, proposed renovation is extensive, Phase 2 will likely require additional half to full year of school, limited play-field area that doesn't require crossing vehicular area, existing portable classroom may be required to stay in use until existing school renovation is complete (requiring longer walks outside to the new school wings)





## **OPTION 3 – NEW SCHOOL, DEMOLITION OF EXISTING SCHOOL BUILDING**

*Site Master-plan & Pricing Projections: Pages 14-15*

Taking into account the student/teacher disruption, extended time-line, and potential coordination concerns, this concept involves the construction of an entirely new school building at the rear of the existing site which could be constructed without affecting class operations in the existing school building or portable classrooms, to allow for a seamless transition of school operations once the new facility is completed.

In order to allow room for an efficient, functional elementary school to be constructed adjacent to the existing elementary school building, Knox County School's purchase/procurement of one to two additional parcels of land would be necessary. Once construction of the new school would be complete, the existing school building and portable classrooms would be demolished over a summer break to allow for the new building's opening at the beginning of a school year.

The new school would be located at the northwest of the expanded KCS property, maintaining a main entry facing Brown Gap Road with a school bus drop-off configuration similar to the existing site plan, however extended to meet the entry located deeper into the site. The parent pick-up/drop-off would remain accessible from Felty Drive, queuing around the classroom wing and looping on the eastern side of the building.

The school floor plan is most similar in layout to recent KCS new construction elementary schools, with a straight-forward configuration efficiently laid out along two intersecting corridors making a 'T' or 'H' configuration with all school core functions located along one corridor. Classrooms are all located in a single perpendicular wing at the end of the main corridor. A two-story classroom wing is necessitated by site setback constraints and makes good use of the falling grade change from the front of the site to the back, with eighteen classrooms on the main level and twelve classrooms on level below.

Should the County need to expand at a later date, a possible future classroom wing has been located at the front of the school and creating a true 'H' configuration with one classroom wing at each end of the building. The construction of this wing would not require the purchase of any additional property and would not require a site setback variance.

The site layout maintains use of existing parking at the front of the site which can be expanded as necessary, may maintain all existing playgrounds if desired, while also allowing an adjacent play-field area located in-between the school bus and parent queuing drives which does not require crossing of a vehicular area.

### **CONCEPT PROS:**

Brand new structure with the most efficient layout of all layouts, which is also most similar to recently constructed KCS elementary schools. This is also the least disruptive option since existing school operations will not be affected until moved into the new building at one time over a summer break.

### **CONCEPT CONS:**

Most costly option due to all new construction and more involved site. A two-story classroom wing is required in order to allow the existing school to function without disruption. The new building is sited far back from Brown Gap Road closer to residential area.

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# EXISTING SCHOOL

## EXISTING SCHOOL CLASSROOMS

- 11 Portable classrooms
- 28 Classrooms in existing building
- 39 Total classrooms

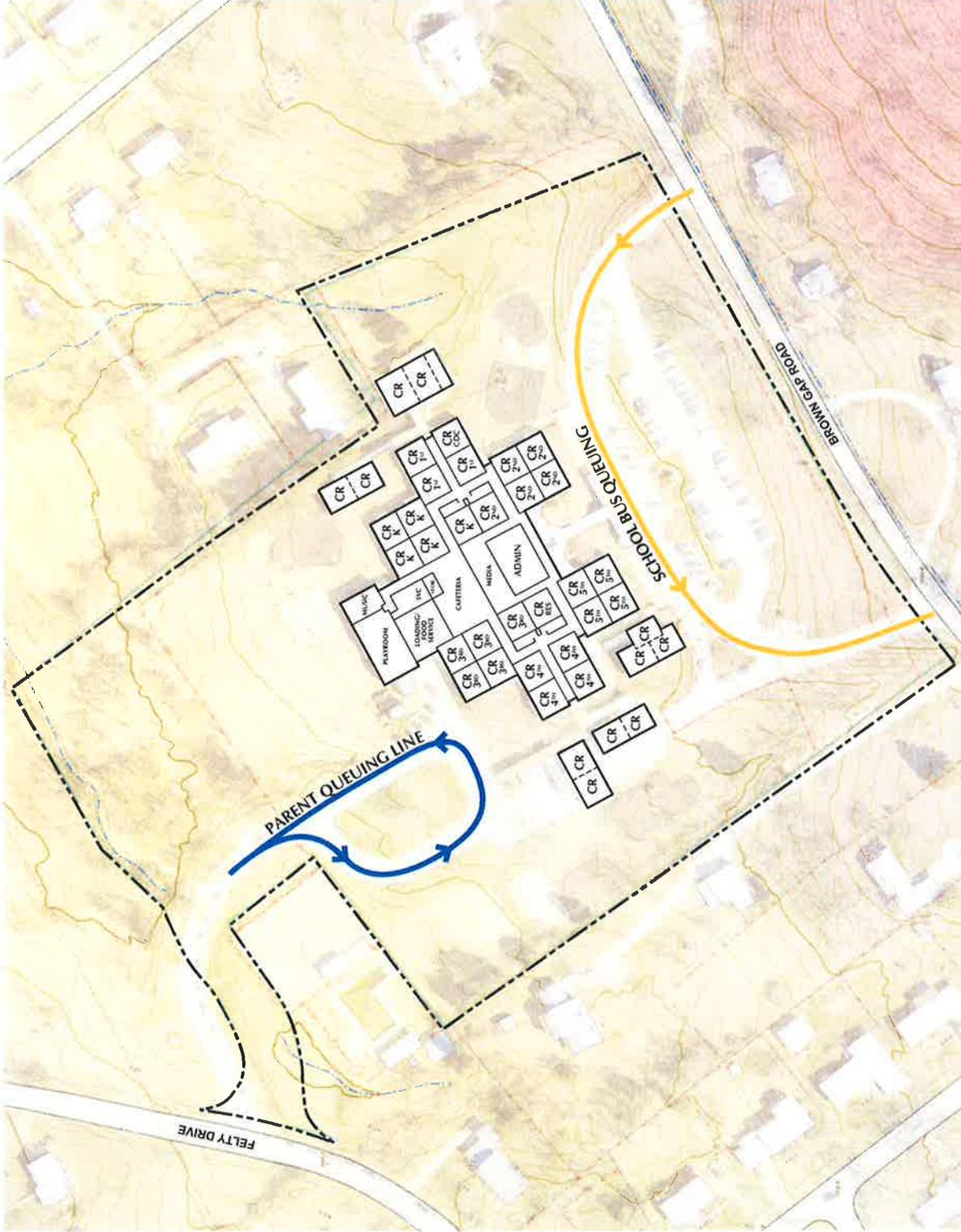
**CURRENT STUDENT ENROLLMENT:** 400-450

## EXISTING SCHOOL SQUARE FOOTAGE

- Main Structure - 51,025 sf (approx.)
- Portable Classrooms - 10,540 sf (approx.)
- TOTAL - 61,565 sf (approx.)**

## KEY ISSUES

- Existing 'shared classroom' layout
- No typical classroom accessories such as storage closets, teacher's office/workroom, or classroom toilets in kindergarten classrooms
- Undersized administrative suite
- No entry vestibule
- No assembly area
- Undersized playground, no true gymnasium
- Cafeteria is not functional/adequate
- Inefficient corridor layout does not allow for corridor visibility, requires 5 people to see majority of corridor
- Parent queuing is inadequate, queuing lines extend onto Felty Drive (residential) during pickup and drop-off times.
- **Portable Classrooms:**
  - May only be accessed by exterior (open air) covered walkways
  - Different floor elevation to main school building
  - Students must cross drive and parking areas from portable classrooms to access playground



**ADRIAN BURNETT ELEMENTARY SCHOOL FEASIBILITY STUDY  
 PRICING PROJECTIONS  
 OPTION 1 - ADDITION & RENOVATION**

	BUDGET	REMARKS
Land		
Contracts w/ Other Agencies - Appraisals, KCDC	\$0.00	
Land Purchase	\$0.00	
<b>SUBTOTAL: LAND</b>	<b>\$0.00</b>	
Construction		
Architectural/Engineering Fees	\$850,000.00	Includes Civil Engineering Included in 7 above
Consultants		
Contracts with Other Agencies	\$0.00	
Professional Reimbursables	\$25,000.00	Topo Survey, Printing
Environmental Testing - Soils	\$35,000.00	Subsurface Investigation
Construction	\$12,275,000.00	41,000 SF New @ \$175/SF and 51,000 SF Renov. @ \$100/SF
Site Development		
Contingency	\$475,000.00	
<b>SUBTOTAL CONSTRUCTION</b>	<b>\$13,650,000.00</b>	
Networking		
Technology Equipment	\$150,000.00	
Technology Infrastructure	\$350,000.00	
<b>SUBTOTAL: NETWORKING</b>	<b>\$500,000.00</b>	
Furniture & Equipment		
Furniture & Equipment	\$250,000.00	
Cabeteria Seating	\$30,000.00	
Library	\$20,000.00	
<b>SUBTOTAL: FURNITURE &amp; EQUIPMENT</b>	<b>\$300,000.00</b>	

\*Pricing as of January 2019 and shall be considered conceptual only, and has been estimated in good faith by Johnson Architecture's best judgment according to recent project or a similar type and construction. The architect cannot control changes in local or other economies and shall not be held responsible for fluctuations in market or contractor costs.



# ADDITION & RENOVATION OPTION 1

32 Classrooms\*, 600 students  
 \*includes CDC & Resource - Resource classrooms noted as CR (not identified)  
 Core for 650-800 students; One Story

## 3 TOTAL PHASES

- 1 New construction classroom wing
- 2 A: Portable classrooms move to new wing  
 B: Portable classrooms demolished  
 C: New cafeteria & gymnasium constructed  
 D: New entry vestibule; existing school exterior brick
- 3 Existing school renovated sequentially (or over summer if possible)

## PROS

- Least amount of new construction
- Does not require land acquisition
- Reuses entire existing building

## CONS

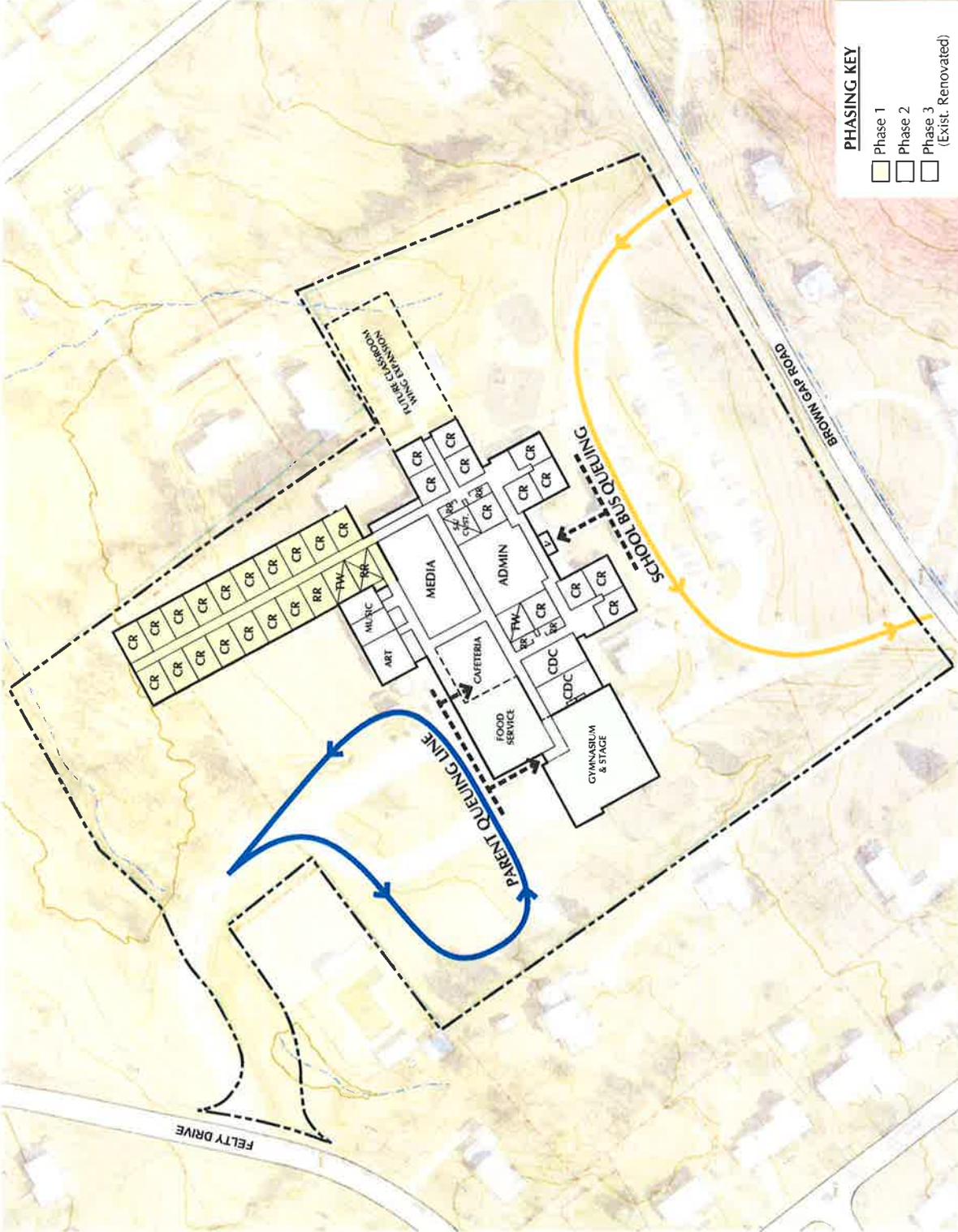
- Most phases, most complicated, longest time duration
  - Renovation must occur in the existing building while classes are in session elsewhere in the building
  - Most disruption to students & teachers
- Less efficient layout
  - Not all classrooms are the same size, some undersized
  - Some existing classrooms do not have windows
- Limited play-field area that doesn't require crossing vehicular area
- Classroom wing & future expansion are very close to lot lines

## SQUARE FOOTAGE

New Construction - 40,990 sf (approx.)  
 Existing, Renovated - 50,700 sf (approx.)  
**TOTAL - 91,690 sf (approx.)**

## PRICING PROJECTIONS

See opposite page



**ADRIAN BURNETT ELEMENTARY SCHOOL FEASIBILITY STUDY  
 PRICING PROJECTIONS  
 OPTION 2 - ADDITION & RENOVATION**

	BUDGET	REMARKS
<b>Land</b>		
Contracts w/ Other Agencies - Appraisals, KCDC	\$10,000.00	Site plan may be revised if necessary
Land Purchase	\$150,000.00	should land be unavailable for purchase
<b>SUBTOTAL LAND</b>	<b>\$160,000.00</b>	
<b>Construction</b>		
Architectural/Engineering Fees	\$900,000.00	Includes Civil Engineering Included in 7 above
Consultants	\$0.00	
Contracts with Other Agencies	\$30,000.00	Topo Survey, Printing
Professional Reimbursables	\$20,000.00	Subsurface Investigation
Environmental Testing - Soils	\$12,275,000.00	50,000 SF New @ \$175/SF and 43,000 SF Renov. @ \$100/SF
Construction	\$150,000.00	Included in 12 above
Demolition	\$450,000.00	
Contingency	\$13,025,000.00	
<b>SUBTOTAL: CONSTRUCTION</b>	<b>\$13,025,000.00</b>	
<b>Networks</b>		
Technology Equipment	\$150,000.00	
Technology Infrastructure	\$350,000.00	
<b>SUBTOTAL NETWORKING</b>	<b>\$500,000.00</b>	
<b>Furniture &amp; Equipment</b>		
Furniture & Equipment	\$250,000.00	
Cabeteria Seating	\$30,000.00	
Library	\$20,000.00	
<b>SUBTOTAL: FURNITURE &amp; EQUIPMENT</b>	<b>\$300,000.00</b>	

\*Pricing as of January 2019 and shall be considered conceptual only, and has been estimated in good faith by Johnson Architecture's best judgment according to recent project or a similar type and construction. The architect cannot control changes in local or other economies and shall not be held responsible for fluctuations in market or contractor costs.



# ADDITION & RENOVATION OPTION 2

32 Classrooms\*, 600 students

\*includes CDC & Resource - Resource classrooms noted as CR (not identified) Core for 650-800 students; One Story

## 2. TOTAL PHASES

- 1 - A: New construction classroom wing & cafeteria & gymnasium wing
- B: Existing playground & music renovated to connect addition wings, allowing for operation
- 2 - A: Existing school renovated, front classroom wings demolished, existing school re-skinned in brick
- B: Portable classrooms demolished

## PROS

- Less amount of new construction
- Does not require land acquisition (However would allow for better parent queuing loop)
- Utilizes existing structure while still allowing efficient reworked layout

## CONS

- Requires coordination of renovation in existing school
- Proposed renovation is extensive, Phase 2 will likely require additional half to full year of school
- Limited play-field area that doesn't require crossing vehicular area
- Existing portable classroom may be required to stay in use until existing school renovation is complete

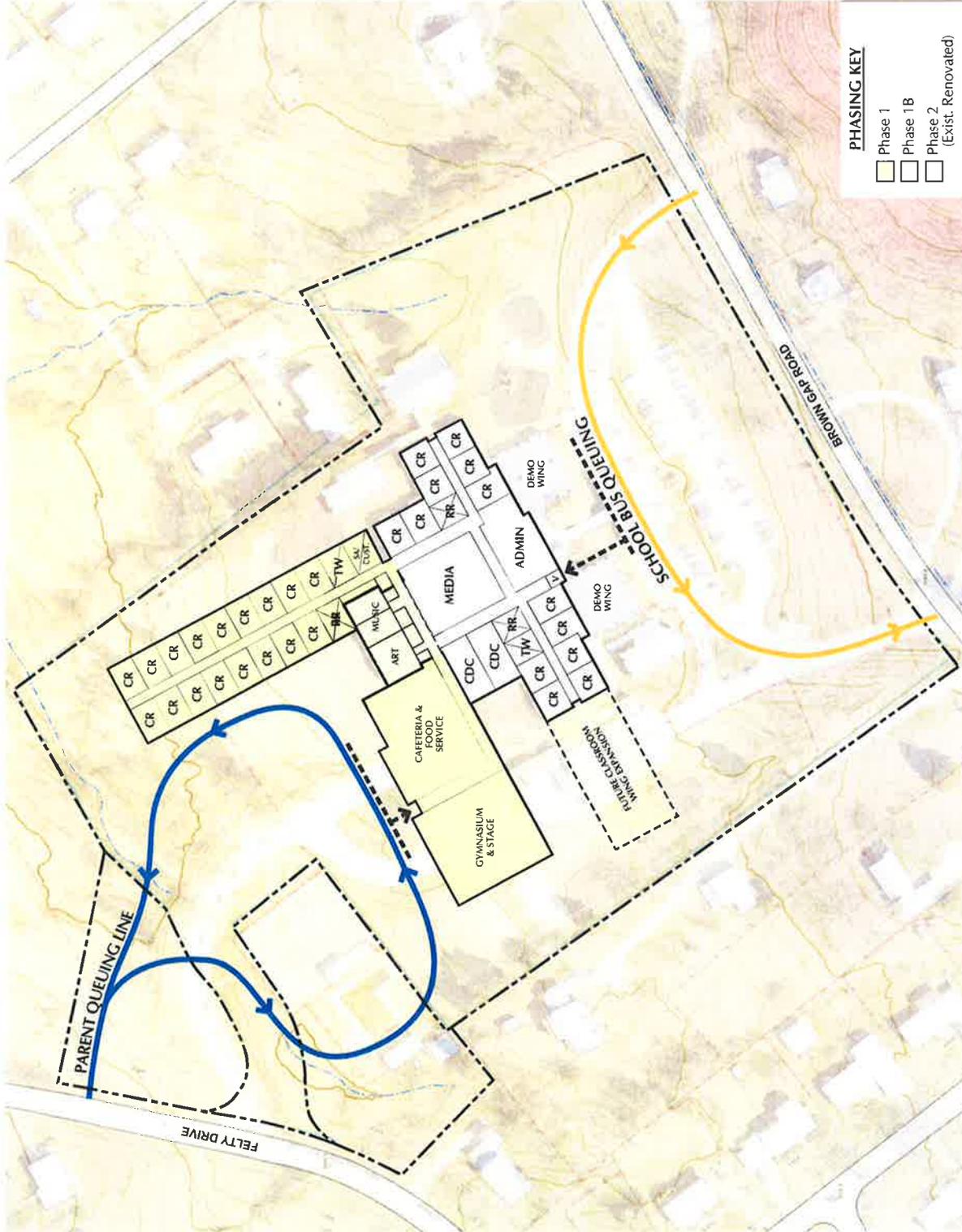
## SQUARE FOOTAGE

New Construction - 50,000 sf (approx.)  
Existing Renovated - 43,000 sf (approx.)  
**TOTAL - 93,000 sf (approx.)**

Existing Demolished - 7,600 sf (approx.)

## PRICING PROJECTIONS

See opposite page



### PHASING KEY

- Phase 1
- Phase 1B
- Phase 2 (Exist. Renovated)

**ADRIAN BURNETT ELEMENTARY SCHOOL FEASIBILITY STUDY  
 PRICING PROJECTIONS  
 OPTION 3 - NEW CONSTRUCTION**

	BUDGET	REMARKS
<b>Land</b>		
Contracts w/ Other Agencies - Appraisals, KCDC	\$10,000.00	
Land Purchase	\$150,000.00	
<b>SUBTOTAL: LAND</b>	<b>\$160,000.00</b>	
<b>Construction</b>		
Architectural/Engineering Fees	\$950,000.00	Includes Civil Engineering Included in 7_Above
Contracts with Other Agencies	\$0.00	
Professional Reimbursables	\$25,000.00	Trupo Survey, Printing
Environmental Testing - Soils	\$15,000.00	Substrate Investigation
Construction	\$15,750,000.00	90,000 SF New @ \$175/SF Included in 12_Above
Site Development	\$500,000.00	
Demolition	\$450,000.00	
Contingency	\$450,000.00	
<b>SUBTOTAL: CONSTRUCTION</b>	<b>\$17,690,000.00</b>	
<b>Networking</b>		
Technology Equipment	\$200,000.00	
Technology Infrastructure	\$600,000.00	
<b>SUBTOTAL: NETWORKING</b>	<b>\$800,000.00</b>	
<b>Furniture &amp; Equipment</b>		
Furniture & Equipment	\$280,000.00	
Cafeteria Seating	\$40,000.00	
Library	\$30,000.00	
<b>SUBTOTAL: FURNITURE &amp; EQUIPMENT</b>	<b>\$350,000.00</b>	

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# NEW CONSTRUCTION OPTION 3

32 Classrooms\*, 600 students

\*includes CDC & Resource classrooms noted as CR (not identified) Core for 650-800 students; Two Stories

## 1 TOTAL PHASE

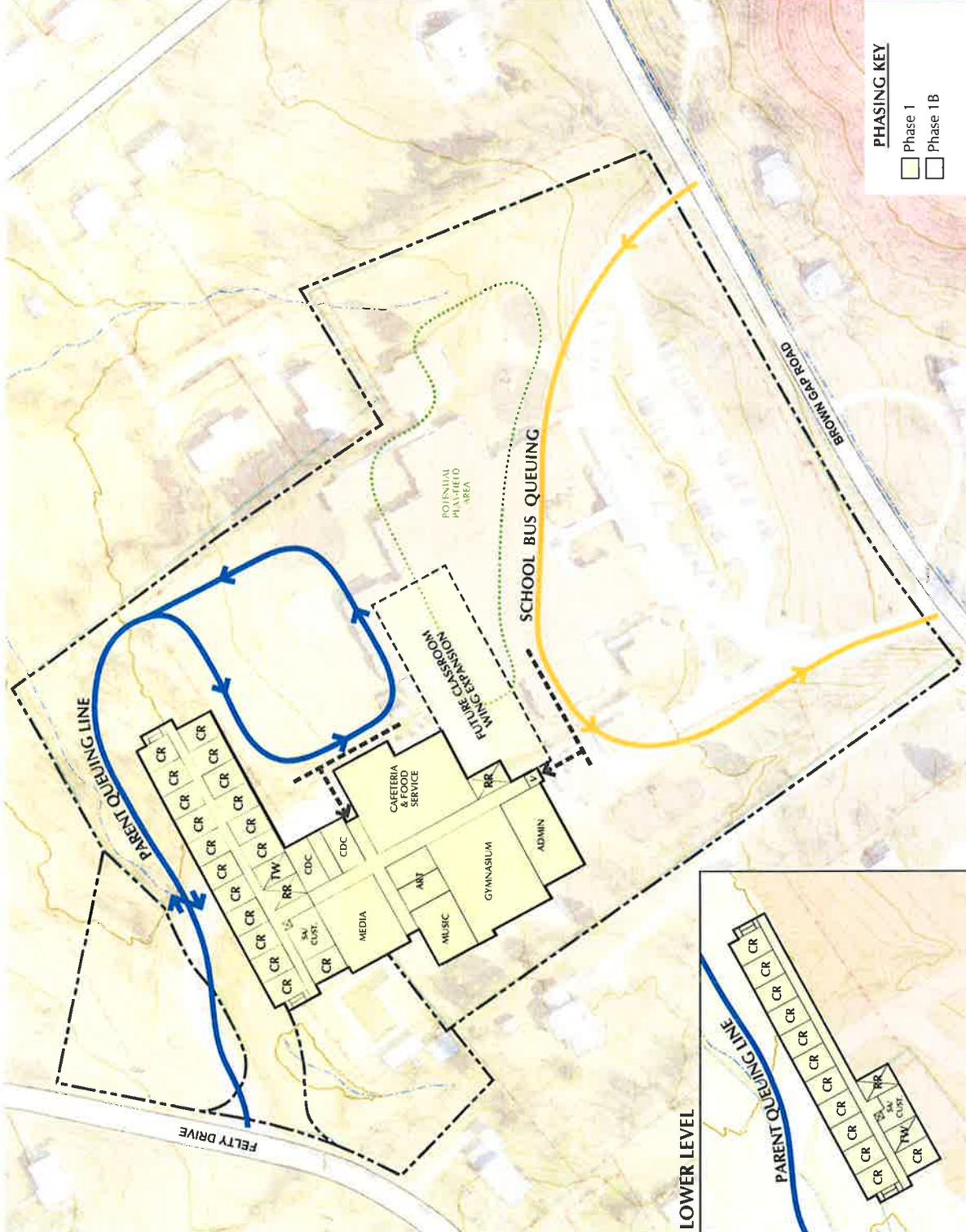
- 1 - A: Construction of new school independent of existing school
  - B: Existing school and portable classrooms demolished; site work
- PROS**
- Brand new structure, most efficient layout
  - Least disruptive - once new school is completed, existing school can be demolished and site work completed over summer break
  - Increased parking & play-field area that does not require crossing vehicular areas
- CONS**
- Requires two story classroom wing
  - New school is sited far from Brown Gap Road at back corner of parcel, closer to residential area
  - Requires purchase/procurement of one to two properties

## SQUARE FOOTAGE

Main Level - 70,900 sf (approx.)  
Lower Level - 19,100 sf (approx.)  
**TOTAL - 90,000 sf (approx.)**

## PRICING PROJECTIONS

See opposite page



**APPENDIX A**

*Included for reference only*

Knox County Schools  
Adrian Burnett Elementary - Structural Assessment  
Bender & Associates  
June 13, 2011



**ADRIAN BURNETT ELEMENTARY**  
4521 Brown Gap Road  
Knoxville, TN 37918

**STRUCTURAL OBSERVATIONS**

**Date of Observations:** June 13, 2011

**Observers/Reviewers:** Richard Bender  
Jim McLemore

**Date of Original Construction:** 1967  
1976



**Areas Reviewed**

Office, library, cafeteria (no access to kitchen), gymnasium, music, classroom wings, portable classrooms (limited access)

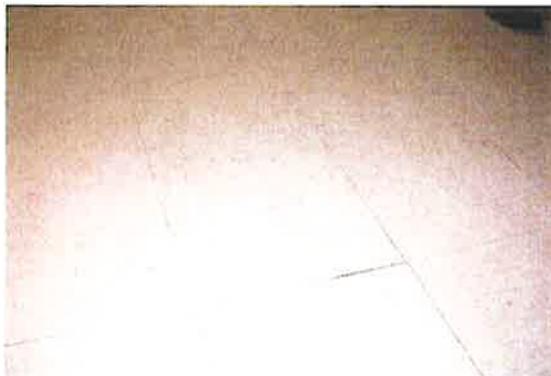


**Construction**

Concrete slab on grade floor structure, wood post and beam roof framing with Tectum roof deck

**Observations**

1. The concrete floors have several minor dips, sags, and raised areas.



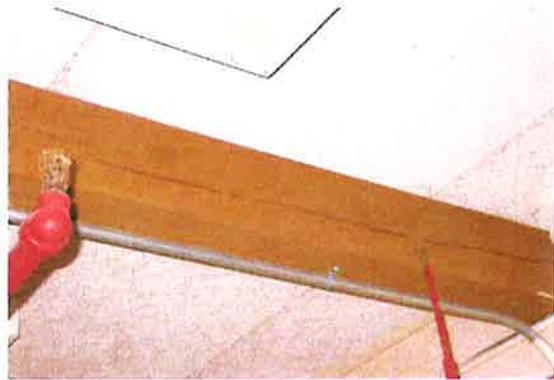
1. Continued.



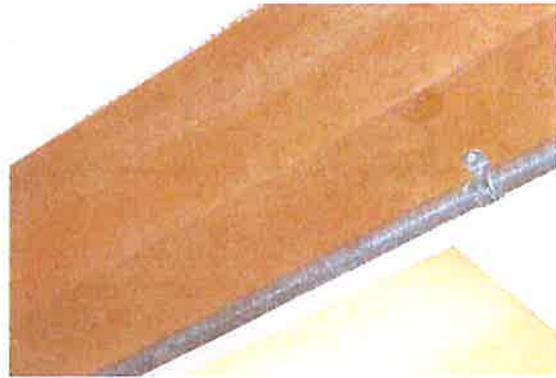
2. Several roof beams have cracked and checked. The beams have shifted at some areas.



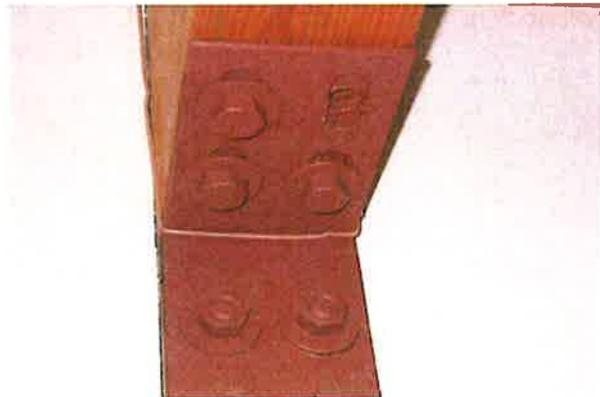
2. Continued.



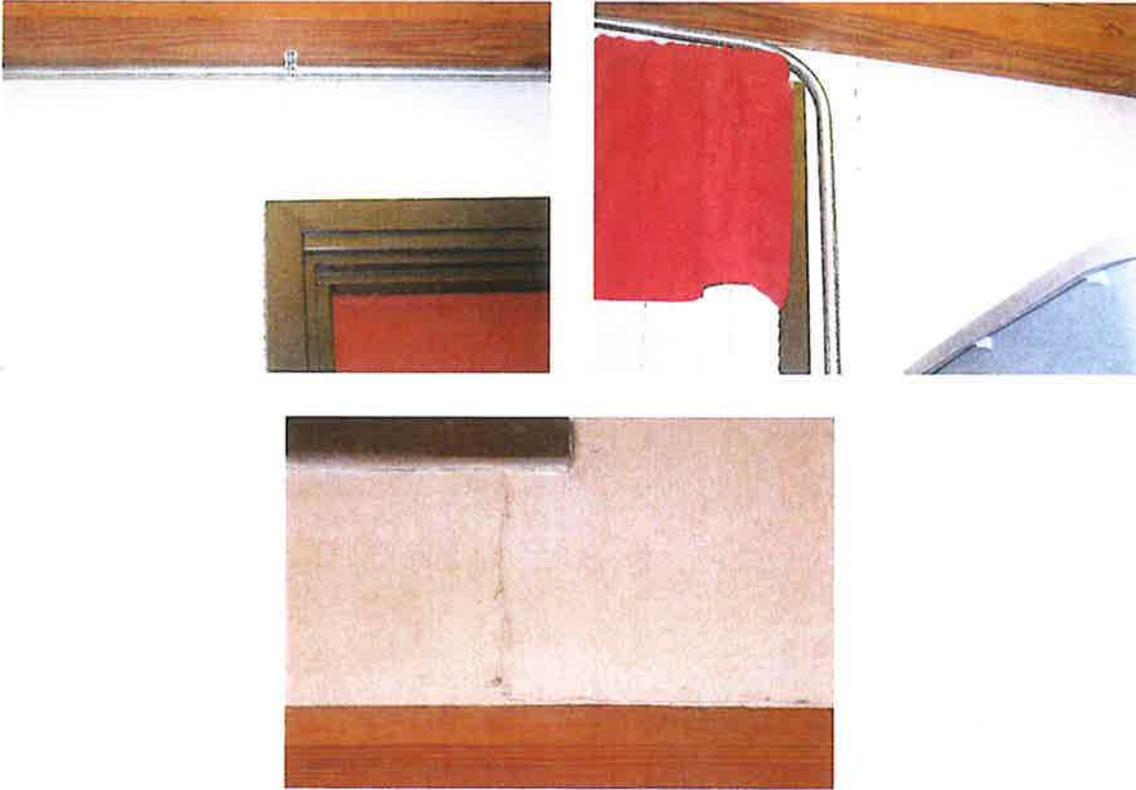
2. Continued.



3. A bolt is missing for the beam to a column connection.



4. At some locations the walls have minor cracks.



5. The west wall of the gymnasium has been braced.



6. A piece of the roof deck at a portable building has deteriorated.



7. The exit porches, steps, and walks for the portable buildings have deteriorated, sagging rails, rotted members, and shifted columns. Water has ponded and drains toward the building at one location.



7. Continued.



8. The front canopy has several deteriorated post bases.



9. The wood post bases at the dock area have deteriorated.



9. Continued.



10. The handrail posts at the dock area have rusted.



11. The grade around the building is above the floor in some areas. Also, the grade directs the water toward the front of the building.



11. Continued.



12. A large tree is growing into the building at the front courtyard.



**Items to Monitor/Repair**

- Roof beam cracks and movement
- Grading around the building

**Items Needing Further Investigation**

- Portable exit porches, steps, walks and rails
- Front canopy columns
- Wood post base at dock area

**STRUCTURAL REVIEW WORKSHEET**

DATE: June 13, 2011

ITEM	SCORE	NOTES
Foundation	82	
Slabs on grade	85	
Exterior Walls	75	
Interior Walls	75	
Elevated Floors	N/A	
Roof Structure	65	
Miscellaneous Structures*	65	
Retaining Walls (not a part of building foundation)	N/A	
Seismic Compliance	Non-Compliant	
<b>Overall Score</b>	<b>68</b>	* Not included in overall score

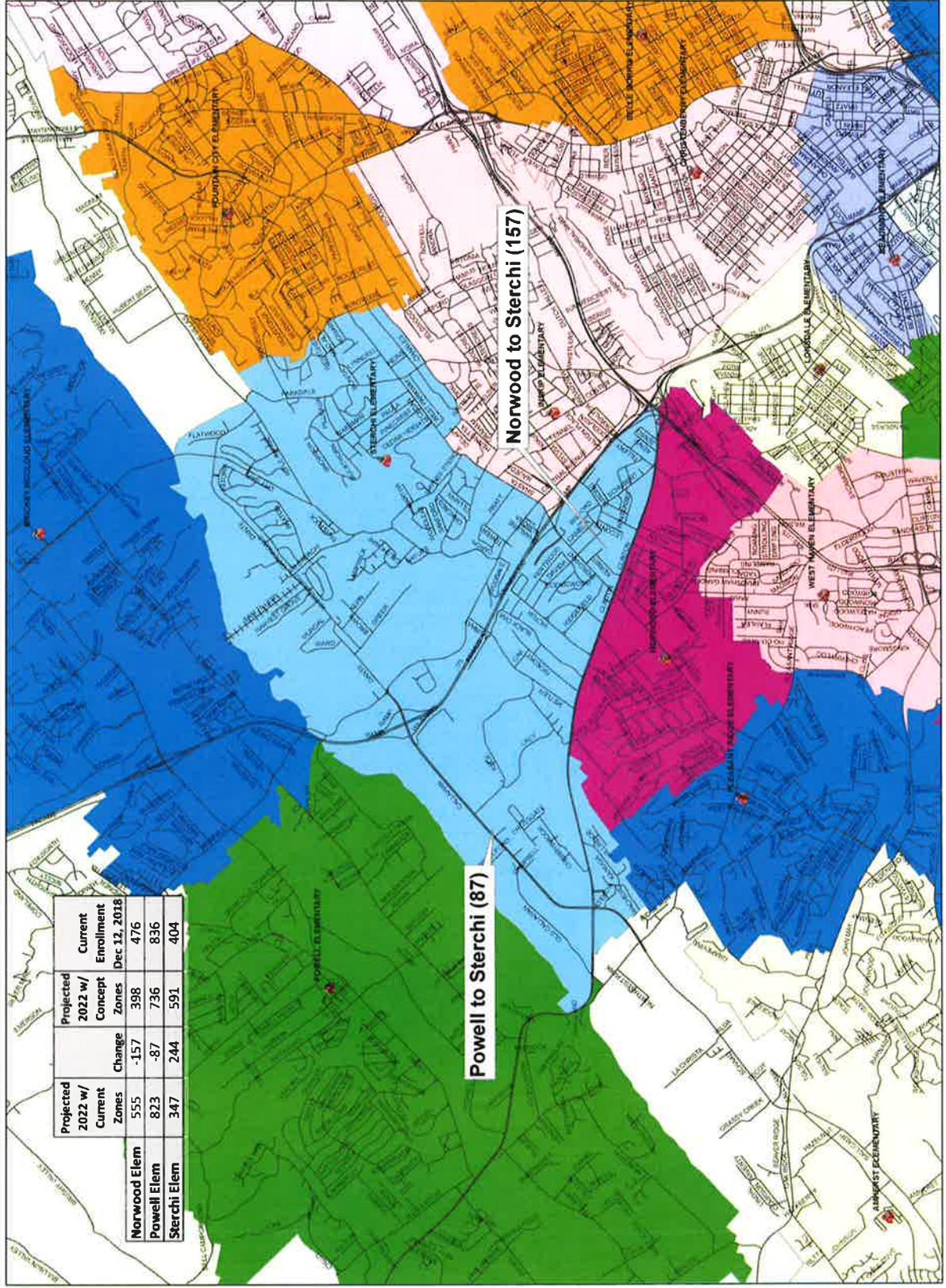
### Structural Review Notes

- This review was performed by observation of areas of structure that could be seen without removal of finishes or floor and wall coverings. If defects/concerns were found, more intensive investigation was provided if the reviewers/maintenance staff could easily move objects to provide further visibility.
- Since foundations are normally below exterior grade, they can not usually be observed; however, the condition of the walls, columns, beams, or other structure they support can provide evidence to help determine their condition.
- Comments and information from the school staff and/or the county school system's maintenance department will be useful in the reviews. If school officials have specific concerns and provide them to us, we will try to address them in our review.
- The conditions we noted are intended to provide the school system with information to evaluate a particular building and are not recommendations for repair. Designs for remedial action are not included.
- Although some items listed may not be structural in nature, they are mentioned since they could lead to structural concerns e.g.: grading drainage, clogged storm water pipes, large vegetation near foundations, etc.
- Since most schools/classroom areas utilize bearing walls, defects caused by settlement or other movement can usually be readily observed. If there are areas of immediate concern, we will bring them to the school system's attention, and a detailed study and recommendations will be required.
- A quantitative and/or code review was not provided. It is assumed that the buildings were designed and constructed to the proper codes.
- We have provided a numerical evaluation of each building (based on 100 as the highest score). This number represents our opinion of the building based on our observations from the walk through, our experience with school structures, its age, and other factors influencing our assessment. The score does not include portable classrooms, athletic buildings, stadiums, or any other detached structure. The score applies only to the structural condition, and does not take into consideration electrical, mechanical, plumbing, ADA or architectural considerations (i.e., a building could have a high score structurally and a low score in some of the other disciplines or vice versa).

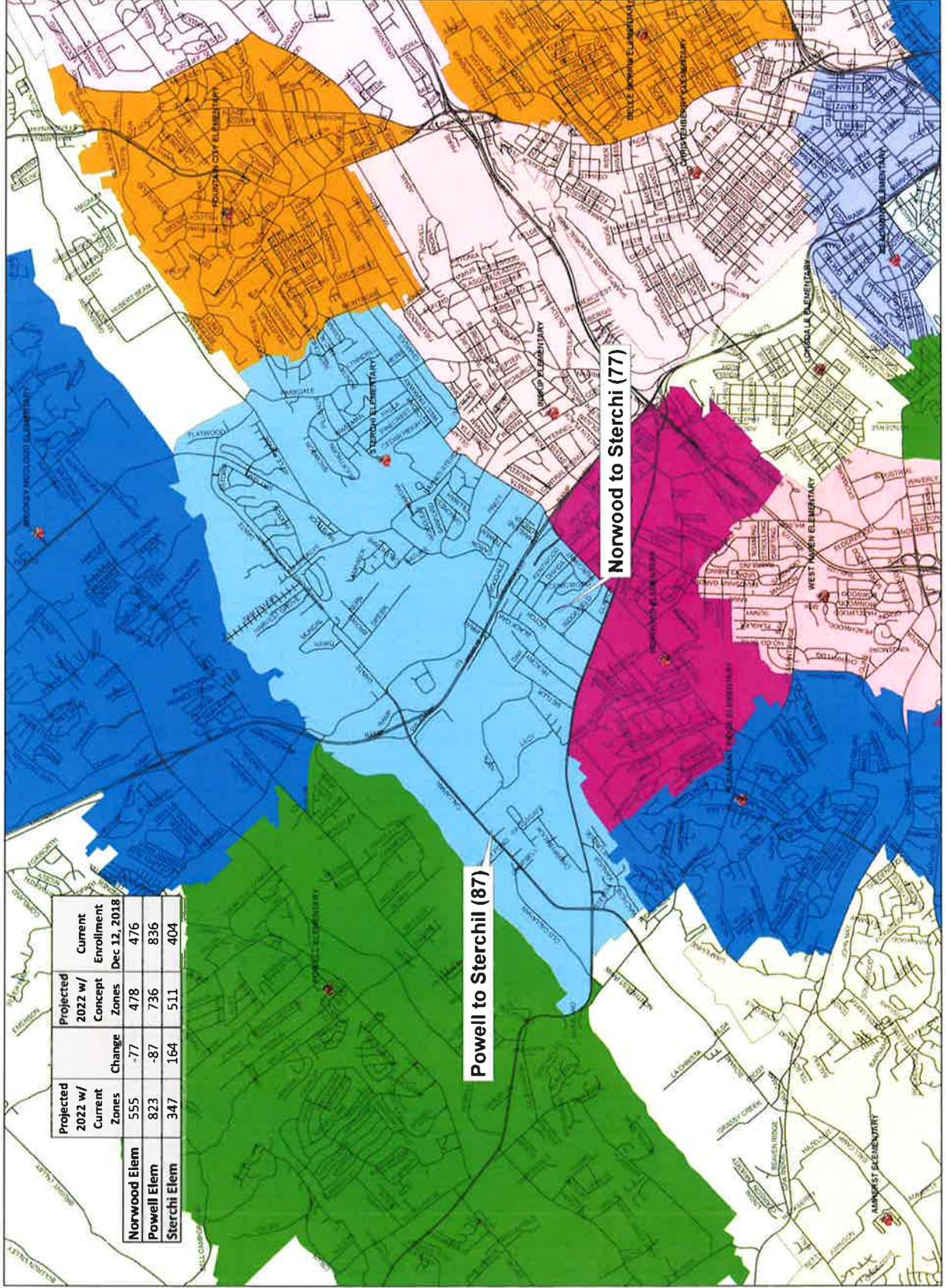
- The scoring method for the building and components is as follows:
  - 90-100      Very Good      Observed deficiencies are minor and do not affect the structural function or capacity of the building
  - 80-89      Good      Observed deficiencies are of a nature that they are unsightly and can be addressed with modest effort
  - 70-79      Fair      Observed deficiencies are not widespread, however some could be significant
  - 60-69      Numerous Minor Deficiencies      Widespread observed deficiencies which require repairs
  - 50-59      Critical      Widespread deficiencies which need to be addressed and may require replacement of materials rather than repair
  - 49 or Less      Immediate Attention Needed      Serious deficiencies which need to be addressed because of safety concerns

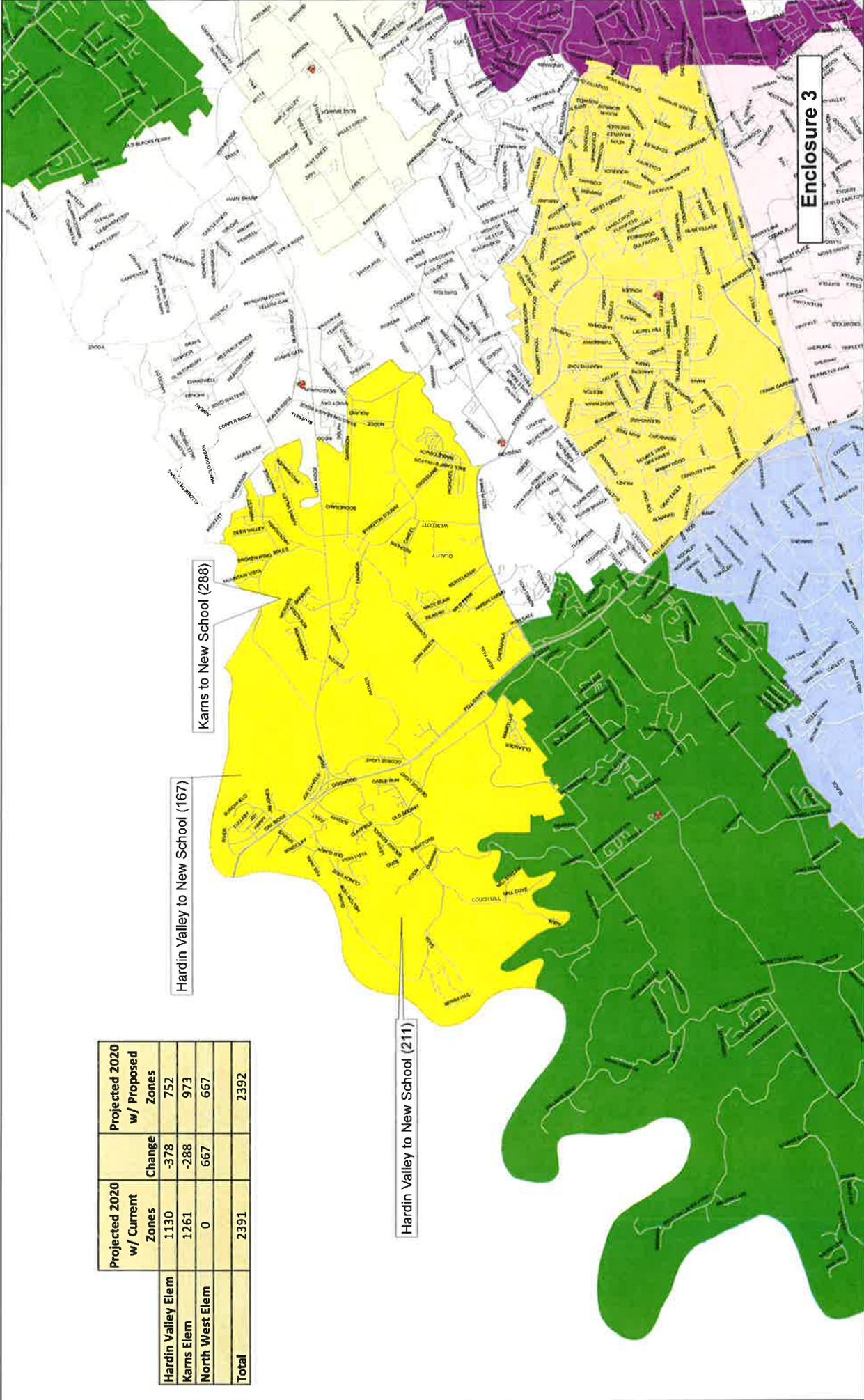
The overall score will not be a mathematical average; it will be an evaluation based on our opinion of the overall condition of the structure with consideration given to the extent and severity of any deficiencies.

# Sterchi Elementary School – Conceptual Zone A



# Sterchi Elementary School – Conceptual Zone B





Enclosure 3

Karns to New School (288)

Hardin Valley to New School (167)

Hardin Valley to New School (211)

	Projected 2020 w/ Current Zones	Change	Projected 2020 w/ Proposed Zones
Hardin Valley Elem	1130	-378	752
Karns Elem	1261	-288	973
North West Elem	0	667	667
<b>Total</b>	<b>2391</b>		<b>2392</b>

**PROJECT CONSTRUCTION BUDGET FOR:  
A NEW NORTHWEST ELEMENTARY SCHOOL**

800 Student Capacity

		BUDGET	REMARKS	
1	<b>Land</b>			1
2	Contracts w/ Other Agencies - Appraisals, KCDC			2
3	Land Purchase			3
4	<b>SUBTOTAL: LAND</b>	\$0.00		4
5				5
6	<b>Construction</b>			6
7	Architectural/Engineering Fees	\$1,150,000.00	Includes Civil Engineering	7
8	Consultants	\$0.00	Included in 7 above	8
9	Contracts with Other Agencies	\$0.00		9
10	Professional Reimbursables	\$25,000.00	Topo Survey, Printing	10
11	Environmental Testing - Soils	\$15,000.00	Subsurface Investigation	11
12	Construction	\$19,250,000.00	110,000 SF New @ \$175/SF	12
13	Site Development	\$0.00	Included in 12 above	13
14	Demolition			14
15	Contingency	\$450,000.00		15
16	<b>SUBTOTAL: CONSTRUCTION</b>	\$20,890,000.00		16
17				17
18	<b>Networking</b>			18
19	Technology Equipment	\$200,000.00		19
20	Technology Infrastructure	\$600,000.00		20
21	<b>SUBTOTAL: NETWORKING</b>	\$800,000.00		21
22				22
23	<b>Furniture &amp; Equipment</b>			23
24	Furniture & Equipment	\$280,000.00		24
25	Cafeteria Seating	\$40,000.00		25
26	Library	\$30,000.00		26
27	<b>SUBTOTAL: FURNITURE &amp; EQUIPMENT</b>	\$350,000.00		27
28				28
29	<b>TOTAL</b>	\$22,040,000.00		29

# KNOX COUNTY SCHOOLS

ANDREW JOHNSON BUILDING

*Bob Thomas, Superintendent*



## MEMORANDUM

TO: Chair and Members  
Knox County Board of Education

FROM: Bob Thomas  
Superintendent

DATE: April 17, 2019

RE: Lonsdale Elementary School Adequacy Analysis

This year we have established the Sam E. Hill Primary school. The school currently serves several pre-kindergarten classes and the kindergarten students who are zoned to attend Lonsdale Elementary School. These students will remain at Sam E. Hill next year for the first grade completing our transition to a primary school that will serve pre-K through first grade students. Lonsdale Elementary School will then serve students in grades 2-5. This action was made necessary by the increasing population at Lonsdale and our inability to properly serve all the K-5 students in the existing facility.

As we discussed the transition to this model with the Lonsdale community, there was considerable interest expressed by community members concerning the adequacy of the Lonsdale Elementary facility. Establishing a primary school at the Sam E. Hill site has alleviated the current capacity concerns, but we made a commitment to the community to conduct some further analysis around the adequacy and future viability of the Lonsdale facility.

### **Background**

Lonsdale Elementary School was established in 1935 with a two-story structure that contained a gymnasium, nine classrooms, a lunchroom and a library. An addition was completed in 1955

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**Attachment I**

that added a kitchen, a cafeteria, administrative space and 13 classrooms to bring the total square footage to 57,681. The school has largely been unaltered since this addition except for necessary maintenance, HVAC and electrical upgrades, and completion of wired and wireless network infrastructure. The Knox County Schools has added several modular classrooms over the last 20 years to support the increasing enrollment at the school and the need to reduce class size to better support the current student population.

The school was built at a time when there were few if any state or local mandates with respect to student:teacher ratios and facilities design. The community and student demographics and needs have evolved over the last 60 years, as have curriculum requirements, facilities program standards and building codes.

### **Facilities Program Standards**

The Knox County Schools has established program standards for elementary, middle and high schools that provide design and construction guidance to ensure schools the district builds meet current curricular, administrative and student support services needs. Program standards can change or be modified over time as needs change. Consequently, many of the district's schools that are over 30 years old have areas that do not fully meet the current program standards. While portions of a facility may not meet the current standard, it does not mean that the facility is not safe and suitable to meet its mission or that it is inadequate in some way. The program standard is only a single point of analysis or comparison when assessing a facility and should only be considered in the context of all other facility characteristics.

Attachment A is a comparison of the current program standards for a 400-student elementary school and the existing Lonsdale facility. While classroom size is comparable or in some instances exceeds the current standard, the space required for administration, kitchen and cafeteria, library, gymnasium, music and special education, among other core amenities for a modern elementary school is deficient in the Lonsdale facility. Additionally, the roughly 2.5-acre site is extremely limited and does not provide space for the necessary traffic controls, adequate parking and playground areas.

## **Condition of the Facility**

The facility is structurally sound, clean and maintained. Over the last 15 years the facility has had electrical, plumbing, HVAC and fire alarm upgrades. The facility has also been painted recently and has had a secure vestibule installed and an administrative office upgrade/redesign. While about \$600,000 in maintenance work has been accomplished over the previous 15 years, there are shortcomings and deferred maintenance that would need to be addressed in any major upgrade to the facility. Some of the major areas of concern are:

1. Handicapped Accessibility - the school is nominally a two-story facility, but it is built on multiple levels for each story creating a 2.5 to 3 story facility in some areas. It is not equipped with lifts or elevators and as such it is not handicapped accessible. Further, this design makes is a difficult and complicated process to retrofit the facility to make it accessible.
2. Current Code Requirements - While the facility meets the building codes requirements in place at the time of its construction, there are several areas where codes have changed, and upgrades would be required should a major renovation be undertaken. It is established practice to not generally require facilities to be modified due to changes in building codes. The facilities are normally maintained until a major renovation or reuse takes place. In the case of Lonsdale, these upgrades are somewhat difficult and costly.
  - a. The building has open stairwells that would have to be enclosed and in order to do this all electrical panels would also have to be relocated.
  - b. The doors and door hardware would need to be replaced with fire rated products.
  - c. The building would need to have a fire suppression system or sprinkler added.
  - d. There would be some minor hazmat remediation to address asbestos containing floor tile that may remain under casework and to replace any existing painted casework that may have previously been remediated/encapsulated due to potential presence of lead paint.

3. Roof, Mechanical and Electrical – The current roof and HVAC system at the school are nearing the end of their lifecycles, and the electrical service needs to be redistributed and expanded as well upgraded from a 1200-amp to a 2000-amp service.
4. Parking – The facility has less than 40 stripped parking spaces. This is far less than is needed and there is no opportunity on the current campus to address this concern. Staff, parents and residents are currently using curbside parking on the streets surrounding the school. This causes sight line issues for pedestrians and challenging situations at crossings.

The worksheet at Attachment B provides an estimate of the upgrade work that would need to be considered as part of any major renovation to the Lonsdale facility. The \$6.7 million estimate includes the issues identified above. This number does not include the cost of any addition to the school to increase capacity.

### **Final Assessment and Recommendation**

Based on the information presented above, we believe the cost of renovating the Lonsdale Elementary School facility and adding an addition large enough to eliminate the use of portable or modular classrooms is comparable with the cost of construction of a new facility. However, an addition/renovation would likely require the acquisition of additional property and would not fully address all the shortcomings or concerns. The adequacy of the facility's core amenities to support the current and future student population is suspect at best, and it is not in line with current program standards. Expansion of the core would be difficult to accomplish fully due to the constraints of the existing building's design and the size of the campus.

We recommend the Board of Education consider replacing the current Lonsdale Elementary School and Sam E. Hill primary school facilities with a new approximately 600 student elementary school to be built beginning in FY20. While acreage is at a premium, we believe the Board should discuss the possibility of acquiring City of Knoxville property adjacent to the current Lonsdale Elementary campus. This would facilitate the construction of a new school in a phased project, and it could possibly eliminate the need to continue to maintain the Sam E. Hill

facility. Once a new facility is completed, the existing building can be demolished creating needed space for parking and traffic flow.

**Attachment A to the Lonsdale Elementary School Adequacy Analysis - Lonsdale  
Elementary School Comparison**

	<b>Knox County Program Standards 400 Students/400 Core</b>	<b>Lonsdale Elementary w/o Portables - 400 Students/400 Core</b>	<b>Program Differences (See Note 1)</b>	<b>Notes</b>
<b>Administration</b>	2,610	1,375	1,235	
<b>Guidance Suite</b>	570	195	375	
<b>Clinic</b>	270	155	115	
<b>Special Education</b>	5,730	2,640	3,090	
<b>Classroom (K &amp; 1)</b>	7,760	4,320	3,440	See Note 2
<b>Classroom (2 &amp; 3)</b>	6,960	7,915	955	See Note 3
<b>Classroom (4 &amp; 5)</b>	5,220	2,795	2,425	See Note 4
<b>Teacher Work Areas</b>	2,620	2,000	620	See Note 5
<b>Art</b>	2,000	910	1,090	
<b>Music: Choral/General</b>	2,700	-	2,700	See Note 6
<b>Physical Education</b>	8,545	3,825	4,720	
<b>Media Center</b>	5,030	1,350	3,680	
<b>Cafeteria Complex</b>	8,020	3,650	4,370	
<b>Building Maintenance</b>	1,820	1,780	40	
<b>Miscellaneous</b>	3,210	8,290	5,080	See Note 7
<b>Total Net Square Feet</b>	63,065	41,200	21,865	
<b>Grossing Factor</b>	(x) 1.32	(x) 1.4		
<b>Building Program Total</b>	85,138	57,680	27,458	

**Notes:**

1. Red numbers in the Program Difference column denote a deficit from current program standard requirements. Black numbers denote an excess of space over current program standards.
2. Includes First Grade only for the 2018-2019 school year. Kindergarten is located at Sam E. Hill Primary School.
3. Existing classroom sizes exceed current programmed sizes for this group. When designed student/teacher ratio requirements did not exist.
4. Classrooms within the original building house fourth grade only. All fifth-grade classrooms are in portable buildings.
5. Teacher work areas are in areas not conducive to use for educational instruction due to code conflicts.
6. Music Room is in a portable building and is not included in this comparison.
7. Many areas within the main building are unsuitable for housing students due to code conflicts and are used for other purposes, requiring the use of portable classrooms to contain needed areas for students.

**Attachment B to the Lonsdale Elementary School Adequacy Analysis -Estimated Cost to Upgrade**

	Project	Estimated Cost
1	Door and Hardware Replacement	\$135,000
2	New Flooring in Classrooms	\$124,700
3	Restroom Renovations	\$80,000
4	New Casework	\$345,000
5	Furniture Fixtures & Equipment	\$230,000
6	New Acoustical Ceilings	\$124,700
7	Electrical Upgrades	\$1,160,000
8	Fire Suppression System/Sprinkler	\$174,000
9	ADA Upgrades (including elevators)	\$1,750,000
10	Roof	\$600,000
11	HVAC Upgrades	\$550,000
12	Code Upgrades/Construction	\$1,450,000
13	TOTAL	\$6,723,400.00