K-8 FEASIBILITY STUDY

Planning for Our K-8 Programs and Facilities

Why conduct a feasibility study?

1. Concerns about the condition of our aging schools. What should we expect to need in the next five years?
2. Concerns about the declining enrollment. We are down 795 students since 2011. How much extra space do we have?
3. Concerns about inequity in elementary class sizes. How do we balance class sizes across all five buildings?
4. Concerns about educational quality. What are the trends in education and what do we need to do to get us there?
5. Concerns about finances and how we should invest our tax dollars to achieve the best possible outcomes while maintaining good stewardship of the taxpayers' investment.

Key findings from the Feasibility Study

Takeaway #1

The population in the Bethel Park School District will remain relatively stable over the next 10 years. Enrollment in the schools is currently at 3,880, and there most likely be little variance in 10 yrs. Demographers' analysis of the data holds Bethel Park between 3,700 and 4,200 for the next 10 years or longer. This is down 795 over the past ten years.

How do we address the over-capacity issues we have?

Key findings from the Feasibility Study

Takeaway #2

District school facilities (other than HS) are aging and will need major investments to their major building systems in the next 10 years.

- Accessibility needs to be improved.
- Security needs to be improved.
- Major systems are nearing the end of their expected life.
- Estimates are between $70-100 million to complete necessary renovations.

How do we best to invest these monies looking long term?

Key findings from the Feasibility Study

<u>Takeaway #3</u>:

There is a lack of equity in the Bethel Park students' educational experience in Grades K through 4 which is related to discrepancy in class sizes, level of special education services available, availability of other student support services, and differences in physical facilities.

What investment do we make to "level the playing field?"

Key findings from the Feasibility Study

Takeaway #4

A 21st century educational curriculum needs to be implemented throughout the K-12 continuum. STEAM programs need to be integrated K-12 with collaboration and technology as integral throughout the K-12 program of study.

What changes to our facilities are necessary for this?

Key findings from the Feasibility Study

Takeaway #5

There is unused space and unused student capacity at IMS. The building was designed as a middle school for grades 6-8. 6th graders at Neil Armstrong are housed as middle schoolers in a building integrated with elementary schoolers and runs separate schedules.

How do we maximize the middle school concept for 6th graders?

Key findings from the Feasibility Study

Takeaway #6

The major investment needed to upgrade facilities, provide more equity and level-loading of classes in the educational experience, and implement a 21st C. Curriculum can be planned for and managed in a financially sustainable way beyond the immediate needs.

What are our options to address all of these issues?

Facilities Analysis

GENERAL SCHOOL ASSESSMENTS

These items apply to all seven K-8 schools in the District

- ❑ Address accessibility issues: make all egress paths, restrooms, plumbing fixtures, and casework ADA-compliant with current code (this would include replacement of door hardware, casework, and plumbing fixtures and accessories, as well as modifications to classroom entrances). Multi-level buildings would require elevators.
- ❑ Safety / Security updates as needed to include modifying entrances to provide a captured vestibule.
- ❑ Replace all non-storefront windows.
- ❑ Replace outdated finishes throughout.
- ❑ Replace fire alarm and emergency/exit lighting.
- ❑ Provide sprinkler systems throughout building.

Facilities Analysis

<u>Abraham Lincoln Elementary</u> Originally Built: 1965 Two-story structure with no Basement *(Lowest Level is partially below grade)* Total SF: 40,800 267 Students Renovated: Major work: 1993; Minor work: 2008 and 2015	*Scope of Recommended Work for this school to contain all items listed in the "General School Assessment"*
	Replace the majority of the HVAC equipment in the facility, and their respective controls
	Address significant paving issues
	Overall Grade: D **Expected renovation costs: $10,000,000**

Facilities Analysis

Ben Franklin Elementary	*Scope of Recommended Work for this school to contain all items listed in the "General School Assessment"*
Originally built: 1955 Two-Story Structure *(Lowest Level only two classrooms and mech. space and partially below-grade)* 52,500 SF 292 Students Renovated: Major work: 1990, 2006; Minor work: 2016	Replace the majority of the HVAC equipment in the facility, and their respective controls Address significant paving issues **Overall Grade: C** **Expected renovation costs: $10,500,000**

Facilities Analysis

<u>Bethel Memorial ES</u> Originally built: 1949 One-Story Structure w/ Unoccupied Mechanical Basement 40,000 SF 294 Students Renovated: Major work: 1991; Major Work: 2008	*Scope of Recommended Work for this school to contain all items listed in the "General School Assessment"*
	Replace the majority of the HVAC equipment in the facility, and their respective controls
	Replace original electrical panelboards
	Overall Grade: C **Expected renovation costs: $8,500,000**

Facilities Analysis

<u>George Washington Elementary</u> Originally built: 1966 Two-Story Structure with Intermediate Mezzanine Level *(Lowest Level is partially below grade)* 49,396 SF 235 Students Renovated: Major work, 1991; Minor Work 2006; Major Work 2015	*Scope of Recommended Work for this school to contain all items listed in the "General School Assessment"*
	Re-Paint all sections of metal roofing
	Replace water main piping.
	Overall Grade: C **Expected renovation costs: $7,500,000**

Facilities Analysis

William Penn Elementary Originally built: 1961 One-Story Structure with No Basement 28,200 SF 173 Students Renovated: Major work: 1993; Minor Work: 2008	*Scope of Recommended Work to contain all items listed in the "General School Assessment"*
	Point deteriorated masonry on exterior.
	Replace the majority of the HVAC equipment in the facility, and their respective controls
	Replace entire domestic water service, including site service lines, piping, and valves.
	Address significant paving and site drainage issues
	Overall Grade: D **Expected renovation costs: $7,000,000**

Facilities Analysis

Neil Armstrong Middle School

Originally built: 1970

Three-Story Structure with Intermediate Mezzanine Level *(Lowest Level is partially below-grade)*

126,452 SF

518 students (5-6)

Renovated: Major work, 1991; Minor Work 2006; Major Work 2013

Scope of Recommended Work for this school includes all items listed in the "General School Assessment"
Replace folding partitions or install permanent walls.
Replace entire electrical system, including distribution, Lighting (LED)
Replace entire domestic water service, including site service lines, piping, valves, heaters, and storage tanks.
Address site drainage and paving issues
Overall Grade: C **Expected renovation costs: $16,500,000**

Facilities Analysis

Independence Middle School Originally built: 1974 Three-Story Structure *(Lowest Level is partially below grade)* 198,700 SF 636 students (7-8) Renovated: Major work, 1991; Minor Work 2006; Major Work 2013	*Scope of Recommended Work for this school to contain all items listed in the "General School Assessment"*
	Address egress issues: add more vertical circulation, reduce egress paths and add exits from gym
	Replace folding partitions or install permanent walls.
	Replace all HVAC equipment in the facility, and their respective controls, except for the rooftop units serving the Cafeteria and Administration Office area
	Consider replacing domestic water piping and valves
	Overall Grade: **C** **Expected renovation costs:** **$10,500,000 phase 1; $20,000,000 phase 2**

STAKEHOLDER RECOMMENDATIONS: CREATE A 21ST CENTURY EDUCATIONAL BUILDING PROGRAM

- ➔ Maintain and advance education excellence in the learning environments.
- ➔ Providing adequate facilities for school staff to deliver a 21st Century education in a safe, functional, and stimulating environment for the students and the teachers.
- ➔ Achieve more equity within the students' educational experience, especially in Grades K through 4.
- ➔ More equity within the special education program. Equity means allocating resources as needed, sometimes in an unequal way in order to overcome disparities that exist in the delivery of education and services.
- ➔ Attend to school and campus safety and security.

POPULATION TOTALS AT EXISTING K-8 SCHOOL BUILDINGS

	Lincoln		Franklin		Washington		Memorial		William Penn		NAMS		IMS					
	No. of CR	Students Per CR	No. of CR	Students Per CR	No. of CR	Students Per CR	No. of CR	Students Per CR	No. of CR	Students Per CR	No. of CR	Students Per CR	No. of CR	Students Per CR		Current Total	Average[2] Future Enrollment	Max[2] Enrollment thru 2027
K[1]	3	13	2	14	2	11	2	15	1	15						134	153	159
1st	3	19	3	22	3	16	3	25	2	16						278	305	323
2nd	3	22	3	24	3	17	3	20	2	17						283	310	332
3rd	3	16	3	19	3	17	3	22	2	25						272	307	332
4th	3	19	3	23	3	21	3	21	2	21						294	307	335
5th											14	18				252	307	354
6th											14	19				266	310	354
7th													12	28		336	310	354
8th													12	25		300	303	349
Totals	267 / 324		292 / 304		235 / 304		294 / 304		173 / 196		518 / 700		636 / 988					

K-2 = 1:20 / 3-5 = 1:24 / 6-8 = 1: 26

Moving From Assessment and Analysis to Synthesis

- ➔ Synthesizing all of the facts and input, 11 options were developed.
- ➔ The options will generally address the issues but vary in terms of cost.
- ★ The one critical factor is that the district cannot do nothing.
- ➔ The question becomes, which option is most viable, affordable and opportunistic?

What are the Objectives we seek?

1. Update or replace our aging school facilities.
2. Right-size the district's schools.
3. Achieve equity in class sizes across elementary classrooms.
4. Improve educational quality through facilities and infrastructure improvements in conjunction with instructional and curricular improvements.
5. Do all of this is a fiscally responsible way.

LIST OF MASTER PLAN OPTIONS FOR CONSIDERATION

The following Options were developed in a brainstorming manner. No Option was discarded & they are in no recommended order.

- Option 1A: Keep the current quantity and arrangement of all K-8 Schools. Renovate Elementary Schools and add to them to provide equity in learning environments.
- Options 1B: Keep all current Elem. Schools. Move all 4th graders to NAMS for a 4-5 Intermediate Elementary School and 6th grade to IMS. Renovate Elem. Schools and add to them to provide equity in buildings.
- Option 2: Close one Elem. School. Renovate remaining Elem. Schools & add to them to provide equity in buildings.

LIST OF MASTER PLAN OPTIONS FOR CONSIDERATION

- Option 3: Close two Elem. School buildings. Renovate remaining Elem. schools and add to them to provide equity in learning environments. The K-4 Elem. grade population is reassigned to the remaining three Elem. schools, and additions built as needed.
    - Option 3B: Close two Elem. School buildings. Remaining K-3 population gets reassigned to remaining three (3) Elementary Schools. Expand NAMS to become a 4,5,6 building. IMS remains 7-8 building.
    - Option 3C: Close two Elementary School buildings. NAMS becomes grades 4-5. 6^{th} grade moves to IMS without the need for additions. Remaining K-3 population gets reassigned to remaining three (3) Elementary Schools.

LIST OF MASTER PLAN OPTIONS FOR CONSIDERATION

- Option 4: Close all Elementary School Buildings and construct a new centralized K-4 Elementary Center. Keep NAMS as Grade 5-6 Intermediate School.
  - Option 4A: Construct the new Elementary Center on the existing fields of NAMS.
  - Option 4B: Construct the new Elementary Center on the HS/IMS site.
  - Option 4C: Construct the new Elementary Center on the existing property at Franklin Elementary School.
  - Option 4D: Convert the existing Franklin Bldg. into a new Elem. Center w/ additions & alterations.

LIST OF MASTER PLAN OPTIONS FOR CONSIDERATION

- Option 5: Close all existing Elem Schools. Expand and renovate NAMS into a K-5 Elem Center. Move 6th grade to IMS.
- Option 6: Keep all five (5) existing Elementary Schools. Add additions to house 5th grade population to each of the existing Elementary Schools, and renovate them. Convert IMS into a 6,7,8 building. Close NAMS.
- Option 7: Close three Elem. School buildings. Renovate one Elem. building into a K-1 Primary Center. Renovate one Elem. building into a 2-3 Elem. Center. NAMS becomes grades 4-5. IMS becomes grades 6,7, and 8.

LIST OF MASTER PLAN OPTIONS FOR CONSIDERATION

- Option 8: Close all existing Elem. Schools. Build a new K-2 Primary Center. Expand and renovate NAMS into a 3-4-5 Elem. Center. Move 6th grade to IMS.
  - Option 8A: Construct the new Primary Elementary Center on the existing fields of NAMS.
  - Option 8B: Construct the new Primary Elementary Center on the HS/IMS site.
  - Option 8C: Construct the new Primary Elem. Center on the existing property at Franklin Elem. School.
  - Option 8D: Convert the existing Franklin Bldg. into a new Primary Elem. Center w/ additions & alterations.

LIST OF MASTER PLAN OPTIONS FOR CONSIDERATION

- Option 9: Close all existing Elem Schools. Build a new K-3 Elem Center. NAMS becomes grades 4-5. Move 6th grade to IMS.
  - Option 9A: Construct the new Elementary Center on the existing fields of NAMS.
  - Option 9B: Construct the new Primary Elementary Center on the HS/IMS site.
  - Option 9C: Construct the new Primary Elem. Center on the existing property at Franklin Elem. School.
  - Option 9D: Convert the existing Franklin Bldg. into a new Primary Elem. Center w/ additions & alterations.

LIST OF MASTER PLAN OPTIONS FOR CONSIDERATION

- Option 10: Close all existing Elementary Schools. Build a new K-3 Elementary Center. Expand NAMS to become a 4,5,6 building. IMS remains 7-8 building.
  - Option 10A: Construct the new Elementary Center on the existing fields of NAMS.
  - Option 10B: Construct the new Primary Elementary Center on the HS/IMS site.
  - Option 10C: Construct the new Primary Elem. Center on the existing property at Franklin Elem. School.
  - Option 10D: Convert the existing Franklin Bldg. into a new Primary Elem. Center w/ additions & alterations.
- Option 11: Construct a New K-3 Primary Center. Expand NAMS to include 4th grade. Expand the High School to include grades 7-8. IMS is closed.

QUESTIONS FOR EVALUATING MASTER PLAN OPTIONS

Criteria related to educational programming

1. How well the Option allows the Educational Curriculum to be implemented in all schools of the Plan
2. What will be required in the Option to implement STEAM?
3. What will be required in the Option to achieve equity in educational spaces and facilities in comparison to other schools (particularly for Elementary Schools)?
4. What interior Phys. Education spaces are available?
5. Does it have a cafeteria separate from Phys Ed space?
6. Are there any large, collaborative learning spaces?
7. What special spaces are available?
8. Are classrooms flexible with furniture and technology for creative instruction?
9. Adequate conference space is needed. A space for 6 to 8 adults to meet is ideal. More than one of these spaces is preferred.
10. What will be required in the Option to achieve equity in opportunity for educational success among schools?
11. What will required in the Option to meet the special education needs of the students?
12. Does the Option allow for sharing of District staffing resources? And if so, how easily or efficiently is this done within the Option, or not?
13. How well does the Option allow the school buildings within it to achieve a “21st Century School” status?

CRITERIA FOR EVALUATING MASTER PLAN OPTIONS

Criteria Related to Building Systems and Site

1. How well the Option addresses deficiencies in various building systems identified in the Matrix of Facilities and the Narratives of Facility Assessment?
2. Building Shell: Roof, exterior walls, windows, and exterior doors.
3. Mechanical, Electrical, and Plumbing (MEP) Systems
4. Security Systems: Secured Entrance Vestibule; Cameras for major interior and exterior areas
5. Interior finishes.
6. Elevator that accesses all floors in a convenient and easy way.

Site Criteria

1. Is there adequate parking for staff and visitors?
2. How inadequate is parking for evening activities?
3. Is there adequate space for drop-off of students and stacking of buses for pick-up?
4. What outdoor recess and phys. educ. areas and/or fields are available?
5. Is there adequate area for unloading of truck-delivered supplies?
6. What is the state and condition of the asphalt and walks?

CRITERIA FOR EVALUATING MASTER PLAN OPTIONS

Criteria Related to Financial Considerations

1. What will the capital improvement budget be for the Option?
2. What impact will the Option have on the annual debt service for the District?
3. Enrollment data, class size impact, and expansion of programs need to be considered all at once. These factors can not be considered in isolation.
4. What impact will the Option have on the borrowing capacity for the District?
5. What impact will the Option have on the annual utility, supply, and other such costs for the District?
6. What impact will the Option have on increasing or reducing staff costs for the District?
7. Consider cost difference between renovating and building new
8. Consider building up a story instead of out

Criteria Related to Building Systems and Site

9. How well the Option addresses deficiencies in various building systems identified in the Matrix of Facilities and the Narratives of Facility Assessment?
10. Examine the building shell: roof, exterior walls, windows, and exterior doors.
11. What is the status of the mechanical, electrical, and plumbing (MEP) systems?
12. What security systems are in place: secured entrance vestibule; cameras for major interior and exterior areas?
13. Examine the interior finishes for usability and functionality.
14. Is there an elevator that accesses all floors in a convenient and easy way?

REFINED LIST of MASTER PLAN OPTIONS in CONSIDERATION

- Options 1B: Keep all current Elem. Schools. Move all 4th graders to NAMS for a 4-5 Intermediate Elementary School and 6th grade to IMS. Renovate Elem. Schools and add to them to provide equity in buildings.

Advantages

- Students and families at the K-3 level maintain their current arrangement which minimizes disruption.
- Renovation costs associated with providing equity in learning program spaces at the Elementary Schools will be lessened as additional space in each of the Elementary Schools will be created by removing the 4th grade population from them.

Disadvantages:

- Staffing and Operating costs will remain the same with no significant cost savings for the District.
- Renovation costs associated with updating each of the five elementary school buildings to address 21st century learning recommendations, current codes, and issues with building systems will be substantial.
- Level loading of classroom sizes at the K-3 level will continue to be a challenge without periodic redistricting.

Summary of Financial Impact

Total Construction Cost:$43,500,000
Annual Financing Cost (total debt service): $2,800,000
Conceptual Cost Savings: $0 annually
Net Costs to Operating Budget: Increases costs by $2,800,000 annually

REFINED LIST of MASTER PLAN OPTIONS in CONSIDERATION

- Option 3C: Close two Elementary School buildings. NAMS becomes grades 4-5. 6th grade moves to IMS without the need for additions. Remaining K-3 population gets reassigned to remaining three (3) Elementary Schools.

Advantages

- Renovation costs associated with renovating remaining schools will be lessened due to smaller number of buildings.
- Staffing costs for the District will be reduced due to the closing of two schools.

Disadvantages:

- Renovation and building addition costs associated with updating each of the three elementary school buildings to address 21st century learning recommendations, current codes, and issues with building systems will be substantial.
- Level loading of classroom sizes at the K-3 level will be more easily accommodated than Option 1B, but will continue to be a challenge without periodic redistricting.

Summary of Financial Impact

Total Construction Cost: $31,500,000
Annual Financing Cost (total debt service): $2,000,000
Conceptual Cost Savings: $2,150,000 to $2,300,000 annually
Net Costs in Operating Budget: Savings of $150,000 to $300,000 annually

REFINED LIST of MASTER PLAN OPTIONS in CONSIDERATION

- Option 8: Close all existing Elem. Schools. Build a new K-2 Primary Center. Expand and renovate NAMS into a 3-4-5 Elem. Center. Move 6th grade to IMS.
  - Option 8A: Construct the new K-2 Primary Elementary Center on the existing fields of NAMS.
  - Option 8C: Construct the new K-2 Primary Elem. Center on the existing property at Franklin Elem. School.

Advantages

- Renovation costs associated with updating the five elementary schools would be eliminated.
- Staffing costs for the District will be reduced due to consolidation into one primary center.
- The New K-2 Primary Center would better establish equity among students and level class sizes.
- Future full-time Kindergarten could be designed into the plans for the building.

Disadvantages:

- A substantial building addition will be required at NAMS to support adding the third-grade population. The five elementary school buildings currently provide recreational space for after-hours activities through the use of the playfields, gymnasiums, and multi-purpose rooms that would be eliminated if buildings are closed and sold.
- A new District-Wide K-2 Elementary Center will have a large initial cost.

Summary of Financial Impact

Total Construction Cost: $47,000,000 *(Cost includes a building addition to add 3rd grade at NAMS. Add an additional $1 million in costs for option 8C - choosing the Franklin site.)*

Annual Financing Cost (total debt service): $3,100,000
Conceptual Cost Savings: $3,250,000 to $3,500,000 annually
Net Costs to Operating Budget: Savings of $150,000 to $400,000 annually

REFINED LIST of MASTER PLAN OPTIONS in CONSIDERATION

- Option 9: Close all existing Elem Schools. Build a new K-3 Elem Center. NAMS becomes grades 4-5. Move 6th grade to IMS.
  - Option 9A: Construct the new K-3 Elementary Center on the existing fields of NAMS.
  - Option 9C: Construct the new K-3 Primary Elem. Center on the existing property at Franklin Elem. School.

Advantages

- Renovation costs associated with updating the five elementary schools would be eliminated.
- Staffing costs for the District will be reduced due to the consolidation into one primary center
- The New K-3 Elementary Center would better establish equity among students and level loading in class sizes.
- Future full-time Kindergarten could be designed into the plans for the building.
- No other building additions would be required at NAMS or IMS to support the new grade configurations.

Disadvantages:

- The five elementary school buildings currently provide recreational space for after-hours activities through the use of the playfields, gymnasiums, and multi-purpose rooms that would be eliminated if buildings are closed and sold.
- A new District-Wide K-3 Elementary Center will have a large initial cost.

Summary of Financial Impact

Total Construction Cost: $43,000,000
Annual Financing Cost (total debt service):$2,750,000
Conceptual Cost Savings: $3,250,000 to $3,500,000 annually
Net Costs to Operating Budget: Savings of $500,000 to $750,000 annually

Quick Summary of the Options as they meet the objectives

	Option 1b	Option 3c	Option 8a or c	Option 9a or c
Necessary Criteria	Update existing facilities	Keep 3 existing elementary buildings	K-2 primary center	K-3 primary center
Right-size capacity				
Program consistency				
Aging facilities				
Cost effectiveness				

Costing-out the options and the necessary work

	Option 1b	Option 3c	Option 8a or8c	Option 9a or 9c
Description	Update existing facilities	Keep 3 existing elem buildings	K-2 primary center	K-3 primary center
Capital & financing costs	$46.3M	$33.5M	$50M / $51M	$45.750M / 46.750 M
Operational savings	$-2.8M/annually	$150k-$300k /annually	$150k-$400k /annually	$500-$750k /annually
Middle School costs	$51.5 M	$51.5M	$51.5 M	$51.5 M
Net annual impact on budget	$3.2 M	$3.0 M	$3.6 M	$3.1 M

Potential Timeline

- ❏ Board commits to a feasibility study option
- ❏ +2 months: Board commits to an architect(s) to advance the work identified by their selected option
- ❏ +8 months: Architects develop plans to complete the selected option
- ❏ +2 months: bids awarded, work begins
- ❏ + ~18-20 months for renovation or ~20-24 months for new construction

Questions? Feedback?

Thank you for your participation.