



2024 Bond Planning - Pursuit of Passion

Subcommittee Meeting #2
March 5, 2024



DENVER
PUBLIC
SCHOOLS

Bond & Mill Levy



Agenda

- Public Comment
- Montbello Career and Technology welcome
- Deep Dive into Innovation
- Priorities discussion





Land Acknowledgement

“In the Spirit of Truth and Reconciliation, Denver Public Schools acknowledges that we are gathered today in our schools on the ancestral land of the Cheyenne and Arapahoe Nations. This area was also the site of trade, hunting, gathering, and healing for many other Native Nations: The Ute, Lakota, Kiowa, Comanche, Apache, Shoshone, and many other native nations. We also acknowledge that our country was built with stolen labor, and the generational wealth which was created by the hands and backs of enslaved people was kept from them while enriching others.”

Public Comment



20 minutes total

Time Limits: 2 minutes/person or 6 minutes/group

Why Montbello Career and Tech?



**Student
Experience**

Sub-Committee Norms

- Start on time, end on time
- Respectful use of technology
- Ask clarifying questions
- Share the airwaves
- Say “the thing”
- Come prepared
- Respect diversity of opinions and views



What are the other Subcommittee's doing?

Enabling
Conditions

Capacity
Maintenance
Quality Learning
Environments

Deep dive into Capacity and decision making for the below projects: Ceylon Campus 6-8, New school @ Gateway* and SMART technology*, yellow & white fleet*, DSA - academic center, center program fund, and capital utilization fund.

Next meeting: finalize Capacity recommendation & move into QLE.

Safe &
Welcoming
Environments

Safety
Technology
Air Conditioning

Deep dive into Technology and decision making for the below projects: MyTech (classroom technology for students & teachers), Assistive technology (vision, OTPT, Speech, supportive tech.), critical infrastructure*, information security*, and datamine.

Next meeting: Review Technology & move into Air Conditioning.

*Sustainability enhancement

District Critical Priorities:

Gateway K-5

Sandoval Campus Auditorium and Health Center

ADA/Code



Subcommittee Logistics

Meeting Schedule

Topic	Committee Overview	Subcategory exploration	Subcategory prioritization	Whole Group	Finalize Package
Date	February 21st	March 5th	March 19 th	April 10 th	April 30th
Location	DMLK	MCT	Kunsmiller	Denver South	Manual
Agenda	<ul style="list-style-type: none"> • Introductions and Committee Overview • Current State • Bond Recap • Committee Category Overview 	<ul style="list-style-type: none"> • Public Comment • Details of Innovation • Prioritization discussions • Whole group discussion 	<ul style="list-style-type: none"> • Public Comment • Details of Arts • Prioritization discussions • Whole group discussion 	<ul style="list-style-type: none"> • Public Comment • Details of Athletics • Prioritization discussions • Whole group discussion 	<ul style="list-style-type: none"> • Public Comment • Recamp of summary investments • Wrap Up

Role of this Committee

CPAC

- Review and understand the methodology used to prioritize needs and recommendations for each category
- Provide feedback to the team for categories with multiple options
- Recommend allocation for potential additional funding within the maintenance categories
- Advocate to the public for facility and school needs

DPS

- Provide current condition of DPS buildings and vision for Facility Maintenance and Planning, Design, & Construction
- Detail assessment process used and prioritization criteria for each category
- Communicate with complete transparency
- Timely delivery of data and information

The recommendation is based on DPS's commitment to student achievement, multiple assessments, the Board of Education & the Strategic Roadmap. The committees are responsible for taking these recommendations and prioritizing projects above or below the line that will be presented to the full CPAC.

The Big Blur

What we know about the future of K-20 systems

- Erasing traditional boundaries between K12, higher ed and career
- Goal: An interconnected and coordinated system that allows students to explore, build career-relevant skills, and move fluidly between schooling and working
- Relevancy, ROI and speed
- Part of the State's overall aim to enhance student value within educational systems



Prioritization Criteria

Questions for consideration and what more information might help us be thoughtful?

1. Are we serving the right number of students in different areas of the district with this proposal?
2. Do we have the right number of programs at FNE site? Which would be our priority either for build out or reconsideration?
3. Do we have the right number of programs at SW site? Which would be our priority either for build out or reconsideration?
4. What opportunities exist for sustainability to be embedded in programs?
5. Which priority programs for STEAM/Sustainability mobile labs should we prioritize for K-8 students?



Innovation Project Detail

Innovation

Why this project is important

- 1) Students in schools in the **far northeast and southwest** do not have the ability to access our current CTE Hub School at the same rate as their peers. (less than 5% of part time students are currently from the FNE)
- 2) Students in **Intensive Pathway** schools, who may have disengaged from the traditional school experience, do not have the ability to access our current CTE Hub School at the same rate as their peers.
- 3) Students enrolled as **multilingual learners and students with disabilities** will also benefit from services provided to expand access while serving the direct student need.
- 4) Increase the completion of **Industry Certifications** for students in high growth, high wage industries prior to graduation.
- 5) Embed **sustainability** within programs advancing towards district goals of career development and sustainability project based learning experiences for students.

Innovation

Current state of CTE

CTE programs reside within schools all over the district.

- We currently have 86 active programs approved by the state of Colorado.
 - There may be multiple pathways under some program approvals (i.e. multimedia could have film, audio, and graphic design)
- Students at CEC may be full time or part time students but all are enrolled in a career program.
- Students only have access, typically, to the CTE programs offered at their primary high school.
 - Schools other than CEC have an average of 2.8 CTE programs
- Transportation from home schools across DPS to CEC is a logistical challenge
 - From FNE to CEC is approximately 45 minutes each way
 - From GW, TJ, JFK to CEC is approximately 30 minutes each way
 - Limits the students who are allowed to participate in CEC courses.



Innovation

Base Recommendations Projects & Total Costs

Projects	Space/Students
FNE Campus - includes 12 programs (EV, Aerospace Engineering, Energy, AI, Aviation, Hotel Mngmt, Website Design, Cybersecurity, Air Traffic Control and Water Quality) Exploring CAE Campus	22 Classrooms 7 small labs 4 large labs 844 students/yr
SW Campus - includes 6 programs (EV, Aerospace Engineering, Energy, Hotel Management, Cybersecurity and Water Quality) Exploring Lincoln or JFK	7 Classrooms 5 small labs 1 large lab 274 students/yr
STEAM/Sustainability Mobile Labs - 3 labs for elementary and middle school experiences across all regions of the district	3 Buses
Total	
\$39.3 Million	

Summary

- Focus on CTE programming in the FNE and SW will allow us to expand capacity in all areas of the district.
- Project results in additional 1,118 students graduating with an Industry Certificate in locally competitive careers
- Increase access to STEAM and Sustainability programming across the district

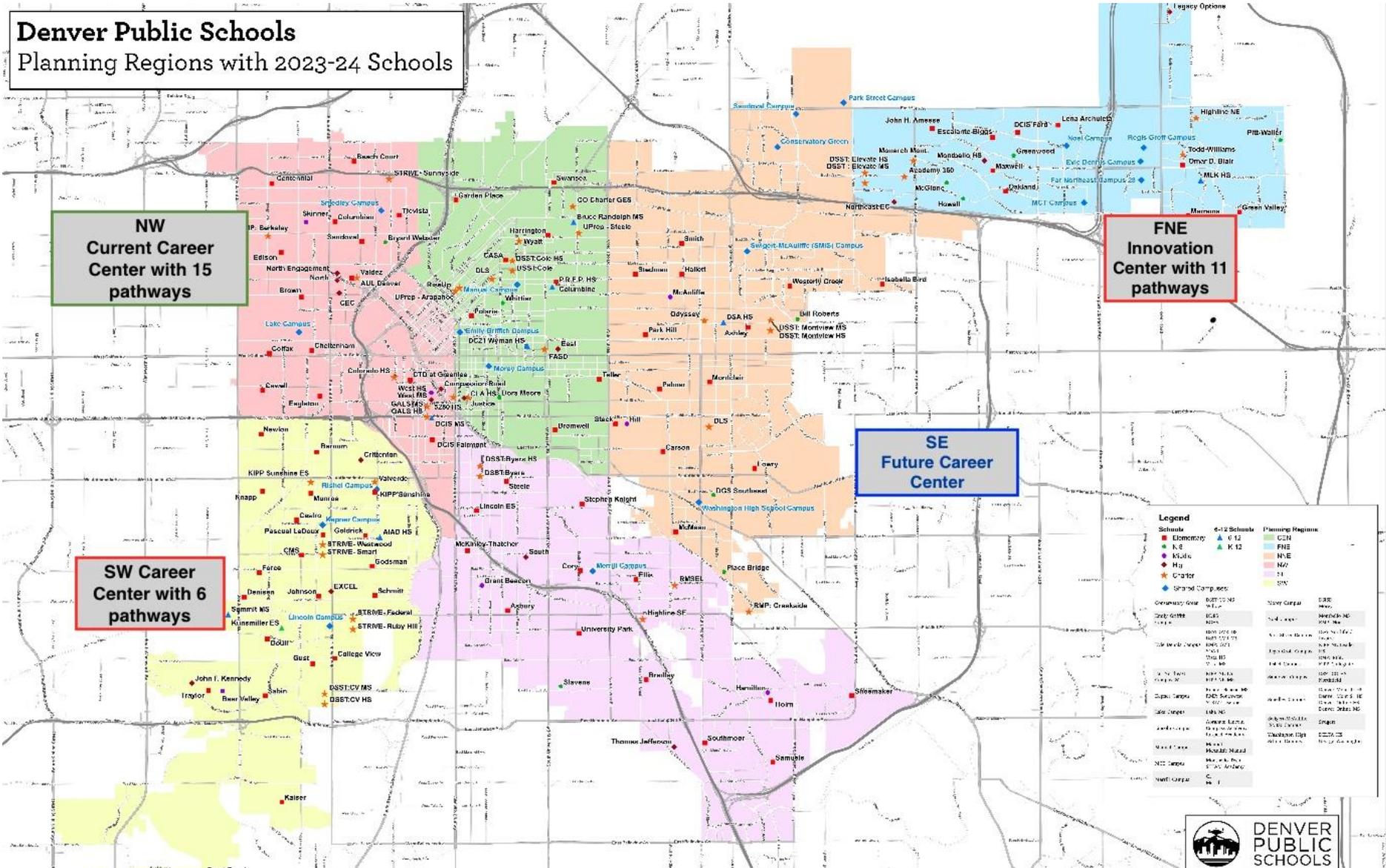
Innovation- Continued

Capital Projects	# of Schools	Cost Estimates
Upgrades to FNE Campus including EV Upgrade	1	\$28.4M
CTE Programming Equipment for both projects	2	\$3M
Mobile STEAM Labs (electric bus)	3	\$3M
SW Project plus creation of new EV program	1	\$4.9M
Direct Costs		
\$39.3 Million		

Summary

- Focus on CTE programming in the FNE will allow us to expand capacity on a FNE Campus.
- Indirect costs were increased to 49.5% for our project which increased the dollar amount we needed to cut overall, applied to building costs (FNE and SW Campuses)
- **Below the line: cuts made in program equipment, STEAM labs, SW project infrastructure and programs, sustainability demonstrations, professionalism materials**

Bond 2024 - Innovation projects by region



Innovation

2024 Bond Proposal

CTE is Innovation

- New programming that is up to date with industry need.
- Concentrated programming for 2.5 hours of career education for study towards industry certification earnings
- College credit where available to provide students with college and career preparation.
- Providing Denver with the next generation of workforce

Equity

- Increase in options for students in all areas of district
- Decrease in travel time for concentrated programming at career centers
- Support for Multilingual students and students with disabilities

Centers

- Increasing from 1 career center (CCNW - Career Center Northwest - currently CEC) to 3 career centers.
 - CCFNE (Career Center Far Northeast)
 - CCSW (Career Center Southwest)
- Begin Southwest center with 6 pathways and increase over time.

Busses

- Proposal for 3 electric busses for mobile classroom learning targeted for elementary schools to prepare students for career programming in STEM and Sustainability.

Innovation

FNE Details

Create a Career Center in the FNE (exploring location of CAE campus)

- Creating space 11 CTE programs

FNE Space Analysis - Overall			
Type	Count	SF/Room	Area
Classroom	22	900	19800
Large Lab	4	2000	8000
Small Lab	7	1200	8400
			36200 Total Area
			1.15 Building Area Factor
			41630 Grand Total Area

Two classrooms per program and 1 lab space per program.

[costs](#)

Innovation - FNE

Exploring the following programs based on Industry need, [Colorado Talent Pipeline Report](#), and high growth, high wage employment.

<u>Program</u>	Classroom	Large Lab	Small Lab	Student Capacity
Aerospace Engineering	2	1		48 AM 48 PM
Energy	2	1		30 AM/30 PM
Mechatronics/AI	2	1		30 AM/30 PM
Aviation	2	1		30 AM/30 PM
Hotel Management	2		1	48 AM/48 PM
Virtual Reality	2		1	48 AM/48 PM
Aviation Pilot	2		1	30 AM/30 PM
Website Design	2		1	48 AM/48 PM
Cybersecurity	2		1	40 AM/40 PM
Air Traffic Control	2		1	30 AM/30 PM
Water Quality	2		1	40 AM/40 PM
	22	4	7	422 AM/422 PM

Program	Equipment needed + classroom furniture	Estimate program cost	Moving forward with other sources
Construction costs		\$18,950,000	as needed
Aerospace Engineering	Computer/software for design, robotics, electrical equipment, initial curriculum	\$160,000	Curriculum purchase, teacher salary, equipment replacement
Energy	Solar panel training equipment, electrical training, curriculum, 3D printer	\$110,000	
Mechatronics/AI	Robotic kits, drones, 2D printers, computers for programming	\$410,000	
Cybersecurity	Computers with software, cyber sim closet, initial curriculum	\$296,000	
Aviation Mechanics	Sim engine, lifts, electrical panel trainers, tools, initial curriculum	\$550,000	
Hotel Management	Simulation furniture, software, initial curriculum	\$110,000	
Virtual Reality	Virtual headsets, software, initial curriculum, computers and software	\$110,000	
Aviation Pilot	Drones, FAA curriculum, robotics kits, initial curriculum	\$1,110,000	
Web Design	Desktop computers, design software, initial curriculum	\$220,000	
Air Traffic Control	Simulation equipment, tower, and software, computers, initial curriculum	\$220,000	
Water Quality	Chemistry lab equipment, water test kits, initial curriculum	\$110,000	

Innovation

SW Details

Create a Career Center in the SW (**exploring locations of Lincoln and JFK**)

- Creating space 6 CTE programs (more in the future)

SW Space Analysis - Overall			
Type	Count	SF/Room	Area
Classroom	6	900	5,400
Large Lab	2	2000	4000
Small Lab	4	1200	4800
			14200 Total Area
			1.15 Building Area Factor
			16330 Grand Total Area

One classroom per program and 1 lab space per program.

Innovation - SW

Exploring the following programs based on Industry need, Colorado Talent Pipeline Report, and high growth, high wage employment.

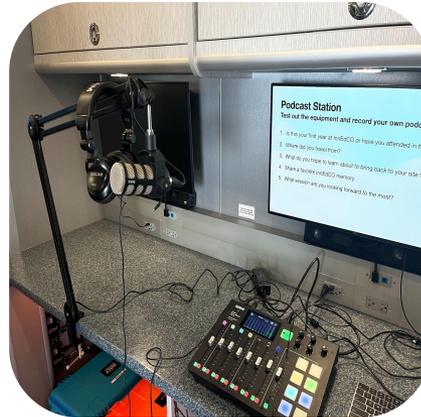
<u>Program</u>	Classroom	Large Lab	Small Lab	Student Capacity
EV	2	1		20 AM/20 PM
Aerospace Engineering	1		1	20 AM 20 PM
Energy	1		1	24 AM/24 PM
Hotel Management	1		1	24 AM/24 PM
Cybersecurity	1		1	24 AM/24 PM
Water Quality	1		1	24 AM/24 PM
	7	1	5	136 AM/136 PM

SW Costs

Program	Equipment needed + classroom furniture	Bond cost	Moving forward with other resources
Building renovation cost		\$3,289,000	as needed
Aerospace Engineering	Computer/software for design, robotics, electrical equipment, initial curriculum	\$160,000	Curriculum purchase, teacher salary, equipment replacement
Electric Vehicle	Car lifts, electrical panel simulators, tools, initial curriculum, building modifications for special air compressed equipment	\$1,654,000	
Energy	Solar panel training equipment, electrical training, curriculum, 3D printer	\$110,000	
Water Quality	Chemistry lab equipment, water test kits, initial curriculum	\$110,000	
Cybersecurity	Computers with software, cyber sim closet, initial curriculum	\$148,000	
Hotel Management	Simulation furniture, software, initial curriculum	\$110,000	

Mobile Lab- Example

- 45' Rear Engine
- \$800 - \$1 million
(completely built out interior and exterior graphics)
- Will use Electric buses
- Classroom equipment will be able to roll out of bus to interact with larger number of students.



Mobile Lab- Materials / Costs

Potential Hands On Learning Experiences

- [Ozobots](#)
- [Podcast and Video Production Equipment](#)
- [Merge Cube](#)
- [iPads](#)
- [Strawbees](#)
- [Makey Makey](#)
- [Hydroponics project](#)
- [Butterfly Life Cycle](#) projects
- [Raspberry Pi](#)
- [Micro:bits](#)
- [Coding Critters](#)
- [Virtual Reality](#)
- [Solar Activities](#)
- Computers / Monitors



5 Year District Goals



100%
OF SCHOOLS
have at least 1
annual
sustainability
project-based
learning
opportunity

EVERY SCHOOL
INCORPORATES
AN
**OUTDOOR
LEARNING
SPACE**
in their
academics



“Below the Line” details

Items for Consideration

Consideration/alternates for bond projects:

- Alternate CTE programs
- Additional CTE programs in SW (based on space)
- Elevated equipment for programming (decisions on specific equipment companies)
- Additional busses for mobile classrooms
- Addition of center in SE or southern portion of NNE
 - Property purchase or space renovation
- Sustainability construction options for redesign/renovation of existing buildings
- The creation of academic spaces for students to learn about sustainability efforts in building, similar to programs seen at [Denver Museum of Nature and Science](#)

Reasons:

- Creating CTE options in 4 areas of the district
- Providing equitable and available CTE Concentrated programs
- Providing additional programming through mobile classrooms for Elementary Schools.

Future needs for Innovation

Possible Items for future bond 2028

CTE Centers:

- SE center for 4th corner of district (new build or renovation of existing building)
- Equitable programming in opposite corners of district to give students more options.
- Additional programming in SW (growth from 2024 bond)
- Renovations to current CTE Center - CEC Early College building.
 - Fully operational - 15 pathways
 - \$1M 2020 bond renovation in progress now.



Decision Making Frameworks/Conversation

Examples for Prioritization- BOC Prioritization Matrix

Category	Weight	0	1	2	3
Life / Safety – Ability for School to Safely Operate	3x	Critical Maintenance/ Facility Does not impact safety	Addresses a life / safety concern that is low priority and does not impact the school's ability to operate	Addresses a life / safety concern that is a medium priority due to the risk of impacting a school's ability to operate	Addresses critical safety violation that directly risks a school's ability to operate
		Code or ADA Does not impact code or ADA	Addresses a low priority code or ADA issue under which DPS has no obligations and presents no negative impacts to students	Addresses a low or medium priority code or ADA issue under which DPS has no obligations but remedying would present a positive student impact	Addresses a high priority code or ADA issue in which DPS has an obligation to remedy the issue and/or would significantly improve the student experience
		Student Safety Does not impact student safety/Mental and Behavioral Health	The project improves student safety/Mental and Behavioral Health (Nice to have)	Project expands existing student safety/Mental and Behavioral Health investment that is working and/or invests in piloting new work	Project will bring DPS facilities into compliance with evolving standards for student safety/Mental and Behavioral Health
Supporting Value of Equity	2x	The school has an equity index <0.5	Equity index between 0.51 - 1.0	Equity index between 1.01 - 1.5	Equity index > 1.51
Aligned with Instructional Priorities	2x	The project does not impact instruction and academics	The project will improve the student learning environment	The project improves the learning environment and supports new/different instruction	The project directly supports instruction and will support student learning
Time Sensitivity	1x	The project can wait for a future capital request without negatively impacting student experience	The project can wait for a future capital request but would positively impact student experience	The project would enhance the student experience in the near term and/or there is a risk of future cost being significantly higher beyond the rate of construction inflation	The project cannot wait for future funding and the district will fund elsewhere if not from premium to the detriment of other district funded programs

Equity Index

Approach to Equity - Equity Index

As prioritization was evaluated, we used a method to evaluate district-wide equity and equality through an Equity Index that defines a baseline for ALL schools/programs with greater rigor beyond family income.

Student Equity- Providing the resources that students need for success. For measuring student equity, we used the following index:

$$\frac{\text{School \% High Poverty} + \% \text{English Learner} + \% \text{SPED} + \% \text{Volatility}}{\text{District Average \% High Poverty} + \% \text{English Learner} + \% \text{SPED} + \% \text{Volatility}}$$

This is in line with how DPS allocates student-based funding.

What is the Data?

- District average Equity Index (EI) is 1.0
- You can read an EI of 1.1 as that school having 10% above average population of students with greater needs. An EI of 0.7 indicates that school has 30% smaller than average population of harder-to-serve students.



Framework & Conversation

What else do we need?

- Is there another way of decision making requested?
- Sustainability Matrix
- What other projects are we missing?

Question and Answer



Subcommittee Meeting # 3



Discussion Topic: Deeper dive into Arts

Next Meeting:

Tuesday, March 19, 2024

Time: 5:30pm - 7:30pm

Location:

Kunsmiller Creative Arts Academy
2250 S Quitman St. Denver, CO 80219

Pre Work for Next Meeting

Articles

Impact of Arts Education in Schools

[The Fine Art of School Engagement](#) - How expanding arts education affects learning, behavior, and social-emotional growth

[Impacts of Arts Education on Students](#)

Optional and In Depth

[Art for Life's Sake](#), The Case for Arts Education: American Academy of Arts & Sciences

Appendix

2016 & 2020 Bond Investments

Prior bond impacts

Arts: Received no funding in the 2020 Bond and received \$800,000 in the 2016 Bond

Athletics: 2016 and 2020

- Synthetic field replacements or new installs at North, East, TJ, Manual, Northfield, JFK, GW, West, DSST Cole, DSST College View, Kipp, Rishel, and South
- Seating expansion and scoreboard at Northfield
- Seating expansion at Evie Dennis, lights, and team rooms
- Synthetic turf and lights installation at DMLK
- NFHS/CHSAA gymnasium expansion at DMLK
- Montbello High School gymnasium expansion
- LED lighting at all CHSAA High Schools (13)

Innovation:

- 2020: STEM labs at all DPS MS
- Hydroponic Farm and greenhouse at one HS
- Program and facility upgrades for CTE programs by region
 - CEC - Automotive shop upgrades
 - FNE - Construction program facility upgrades
 - SW - South HS CTE classroom upgrades to increase capacity

**Student
Experience**

Initial Overview of Bond Investments

Safe & Welcoming Environments	Safety Technology Air Conditioning	\$312 Million <ul style="list-style-type: none">• Vestibules, Door Access, Safety Systems• Classroom Tech., Network Infrastructure & Systems• Full Air Conditioning
Pursuit of Passion	Arts Athletics Innovation	\$113 Million <ul style="list-style-type: none">• Stage Renovations & Production• Regional Facilities, 21st Century Updates & Athletic Upgrades• CTE FNE & SW Centers & STEAM Mobile Buses
Enabling Conditions	Capacity Maintenance Quality Learning Environments	\$510 Million <ul style="list-style-type: none">• New Buildings• Critical Maintenance, ADA Code, & Facility Life Safety• Improved Learning Environments

Non-Negotiable Projects:

Gateway K-5

Sandoval Campus Auditorium
and Health Center

ADA/Code

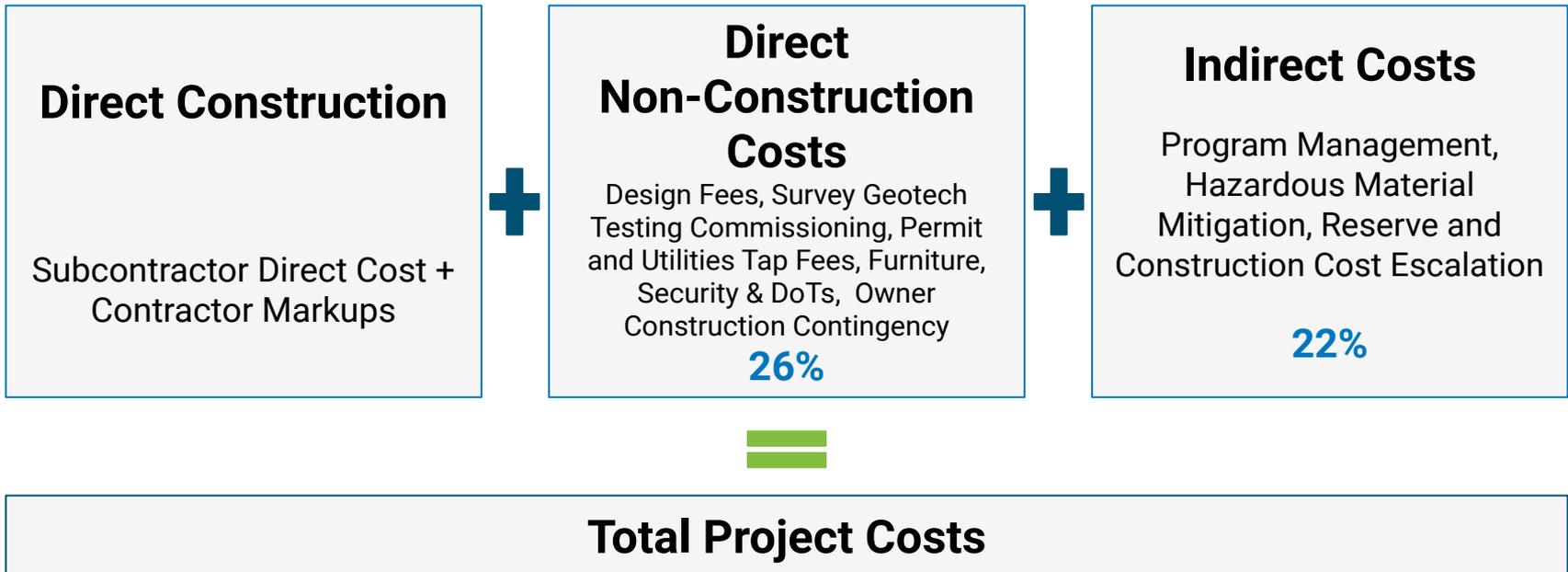
**Undetermined
Projects Funds:**

\$40 Million



Cost Methodology

Capital Planning 2024 - Total Project Cost Breakdown



While the average total bond project cost will vary based on the type of project, the average total project costs averages 48% to support non-construction and indirect costs; i.e., for each \$100 budgeted in Direct Construction Costs, an additional \$48.00 is required to be budgeted to support the non-construction and indirect costs. For example, a new Capacity project with a direct construction cost of \$10,000,000 would require a total bond project budget of \$14,800,000.

Pursuit of Passion

Scope

- Construction on existing schools
- Additions to existing schools
- Modifications of interior school space to accommodate program additions and needs
- Modification of exterior school space to enhance or accommodate additional athletic facilities