

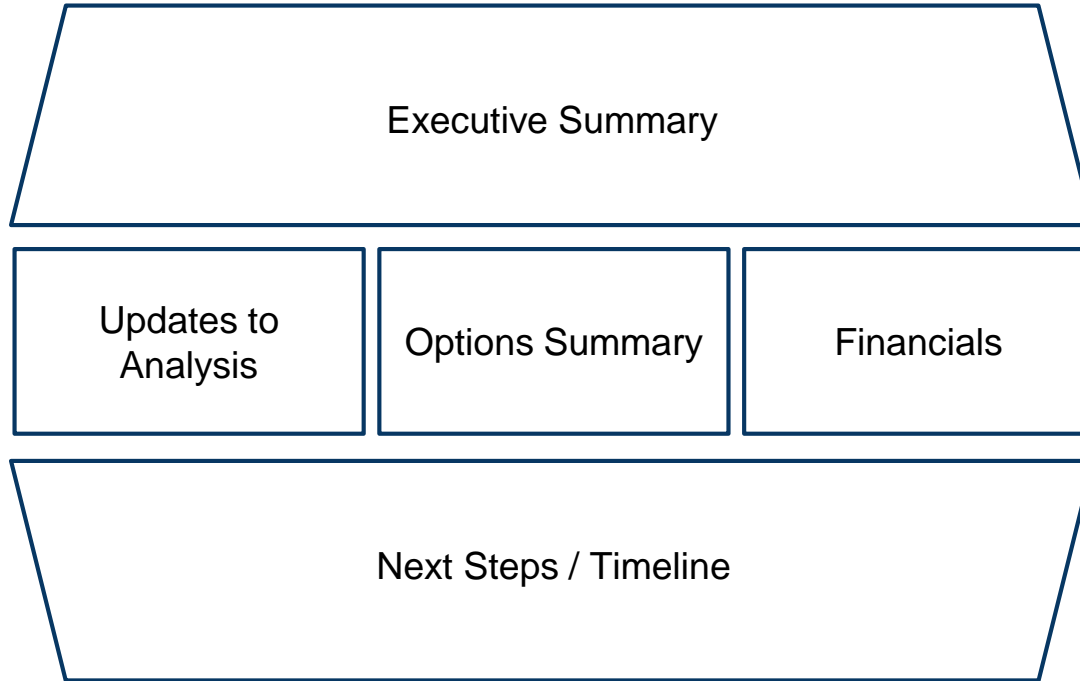


FACILITIES IMPROVEMENT COMMITTEE BOND FOR CRITICAL SYSTEMS

COORDINATED BY DAVID GOSMAN & DARIN DIAMOND

SEPTEMBER 8, 2015

Agenda



Executive Summary



- The District has critical infrastructure components at many of its facilities that have exceeded their usable life. The District spends a significant amount of effort “patching” these systems every year
- Replacing deteriorated but functioning equipment is necessary to mitigate performance and risk issues associated with critical component failures which would take buildings offline
- The scope of this project is to perform in-kind replacement of critical infrastructure components and related modernization efforts. There is no ADA work required
- The 2% tax cap rules discourages the funding of significant capital expenditures without a bond or long term debt. “Debt Service” (i.e., payments towards a Bond) falls outside of the tax cap calculation
- Taking a larger “market view” of the Bond, the timing is optimal for borrowing. Interest rates on bonds are near historical lows
- A Bond Referendum would provide our community with ~\$36.2M worth of essential projects. Approximately \$18.9M and associated interest (or ~55%) of the allowable project cost will be paid for by State Aid
- The financial plan surrounding a Bond can be budget neutral
- Once approved, the work in this plan can be completed in four (4) years (completed by Summer 2019)

Updates since the initial presentation



- In February 2015, the Board of Education authorized CSArch to produce an engineering report that would include a more detailed analysis of the roofs and boilers
- The Committee requested that electrical systems be included in the study in order to fully analyze the three major structural/mechanical/electrical building systems in which a failure would bring a building offline (i.e., roofs, boilers & transformers)
- CSArch's reports included recommended reconstruction and replacement, necessary enhancements and firmer cost estimates
- Summary of CSArch's findings:
 - CSArch evaluated the roof systems, boiler systems and electrical systems at all of our buildings
 - Based on useful life, a deeper engineering analysis was performed for roofs at 15 buildings, boilers at 4 buildings and electrical systems at 16 buildings
 - Walkthroughs for visual inspections performed at each of these facilities
 - As-built drawings were reviewed
 - Peak demand usage at each facility was also analyzed
- CSArch's engineers determined:
 - The vast majority of our roofs are well beyond their estimated service life and require reconstruction/replacement
 - The boilers at 4 buildings are in need of replacement
 - Electrical service upgrades are recommended at 12 facilities

The scope of work has expanded since February 26th



	On February 26, 2015	As of September 8, 2015
Scope	<ul style="list-style-type: none">• Replace roofs at 12 buildings• Replace boilers at 4 buildings	<ul style="list-style-type: none">• Replace or reconstruct roofs at 15 buildings• Replace boilers at 4 buildings, improve space and supporting equipment• Upgrade electrical systems (transformers) at 12 buildings
Cost	<ul style="list-style-type: none">• \$30M, offset by State Aid of ~55% of the allowable costs of the project - approximately \$16.5M• Referendum in September 2015	<ul style="list-style-type: none">• \$36.2M, offset by State Aid of ~55% of the allowable costs of the project - approximately \$18.9M• Referendum in December 2015• Utilize warranties related to two (2) roofs to reduce costs
Timeline	<ul style="list-style-type: none">• Construction in the Summers of 2017 – 2019	<ul style="list-style-type: none">• Construction in the Summers of 2017 – 2019

These improvements will provide safe and reliable indoor environments for students, staff, and community users of our buildings for many years to come

CSArch proposes the following updates



Roofs

- Replace roofs that have exceeded their useful life
- They will be replaced with high-performance roofs with increased insulation & thermal performance (better R-value)
- This will increase heat retention and improve energy efficiency
- Allowance provided for asbestos abatement
- Utilize warranty options available for specific roofs, to extend life and reduce cost of reconstruction or replacement
- Roof replacements are designed to last ~20 years

Boilers

- Replace original boiler systems that have extended their useful life with 21st century boiler system design
- Improvements to support systems including access to, and safety of, boiler rooms
- Will help to address comfort issues for students and staff
- Currently, the aged boilers are running at ~60-70% efficiency (~30-40% of the energy is being wasted)
- The replacement boilers will run at ~80-85% or better efficiency, resulting in an estimated reduction of ~15% of our heating fuel costs for the improved buildings
- New boiler replacements should last ~25 years before needing replacement

Electrical

- Perform electrical upgrades at 12 of the District's facilities
- Project to include transformer & feeder cable replacements and other modernization efforts

In order to provide reliable and safe facilities for our District, the Committee recommends the proactive replacement of old equipment and end of life materials



- Many of the roofs were addressed in the 1980's. However, several of our roofs (except for Bardonia and Birchwood) have aged sections that are well beyond their estimated service life
- All of these buildings require reconstruction/replacement
- The roofs at Bardonia & Birchwood are still covered under warranty. These roofs will be reconstructed to extend both their service lives and respective warranties

Building	Vintage	Estimated Service Life (Years)	Actual Service Life (Years)	Upgrade Recommended / Priority
North High School	1986/2004	20-25	30/11	Yes/ 1
South High School	1986/2007	20-25	29/8	Yes/ 2
Felix Festa Middle School	1984/2004	20-25	31/11	Yes/ 1
Bardonia Elementary School	2005	20-25	10	*No/ 3
Lakewood Elementary School	1985/2000	20-25	30/15	Yes/ 2
Laurel Plains Elementary School	1986/2004	20-25	29/11	Yes/ 1
Link Elementary School	1985/2004	20-25	30/11	Yes/ 2
Little Tor Elementary School	1986	20-25	29	Yes/ 2
New City Elementary School	1984	20-25	31	Yes/ 1
Strawtown Elementary School	1984	20-25	31	Yes/ 1
West Nyack Elementary School	1985/2004	20-25	30/11	Yes/ 2
Woodglen Elementary School	1986/2005	20-25	29/10	Yes/ 3
Birchwood Elementary School	2005	20-25	10	**/ 2
Chestnut Grove School	1982/1997	20-25	33/10	Yes/ 2
Bus Garage	1984	20-25	31	**/ 3

* Full roof system under warranty.

** Additional information is required to accurately assess the building system.

Boilers & Electrical



- Three of the four boilers requiring immediate attention are nearly double their estimated service life
- One has more than doubled its estimated service life



Building	Equipment Vintage	Estimated Service Life	Actual Service Life	Upgrade Recommended
North High School	1953	30	62	Yes
South High School	1970	25	45	Yes
Felix Festa Middle School	1967	25	48	Yes
Birchwood Elementary School	1964	25	51	Yes

- Similar to our roofs and boilers requiring replacement/reconstruction, many of our electrical transformers have exceeded their estimated service life and should be upgraded
- The surrounding systems, including (but not limited to) cables, switchboards, circuit breakers and other primary electrical infrastructure components are included in this plan



Building	Equipment Vintage	Estimated Service Life (Years)	Actual Service Life (Years)	Upgrade Recommended
North High School	1959	30	56	Yes
South High School	1970	30	45	Yes
Felix Festa Middle School	1967	30	48	Yes
Bardonia Elementary School	2006	30	9	
Lakewood Elementary School	1967	30	48	Yes
Laurel Plains Elementary School	1962	30	53	Yes
Link Elementary School	1964	30	51	Yes
Little Tor Elementary School	1961	30	54	Yes
New City Elementary School	2006	30	9	
Strawtown Elementary School	1971	30	44	Yes
West Nyack Elementary School	1957	30	58	Yes
Woodglen Elementary School	1967	30	48	Yes
Birchwood Elementary School	1964	30	51	Yes
Congers Elementary School	2005	30	10	
Chestnut Grove School	1995	30	20	
Bus Garage	1993	30	22	

Why must we do this work?



- The crucial systems of our District have been ignored for too many years. If we are to 'Do Nothing' and not pursue these reconstructions/ replacements, we would simply 'kick the can down the road'
- The District maintenance team does a great job maintaining what we have - but some items simply age out and need replacement
- A 'Do Nothing' approach will result in unacceptable reliability and safety issues for our children & staff. It's more expensive in the long run as a result of emergency reconstruction/replacement and deteriorating conditions
- A school building in New Rochelle had a ceiling collapse in the past month. Their Superintendent stated they are now examining the buildings after decades of 'Deferred Maintenance'

Recent Pictures of CCSD Building Roofs



New Rochelle Closure Sign



Several options were considered, but issuing a Bond is recommended



Advantages

Disadvantages

Bond

- Circumvents critical failures that could force a building closure
- Addresses key mechanical components and infrastructure - Electric system, Roofs and Boilers – and ensures consistency/conformity of materials
- Includes new or replacement components for purposes of safety, reliability, efficiency & system modernization
- Provides the most efficient cost and implementation timelines - All work complete in 4 years!

Due to years of neglect, the cost to reconstruct/replace the most crucial elements of our aging facilities will be ~36.2M. However, with ~55% State Aid, the actual local budget debt would reduce to ~\$17.3M

Pay-As-You-GO

- “Sticker Shock” is eliminated

- Due to the age of the existing infrastructure, forecasting how long these systems will continue to operate cannot be achieved with any certainty - We are currently operating on borrowed time!
- May result in unacceptable reliability and safety issues for our children and staff creating inefficient and inconvenient “emergency” scenarios
- State Aid could change every year
- Extends the timeline of critical reconstructions/replacements
- Deterioration will continue, costing more to reconstruct/replace over time

Do Nothing

- Does not require any significant upfront investment

- Will result in unacceptable reliability and safety issues for our children and staff
- Is the most expensive option in the long-run

2015 Bond Cost Schedule



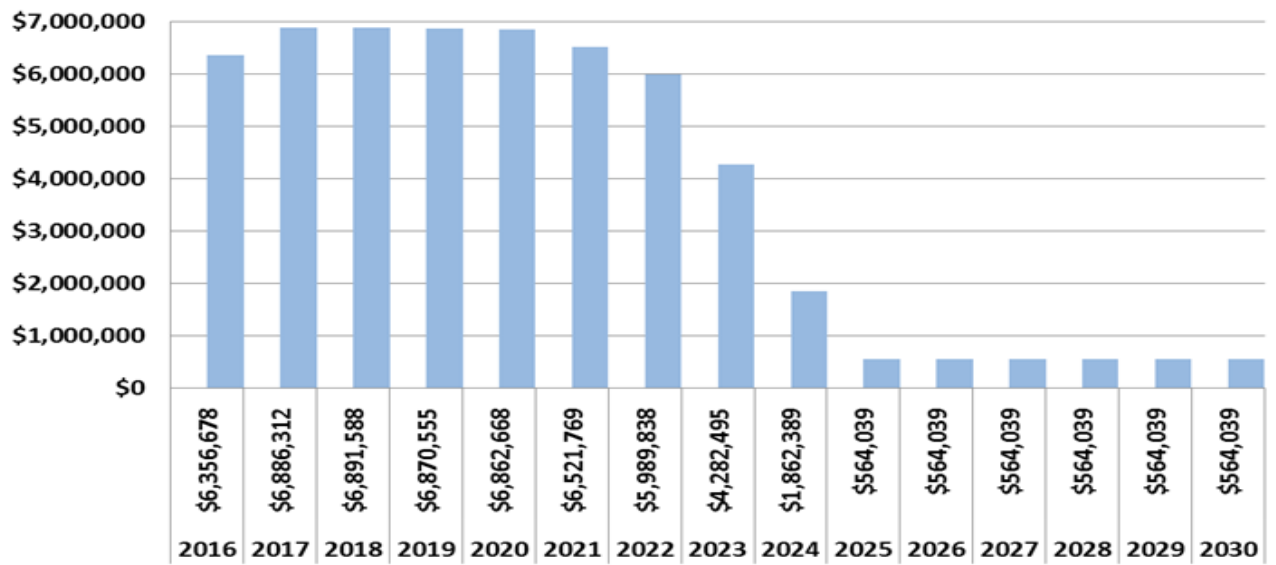
	Year 1 (2017)	Year 2 (2018)	Year 3 (2019)
Roof Replacements / Upgrades (15)	North High School \$ 4,603,293	Lakewood Elementary School \$ 1,102,071	South High School \$ 4,168,894
	Felix Festa Middle School 5,547,266	Link Elementary School 1,138,904	Woodglen Elementary School 1,310,584
	Laurel Plains Elementary School 2,105,590	Little Tor Elementary School 1,717,844	Birchwood Elementary School 385,769
		West Nyack Elementary School 1,503,127	Bardonia Elementary School 147,670
		Strawtown Elementary School 1,130,375	Chestnut Grove Administration 1,098,778
		New City Elementary School 1,711,831	Transportation (FFMS) 108,015
	Subtotal \$ 12,256,149	\$ 8,304,152	\$ 7,219,710
Boiler Replacements (4)	North High School \$ 985,854		
	South High School 2,328,902		
	Felix Festa Middle School 842,977		
	Birchwood Elementary School 457,208		
	Subtotal \$ 4,614,940		
Electrical Service Upgrades / Replacements (12)	North High School \$ 614,373	Lakewood Elementary School \$ 285,755	South High School \$ 485,783
	Felix Festa Middle School 457,208	Link Elementary School 200,028	Woodglen Elementary School 300,043
	Birchwood Elementary School 200,028	Little Tor Elementary School 428,632	Strawtown Elementary School 200,028
	Laurel Plains Elementary School 300,043	West Nyack Elementary School 285,755	
	Bardonia Elementary School 8,573		
	Subtotal \$ 1,580,224	\$ 1,200,170	\$ 985,854
Annual Totals	\$ 18,451,313	\$ 9,504,322	\$ 8,205,564
Project Total	\$ 36,161,198		

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-33	2033-2034	2034-2035
	Year 1 Vote Dec 2015 Submit Phase 1 to SED	Year 2 Phase 1 SED Approvals BIDS returned by Feb 2017 Submit Phases 2 & 3 to SED	Year 3 CONSTRUCTION Phase 1 FCR Phase 1 Submitted fall 2017 Phase 2 SED Approvals and Bids	Year 4 CONSTRUCTION Phase 2 FCR Phase 2 Submitted fall 2018 Phase 1 Aid begins BANS rolled into BOND	Year 5 CONSTRUCTION Phase 3 FCR Phase 3 Submitted fall 2019 Phase 2 Aid begins Debt Service on Bond begins	Year 6 thru 18 Phase 3 Aid begins	Year 19	Year 20
\$20M BAN Phase 1	\$ (18,900)	\$ (64,898)						
\$28M BAN Phase 2		\$ (18,900)	\$ (130,267)					
\$36.2M BAN Phase 3			\$ (18,900)	\$ (203,752)				
\$36.2M Bond				\$ (68,500)	\$ (2,963,086)	\$ (2,963,086)	\$ (2,963,086)	\$ (2,963,086)
Total Annual Finance Cost	\$ (18,900)	\$ (83,798)	\$ (149,167)	\$ (272,252)	\$ (2,963,086)	\$ (2,963,086)	\$ (2,963,086)	\$ (2,963,086)
State Aid Phase 1				\$ 760,107	\$ 760,107	\$ 760,107		
State Aid Phase 2					\$ 392,447	\$ 392,447	\$ 392,447	
State Aid Phase 3						\$ 342,875	\$ 342,875	\$ 342,875
Total State Aid Received	\$ -	\$ -	\$ -	\$ 760,107	\$ 1,152,554	\$ 1,495,429	\$ 735,322	\$ 342,875
NET COST TO DISTRICT	\$ (18,900)	\$ (83,798)	\$ (149,167)	\$ 487,855	\$ (1,810,532)	\$ (1,467,657)	\$ (2,227,764)	\$ (2,620,211)

- Issue bond anticipation notes (BAN) during first 3 years to fund project (0.43% to 0.75%)
- Issue 16 year bond in the 4th year of project (\$36.2M at 3.45%)
- Building Aid (15 yrs.) begins in year 4 for Phase 1, year 5 for Phase 2 and year 6 for Phase 3
- Reallocation of annual expenses from Capital to Debt Service in effort to maintain budget neutrality

CCSD Current Annual Debt Service

(inclusive of anticipated Congers Bond)



Purpose	Year of Issue	Original Issue Amount	Final Maturity	Amount Outstanding at June 30, 2015
District-Wide Improvements	2004	\$ 10,000,000	April, 2022	\$ 22,488
Tax Certioraris	2004	900,000	April, 2022	437,512
District-Wide Improvements	2006	6,884,000	May, 2021	490,000
District-Wide Improvements	2007	9,089,628	April, 2022	5,175,000
District-Wide Improvements	2008	12,308,731	April, 2023	7,895,000
District-Wide Improvements	2009	5,834,302	March, 2024	4,110,000
Refunding Bond Issue	2012	12,410,000	October, 2022	11,030,000
Refunding Bond Issue series A	2015	7,695,000	April, 2024	7,695,000
Refunding Bond Issue Series B	2015	360,000	April, 2024	360,000
				\$ 37,215,000

Community involvement is key to this process



INPUT from the Community

Four (4) **Community Input Sessions**

- Before BOE votes on referendum
- Present ideas and plan to community, Q&A
- Two day-time meetings, two evening meetings
- Gather input and suggestions for potential modifications

Gather input at PTA Meetings (upon invite) and Senior Citizen Centers

Electronic **Comment and Suggestion Box** via either an e-mail address or online web form

OUTPUT to the Community

Two (2) **Community Q&A Sessions**

- After the BOE votes on referendum
- Present finalized plan to community
- Answer questions
- Encourage maximum voter participation

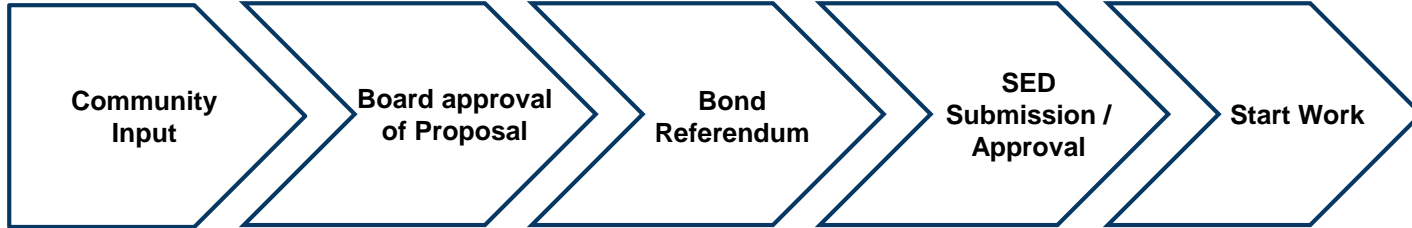
Present at PTA Meetings (upon invite) and Senior Citizen Centers

Bond Info Center page posted online with frequent updates

Frequently Asked Questions (FAQs) will be updated regularly and posted on Bond Info Center

This should be a transparent, collaborative, all-inclusive effort to update our buildings

Proposed Timeline



Date	Event
Sept: 8	Board Meeting: Initial presentation to the BOE of the official plan
Sept: 21 Oct: 2, 8 & 13	Community Input Sessions: Four (4) total (daytime & evening options will be available)
Oct: 15	Board Meeting: BOE Vote on Bond Resolution
Oct: 22	Publish in paper for 45-day notice
Nov: 10	Community Q&A Session
Nov: 17-21	PTA Meetings
Dec: 1	Community Q&A Session
Dec: 10	Bond Referendum Vote
Summer 2017	Start reconstructions/ replacements

Appendix

- 1 - Breakdown by School
- 2 - Update on discussion regarding solar panels

Appendix 1 - Work & Cost Breakdown by Building

Bardonia Elementary			Felix Festa Middle School			Link Elementary			North High School			Transportation		
Roof	2019	\$147,670	Roof	2017	\$5,547,266	Roof	2018	\$1,138,904	Roof	2017	\$4,603,293	Roof	2019	\$108,015
Electrical	2017	\$8,573	Boiler	2017	\$842,977	Electrical	2018	\$200,028	Boiler	2017	\$985,854	Total		\$108,015
Total		\$156,243	Electrical	2017	\$457,208	Total		\$1,338,932	Electrical	2017	\$614,373	West Nyack Elementary		
Birchwood			Total		\$6,847,451	Little Tor Elementary			Total		\$6,203,520	West Nyack Elementary		
Roof	2019	\$385,769	Lakewood Elementary			Roof	2018	\$1,717,844	Strawtown Elementary			Roof	2018	\$1,503,127
Boiler	2017	\$457,208	Roof	2018	\$1,102,071	Electrical	2018	\$428,632	Roof	2018	\$1,130,375	Electrical	2018	\$285,755
Electrical	2017	\$200,028	Electrical	2018	\$285,755	Total		\$2,146,476	Electrical	2019	\$200,028	Total		\$1,788,882
Total		\$1,043,005	Total		\$1,387,826	New City Elementary			Total		\$1,330,403	Woodglen Elementary		
Chestnut Grove Administration			Laurel Plains Elementary			Roof	2018	\$1,711,831	South High School			Roof	2019	\$1,310,584
Roof	2019	\$1,098,778	Roof	2017	\$2,105,590	Total		\$1,711,831	Roof	2019	\$4,168,893	Electrical	2019	\$300,043
Total		\$1,098,778	Electrical	2017	\$300,043				Boiler	2017	\$2,328,902	Total		\$1,610,627
			Total		\$2,405,633				Electrical	2019	\$485,783			
									Total		\$6,983,578			

Update on discussion regarding solar panels

- The February 26, 2015 Facilities Improvement Committee report expressed a desire to explore solar power options for CCSD. The Committee has continued this dialogue
- Solar technology, energy rates and solar building codes could change substantially in the two to four years required to complete the roofing work
- The age of the existing roofs are not conducive to a solar panel installation
- There is a high level of confidence that the new roofs will have the additional structural capacity to support solar panels
- It is possible that additional minor enhancements to the building structure could be required to support solar powers - however these costs should be factored in as part of a solar project, not as part of the critical systems project. This will produce a more accurate number of the cost difference between current energy sources vs. solar energy
- For this reason, the Committee recommends delaying a full solar study until the roofs are replaced - as early as 2017 for the first group of buildings. It would be best to allow the roofs to “settle” and go through a full season before considering potential solar panel installation