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MASTERY CHARTER SCHOOLS OF CAMDEN LEAD IN WATER SAMPLING FINAL REPORT

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*SERVING OUR CLIENTS WITH A COMMITMENT TO
PARTNERSHIP, ALLIANCE, INFORMATION AND CORPORATE INTEGRITY*

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1.0 BACKGROUND

THE SMITHCO ENGINEERING GROUP, INC. (SMITHCO) was authorized by the Mastery Charter Schools of Camden (Mastery) to undertake lead in water sampling.

- ✓ East Camden Middle School
- ✓ McGraw Elementary School
- ✓ Molina Elementary School
- ✓ Molina Annex Elementary School
- ✓ Pyne Poynt Middle School
- ✓ Washington/Cramer Elementary School

The Scope of Services were conducted pursuant to the regulations and guidance documents from the Bureau of Safe Drinking Water of the New Jersey Department of Environmental Protection (NJDEP) having principal responsibility to administer the programs and activities of the Federal Safe Drinking Water Act (40 CFR 141, 142, 143), the New Jersey Safe Drinking Water Act (NJAC 7:10-1 et seq.) and the Environmental Protection Agency (EPA) 3Ts for Reducing Lead in Drink Water in Schools, Revised Technical Guidance.

2.0 APPROACH

2.1 Standard for Safe Drinking Water in New Jersey

Public health is of paramount importance in the determination of what constitutes safe drinking water. Drinking water standards are developed by both the Federal and State governments. Quality standards adopted into regulations are the minimum considered necessary for the maintenance of public health. The standards are set for biological contaminants, dissolved chemicals and suspended particulate matter.

The Bureau of Safe Drinking Water of the New Jersey Department of Environmental Protection (NJDEP) has principal responsibility to administer the programs and activities of the Federal Safe Drinking Water Act (40CFR 141,142,143) and the New Jersey Safe Drinking Water Act (N.J.A.C. 7:10-1 et seq.).

In addition, the Environmental Protection Agency (EPA) developed the 3Ts for Reducing Lead in Drink Water in Schools, Revised Technical Guidance, which has been incorporated into these Protocols, because the Agency is concerned about the potential for elevated lead levels in drinking water in schools.

2.2 Safe Drinking Water Compliance Requirements

The EPA recommends that schools collect 250 mL first –draw samples from water fountains and outlets. It is also recommended that the water fountains or outlets that exceed 20 parts per billion (ppb) or 0.020 milligrams of **lead** per liter of **water (mg/L)**. **The EPA strongly recommends that all water outlets in all schools that provide water for drinking or cooking meet the standard of 20 ppb of lead or less. Copper levels should not exceed 1300 ppb.**

2.3 Lead Sampling Collection Approach and Reporting

- (1) All water samples were collected be 250 milliliters (mL) in volume.
- (2) Water samples were collected before the facility opens and before any water is used. Ideally, the water should have sat in the pipes unused for at least 8 hours before the sample is taken.
- (3) It was assured by personnel that no water had been withdrawn from the taps which the samples were to be collected prior to their sampling.
- (4) A unique sample identification number was assigned to each sample collected – use the sampling schematic or numbering system. Record the identification number on the sample bottle and the chain-of-custody form (*see attached*).

2.3.1 Samples were collected as a “initial draw” method. The water was not run first; the sampling technician collected the first flow of water from the tap directly into the pre-cleaned, 250 mL sampling container supplied by the laboratory.

2.3.2. At the point source for sampling, gloves were utilized for sampling.

2.3.3. The bottles/containers were labeled with client information, school information and location of sampling point, complete this before placing the collected sample(s) in a cooler.

2.3.4. After sampling was completed, contact independent laboratory to inform them a pick up is needed; a Chain of Custody (COC) is completed and executed with the representative of the laboratory.

3.0 ANALYTICAL FINDINGS & DISCUSSIONS

3.1 Code Reference Tables

TABLE 1 OUTLET / PLUMBING /SAMPLE CODE				TABLE 2 FUNCTIONAL SPACES	
CODE	TYPE OF OUTLET OR PLUMBING	INITIAL SCREENING (1 ST DRAW) SAMPLES	FOLLOW-UP SAMPLES	CODE FUNCTIONAL SPACE	
S	Services Connection To Distribution Main	1S	1M	KI	Kitchen
A	Bubblers Without Central Chiller	1A	2A	GY	Gymnasium
B	Bubbler With Central Chiller	1B	2B	CF	Cafeteria
-	Central Chiller Unit	-	3B,4B	TC	Teachers' Cafeteria
C	Water Cooler	1C	2C, 3C, 4C	BC	Boys' Cafeteria
D	Bottled Water Dispensers	1D	2D	GC	Girls' Cafeteria
E	Ice Making Machines	1E	2E	CR	Classroom
F	Water Faucets (Tap)	1F	2F	HA	Hallway
				BR	Bathroom
	Interior Plumbing			GB	Girls' Bathroom
G	Laterals	-	1G	BB	Boys' Bathroom
H	Headers	-	1H	RM	Room
I	Loops	-	1I	OF	Office
J	Risers	-	1J	LB	Laboratory
				LI	Library
				MO	Medical Office
				BO	Boiler Room
				LR	Locker Room
				NM	Natorium
				WP	Water Meter/Pump Room
				SS	Slop Sink

TABLE 3 FLOOR CODES	
CODE	FLOOR
SB	Sub-Basement
BS	Basement
MZ	Mezzanine
01	1 st Floor
02	2 nd Floor
03	3 rd Floor
04	4 th Floor.....etc.

TABLE 4 CONSTRUCTION DATE CODE	
CODE	CONSTRUCTION
0	Original Construction
1	1 st Addition
2	2 nd Addition
3	1 st Modernization
4	2 nd Modernization

3.2 Analytical Results

Comprehensive laboratory results of 120 samples taken are presented in Appendix II.

3.2.1 East Camden Middle School

SAMPLE ID	ANALYTICAL RESULT LEAD
F-CR108-01-0	87 ppb
F-BLR-01-0	12 ppb
F-GB-02-0	3.1 ppb
F-GB-SS-02-0	4.7 ppb
F-BB-02-0	< 3.00 ppb
F-CR118-01-0	5.8 ppb
F-CR112-01-0	< 3.00 ppb
F-CR113-01-0	120 ppb
F-SS-01-0	3.3 ppb
F-KI-01-0	< 3.00 ppb
F-BB-01-0	< 3.00 ppb
F-GB-01-0	< 3.00 ppb
F-TCGB-02-0	< 3.00 ppb

¹ Water fountains or outlets that exceed 20 parts per billion (ppb) or 0.020 milligrams of lead per liter of water (mg/L). Micrograms per liter (ug/L) is essentially the same as parts per billion.

3.2.2 McGraw Elementary School

SAMPLE ID	ANALYTICAL RESULT LEAD
F-BO-SB-0	7.7 ppb
F-KI-01-0	<3.00 ppb
F-OFBR-01-0	4.7 ppb
F-CR110-01-0	<3.00 ppb
F-CR109-01-0	5.5 ppb
F-CR104-01-0	<3.00 ppb
F-CR19-01-0	3.2 ppb
F-CR20-01-0	4.0 ppb
F-CR-17-01-0	10 ppb
F-CR18-01-0	<3.00 ppb
F-CR100-01-0	<3.00 ppb
F-CR101-01-0	<3.00 ppb

SAMPLE ID	ANALYTICAL RESULT LEAD
F-CR103BR-01-0	<3.00 ppb
F-CR106-01-0	<3.00 ppb
F-CR105-01-0	4.8 ppb

¹ Water fountains or outlets that exceed 20 parts per billion (ppb) or 0.020 milligrams of lead per liter of water (mg/L). Micrograms per liter (ug/L) is essentially the same as parts per billion.

3.2.3 Molina Elementary School

SAMPLE ID	ANALYTICAL RESULT LEAD
02-SS-F-2F	<3.00 ppb
02-BB-F-1F	9.7 ppb
02-BB-F- 1Z	<3.00 ppb
02-CR#337-F-1F	4.1 ppb
02-CR#337-F-2F	4.4 ppb
2-GB-F-1F	<3.00 ppb
02-SS-F-2F	<3.00 ppb
F-KI-01-0	<3.00 ppb

¹ Water fountains or outlets that exceed 20 parts per billion (ppb) or 0.020 milligrams of lead per liter of water (mg/L). Micrograms per liter (ug/L) is essentially the same as parts per billion.

3.2.4 Molina Annex Elementary School

SAMPLE ID	ANALYTICAL RESULT LEAD
01-KI-F-1F	<3.00 ppb
01-KI-F-2F	<3.00 ppb
01-BB-F-1F	3.2 ppb
01-BB-F-2F	3.1 ppb
01-SS-HA-2S	<3.00 ppb
01-GB-F-2F	3.0 ppb
01-SS-F-2F	<3.00 ppb
01-MO-F-1F	14 ppb
01-OF-F-1F	7.8 ppb
01-GB-F-1F	3.3 ppb
02-SS-F-1F	3.5 ppb

¹ Water fountains or outlets that exceed 20 parts per billion (ppb) or 0.020 milligrams of lead per liter of water (mg/L). Micrograms per liter (ug/L) is essentially the same as parts per billion.

3.2.5 Pyne Poynt Middle School

SAMPLE ID	ANALYTICAL RESULT LEAD
S-BO-BS-0	ND
F-SS-SB-0	61.6 ppb
F-KI-01-0	ND
F-OF-01-0	ND
F-CR134-01	2.82 ppb
F-GB135-01	41.3 ppb
F-BR-O1	3.41 ppb
F-MO-BR-01	5.61 ppb
F-BB109-01	1.20 ppb
F-GB109-01	2.21 ppb
F-GLR-01	16.4 ppb
F-BLR-01	5.51 ppb
F-GB-02	2.24 ppb
F-BR230-02	14.7 ppb
F-CR235-02	2920 D
F-BB239-02	2.22 ppb

¹Water fountains or outlets that exceed 20 parts per billion (ppb) or 0.020 milligrams of lead per liter of water (mg/L). Micrograms per liter (ug/L) is essentially the same as parts per billion.

3.2.6 Washington/Cramer Elementary School

SAMPLE ID	ANALYTICAL RESULT LEAD
F-K1-01-0	< 3.00 ppb
F-GB-01-0	< 3.00 ppb
F-GBSS-01-0	< 3.00 ppb
F-HABB-01-0	< 3.00 ppb
F-CF-01-0	< 3.00 ppb
F-SS-2-0	< 3.00 ppb
F-CRBR-02-0	5.1 ppb
F-MO-02-0	3.4 ppb
F-GB-02-0	< 3.00 ppb
F-BB-02-0	< 3.00 ppb
F-CRB-03-0	6.3 ppb
F-BR-03-0	< 3.00 ppb
F-SS-03-0	6.0 ppb
F-BB-01-0	< 3.00 ppb

¹Water fountains or outlets that exceed 20 parts per billion (ppb) or 0.020 milligrams of lead per liter of water (mg/L). Micrograms per liter (ug/L) is essentially the same as parts per billion.

4.0 INTERPRETATION OF ANALYTICAL RESULTS

4.1 East Camden Middles School

SAMPLE ID	ANALYTICAL RESULT LEAD	COMMENTS
F-BLR-01-0	12 ppb	<ol style="list-style-type: none"> 1. This sample was taken from a faucet in the Boys Locker Room. "No Drinking Signs...water should not be consumed" should be posted immediately 2. May consider shutting off or disconnect outlet. If outlet is frequently used, bottled water could be provided as a replacement.
F-CR108-01-0	87 ppb	<ol style="list-style-type: none"> 1. The sample was taken in Class Room 108 on the 1st Floor. No Drinking Signs...water should not be consumed" should be posted immediately 2. May consider shutting off or disconnect outlet. If outlet is frequently used, bottled water could be provided as a replacement.
F-CR113-01-0	120 ppb	<ol style="list-style-type: none"> 1. The sample was taken in Class Room 113 on the 1st Floor. No Drinking Signs...water should not be consumed" should be posted immediately 2. May consider shutting off or disconnect outlet. If outlet is frequently used, bottled water could be provided as a replacement.

4.2 McGraw Elementary School

SAMPLE ID	ANALYTICAL RESULT LEAD	COMMENTS
F-BO-SB-0	7.7 ppb	1. Sample taken from Service Connection. It is highly unlikely children will be drinking from this outlet
F-CR17-01-0	10 ppb	1. The sample was taken in Class Room 17 on the 1st Floor. No Drinking Signs...water should not be consumed” should be posted immediately 2. May consider shutting off or disconnect outlet. If outlet is frequently used, bottled water could be provided as a replacement.

4.3 Molina Annex Elementary School

SAMPLE ID	ANALYTICAL RESULT LEAD	COMMENTS
01-OF-F-1F	7.8 ppb	1. Sample taken from Main office It is highly unlikely children will be drinking from this outlet 2. May post “No Drinking Signs...water should not be consumed.
01-MO-F-1F	14 ppb	1. Sample taken from 2 nd floor office bathroom It is highly unlikely children will be drinking from this outlet 2. May post “No Drinking Signs...water should not be consumed.

4.4 Pyne Poynt Middle School

SAMPLE ID	ANALYTICAL RESULT LEAD	COMMENTS
F-SS-SB-0	61.6 ppb	<ol style="list-style-type: none"> 1. Sample taken from Boiler Room. It is highly unlikely children will be drinking from this outlet 2. May post “No Drinking Signs...water should not be consumed.
F-CR235-02	41.3 ppb	<ol style="list-style-type: none"> 1. The sample was taken in Class Room 135 on the 1st floor girl’s bathroom. No Drinking Signs...water should not be consumed” should be posted immediately 2. May consider shutting off or disconnect outlet. If outlet is frequently used, bottled water could be provided as a replacement
F-CR235-02	2,920 D	<ol style="list-style-type: none"> 1. The sample was taken in Class Room 235 on the 2nd floor. No Drinking Signs...water should not be consumed” should be posted immediately 2. May consider shutting off or disconnect outlet. If outlet is frequently used, bottled water could be provided as a replacement

4.5 Washington/Cramer Elementary School

SAMPLE ID	ANALYTICAL RESULT LEAD	COMMENTS
F-CRB-03-0	6.3 ppb	<ol style="list-style-type: none"> 1. Sample taken from Classroom bathroom on 3rd floor. It is highly unlikely children will be drinking from this outlet 2. May post "No Drinking Signs...water should not be consumed.
F-CRBR-02-0	5.1 ppb	<ol style="list-style-type: none"> 1. Sample taken from Classroom bathroom on 2nd floor. It is highly unlikely children will be drinking from this outlet 2. May post "No Drinking Signs...water should not be consumed.
F-SS-03-0	6.0 ppb	<ol style="list-style-type: none"> 1. Sample taken from Slop Sink on 3rd floor. It is highly unlikely children will be drinking from this outlet 2. May post "No Drinking Signs...water should not be consumed.

4.6 Molina Elementary School

SAMPLE ID	ANALYTICAL RESULT LEAD	COMMENTS
02-BB-F-1F	9.7 ppb	<ol style="list-style-type: none"> 1. This sample was taken from a faucet in the Boys bathroom 2nd floor. "No Drinking Signs...water should not be consumed" should be posted immediately 2. May consider shutting off or disconnect outlet. If outlet is frequently used, bottled water could be provided as a replacement.
02-CR337-F-2F	4.4 ppb	<ol style="list-style-type: none"> 1. Sample taken from Classroom 337 on the 2nd floor. It is highly unlikely children will be drinking from this outlet 2. May post "No Drinking Signs...water should not be consumed.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Solutions to lead problems typically need to be made on an interim (short-term) and on a permanent basis. In addition, there are routine measures that should be taken. You should work closely with maintenance staff and any plumbers who may make repairs. Make sure that users are familiar with the use of new fixtures you install.

Outlined below are various routine, interim and permanent remedies.

5.1 Routine Control Measures

Below are examples of routine activities that should be conducted to prevent exposure to elevated levels of lead:

- Create aerator (screen) cleaning maintenance schedule and clean debris from all accessible aerators frequently.
- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.
- Instruct the users (students and staff) to run the water before drinking or staff could run the water before students arrive, so they are drinking water that has not been in contact with the faucet interior since faucets are often a major source of lead in drinking water.
- Placard bathroom sinks with notices that water should not be consumed. You should use pictures if there are small children using bathrooms.

5.2 Interim (Short-Term) Control Measures

Some examples of interim control measures include:

- 1) **“Flush” the piping system in your building.** “Flushing” involves opening suspect taps every morning before the facility opens and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. The flushing time varies by the type of outlet being cleared. The degree to which flushing helps reduce lead levels can also vary depending upon the age and condition of the plumbing and the corrosiveness of the water. Flushing instructions are presented in Exhibit 5.1.

Exhibit 5.1: Flushing Directions by Outlet Type

Remember that each drinking water outlet should be flushed individually; flushing a toilet will not flush your water fountains. All flushing should be recorded in a log submitted daily to the office, or person, in charge of this program.

- Locate the faucet furthest away from the service line on each wing and floor of the building, open the faucets wide, and let the water run for 10 minutes. For best results, calculate the volume of the plumbing and the flow rate at the tap and adjust the flushing time accordingly. This 10-minute time frame is considered adequate for most buildings.
- Open valves at all drinking water fountains without refrigeration units and let the water run for roughly 30 seconds to one minute, or until cold.
- Let the water run on all refrigerated water fountains for 15 minutes. Because of the long time period required, routinely flushing refrigerated fountains may not be feasible. It may therefore be necessary, and more economical, to replace these outlets with lead-free, NSF-approved devices.
- Open all kitchen faucets (and other faucets where water will be used for drinking and/or cooking) and let the water run for 30 seconds to one minute, or until cold.

- 2) **Provide bottled water.** This can be an expensive alternative but might be warranted if you expect or are aware of widespread contamination and flushing is not an option. If you use bottled water, be aware that it is not regulated by EPA but rather by the Food and Drug Administration (FDA). EPA recommends that you require a written statement from the bottled water distributor guaranteeing that the bottled water meets FDA and state standards.
- 3) **Shut off problem outlets.** If initial sample results from an outlet exceed 20 ppb, the outlet can be shut off or disconnected until the problem is resolved. If the outlet had been frequently used, bottled water could be provided as a temporary replacement.

5.3 Permanent Remedies

There are a number of actions to permanently reduce or eliminate the sources of lead that originate in your building's plumbing. Some of these actions may allow the elimination or reduction of routine flushing or other interim measures. After obtaining an understanding of your water supply and the lead conditions in your facility (as a result of testing), we should examine the permanent treatment options and select those most appropriate to your situation. Obviously, your decision will be based on such factors as cost, likelihood of success, availability of water and staffing requirements.

- 1) **Replacement.** If the sources of lead contamination are localized and limited to a few outlets, replacing these outlets or upstream components may be the most practical solution.

- 2) **Lead levels can be reduced at the tap.** Reverse osmosis units are commercially available and can be effective in removing lead. Since these devices also tend to make the water corrosive, they should only be used when placed at water outlets. Such devices are termed point-of-use (POU) devices. POU devices can be used to treat faucets or taps, but would not be used on drinking water fountains. There are a number of POU cartridge filter units on the market that effectively remove lead.
- 3) **Check grounding wires.** Electrical current may accelerate the corrosion of lead in piping materials. Existing wires already grounded to the water pipes can possibly be removed by a qualified electrician, and replaced by an alternative grounding system.
- 4) **Lead pipe replacement.** Lead pipes within the school and those portions of the lead service lines under the water supplier's jurisdiction can be replaced.
- 5) **Reconfigure plumbing.** In some facilities, the plumbing system might be modified so that water supplied for drinking or cooking is redirected to bypass sources of lead contamination. Before undertaking such an alternative, be certain of the sources of lead contamination. Follow-up testing would also be necessary, as with the other remedies, to ensure that the efforts result in reduced lead levels at the tap.
- 6) **Manual flushing.** Flushing individual problem outlets or all outlets may also represent a permanent, albeit ongoing, solution. There are advantages and disadvantages to flushing. Flushing is often the quickest and easiest solution to high lead levels, especially when contamination is localized in a small area or in a small building.
- 7) **SMITHCO's Automatic flushing.** Time-operated solenoid valves can be installed and set to automatically flush the main pipes (headers) of the system. It is important to note that solenoid valves are not practical for flushing water coolers. They would have to be flushed manually by staff.
- 8) **Bottled water.** If other treatment fails or is impractical, bottled water can be purchased for consumption by the building community. As noted under the interim remedies section above, make sure that the bottled water you select meets federal and/or state standards for lead and other drinking water contaminants. EPA recommends that you require a written statement from the bottled water distributor guaranteeing that the lead levels in the water do not exceed 5 ppb.
- 9) **Use lead-free materials.** Make sure that any plumber who does repair or replacement work on the facility's plumbing system uses only "lead-free" solders and other materials.
- 10) **Shut off problem outlets.** If initial sample results from an outlet exceed 20 ppb, the outlet can be shut off or disconnected permanently. If the outlet had not been used regularly, this may be a viable option. However, if the outlet had been frequently used, this is probably not a practical solution.

ATTACHMET 1
PLUMBING PROFILE QUESTIONNAIRE
FLOOR PLANS W/ OUTLETS IDENTIFIED

East Camden Plumbing Profile Questionnaire

PLUMBING PROFILE QUESTIONS	ANSWERS
<p>1. When was the original building constructed?</p> <p>Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.</p>	<p>East Camden Middle had been constructed in 1978</p>
<p>2. If built or repaired since 1986, were lead- free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments?</p> <p>What type of solder has been used?</p>	<p>No its not led free</p>
<p>3. Where were the most recent plumbing repairs made (Note locations)?</p>	<p>No none</p>
<p>4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made?</p> <p>Note the location where the service connection enters the building and connects to the interior plumbing.</p>	<p>Cast Iron Ductile</p> <p>Boiler Room</p>
<p>5. Specifically, what are the potable water pipes made of in your facility (note the locations)?</p> <ul style="list-style-type: none"> • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other <p>Note the location of the different types of pipe, if applicable, and the direction f water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.</p>	<p>Ductile Metal</p>
<p>6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)?</p> <p>Note the location of any tanks, and any available information about that tank; e.g., manufacturer, date of installation</p>	<p>No none</p>
<p>7. Was lead solder used in your plumbing system? Note the locations with lead solder.</p>	<p>Yes due to be constructed in 1978</p>

<p>8. Are brass fittings, faucets, or valves used in your drinking water system? (Note: most faucets are brass on the inside.)</p> <p>You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.</p>	<p>No just portable coolers and Secco products</p>
<p>9. How many of the following outlets provide water for consumption? Note the locations.</p> <ul style="list-style-type: none"> • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountain or Taps 	<p>5 sinks in kitchen and the eye wash in room 109</p>
<p>10. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers? Note the location of any banned coolers.</p>	<p>Advance Tabco id the brand used</p>
<p>11. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.</p>	<p>Yes</p>
<p>12. Have these screens been cleaned?</p> <p>Note the locations.</p>	<p>Screens cleaned as needed or if thy become logged or noticeably dirty</p>
<p>13. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.</p>	<p>Yes some corrosion in the kitchen sink</p>
<p>14. Is any electrical equipment grounded to water pipes? Note the locations.</p>	<p>Yes its grounded in the boiler Room</p>
<p>15. Have there been any complaints about bad (metallic) taste? Note the locations.</p>	<p>None</p>

<p>16. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier).</p> <ul style="list-style-type: none"> • Name of contaminant(s)? • What concentration of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility? 	SMCO previous water testing reports
<p>17. Other plumbing questions:</p> <ul style="list-style-type: none"> • Are blueprints of the building available? • Are there known plumbing “dead ends”, low use areas, existing leaks or other “problem areas”? • Are renovations being planned for part or all of the plumbing system? 	Some plans for renovations set for June 2016
<p>18. Bathrooms:</p> <ul style="list-style-type: none"> • Locations 	See attached Floor Plans
<p>19. Sinks:</p> <ul style="list-style-type: none"> • Locations 	See attached Floor Plans

McGraw Plumbing Profile Questionnaire

PLUMBING PROFILE QUESTIONS	ANSWERS
<p>1. When was the original building constructed?</p> <p>Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.</p>	McGraw was constructed in 1952
<p>2. If built or repaired since 1986, were lead- free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments?</p> <p>What type of solder has been used?</p>	Yes Copper
<p>3. Where were the most recent plumbing repairs made (Note locations)?</p>	yes 03/2016
<p>4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made?</p> <p>Note the location where the service connection enters the building and connects to the interior plumbing.</p>	Cast iron Ductile Outside in manhole
<p>5. Specifically, what are the potable water pipes made of in your facility (note the locations)?</p> <ul style="list-style-type: none"> • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other <p>Note the location of the different types of pipe, if applicable, and the direction of water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.</p>	Ductile Iron
<p>6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)?</p> <p>Note the location of any tanks, and any available information about that tank; e.g., manufacturer, date of installation</p>	No none
<p>7. Was lead solder used in your plumbing system? Note the locations with lead solder.</p>	Yes due to being built in 1952

<p>8. Are brass fittings, faucets, or valves used in your drinking water system? (Note: most faucets are brass on the inside.)</p> <p>You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.</p>	No
<p>9. How many of the following outlets provide water for consumption? Note the locations.</p> <ul style="list-style-type: none"> • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountain or Taps 	3 sinks in kitchen
<p>10. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers? Note the location of any banned coolers.</p>	The brand is Sunrock
<p>11. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.</p>	Yes
<p>12. Have these screens been cleaned?</p> <p>Note the locations.</p>	Yes screens are cleaned as needed or if they become clogged or are noticeably dirty
<p>13. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.</p>	No none detected
<p>14. Is any electrical equipment grounded to water pipes? Note the locations.</p>	The equipment is in the ground and not noticeable
<p>15. Have there been any complaints about bad (metallic) taste? Note the locations.</p>	No

<p>16. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier).</p> <ul style="list-style-type: none"> • Name of contaminant(s)? • What concentration of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility? 	SMCO Previous water testing reports
<p>17. Other plumbing questions:</p> <ul style="list-style-type: none"> • Are blueprints of the building available? • Are there known plumbing “dead ends”, low use areas, existing leaks or other “problem areas”? • Are renovations being planned for part or all of the plumbing system? 	Yes in June unsure of what type
<p>18. Bathrooms:</p> <ul style="list-style-type: none"> • Locations 	See attached Floor Plans
<p>19. Sinks:</p> <ul style="list-style-type: none"> • Locations 	See attached Floor Plans

Molina Plumbing Profile Questionnaire

PLUMBING PROFILE QUESTIONS	ANSWERS
<p>1. When was the original building constructed?</p> <p>Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.</p>	1976
<p>2. If built or repaired since 1986, were lead- free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments?</p> <p>What type of solder has been used?</p>	No
<p>3. Where were the most recent plumbing repairs made (Note locations)?</p>	No
<p>4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made?</p> <p>Note the location where the service connection enters the building and connects to the interior plumbing.</p>	Cast Iron (G4) Ductile
<p>5. Specifically, what are the potable water pipes made of in your facility (note the locations)?</p> <ul style="list-style-type: none"> • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other <p>Note the location of the different types of pipe, if applicable, and the direction of water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.</p>	Ductile Iron
<p>6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)?</p> <p>Note the location of any tanks, and any available information about that tank; e.g., manufacturer, date of installation</p>	No

<p>7. Was lead solder used in your plumbing system? Note the locations with lead solder.</p>	<p>Yes, it was built in 1976</p>
<p>8. Are brass fittings, faucets, or valves used in your drinking water system? (Note: most faucets are brass on the inside.)</p> <p>You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.</p>	<p>No, Portable Coolers Tobacco Products McGraw Edison Company</p>
<p>9. How many of the following outlets provide water for consumption? Note the locations.</p> <ul style="list-style-type: none"> • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountain or Taps 	
<p>10. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers? Note the location of any banned coolers.</p>	<p>Yes, none apply</p>
<p>11. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.</p>	<p>Yes</p>
<p>12. Have these screens been cleaned?</p> <p>Note the locations.</p>	<p>Yes, on a needed basis.</p>

<p>13. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.</p>	<p>No</p>
<p>14. Is any electrical equipment grounded to water pipes? Note the locations.</p>	<p>Grounded</p>
<p>15. Have there been any complaints about bad (metallic) taste? Note the locations.</p>	<p>No</p>
<p>16. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier).</p> <ul style="list-style-type: none"> • Name of contaminant(s)? • What concentration of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility? 	
<p>17. Other plumbing questions:</p> <ul style="list-style-type: none"> • Are blueprints of the building available? • Are there known plumbing “dead ends”, low use areas, existing leaks or other “problem areas”? • Are renovations being planned for part or all of the plumbing system? 	<p>No</p>

Molina Annex Plumbing Profile Questionnaire

PLUMBING PROFILE QUESTIONS	ANSWERS
<p>1. When was the original building constructed?</p> <p>Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.</p>	1904
<p>2. If built or repaired since 1986, were lead- free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments?</p> <p>What type of solder has been used?</p>	No
<p>3. Where were the most recent plumbing repairs made (Note locations)?</p>	No
<p>4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made?</p> <p>Note the location where the service connection enters the building and connects to the interior plumbing.</p>	Cast Iron (G4) Ductile
<p>5. Specifically, what are the potable water pipes made of in your facility (note the locations)?</p> <ul style="list-style-type: none"> • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other <p>Note the location of the different types of pipe, if applicable, and the direction if water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.</p>	Ductile Iron
<p>6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)?</p> <p>Note the location of any tanks, and any available information about that tank; e.g., manufacturer, date of installation</p>	No
<p>7. Was lead solder used in your plumbing system? Note the locations with lead solder.</p>	Yes, it was built in 1976

<p>8. Are brass fittings, faucets, or valves used in your drinking water system? (Note: most faucets are brass on the inside.)</p> <p>You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.</p>	<p>No, Portable Coolers Tobacco Products McGraw Edison Company</p>
<p>9. How many of the following outlets provide water for consumption? Note the locations.</p> <ul style="list-style-type: none"> • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountain or Taps 	
<p>10. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers? Note the location of any banned coolers.</p>	<p>Yes, none apply</p>
<p>11. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.</p>	<p>Yes</p>
<p>12. Have these screens been cleaned?</p> <p>Note the locations.</p>	<p>Yes, on a needed basis.</p>
<p>13. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.</p>	<p>No</p>
<p>14. Is any electrical equipment grounded to water pipes? Note the locations.</p>	<p>Grounded</p>
<p>15. Have there been any complaints about bad (metallic) taste? Note the locations.</p>	<p>No</p>
<p>16. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier).</p> <ul style="list-style-type: none"> • Name of contaminant(s)? • What concentration of these contaminants were found? 	

<ul style="list-style-type: none">• What was the pH level of the water?• Is testing done regularly at your facility?	
17. Other plumbing questions: <ul style="list-style-type: none">• Are blueprints of the building available?• Are there known plumbing “dead ends”, low use areas, existing leaks or other “problem areas”?• Are renovations being planned for part or all of the plumbing system?	No

Pyne Poynt Plumbing Profile Questionnaire

PLUMBING PROFILE QUESTIONS	ANSWERS
<p>1. When was the original building constructed?</p> <p>Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.</p>	Pyne Poynt 1957
<p>2. If built or repaired since 1986, were lead-free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments?</p> <p>What type of solder has been used?</p>	<p>Yes</p> <p>N/A</p>
<p>3. Where were the most recent plumbing repairs made (Note locations)?</p>	N/A
<p>4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made?</p> <p>Note the location where the service connection enters the building and connects to the interior plumbing.</p>	<p>Galvanized Metal</p> <p>Boiler Room</p>
<p>5. Specifically, what are the potable water pipes made of in your facility (note the locations)?</p> <ul style="list-style-type: none"> • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other <p>Note the location of the different types of pipe, if applicable, and the direction of water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.</p>	<p>Galvanized Metal</p> <p>Copper</p> <p>Ductile Iron</p>
<p>6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)?</p> <p>Note the location of any tanks, and any available information about that tank; e.g., manufacturer, date of installation</p>	No
<p>7. Was lead solder used in your plumbing system? Note the locations with lead solder.</p>	No current Plumbing Blue Prints

<p>8. Are brass fittings, faucets, or valves used in your drinking water system? (Note: most faucets are brass on the inside.)</p> <p>You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.</p>	No
<p>9. How many of the following outlets provide water for consumption? Note the locations.</p> <ul style="list-style-type: none"> • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountain or Taps 	5 Kitchen Sinks
<p>10. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers? Note the location of any banned coolers.</p>	Yes, there are no banned brands in the building.
<p>11. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.</p>	Outlets do not provide drinking water. (Kitchen)
<p>12. Have these screens been cleaned?</p> <p>Note the locations.</p>	Yes, routinely
<p>13. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.</p>	No
<p>14. Is any electrical equipment grounded to water pipes? Note the locations.</p>	Yes, the water main located in the Boiler room
<p>15. Have there been any complaints about bad (metallic) taste? Note the locations.</p>	No
<p>16. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier).</p> <ul style="list-style-type: none"> • Name of contaminant(s)? • What concentration of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility? 	See CCSD Lead In Water Quarterly Reports (attached)

<p>17. Other plumbing questions:</p> <ul style="list-style-type: none">• Are blueprints of the building available?• Are there known plumbing “dead ends”, low use areas, existing leaks or other “problem areas”?• Are renovations being planned for part or all of the plumbing system?	<p>No, Blue Prints are not available.</p>
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Washington/Cramer Elementary School Plumbing Profile Questionnaire

PLUMBING PROFILE QUESTIONS	ANSWERS
<p>1. When was the original building constructed?</p> <p>Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.</p>	Washington 1907
<p>2. If built or repaired since 1986, were lead- free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments?</p> <p>What type of solder has been used?</p>	Yes N/A
<p>3. Where were the most recent plumbing repairs made (Note locations)?</p>	N/A
<p>4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made?</p> <p>Note the location where the service connection enters the building and connects to the interior plumbing.</p>	Galvanized Metal Boiler Room
<p>5. Specifically, what are the potable water pipes made of in your facility (note the locations)?</p> <ul style="list-style-type: none"> • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other <p>Note the location of the different types of pipe, if applicable, and the direction of water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.</p>	Galvanized Metal Copper Ductile Iron
<p>6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)?</p> <p>Note the location of any tanks, and any available information about that tank; e.g., manufacturer, date of installation</p>	No
<p>7. Was lead solder used in your plumbing system? Note the locations with lead solder.</p>	No current Plumbing Blue Prints

<p>8. Are brass fittings, faucets, or valves used in your drinking water system? (Note: most faucets are brass on the inside.)</p> <p>You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.</p>	No
<p>9. How many of the following outlets provide water for consumption? Note the locations.</p> <ul style="list-style-type: none"> • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountain or Taps 	2 Kitchen Sinks (see attached floor plans)
<p>10. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers? Note the location of any banned coolers.</p>	Yes, there are no banned brands in the building.
<p>11. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.</p>	Outlets do not provide drinking water. (Kitchen, see attached floor plans)
<p>12. Have these screens been cleaned?</p> <p>Note the locations.</p>	Yes, routinely
<p>13. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.</p>	Signs of corrosion and leaks near and around buildings slop sinks.
<p>14. Is any electrical equipment grounded to water pipes? Note the locations.</p>	Yes, the water main located in the Boiler room
<p>15. Have there been any complaints about bad (metallic) taste? Note the locations.</p>	No
<p>16. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier).</p> <ul style="list-style-type: none"> • Name of contaminant(s)? • What concentration of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility? 	See CCSD Lead In Water Quarterly Reports (attached)

<p>17. Other plumbing questions:</p> <ul style="list-style-type: none">• Are blueprints of the building available?• Are there known plumbing “dead ends”, low use areas, existing leaks or other “problem areas”?• Are renovations being planned for part or all of the plumbing system?	<p>No, Blue Prints are not available.</p>
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