

# Puxico R-VIII School District Lead in Drinking Water Sampling and Testing Plan

#### **Prepared For:**

Puxico R-VIII School District 481 North Bedford Street Puxico, Stoddard County, Missouri 63960-9144

#### **Prepared By:**

Environmental Works, Inc. 2008 North Westwood Blvd. Poplar Bluff, Missouri 63901

**Plan Prepared:** 

December 27, 2023

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#### 1.0 Purpose

Environmental Works, Inc. (EWI), on behalf of the Puxico R-VIII School District (Puxico R-VIII), has prepared this Lead in Drinking Water Sampling and Testing (LDWST) Plan in response to the Missouri Revised Statutes of Missouri (RSMo) Chapter 160 Section 077 (160.077). This LDWST Plan includes procedures for inventorying and sampling outlets used for drinking water and water dispensed for cooking and cleaning of eating and cooking utensils in each of the school buildings.

This Plan has been prepared to meet the requirements of the RSMo 160.077, the Environmental Protection Agency's (EPA) 3Ts for Reducing Lead in Drinking Water, and the EPA Safe Drinking Water Act (SDWA). The Puxico R-VIII School District has distributed this LDWST Plan to the public through the District website (https://www.puxico.k12.mo.us/). General information on the health effects of lead contamination and additional informational resources for employees and parents of children at each school will be provided upon request.

#### 1.1 Regulatory Schedule Requirements (RSMo 160.077(4))

In accordance with RSMo 160.077, on or before January 1, 2024, each school will:

- Conduct an inventory of all drinking water outlets and all outlets that are used for dispensing water for consumption, cooking, and cleaning of cooking and eating utensils;
- Develop a Plan for testing each outlet inventoried;
- Provide the Plan to the public; and
- Upon request, provide general information on the health effects of lead contamination and additional informational resources for employees and parents of children at each school.

Before <u>August 1, 2024</u>, or on the first day students will be present in the building, whichever is later, each school will:

- Complete sampling in accordance with RSMo 160.077,
- Make all testing results and any lead remediation plans available on the school's website within two weeks of receiving final analytical test results, and
- Remove and replace any drinking water coolers or drinking water outlets that the EPA has determined are not lead-free under the federal Lead Contamination Control Act of 1988.

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#### 2.0 School District Description and Contact Information

#### 2.1 School District Information

**School District:** Puxico R-VIII Schools

School Type: Public

Address: 481 N. Bedford St.

Puxico, Stoddard County, Missouri 63960

**Phone:** (573) 222-3762 (O) and (573) 222-3137 (F)

Email: ccrabb@puxico.k12.mo.us

Contact: Cindy Crabb

Superintendent 573-222-3762 (O)

#### 2.2 Buildings

The following table summarizes the schools covered in this LDWST Plan.

Schools	Grade	Address		
Puxico R-VIII Elementary	Pre-K – 5th	381 E. Reed		
Puxico K-VIII Elementary	Pie-K – Jui	Puxico, Missouri 63960		
Puxico R-VIII Jr. High	6th – 8th	466 N. Hickman		
Puxico R-VIII Jr. High	611 – 8111	Puxico, Missouri 63960		
Duving D VIII High	9th – 12th	441 N. Hickman		
Puxico R-VIII High	901 – 1201	Puxico, Missouri 63960		

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#### 3.0 Inventory

The Puxico R-VIII School District completed a building and outlet questionnaire, and EWI completed a site visit to gather information such as:

- Date of building construction,
- Year and location of plumbing repairs,
- Location where water enters the building and flow,
- Identification of any known lead lines or plumbing components,
- Location of water pipes and piping material,
- Location of any tanks in the plumbing system,
- Identification of all faucets and fixtures used for drinking water and cooking, and
- Identification of filters, aerators, signs of corrosion, or banned water cooler tanks.

#### 3.1 Outlet Identification and Prioritization

Drinking water and cooking outlets were identified from the questionnaire and site visit in accordance with the Missouri RSMo's 160.077.2 drinking water outlet definition, which includes but may not be limited to:

- a) A water fountain, faucet, or tap that is used or potentially used for drinking or food preparation and
- b) Ice-making and hot drink machines.

Building diagrams are attached in **Appendix A**, detailed information on each building can be found in **Appendix B**, and the outlets identified in the inventory are outlined in **Appendix C**.

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#### 4.0 Sampling and Testing

#### 4.1 Initial Sampling and Testing

The outlet inventory and prioritization schedule included in this plan will be used to conduct sampling for the Puxico R-VIII School District. Samples will be collected using proper sampling procedures. The sampler will utilize laboratory prepared 250-milliliter (mL) unpreserved plastic containers to collect outlet water for analysis of lead by Method 200.8. Samples will be labeled, managed under a Chain of Custody, and sent to a certified laboratory for analysis. EWI personnel will collect samples from each identified outlet based on the following criteria:

#### **First Draw Sampling**

First draw samples will be immediately collected from the outlet from the first water after the outlet is turned on. Samples will be collected after a stagnation period of at least 8 hours but no greater than 18 hours.

#### **Flush Sampling**

Follow-up flush samples will be collected from at least 25% of inventoried drinking water outlets.

All results will be summarized in a final report, submitted to the Missouri Department of Health and Senior Services, and published on the Puxico R-VIII School District website.

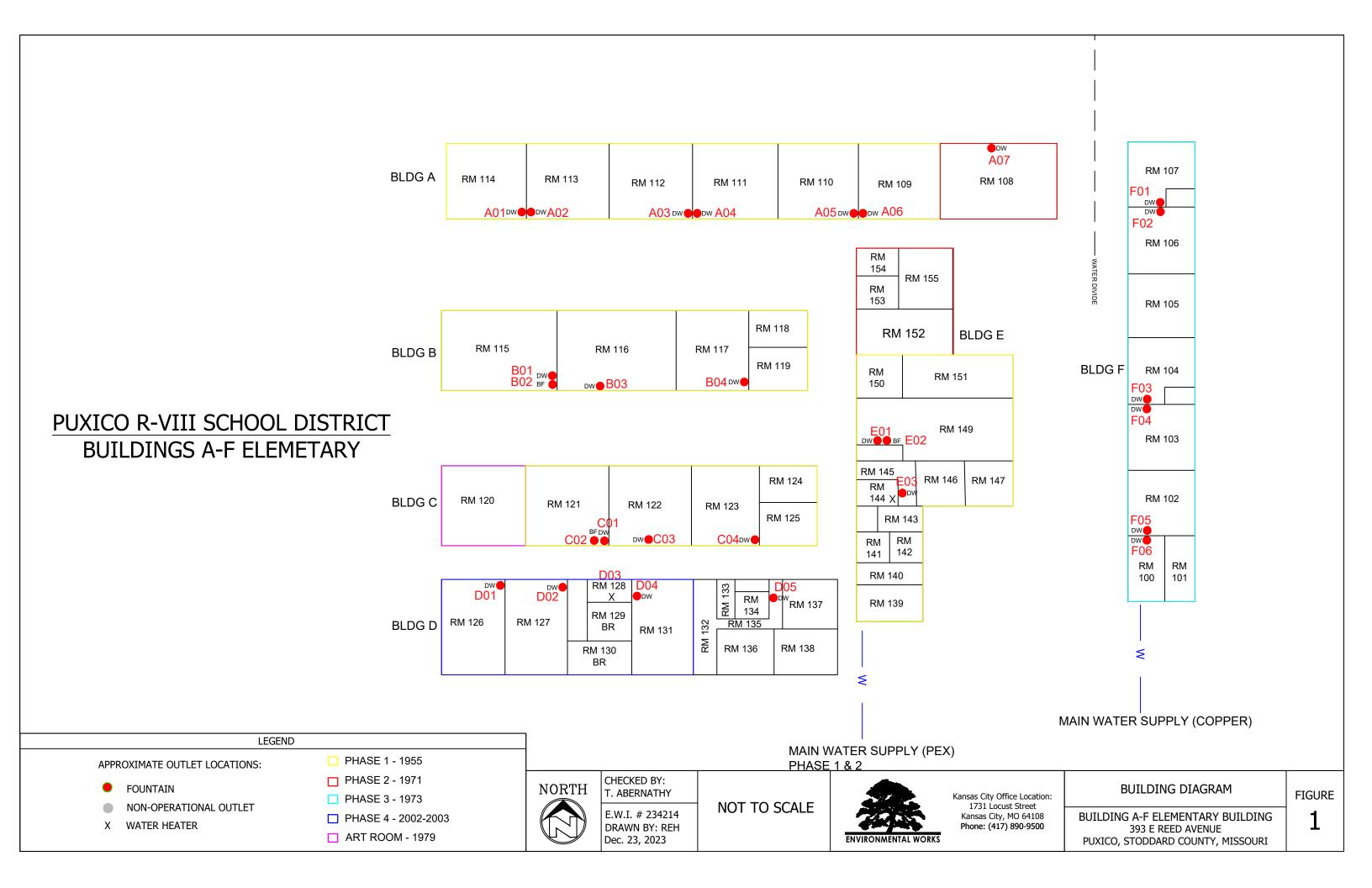
#### 4.2 Subsequent Sampling and Testing

If initial testing finds lead above 5 parts per billion (ppb), the Puxico R-VIII School District will implement remedial measures, then test and sample 25% of remediated drinking water outlets by first draw and follow-up flush sampling annually.

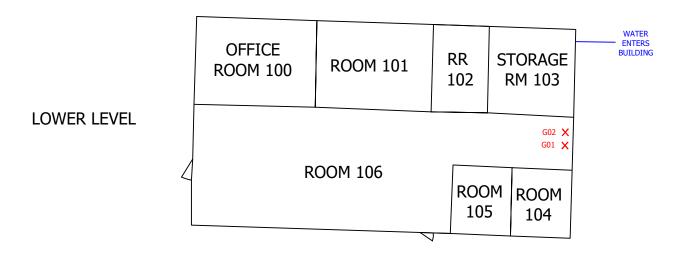
If initial testing does not find a drinking water source with a lead concentration above 5 ppb, Puxico R-VIII School District will complete testing and sampling every five years.

Environmental Works, Inc. Page 4 of 4

# APPENDIX A – Building Diagrams



#### **BUILDING G- SPECIAL EDUCATION BUILDING**

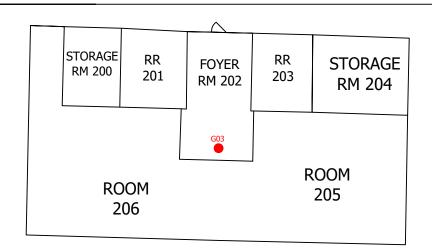


**UPPER LEVEL** 

LEGEND

APPROXIMATE OUTLET LOCATIONS:

- × FAUCET
- FOUNTAIN
- NON-OPERATIONAL OUTLET



NORTH

CHECKED BY:
J. PFANNENSTIEL

E.W.I. # 171003.01 DRAWN BY: TW JULY 6, 2022 NOT TO SCALE



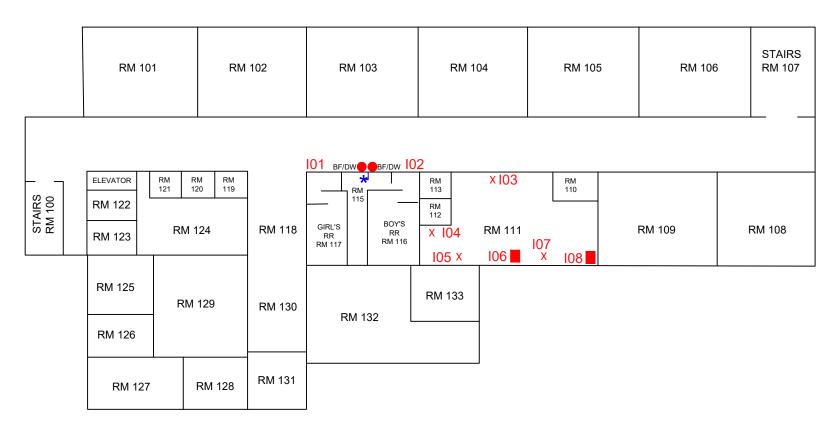
Kansas City Office Location: 1731 Locust Street Kansas City, MO 64108 Phone: (816) 285-8410 BUILDING DIAGRAM

**FIGURE** 

BUILDING G- SPECIAL EDUCATION BUILDING 393 E REED AVENUE PUXICO, STODDARD COUNTY, MISSOURI 2

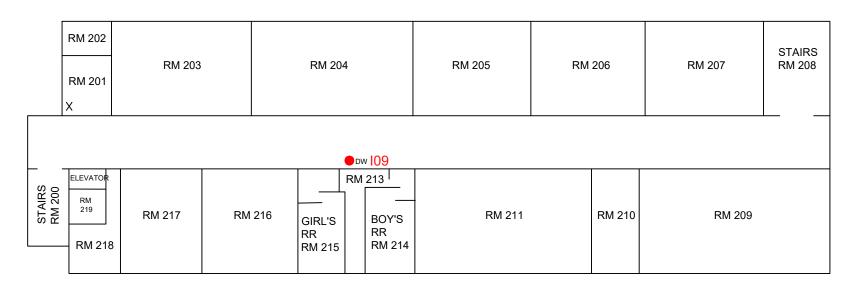
## Building H - Little Indians Preschool OFFICE **ROOM 101 BACK DOOR** RR **ROOM 102 PLAYGROUND** H01 **ROOM** RR 104 **ROOM 101** CLASSROOM **AREA** RM 100 FRONT DOOR NORTH Project\Puxico R-VIII School District\234214\Figures\MAPS TO CAD\BLDG H LEGEND APPROXIMATE OUTLET LOCATIONS: **FOUNTAIN** NON-OPERATIONAL OUTLET CHECKED BY: **BUILDING DIAGRAM** T. Abernathy **FIGURE** NOT TO SCALE E.W.I. # 23414 3 Building H-Little Indians Preschool DRAWN BY: TW 400 North Hickman Street December 8, 2023 Puxico, Stoddard County, Missouri 1455 E. Chestnut Expressway, Springfield, MO 65802

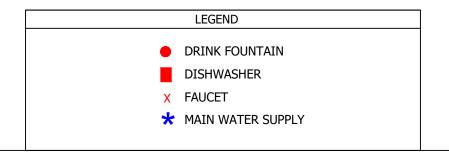
# HIGH SCHOOL - LOWER LEVEL



# PUXICO R-VIII SCHOOL DISTRICT BUILDING I HIGH SCHOOL

# HIGH SCHOOL - UPPER LEVEL





NORTH

CHECKED BY: T. ABERNATHY

E.W.I. # 234214 DRAWN BY: REH Dec. 24, 2023 NOT TO SCALE



Kansas City Office Location: 1731 Locust Street Kansas City, MO 64108 Phone: (417) 890-9500 BUILDING DIAGRAM

FIGURE

BUILDING I HIGH SCHOOL 393 E REED AVENUE PUXICO, STODDARD COUNTY, MISSOURI

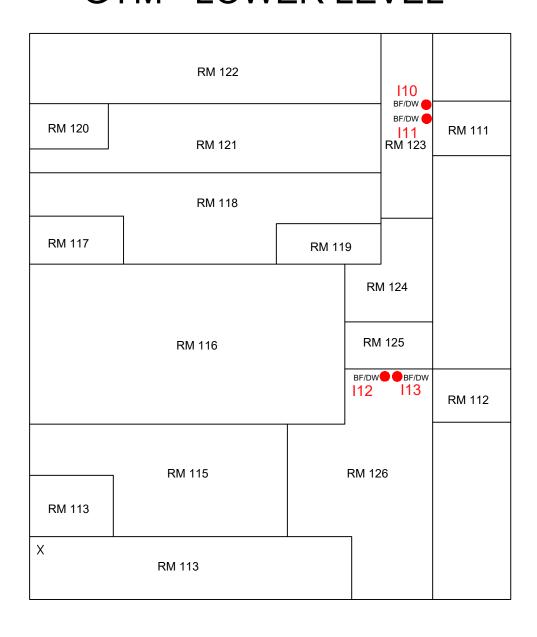
4

# PUXICO R-VIII SCHOOL DISTRICT BUILDING I HIGH SCHOOL GYM

# **GYM - UPPER LEVEL**

# RM 110 RM 100 RM 109 RM 108 I17 **A** Χ RM 105 BF/DW I14 BF/DW |15 RM 104 116 x RM 101 RM 107 RM 106 RM 103 RM 102 SUPPLY **BLDG I**

# **GYM - LOWER LEVEL**





NORTH

CHECKED BY:
T. ABERNATHY

E.W.I. # 234214
DRAWN BY: REH
Dec. 24, 2023

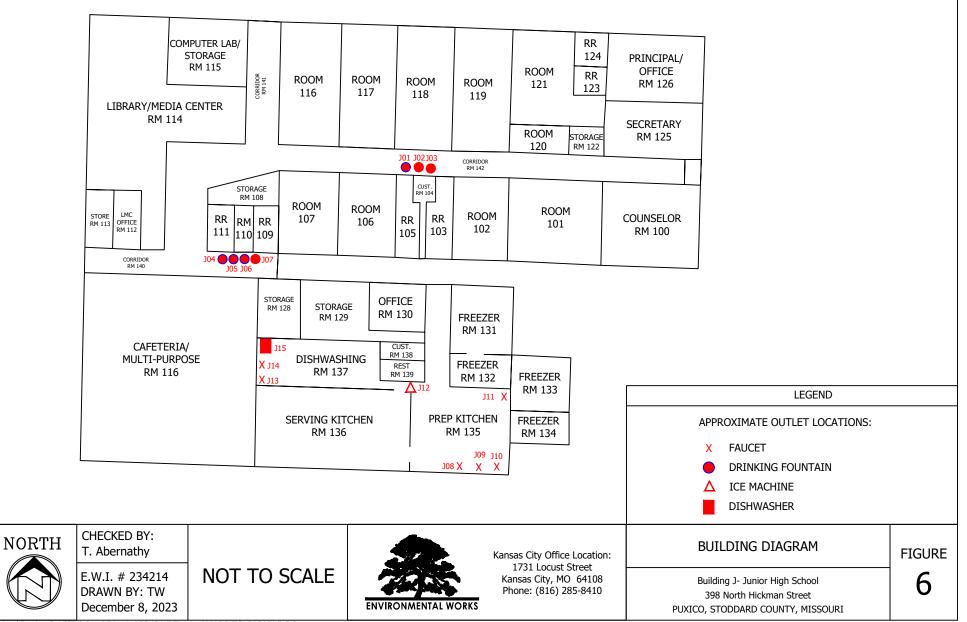
NOT TO SCALE

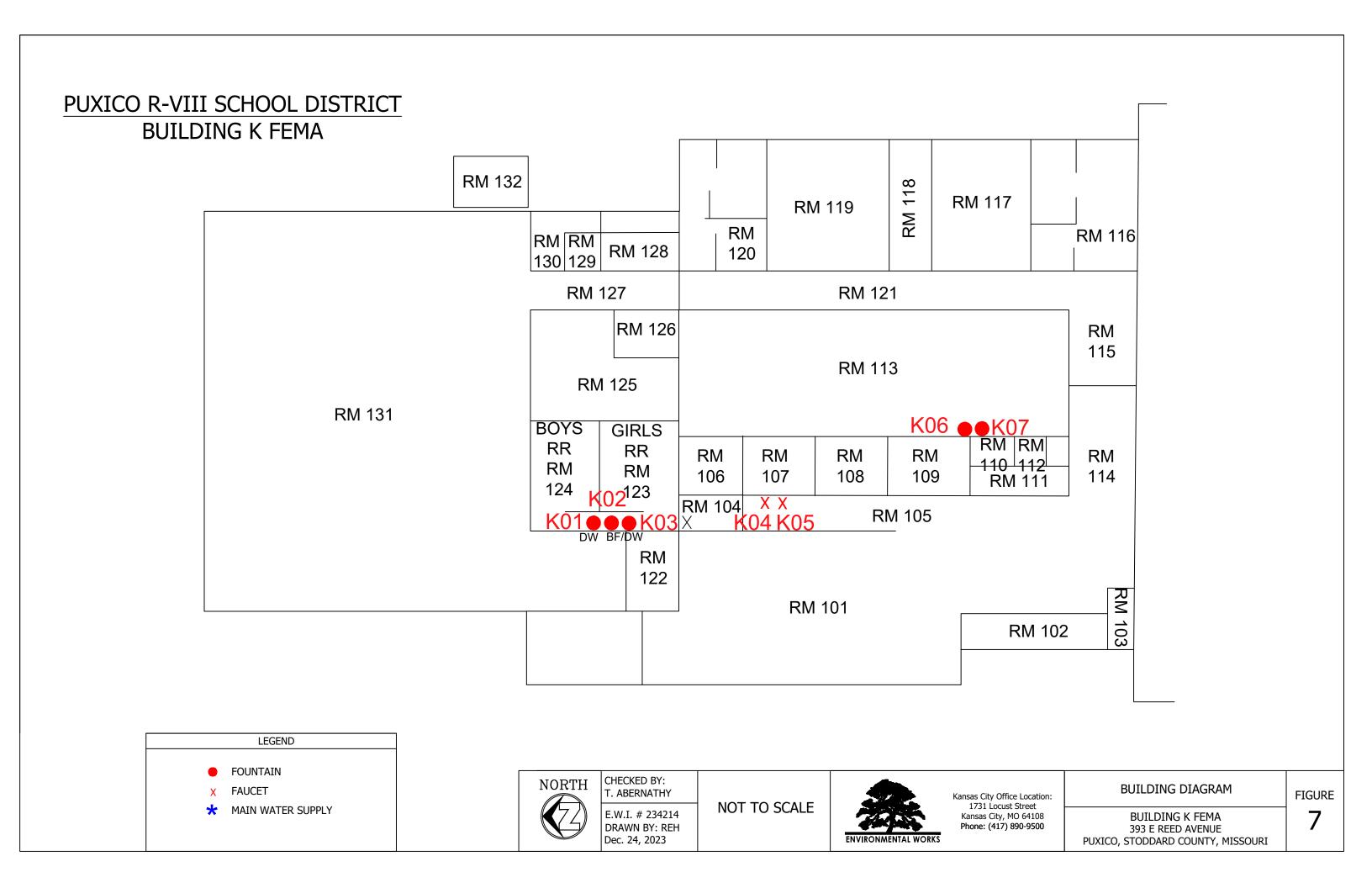


Kansas City Office Location: 1731 Locust Street Kansas City, MO 64108 Phone: (417) 890-9500 BUILDING DIAGRAM

BUILDING I HIGH SCHOOL GYM 393 E REED AVENUE PUXICO, STODDARD COUNTY, MISSOURI FIGURE

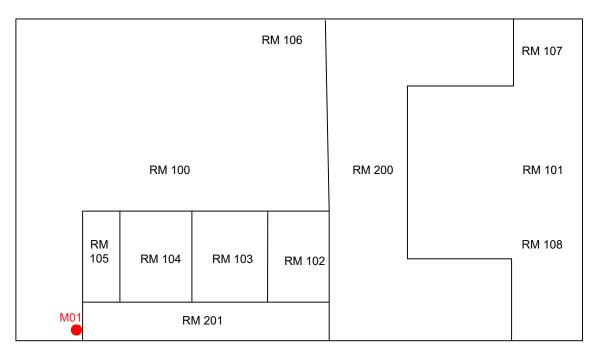
## **BUILDING J- JUNIOR HIGH SCHOOL**

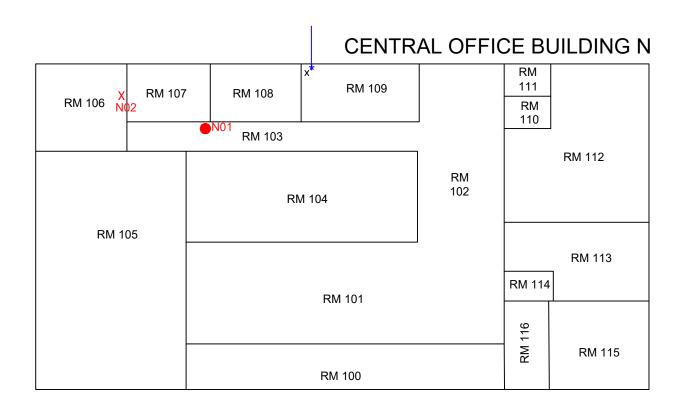


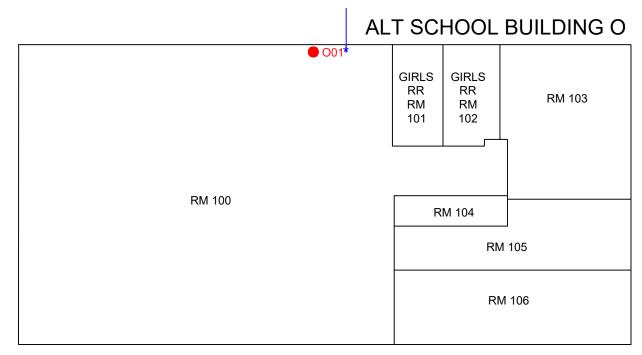


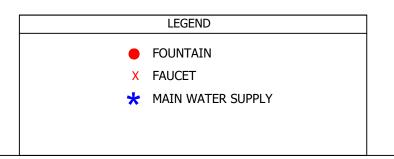
# RM 103 RM 100 RM 104 RM 105 RM 107 RM 108

#### TRANSPORTATION BUILDING M











CHECKED BY: T. ABERNATHY

E.W.I. # 234214 DRAWN BY: REH Dec. 24, 2023 NOT TO SCALE



Kansas City Office Location: 1731 Locust Street Kansas City, MO 64108 Phone: (417) 890-9500 BUILDING DIAGRAM

BUILDING L, M, N & O 393 E REED AVENUE PUXICO, STODDARD COUNTY, MISSOURI FIGURE

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# APPENDIX B – Building Summary

School District:	Puxico R-VIII	Date:	11/2/2023
Person Completing Questionnaire:	Jim Clark & Cindy Crab	Title:	Maintenance Supervisor, Superintendent

				Any Building	g Maps/Drawings		Any Building Additions	?			Any	Tanks in the Plumb	ing System?		
Building	Address	Original Construction Date	Outlet Count	Yes/No	Electronic/ Hard Copy (see note below)	Yes/No	Year of Addition	What Was Added?	Where Does Water Enter the Building?	Who Provides Water to the Building?	Yes/No	Tank Types (i.e. boiler, water heaters, water chillers etc.)		Location (hall, room #, ect)	Notes
Elementary-Phase 1	381 East Reed, Puxico, MO 63960	1955	18	Yes	Hard Copy	Yes	documented in next phase		By elementary office	City of Puxico	Yes	Water Heater	No	144	
Elementary-Phase 2	381 East Reed, Puxico, MO 63960	1971	1	Yes	Hard Copy	Yes	documented in next phase		By elementary office	City of Puxico	No				
Elementary- Phase 3	381 East Reed, Puxico, MO 63960	1973	6	Yes	Hard Copy	Yes	documented in next phase		Southeast corner of building	City of Puxico	No				
Elementary- Phase 4	381 East Reed, Puxico, MO 63960	2002-2003	4	Yes	Hard Copy	Yes	documented in next phase		By elementary office	City of Puxico	Yes	Water Heater	No	128	
Elementary Art Room	381 East Reed, Puxico, MO 63960	1979	0	Yes	Hard Copy	No			By elementary office	City of Puxico	No				
Special Education Classroom Building	381 East Reed, Puxico, MO 63960	2009-2010	2	Yes	Hard Copy	No			Northeast Corner of building	City of Puxico	Yes	Water Heater	No	103	
Preschool-Modular	382 East Reed, Puxico, MO 63960	1999	1	Yes	Hard Copy	No			West side of building	City of Puxico	Yes	Water Heater	No	103	
Junior High-Phase 1	466 N. Hickman, Puxico, MO 63960	1996			Hard Copy	Yes	documented in next phase & cafeteria			City of Puxico	Yes	Water Heater	No	104	
Junior High-Phase 2	466 N. Hickman, Puxico, MO 63960	2005		Yes	Hard Copy	Yes	last addition to building		<b>-</b>	City of Puxico	No				
Cafeteria/Media Center	466 N. Hickman, Puxico, MO 63960	1998		Yes	Hard Copy		documented in JH-Phase2			City of Puxico	Yes	Water Heater	No	108, 128	
High School-Ag Building	394 N. EL Hawk Street, Puxico, MO 6396	1955		Yes	Hard Copy	No				City of Puxico	No				
High School-Alternative School	N. Hickman, Puxico, MO 63960	1970		Yes	Hard Copy	No				City of Puxico	No				
High School Building	441 N. Hickman, Puxico, MO 63960	2008		Yes	Hard Copy	No			,	City of Puxico	Yes	Water Heater	No	201	
Arnold Ryan Gymnasium	443 N. Hickman, Puxico MO 63960	1958		Yes	Hard Copy	Yes	documented with FEMA		S.W. Corner of building, rm 107	•	Yes	Water Heater	No	107, 113	
Puxico Activity Center (FEMA)	490 N. Highway 51, Puxico, MO 6396	2013	5	Yes	Hard Copy	No	last addition to building		S.W. Corner of building, rm 102	City of Puxico	Yes	Water Heater	No	104	
Puxico Transportation/Maintenance	395 N EL Hawk Street Puxico, MO 63960	1997	1	Yes	Hard Copy	No			East side of building	City of Puxico	Yes	Water Heater	No	105	
Special Education Administration	437 N. Bedford, Puxico, MO 63960	1969	1	Yes	Hard Copy	Yes	2023	meeting room	S.W. Corner of building,	City of Puxico	Yes	Water Heater	No	101	
Puxico Central Office	481 N. Bedford, Puxico, MO 63960	2005	2	Yes	Hard Copy	No			West side of building	City of Puxico	Yes	Water Heater	No	109	
Technical High School	OFF CAMPUS-Not District Property- Virtual Classes														
^^ Enter New line above ^^															

Total Outlets 70

## **APPENDIX C – Outlet Inventory**

**School District:** 

Puxico R-VIII Elementary All Phases

Person Completing Questionnaire: Jim Clark & Cindy Crab Title: Maintenance Supervisor, Superintendent

**Date:** 11/2/2023

Outlet Type	Location	Specific		
(see examples below)	(hall, room #, etc.)	Location	Map ID	SAMPLE ID
Phase 1 Water Fountains	BLDG A	Room 114	A01	01-01-CR-DW-P-001
Phase 1 Water Fountains	BLDG A	Room 113	A02	01-01-CR-DW-P-002
Phase 1 Water Fountains	BLDG A	Room 112	A03	01-01-CR-DW-P-003
Phase 1 Water Fountains	BLDG A	Room 111	A04	01-01-CR-DW-P-004
Phase 1 Water Fountains	BLDG A	Room 110	A05	01-01-CR-DW-P-005
Phase 1 Water Fountains	BLDG A	Room 109	A06	01-01-CR-DW-P-006
Phase 2 Water Fountains	BLDG A	Room 108	A07	01-01-CR-DW-P-007
Phase 1 Water Fountains	BLDG B	Room 115	B01	02-01-CR-DW-P-008
Phase 1 Bottle Filler	BLDG B	Room 116	B02	02-01-CR-BF-P-009
Phase 1 Water Fountains	BLDG B	Room 117	B03	02-01-CR-DW-P-010
Phase 1 Water Fountains	BLDG B	Room 118	B04	02-01-CR-DW-P-011
Phase 1 Water Fountains	BLDG C	Room 121	C01	03-01-CR-DW-P-013
Phase 1 -Bottle Filler	BLDG C	Room 121	C02	03-01-CR-BF-P-014
Phase 1 Water Fountains	BLDG C	Room 122	C03	03-01-CR-DW-P-015
Phase 1 Water Fountains	BLDG C	Room 123	C04	03-01-CR-DW-P-016
Phase 4 Water Fountain	BLDG D	ROOM 126	D01	04-01-CR-DW-P-014
Phase 4 Water Fountain	BLDG D	ROOM 127	D02	04-01-CR-DW-P-015
Phase 4 Water Fountain	BLDG D	ROOM 128	D03	04-01-CR-DW-P-016
Phase 4 Water Fountain	BLDG D	Room 131	D04	04-01-CR-DW-P-017
Phase 4 Water Fountain	BLDG D	Room 135	D05	04-01-CR-DW-P-018
Phase 1 Water Fountains	BLDG E	Front of RM 149	E01	05-01-HW-DW-P-019
Phase 1 -Bottle Filler	BLDG E	Front of RM 149	E02	05-01-HW-BF-P-020
Phase 1 Water Fountains	BLDG E	Front of RM 144	E03	05-01-HW-DW-P-021
Phase 3 Water Fountain	BLDG F	Room 107	F01	06-01-CR-DW-P-022
Phase 3 Water Fountain	BLDG F	Room 106	F02	06-01-CR-DW-P-023
Phase 3 Water Fountain	BLDG F	Room 104	F03	06-01-CR-DW-P-024
Phase 3 Water Fountain	BLDG F	Room 103	F04	06-01-CR-DW-P-025
Phase 3 Water Fountain	BLDG F	Room 102	F05	06-01-CR-DW-P-026
Phase 3 Water Fountain	BLDG F	Room 100	F06	06-01-CR-DW-P-027

29 Total Building Outlets
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School District: Puxico R-VIII Special Education Date: 11/2/2023

Outlet Type	Location	Specific		
(see examples below)	(hall, room #, etc.)	Location	Map ID	SAMPLE ID
SPED Classrooms Faucet	Lower Level	Room 106	G01	07-01-CR-CF-P-028
SPED Classrooms Faucet Sprayer	Lower Level	Room 106	G02	07-01-CR-CF-P-029
SPED Classrooms Fountain	Upper Level	Room 202	G03	07-02-CR-DW-P-030
3	<b>Total Building Outlets</b>			

School District: Puxico-VIII Pre K Date: 11/2/2023

Outlet Type	Location	Specific		
(see examples below)	(hall, room #, etc.)	Location	Map ID	SAMPLE ID
Preschool - Water Fountain	Room 100	Near Restrooms	H01	08-01-HW-DW-P-031
1	Total Building Outlets			

School District: Puxico R-VIII High School Date: 11/2/2023

Outlet Type	Location	Specific		
(see examples below)	(hall, room #, etc.)	Location	Map ID	SAMPLE ID
Water Fountain	Hallway	High School Lower Level	I01	09-01-HW-DW-P-032
Bottle Filler	Hallway	High School Lower Level	I02	09-01-HW-BF-P-033
Faucet	FACS	High School Lower Level	I03	09-01-CR-KF-P-034
Faucet	FACS	High School Lower Level	I04	09-01-CR-KF-P-035
Faucet	FACS	High School Lower Level	I05	09-01-CR-KF-P-036
Dishwasher	FACS	High School Lower Level	I06	09-01-CR-DISH-P-037
Faucet	FACS	High School Lower Level	I07	09-01-CR-KF-P-038
Dishwasher	FACS	High School Lower Level	108	09-01-CR-DISH-P-039
Water Fountain	Hallway	High School Upper Level	109	09-01-HW-DW-P-040
Water Fountain	BLDG I Arnold Ryan Gymnasium	Room 123 Lower Level	I10	09-01-HW-DW-P-041
Bottle Filler	BLDG I Arnold Ryan Gymnasium	Room 123 Lower Level	I11	09-01-HW-BF-P-042
Water Fountain	BLDG I Arnold Ryan Gymnasium	Room 126 Lower Level	I12	09-01-HW-DW-P-043
Faucet	BLDG I Arnold Ryan Gymnasium	Room 107 Upper Level	I13	09-02-CR-CF-P-044
Water Fountain	BLDG I Arnold Ryan Gymnasium	Room 101 Upper Level	I14	09-02-HW-DW-P-045
Bottle Filler	BLDG I Arnold Ryan Gymnasium	Room 101 Upper Level	I15	09-02-HW-BF-P-046
Faucet	BLDG I Arnold Ryan Gymnasium	Room 101 Upper Level	I16	09-02-HW-CF-P-047
Ice Machine	BLDG I Arnold Ryan Gymnasium	Room 101 Upper Level	I17	09-02-HW-IM-P-048

17	Total Building Outlets

School District: Puxico R-VIII Jr. High School Date: 11/2/2023

Outlet Type	Location	Specific		
(see examples below)	(hall, room #, etc.)	Location	Map ID	SAMPLE ID
JH Phase 1 - Bottle Filler	Hallway - Corridor RM 142	Junior High School	J01	10-1-HW-BF-P-049
JH Phase 1 - Water Fountains	Hallway - Corridor RM 142	Junior High School	J02	10-1-HW-DW-P-050
JH Phase 1 - Water Fountains	Hallway - Corridor RM 142	Junior High School	J03	10-1-HW-DW-P-051
Bottle Filler	Hallway	Junior High School	J04	10-HW-BF-P-052
Water Fountains	Hallway	Junior High School	J05	10-HW-BF-P-053
Water Fountains	Hallway	Junior High School	J06	10-HW-BF-P-054
Water Fountains	Hallway	Junior High School	J07	10-HW-BF-P-055
Faucet	Kitchen	Junior High School	108	10-KIT-KF-P-056
Faucet	Kitchen	Junior High School	J09	10-KIT-KF-P-057
Faucet	Kitchen	Junior High School	J10	10-KIT-KF-P-058
Faucet	Kitchen	Junior High School	J11	10-KIT-KF-P-059
Ice Maker	Kitchen	Junior High School	J12	10-KIT-IM-P-060
Faucet	Kitchen	Junior High School	J13	10-KIT-KF-P-061
Faucet	Kitchen	Junior High School	J14	10-KIT-KF-P-062
Dishwasher	Kitchen	Junior High School	J15	10-KIT-DISH-P-063
15	Total Building Outlets			

School District: Puxico R-VIII FEMA Building Date: 11/2/2023

Outlet Type	Location	Specific		
(see examples below)	(hall, room #, etc.)	Location	Map ID	SAMPLE ID
Water Fountain	Puxico Activity Center (FEMA)	Gym Restrooms	K01	11-01-RR-DW-P-064
Water Fountain	Puxico Activity Center (FEMA)	Gym Restrooms	K02	11-01-RR-DW-P-065
Bottle Filler	Puxico Activity Center (FEMA)	Gym Restrooms	K03	11-01-RR-BF-P-066
Faucet	Puxico Activity Center (FEMA)	Concession Room 105	K04	11-01-CS-KF-P-067
Faucet Sprayer	Puxico Activity Center (FEMA)	Concession Room 106	K05	11-01-CS-KF-P-068
Water Fountain	Puxico Activity Center (FEMA)	Band Room 113	K06	11-01-BAND-DW-P-069
Bottle Filler	Puxico Activity Center (FEMA)	Band Room 113	K06	11-01-BAND-BF-P-070
^^ Enter New Line Above ^^				
7	Total Building Outlets			

School District: Puxico R-VIII All Other Buildings Date: 11/2/2023

Outlet Type	Location	Specific		
(see examples below)	(hall, room #, etc.)	Location	Map ID	SAMPLE ID
Water Fountain	BLDG L High School-Ag Building	Shop Room 102	L01	12-01-AG-DWP-071
Water Fountain	BLDG M Transportation/Maintenance	Garage Room 100	M01	13-01-GARAGE-DW-P-072
Water Fountain	BLDG 0 High School-Alternative School	Room 100	001	14-01-CR-DW-P-073
Water Fountain (1)	BLDG N Central Office	Hallway 103	N01	15-01-HW-DW-P-074
Sink	BLDG N Central Office	Break room 106	N02	16-01-CR-KF-P-075
4	Total Building Outlets			