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## RADON SURVEY

### **South Washington Park Apartments**

3200 South Washington Avenue | Lansing, Michigan

PM Project Number 01-11486-0-0013

*Prepared for:*

### **Lansing Housing Commission**

419 Cherry Street

Lansing, Michigan 48933

*Prepared by:*

### **PM Environmental, Inc.**

3340 Ranger Road

Lansing, Michigan 48906

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**Michigan Locations**  
Berkley      Bay City  
Grand Rapids      Detroit  
Chesterfield      Lansing

July 2, 2020

Mr. Douglas Fleming  
Lansing Housing Commission  
419 Cherry Street  
Lansing, Michigan 48933

**Re: Radon Survey of South Washington Park Apartments  
Located at 3200 South Washington Avenue, Lansing, Michigan  
PM Environmental, Inc. Project No. 01-11486-0-0013**

Dear Mr. Fleming:

PM Environmental, Inc. (PM) was retained to perform a Radon Survey at the above-referenced property (hereafter referred to as the subject property or subject buildings).

The purpose of this report is to document the concentrations of radon present within the subject buildings. This sampling was completed in accordance with applicable regulations.

**THE REPORT WAS PREPARED FOR THE EXCLUSIVE USE OF LANSING HOUSING COMMISSION, CHESAPEAKE COMMUNITY ADVISORS, INC., AND THE MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY, EACH OF WHOM MAY RELY ON THE REPORT'S CONTENTS.**

PM acknowledges that this party may rely on the contents and conclusions presented in this report. Unless stated otherwise in writing, PM makes no other warranty, representation, or extension of reliance upon the findings of this report to any other entity or third party.

If you have any questions or concerns, please feel free to contact our office at (800) 313-2966. We look forward to providing you with qualified and professional environmental consulting services in the future.

Sincerely,  
**PM Environmental, Inc.**

Jason Golec  
Staff Consultant  
(NRPP No. 110992RT)

Wayne Krupp  
Regional Manager

## **SCOPE OF WORK**

This inspection and sampling was performed in accordance with the Michigan State Housing Development Authority (MSHDA) and ANSI/AARST Protocols for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings (MAMF-2017) requirements. Short-term active charcoal radon sampling kits were used to conduct the inspection.

This assessment was completed by Mr. Jason Golec, a National Radon Proficiency Program Radon Measurement Specialist (Accreditation Number 110992RT), of PM between June 16, 2020 and June 18, 2020 in accordance with PM's proposal (No. 01016593) dated February 28, 2020.

## **PROPERTY DESCRIPTION**

The apartment building contains approximately 86,500-square feet, which is divided into a lobby, offices, clubroom, restrooms, mechanical areas, storage areas, laundry room and apartment units. The apartment units are further divided into living areas, kitchens, bedrooms, restrooms, and storage areas. A maintenance shed containing approximately 750-square feet is present in the northern portion of the property.

## **TEST METHODOLOGY**

The radon survey consisted of collecting passive radon samples within 25% of the ground floor units and a minimum of 10% of the upper floor units using extended testing protocols. Test kits were placed a minimum of three feet from doors or windows and a minimum of one foot from an exterior wall of the building with normal heating, ventilation, and air-conditioning (HVAC) systems in operation. Testing was performed under closed house conditions. Sample kits were placed for approximately 48 hours in accordance with sampling guidelines provided in the Indoor Radon and Radon Decay Product Measurement Device Protocols for short-term radon sampling kits.

## **SAMPLE RESULTS**

The radon test kits were submitted to Air Chek, Inc., an approved and independent laboratory, under chain of custody for analysis. Analytical results are summarized in the tables below and the laboratory reports are included in Appendix A.

Analytical results are reported in picocuries per liter (pCi/L). This report represents the average radon concentrations at the time and date the sampling was conducted and at the specific locations within the structure. There is an uncertainty with any measurement result due to the statistical variations and other factors such as daily and seasonal variations in radon concentrations. Variations may be due to changes in the weather, operation of the building, or necessary test conditions. Results are based on a short-term test and are not to be interpreted as a measure of the annual average or of the actual occupant exposure or attendant health risk.

**Radon Survey of South Washington Park Apartments  
 Located at 3200 South Washington Avenue, Lansing, Michigan  
 PM Environmental, Inc. Project No. 01-11486-0-0013; July 2, 2020**

**Table #1: Radon Kit Analytical Results dated 06/16/20 – 06/18/2020**

<b>Kit Number</b>	<b>Start Date</b>	<b>Start Time</b>	<b>End Date</b>	<b>End Time</b>	<b>Unit</b>	<b>Result (pCi/L)</b>
9359973	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	101	1.4
9359972	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	102	<0.3
9359980	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	109	<0.3
9359974	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	115	<0.3
9359979	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	118	<0.3
9359976	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	130	0.9
9359981	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	134	1.0
9359975	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	137	1.5
9359985	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	226	<0.3
9359968	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	234	<0.3
9359978	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	237	<0.3
9359982	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	309	<0.3
9359988	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	320	0.7
9359987	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	334	<0.3
9359986	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	337	<0.3
9359983	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	402	<0.3
9359969	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	434	<0.3
9359984	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	435	<0.3
9359989	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	438	0.6
9359991	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	507	<0.3
9359992	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	510	<0.3
9359967	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	529	<0.3
9359990	6/16/2020	12:00 p.m.	6/18/2020	12:00 p.m.	535	<0.3
9359977	6/16/2020	11:00 a.m.	6/18/2020	11:00 a.m.	Resident Council Office	0.6

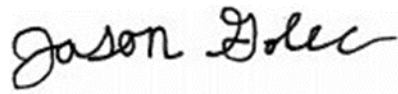
Analytical results indicate all radon concentrations were below the U.S. EPA Action Level of 4.0 pCi/L.

**CONCLUSIONS**

PM completed radon survey activities at the subject property between June 16, 2020 and June 18, 2020. Analytical results indicate radon concentrations do not exceed the U.S. EPA Action Level of 4.0 pCi/L. PM recommends the apartments be tested again at least every five years or whenever significant changes to the buildings' structure or mechanical systems occur.

This report has been reviewed for its completeness and accuracy. Please feel free to contact our office at (800) 313-2966 to discuss this report.

**REPORT PREPARED BY:**  
**PM Environmental, Inc.**



Jason Golec  
Staff Consultant  
(NRPP No. 110992RT)

**REPORT REVIEWED BY:**  
**PM Environmental, Inc.**



Wayne Krupp  
Regional Manager

**APPENDICES**

Appendix A: Radon Analytical Results

# Appendix A



Radon test result report for:

**SOUTH WASHINGTON APARTMENTS**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9359973	101	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	1.4 ± 0.4	2020-06-23
9359972	102	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	< 0.3	2020-06-23
9359980	109	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	< 0.3	2020-06-23
9359974	115	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	< 0.3	2020-06-23
9359979	118	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	0.9 ± 0.4	2020-06-23
9359976	130	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	1.0 ± 0.4	2020-06-23
9359981	134	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	1.5 ± 0.4	2020-06-23
9359975	137	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	< 0.3	2020-06-23
9359985	226	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	< 0.3	2020-06-23
9359968	234	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	< 0.3	2020-06-23
9359978	237	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359982	309	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	0.7 ± 0.5	2020-06-23
9359988	320	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359987	334	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359986	337	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359983	402	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359969	434	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359984	435	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	0.6 ± 0.4	2020-06-23
9359989	438	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359991	507	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359992	510	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359967	529	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	< 0.3	2020-06-23
9359990	535	2020-06-16 @ 12:00 pm	2020-06-18 @ 12:00 pm	0.6 ± 0.4	2020-06-23
9359977	RESIDENT COUNCIL OFFICE	2020-06-16 @ 11:00 am	2020-06-18 @ 11:00 am	< 0.3	2020-06-23