

# **REPORT OF ASBESTOS SURVEY & PAINT CONTAINING LEAD SCREENING**

## **CURTIS PARK POOL FACILITY – DESIGNATED AREAS**

**City of Miami  
1901 N.W. 24<sup>th</sup> Avenue  
Miami, Florida 33125**

PREPARED FOR:

**CITY OF MIAMI  
Capital Improvements Program  
444 S.W. 2<sup>nd</sup> Avenue, 8<sup>th</sup> Floor  
Miami, Florida 33130**

PREPARED BY:

**MACTEC ENGINEERING AND CONSULTING, INC.  
5845 NW 158<sup>th</sup> Street  
Miami Lakes, FL 33014**

MACTEC Project Number 6785-10-2054

January 26, 2010





engineering and constructing a better tomorrow

January 26, 2010

Mr. André Bryan  
CITY OF MIAMI  
Capital Improvements Program  
11200 S.W. 8<sup>th</sup> ST, CSC Building, Room: 166  
444 S.W. 2<sup>nd</sup> Avenue, 8<sup>th</sup> Floor  
Miami, Florida 33130

Subject: **REPORT OF ASBESTOS SURVEY & PAINT CONTAINING LEAD SCREENING  
CURTIS PARK POOL FACILITY – DESIGNATED AREAS  
1901 N.W. 24<sup>th</sup> AVENUE  
Miami, Florida 33125  
MACTEC Project Number 6785-10-2054**

Dear Mr. Bryan:

MACTEC Engineering and Consulting, Inc. (MACTEC) is pleased to submit this report of our survey for suspect asbestos-containing materials (ACM) located at the above-referenced site. The purpose of our services was to perform the referenced asbestos survey and screening for paint-containing-lead (PCL) within the northern office/pool facility to identify items that may possibly be disturbed during a planned renovation. The services were conducted in general accordance with the terms and conditions contained in our Proposal *PROP09MIAM-Task 112a*, dated July 20, 2009 which was accepted by you on behalf of the City of Miami on January 14, 2010.

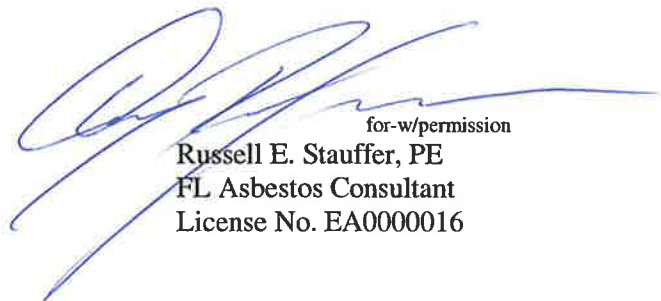
MACTEC representatives Messrs. Guillermo Maya and Julius Castillo performed the field work for the asbestos survey on January 8, 2010. Both Messrs. Maya and Castillo has successfully completed an AHERA-accredited course for Asbestos Building Inspection in accordance with Section 206, Title II of the Toxic Substances Control Act (TSCA) contained in the Asbestos Hazard Emergency Response Act (AHERA, EPA 40 CFR 763).

We appreciate the opportunity to be of service to you and look forward to our continued association. If you should have any questions regarding this report, or if we may be of further service, please contact us at your convenience.

Sincerely,

**MACTEC ENGINEERING AND CONSULTING, INC.**  
*FLAC Business No. ZA0000116*

  
Julius Castillo  
Staff Engineer

  
for-w/permission  
Russell E. Stauffer, PE  
FL Asbestos Consultant  
License No. EA0000016

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**TABLE OF CONTENTS**

**1.0 PROJECT INFORMATION SUMMARY ..... 1**

**2.0 ASBESTOS SURVEY..... 1**

    2.1 General ..... 1

        2.2 Asbestos Bulk Sampling and Analysis ..... 2

        2.3 Homogenous Sampling Areas ..... 3

            Summary of Laboratory Results ..... 4

        2.4 Conclusions and Recommendations..... 5

**3.0 PAINT CONTAINING LEAD SCREENING ..... 8**

    3.1 Bulk Paint Chip Sampling..... 8

        3.2 Summary of Paint Chip Sample Results ..... 9

        3.2 Paint Containg Lead Conclusions and Recommendtaions ..... 10

**4.0 QUALIFICATIONS..... 11**

**APPENDICES**

APPENDIX A: LABORATORY REPORTS OF PLM & PCL RESULTS

APPENDIX B: SITE PLAN

## 1.0 PROJECT INFORMATION SUMMARY

It is our understanding that the subject facility at the Curtis Park Pool Facility is presently scheduled for renovation. The purpose of the survey was to locate, identify and assess those friable and non-friable asbestos-containing materials (ACM) that might be disturbed by the planned renovation. In addition, MACTEC was requested to perform a screening of applicable components for the presence of lead (PCL) that also might be disturbed by the planned renovation.

## 2.0 ASBESTOS SURVEY

### 2.1 General

The primary purpose of the survey was to locate, identify and sample accessible materials that were suspected to contain asbestiform minerals. The presence or absence of friable and non-friable suspect ACM encountered during the survey is addressed in this report. Friable materials, when dry, will crumble and release fibers under normal hand pressure, whereas non-friable materials will not.

We must emphasize that it was not possible to look within every location of the surveyed buildings. This survey attempted to determine only general locations of suspect materials and did not attempt to determine the exact boundaries. No attempt was made to demolish structural elements and finishes, as this was beyond the scope of our authorized services. Due to these limitations, wall voids, building cavities and other areas may contain unreported asbestos-containing materials.

## 2.2 Asbestos Bulk Sampling and Analysis

The bulk sampling procedures used for the collection of suspect ACM first required the establishment of homogeneous sampling areas that are defined as areas of materials of the same color and texture, applied during the same general time period. The homogeneous sampling areas were then examined and representative samples of suspect materials were obtained from these areas.

Bulk samples collected during the site survey were analyzed by Polarized Light Microscopy (PLM) coupled with dispersion staining in accordance with EPA Method 600/R-93/116. PLM is an analytical method for asbestos identification that depends on the unique optical properties of mineral forms in the samples and specifically identifies the various asbestos types. PLM is the mandated method of analysis by EPA and OSHA for asbestos identification in bulk samples. The samples were submitted using chain of custody procedures to EMSL Analytical, Inc. which has attained National Voluntary Laboratory Accreditation Program (NVLAP) asbestos laboratory accreditation (Number 200204-0) through the National Institute of Standards and Technology (NIST).

The EPA National Emissions Standard for Hazardous Air Pollutants (NESHAP) Final Rule (40 CFR 61, Subpart M) for asbestos includes a requirement for verification, by point counting, if it is determined by PLM analysis that asbestos is present in amounts less than 10 percent in friable materials.

### **2.3 Homogeneous Sampling Areas**

During the survey the suspect homogenous areas were identified and sampled as follows:

#### **Northern Office/Pool Facility**

Yellow Exterior Stucco/Plaster – 3 Samples

Yellow Interior Stucco/Plaster – 3 Samples

Green Interior Stucco/Plaster – 1 Sample

White Interior Ceiling Material – 3 Samples

Roof Flashing – 1 Sample

Roof Exterior – 1 Sample

**SUMMARY OF LABORATORY RESULTS**  
**City of Miami – Curtis Park Pool Facility**

HA	SAMPLE ID #	MATERIAL DESCRIPTION	SAMPLE LOCATION(S)	ASBESTOS CONTENT	APPROX. QUANTITY	NESHAP CATEGORY	COMMENTS
A	1(A,B,C)	Yellow Exterior Stucco/Plaster	Exterior	ND	NA	NA	NA
A	2(A,B,C)	Yellow Interior Stucco/Plaster	Interior	ND	NA	NA	NA
C	3	Green Interior Stucco/Plaster	Interior	ND	NA	NA	NA
D	4(A,B,C)	White Interior Ceiling Material	Interior	18%	1,105 sq. ft.	Friable	See Comments
E	5	Roof Flashing	Exterior	8%	202 sq. ft.	Category I, Non-Friable	See Comments
E	6	Roof Exterior	Exterior	ND	NA	NA	NA

HA = Homogeneous Area

ACM = Asbestos-Containing Materials

ND = No Asbestos Detected  
 Checked by: JC

## 2.4 CONCLUSIONS AND RECOMMENDATIONS

There are four recognized response actions to manage asbestos-containing materials in buildings and abate potential hazards to human health and the environment:

- **Removal**
- **Enclosure**
- **Encapsulation**
- **Repair** of damaged materials in conjunction with special **Operations and Maintenance (O&M)** and re-observation programs.

The selection of a particular response action should be based upon intended usage of the building, actual exposure rates and cost. The EPA has Federal regulations regarding asbestos removal associated with renovation and demolition projects conducted in “facilities” as defined in the regulations. The EPA NESHAP rule includes several important definitions. The definitions that greatly affect abatement alternatives are the categories of asbestos-containing materials (ACM).

These categories are as follows:

- **Friable ACM** means any material that can be reduced to powder by hand pressure when dry.
- **Category I Non-Friable ACM** means packing, gaskets, resilient floor coverings and roofing products that contain more than one- percent asbestos.
- **Category II Non-Friable ACM** means any material, excluding Category I Non-Friable ACM that contains more than one- percent asbestos, and is not friable.
- **Regulated ACM (RACM)** includes all friable ACM; Category I Non-Friable ACM that will be or has been subject to sanding, grinding, cutting or abrading; Category II Non-Friable ACM that has become friable; and Category II Non-Friable ACM that has a high probability of becoming, or has become crumbled, pulverized, or reduced to a powder by forces expected to act on the material in the course of demolition or renovation operations.

OSHA also has rules which govern maintenance, renovation, or demolition work which impacts ACM, including removal, in public and commercial buildings. The OSHA construction rules for asbestos establish four distinct classes of work. Each class of asbestos work requires specialized training and engineering controls. These classes are:

- **Class I Asbestos Work** means activities involving the removal of ACM insulation on mechanical systems (i.e. pipes, boilers, ducts, etc.) and applied to surfaces (i.e. fireproofing, acoustical treatments, plaster, etc.).



- **Class II Asbestos Work** means activities involving the removal of materials which are not on mechanical systems or applied to surfaces (i.e. floor coverings, gypsum wallboard, mastics, roofing, etc.).
- **Class III Asbestos Work** means activities involving the disturbance, for maintenance purposes only, small amounts of ACM up to that amount which will fit in one waste bag.
- **Class IV Asbestos Work** means clean-up of ACM dust and debris on construction projects.

The survey was intended to primarily assist in compliance with the requirements of the Environmental Protection Agency (EPA/NESHAP) and other applicable regulatory requirements.

### **Specific Recommendations**

#### **Regulated ACM (RACM)**

- **White interior ceiling material** was found throughout most of the facility. The material was documented to be Friable (RACM) and in fair condition. The quantity of the material is estimated to be approximately 1,105 square feet.

#### **Category I, Non-Friable ACM**

The following material was identified as Category I, Non-Friable ACM in the subject areas during the survey:

- **Mastic (Black)** was found underneath the roof flashing material throughout the perimeter of the roof. The material was documented to be Non-Friable, Category I and in fair condition. The quantity of the material is estimated to be approximately 200 square feet.

#### **Category II Non-Friable ACM**

No Category II Non-Friable ACM was found in the subject areas during the survey.

We recommend that the ACM be removed prior to any disturbance work that would dislodge or similarly break up the material. If subjected to activities that would cause the materials to become RACM, they should be removed as such. Removal as RACM would also apply if the materials, or the substrates to which they are adhered, were planned to be commingled with normal construction debris and subject to recycling activities which would also break up the materials. Additionally, while these materials remain within the facility, we recommend that they be maintained in an Asbestos Operations and Maintenance (O&M) Program.

Due to the health hazards and legal ramifications involved in asbestos exposure in buildings, an inter-disciplinary approach among the engineering, medical and legal communities should be involved when determining an asbestos control program. There is presently a significant amount of litigation in the court systems concerning present and past asbestos exposure in public and private facilities, as well as in workplace environments. One basis for much of the litigation stems from adequate notification, or lack thereof, by the building owner to building occupants/employees following the identification of asbestos materials in a building. As a minimum, building owners should notify building employees, occupants, vendors, and others required in the OSHA Asbestos Standards (29 CFR 1910.1001 and 29 CFR 1926.1101).

We recommend that you involve appropriate legal counsel in your asbestos control program to address these very important issues.

### 3.0 PAINT CONTAINING LEAD SCREENING

#### 3.1 Bulk Paint Chip Sampling

The PCL screening included bulk sampling of representative, accessible, coatings on the interior and exterior finish elements of the subject buildings. A visual survey was performed to document the location and approximate extent of the various homogenous painted surfaces. Homogeneous painted surfaces were defined by the paint color history, substrate material, and component type. Performance of a Lead-Based Paint inspection in accordance with the EPA/HUD Guidelines was beyond our scope of work. None of the structures included in the screening are Child Occupied Facilities or Target Housing as defined in the EPA/HUD Lead Based Paint regulations. The objective of the PCL screening was to identify coated surfaces containing lead which may be impacted by the planned renovations and apartment unit upgrades, and as such, covered by the requirements of the Occupational, Safety and Health Administration (OSHA). In addition, comparison was made to the Consumer Product Safety Commission (CSPC), 1978-circa Ban limiting the lead content of residential paint to 0.06 percent by weight.

A total of 4 representative bulk paint chip samples were collected from the various homogenous paint areas.

Samples of paint, down to the substrate, were obtained by scraping and sent to EMSL Analytical, Inc., in Orlando, Florida, an American Industrial Hygiene Association ELLAP/NLLAP accredited laboratory (Lab No. 100194), for analysis by Flame AAS (SW 846-7420).

The following Table 1 present the results of our bulk sampling based upon our visual observations, bulk sampling of coated materials and subsequent Flame AAS analysis. The results are reported in percent (%) by weight.

**TABLE 1**  
**SUMMARY OF PAINT CHIP SAMPLING RESULTS**  
**Curtis Park Pool Facility**

Sample No.	Component	Location	Color	Substrate	Condition	Lead Concentration (% by weight)
1	EXTERIOR	GUARD RAIL	LIGHT GREEN	METAL	FAIR	<0.010
2*	<b>INTERIOR</b>	<b>WALLS</b>	<b>YELLOW</b>	<b>CMU</b>	<b>FAIR</b>	<b>&lt;0.13</b>
3	INTERIOR	ACCESS GATE	DARK GREEN	METAL	FAIR	<0.016
4	INTERIOR	DOOR FRAME	LIGHT GREEN	WOOD	FAIR	<0.032

Prepared By: \_\_\_\_\_ Checked By: \_\_\_\_\_

\* **Bold** Indicates above CPSC Threshold of 0.06 % by weight, and the OSHA Lead-based Paint (LBP) definition.

### 3.2 Paint Containing Lead Conclusions and Recommendations

One sample, representing the interior yellow walls, was found to contain lead above the detection limits of the analytical method, hence requiring compliance with OSHA. The levels detected were above the CPSC Ban limit of 0.06 percent by weight. However, the sample was not above the EPA/HUD definition of Lead Based Paint. Currently, there are no regulations that require the removal of lead-based paint which apply to this building.

#### Specific Recommendations

For this sample, representing the interior yellow walls, the OSHA regulations require that exposures to construction workers and general industry personnel must be controlled by proper work procedures when any of this paint is disturbed. Any actual removal, stripping, or surface preparation for painting should utilize the proper engineering controls and comply with the OSHA Construction Standards for Lead (29 CFR 1926.62). Additionally, it is our recommendation that contractors who will perform the removal, stripping or surface preparation have environmental liability insurance including a pollution endorsement specifically covering these operations.

As a minimum, the demolition contractor should be informed of the presence of lead in accordance with the OSHA Hazard communication standard (29 CFR 1926.59).

The Florida Department of Environmental Protection (FDEP) has issued a memorandum (SWM-21.36, dated February 13, 2002) describing their policy related to the management of lead-based paint debris and waste from residential construction sites. In summary, if whole architectural components coated with lead based paint are removed intact, they may be disposed of as ordinary residential construction debris, so long as they are not recycled and the landfill will accept this waste. In this regard we recommend confirmation of acceptability with any chosen landfill.

The removal, stripping or surface preparation of coatings containing lead on non-residential projects may create dust, paint chips, contaminated soils, or sludges which must be characterized using the Toxicity Characteristic Leachate Procedure (TCLP) as required by the EPA Resource Conservation and Recovery Act (RCRA-40 CFR 261) and the FDEP hazardous Waste Rules (Florida Administrative Code, Chapter 62-730). If the lead concentrations exceed the RCRA threshold of 5.0 milligram per liter of leachate, then the waste stream must be handled as hazardous waste. If the lead concentration is detectable, but less than the RCRA threshold, the waste must be disposed of in

a Class I or II landfill. Disposal in a Construction and Demolition (C&D) disposal facility is not allowed. The building owner, as generator is ultimately responsible for proper handling of the waste, even if the disposal is performed by the contractor.

#### **4.0 QUALIFICATIONS**

MACTEC has endeavored to observe the existing conditions within the building using generally accepted procedures. Regardless of the thoroughness of a survey, there is always the possibility that some areas containing asbestos were overlooked, inaccessible, or different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated and as summarized in this report. In addition, demolition may uncover altered or differing conditions. We recommend that you notify MACTEC if any changed conditions are encountered so that we can assess the situation and its impact on our original recommendations.

This report is intended for the use of the City of Miami. If other parties wish to rely on this report, please have them contact us so that a mutual understanding and agreement of the terms and conditions for our services can be established prior to their use of this information.

## **APPENDIX A**

### **LABORATORY REPORTS OF PLM & PCL RESULTS**



**EMSL Analytical, Inc.**

5125 Adanson Street, Suite 900, Orlando, FL 32804

Phone: (407) 599-5887 Fax: (407) 599-9063 Email: orlandolab@emsl.com

Attn: **Julius Castillo**  
**MACTEC Engineering and Consulting, Inc**  
**5845 N.W. 158th Street**  
**Miami Lakes, FL 33014**

Customer ID: LAWE52B  
Customer PO:  
Received: 01/11/10 12:53 PM  
EMSL Order: 341000171

Fax: (305) 826-1799 Phone: (305) 826-5588  
Project: **6785-09-2054**

EMSL Proj:  
Analysis Date: 1/12/2010

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1A 341000171-0001	exterior stucco/plaster	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
1B 341000171-0002	exterior stucco/plaster	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
1C 341000171-0003	exterior stucco/plaster	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
2A 341000171-0004	interior stucco/plaster	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
2B 341000171-0005	interior stucco/plaster	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
2C 341000171-0006	interior stucco/plaster	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
3 341000171-0007	interior stucco/plaster	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

*Adelmarie Bones (12)*

Blanca Cortes, Ph.D., Laboratory Manager  
or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The limit of detection as stated in the method is 1%. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Samples analyzed by EMSL Analytical, Inc. Orlando 5125 Adanson Street, Suite 900, Orlando FL NVLAP Lab Code 101151-0





**EMSL Analytical, Inc.**  
 5125 Adanson Street, Suite 900, Orlando, FL 32804

Phone: (407) 599-5887 Fax: (407) 599-9063 Email: orlandolab@amsl.com

Attn: **Julius Castillo**  
**MACTEC Engineering and Consulting, Inc**  
**5845 N.W. 158th Street**  
**Miami Lakes, FL 33014**

Fax: (305) 826-1799 Phone: (305) 826-5588  
 Project: **6785-09-2054**

Customer ID: LAWE52B  
 Customer PO:  
 Received: 01/11/10 12:53 PM  
 EMSL Order: 341000171

EMSL Proj:  
 Analysis Date: 1/12/2010

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy**

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
4A 341000171-0008	interior ceiling material	Various Non-Fibrous Heterogeneous		82% Non-fibrous (other)	18% Chrysotile
4B 341000171-0009	interior ceiling material	Various Non-Fibrous Heterogeneous		82% Non-fibrous (other)	18% Chrysotile
4C 341000171-0010	interior ceiling material	Various Non-Fibrous Heterogeneous		82% Non-fibrous (other)	18% Chrysotile
5 341000171-0011	roof flashing	Black/Silver Non-Fibrous Heterogeneous		92% Non-fibrous (other)	8% Chrysotile
6 341000171-0012	roof exterior	Black Non-Fibrous Heterogeneous	15% Glass	85% Non-fibrous (other)	None Detected

Analyst(s)

*Adelmarie Bones (12)*

Blanca Cortes, Ph.D., Laboratory Manager  
 or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The limit of detection as stated in the method is 1%. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Samples analyzed by EMSL Analytical, Inc. Orlando 5125 Adanson Street, Suite 900, Orlando FL NVLAP Lab Code 101151-0



**EMSL Analytical, Inc.**

5125 Adanson Street, Suite 900, Orlando, FL 32804

Phone: (407) 599-5887 Fax: (407) 599-9063 Email: orlandolab@emsl.com

Attn: **Julius Castillo**  
**MACTEC Engineering and Consulting, Inc**  
**5845 N.W. 158th Street**  
**Miami Lakes, FL 33014**

Customer ID: LAWE52B  
Customer PO:  
Received: 01/11/10 10:15 AM  
EMSL Order: 341000154

Fax: (305) 826-1799 Phone: (305) 826-5588  
Project: 6785.09-2054

EMSL Proj:

**Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B\*/7000B)**

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
1 lead base paint	0001	1/8/2010	1/11/2010	<0.010 % wt
2 lead base paint	0002	1/8/2010	1/11/2010	0.13 % wt
3 lead base paint	0003	1/8/2010	1/11/2010	<0.016 % wt
4 lead base paint	0004	1/8/2010	1/11/2010	<0.032 % wt
5 lead base paint sample not submitted	0005	1/8/2010		% wt

Sample Number 5 Not Submitted

Blanca Cortes, Ph.D., Laboratory Manager  
or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these results included in this report meet the method QC requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. \* slight modifications to methods applied.

Samples analyzed by EMSL Analytical, Inc. Orlando 5125 Adanson Street, Suite 900, Orlando FL AIHA ELLAP 163563

## **APPENDIX B**

### **SITE PLAN**

# MACTEC

MACTEC Engineering and Consulting, Inc.  
 5845 NW 158th Street  
 Miami Lakes, FL 33014

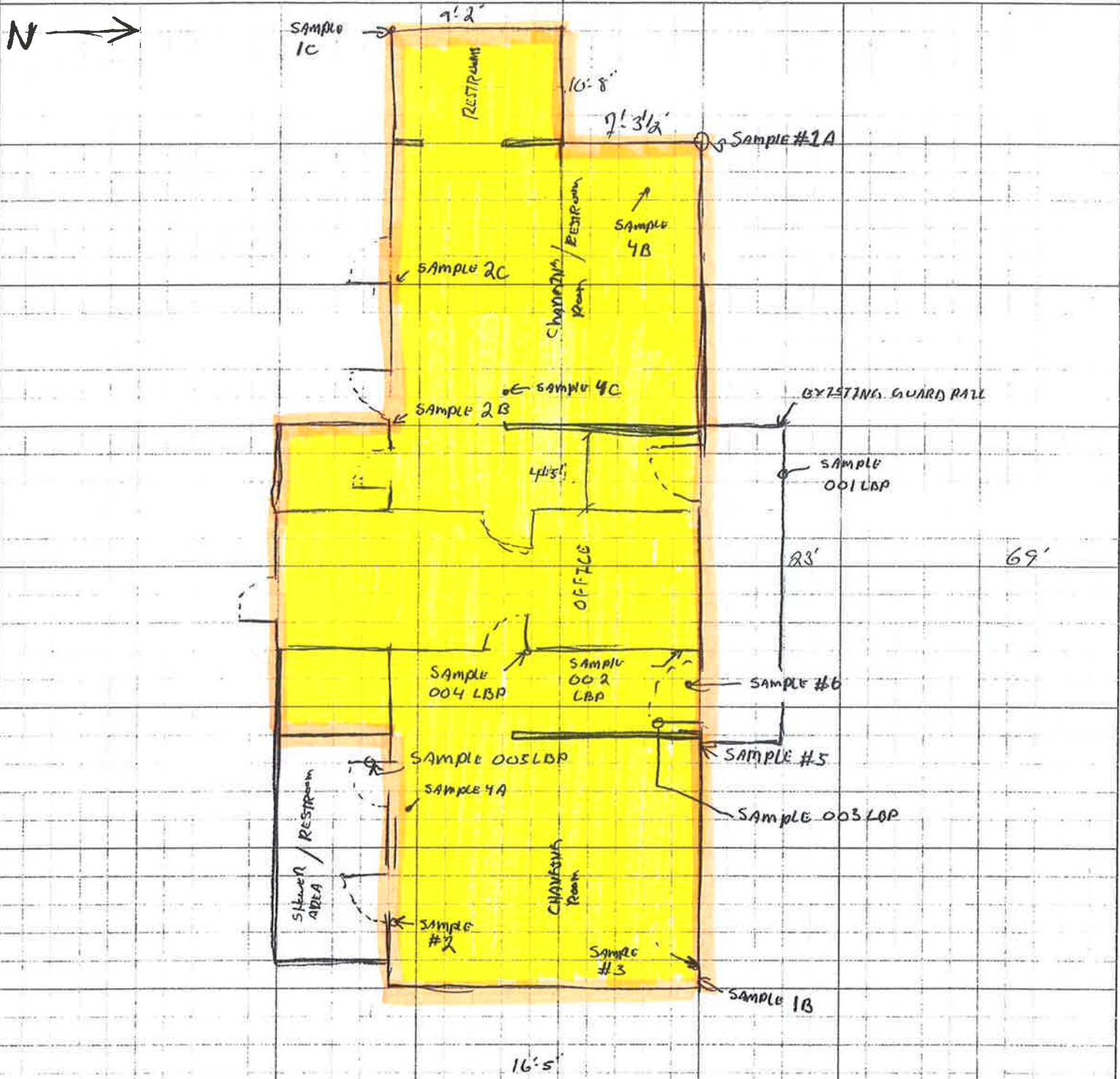
JOB NO. 6785-09-2054 SHEET      OF     

PHASE      TASK 01

JOB NAME LIMITED ASBESTOS / LEAD BASE PAINT SURVEY

BY Julius Castillo / Guillermo Moya DATE 01-08-10

CHECKED BY      DATE     



1' on hand

- DENOTES ROOF FLASHING PERIMETER
- WHITE INTERIOR CEILING MATERIAL