Safety & Environmental Investigations, Inc.

ASBESTOS / LEAD PAINT INSPECTION REPORT

Cherokee Village Hospital
122 Hospital Drive
Cherokee Village, Arkansas 72529

February 2017

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122 Hospital Drive
Cherokee Village, Arkansas 72529

February 2017

Prepared For:

FTN Associates, Ltd
3 Innwood Circle, Ste 320
Little Rock, Arkansas 72211

Prepared By:

Safety & Environmental Investigations, Inc.
PO Box 22038
Little Rock, Arkansas 72221

Asbestos / Lead Paint Inspection Report
Cherokee Village Hospital
122 Hospital Drive
Cherokee Village, Arkansas 72529

Safety & Environmental Investigations, (SEI) Inc. was retained by FTN Associates of Little Rock, Arkansas to perform pre-demolition asbestos and lead paint inspection of the Cherokee Village Hospital located at 122 Hospital Drive, Cherokee Village, Arkansas. On December 19th – 20th, 2016, Mr. Robert Roberson (Certification #011542) and Mr. Ricky Barton (Certification #000296) of SEI, Inc. (License #000260) performed the on-site inspection and sampling of the vacant commercial structure for the presence of suspect asbestos-containing materials and lead-based paints. The inspection was performed following EPA AHERA guidelines (40 CFR 763) and NESHAP (40 CFR 61, Subpart M) and the Arkansas Department of Environmental Quality, Regulation 21.

Background

The structure is a single-story, metal-framed, brick structure with a flat built-up roof set on a concrete foundation. The structure was previously used as a hospital but at the time of the inspection was vacant and in poor condition. The interior finishes of the structure included lay-in ceiling tiles, sheet rock and plaster walls with tile and linoleum flooring. According to the client, the structure was built in the 1970's and is scheduled for future demolition.

Purpose of Study

The purpose of this study was to identify and collect samples of suspect asbestos-containing materials and lead-based paint from the vacant structure for laboratory analysis. At the client's request, an inspection for the presence of suspect asbestos-containing materials was performed of the entire structure. Identified asbestos-containing materials have been quantified.

Sampling was performed in accordance with guidelines published in the Asbestos Hazard Emergency Response Act (AHERA), 40 CFR Part 763. Suspect asbestos-containing materials were divided into three different categories: surfacing, thermal system insulation, and miscellaneous materials. Each category of materials was divided into homogeneous areas, which are defined as materials similar in appearance, color, texture, and installation date. Samples were collected from each homogeneous area according to the following scale:

Surfacing Materials:	<1000 sq. ft.	3 Samples
	1,000 – 5,000 sq. ft.	5 Samples
	>5,000 sq. ft.	7 Samples
Thermal System Insulation	any amount	3 Samples Minimum
Miscellaneous Materials	any amount	2 Samples Minimum

The Environmental Protection Agency defines an asbestos-containing material as any material which contains greater than one percent (1%) asbestos by weight. The entire homogeneous area is classified as asbestos-containing if any one (1) of the samples collected from that area is found to contain more than 1% asbestos. All samples collected from a homogeneous material must reveal a result of one (1) percent asbestos or less for a material to be considered non-asbestos containing.

The condition of suspect homogeneous areas was assessed to determine if the materials were friable (RACM) or non-friable. Friable materials (RACM) are materials that when dry can be crumbled, pulverized, or reduced to powder by hand pressure. Non-Friable materials are materials that cannot be crumbled, pulverized, or reduced to powder by hand pressure when dry. Non-Friable materials are divided into two categories, Category I Non-Friable materials, (asbestos-containing packing, gaskets, resilient floor coverings, and asphalt roofing products that contain >1% asbestos), and Category II Non-Friable materials (any material, excluding category I non-friable ACM, containing >1% asbestos that cannot be crumbled, pulverized, or reduced to powder by hand pressure).

Asbestos samples were analyzed via Polarized Light Microscopy utilizing EPA Method 600/R-93/116 by Crisp Analytical Laboratories, LLC. Carrollton, Texas. CA Labs is accredited by the National Institute for Standards and Testing, National Voluntary Laboratory Accreditation Program for Bulk Asbestos Analysis (NVLAP Air and Bulk #200349-0). It should be noted EPA NESHAPS recommends point-counting of positive asbestos results revealing less than 10% asbestos content by visual estimation. Lead Paint Samples were also analyzed by CA Labs utilizing Method SW-846-7420.

Findings: Asbestos-containing Materials

The following table provides a summary of the suspect materials sampled from the structure, along with the analytical results and locations of the materials.

Table I – Asbestos Sample Summary
Main Hospital Structure
122 Hospital Drive

HA#	Sample No.	Description	Analysis Result %/Type ACM	Sample Location
FT01	01	12x12 Tan Floor Tile / Black Mastic	Tile: 2% Chrysotile Mastic: None Detected	North Wing
	02	12x12 Tan Floor Tile / Black Mastic	Tile: 2% Chrysotile Mastic: None Detected	North Wing
CT01	03	2x4 Ceiling Tile	None Detected	North Wing
	04	2x4 Ceiling Tile	None Detected	North Wing

Table I – Asbestos Sample Summary, Continued
Main Hospital Structure
122 Hospital Drive

HA#	Sample No.	Description	Analysis Result %/Type ACM	Sample Location
CB01	05	Black Cove Base / Mastic	None Detected	North Wing
	06	Black Cove Base / Mastic	None Detected	North Wing
CB02	07	Green Cove Base / Mastic	None Detected	North Wing
	08	Green Cove Base / Mastic	None Detected	North Wing
SR01	09	Sheet Rock / Mud	None Detected	North Wing
	10	Sheet Rock / Mud	None Detected	North Wing
M01	11	Mud Seal Above Ceiling Tile	None Detected	North Wing
	12	Mud Seal Above Ceiling Tile	None Detected	North Wing
FP01	13	Fireproof Spray Above Ceiling	2% Chrysotile	North Wing
	14	Fireproof Spray Above Ceiling	2% Chrysotile	North Wing
	15	Fireproof Spray Above Ceiling	3% Chrysotile	North Wing
L01	16	Gold Linoleum under Carpet	24% Chrysotile	North Wing
	17	Gold Linoleum under Carpet	24% Chrysotile	North Wing
FT02	18	12x12 Tan Floor Tile / Black Mastic	Tile: 2% Chrysotile Mastic: None Detected	NW Wing
	19	12x12 Tan Floor Tile / Black Mastic	Tile: 2% Chrysotile Mastic: None Detected	NW Wing
CT02	20	2x4 Ceiling Tile	None Detected	NW Wing
	21	2x4 Ceiling Tile	None Detected	NW Wing
CB03	22	Black Cove Base / Mastic	None Detected	NW Wing
	23	Black Cove Base / Mastic	None Detected	NW Wing
CB04	24	Green Cove Base / Mastic	None Detected	NW Wing
	25	Green Cove Base / Mastic	None Detected	NW Wing
SR02	26	Sheet Rock / Mud	None Detected	NW Wing
	27	Sheet Rock / Mud	None Detected	NW Wing

Table I – Asbestos Sample Summary, Continued
Main Hospital Structure
122 Hospital Drive

HA#	Sample No.	Description	Analysis Result %/Type ACM	Sample Location
FP02	28	Fire Proofing Above Ceiling	2% Chrysotile	NW Wing
	29	Fire Proofing Above Ceiling	3% Chrysotile	NW Wing
	30	Fire Proofing Above Ceiling	3% Chrysotile	NW Wing
L02	31	Linoleum under Carpet	24% Chrysotile	NW Wing
	32	Linoleum under Carpet	25% Chrysotile	NW Wing
L03	33	Rubberized Flooring	None Detected	NW Wing
	34	Rubberized Flooring	None Detected	NW Wing
FT03	35	12x12 Tan Floor Tile / Mastic	Tile: 2% Chrysotile Mastic: None Detected	South Wing
	36	12x12 Tan Floor Tile / Mastic	Tile: 2% Chrysotile Mastic: None Detected	South Wing
CT03	37	2x4 Lay-in Ceiling Tile	None Detected	South Wing
	38	2x4 Lay-in Ceiling Tile	None Detected	South Wing
L04	39	Tan Linoleum	None Detected	South Wing
	40	Tan Linoleum	None Detected	South Wing
PL01	41	Plaster Walls	None Detected	South Wing
	42	Plaster Walls	None Detected	South Wing
	43	Plaster Walls	None Detected	South Wing
M02	44	Mud Seal Above Ceiling	None Detected	South Wing
	45	Mud Seal Above Ceiling	None Detected	South Wing
CT04	46	2x4 Lay-in Ceiling Tile	None Detected	Admin Wing
	47	2x4 Lay-in Ceiling Tile	None Detected	Admin Wing
CT05	48	2x4 Lay-in Ceiling Tile	None Detected	Boiler Wing
	49	2x4 Lay-in Ceiling Tile	None Detected	Boiler Wing

Table I – Asbestos Sample Summary, Continued
Main Hospital Structure
122 Hospital Drive

HA#	Sample No.	Description	Analysis Result %/Type ACM	Sample Location
TS01	50	80lb Steam over Serving Line	None Detected	Boiler Wing
	51	80lb Steam over Serving Line	None Detected	Boiler Wing
	52	80lb Steam over Serving Line	None Detected	Boiler Wing
CB04	53	Brown Cove Base / Mastic	None Detected	Boiler Wing
	54	Brown Cove Base / Mastic	None Detected	Boiler Wing
SR03	55	Sheet Rock / Mud	None Detected	Boiler Wing
	56	Sheet Rock / Mud	None Detected	Boiler Wing
	57	Sheet Rock / Mud	None Detected	Boiler Wing
PI01	58	1” Hard Insulated Lines	None Detected	Boiler Wing
	59	1” Hard Insulated Lines	None Detected	Boiler Wing
	60	1” Hard Insulated Lines	None Detected	Boiler Wing
PI02	61	2-3” Insulated Lines	None Detected	Boiler Wing
	62	2-3” Insulated Lines	None Detected	Boiler Wing
	63	2-3” Insulated Lines	None Detected	Boiler Wing
PJ01	64	1” Line Elbows	None Detected	Boiler Wing
	65	1” Line Elbows	None Detected	Boiler Wing
	66	1” Line Elbows	None Detected	Boiler Wing
PJ02	67	Pipe Joint 2-3” Lines	None Detected	Boiler Wing
	68	Pipe Joint 2-3” Lines	None Detected	Boiler Wing
	69	Pipe Joint 2-3” Lines	None Detected	Boiler Wing
TS02	70	Boiler Feed Make-up Tank	None Detected	Boiler Wing
	71	Boiler Feed Make-up Tank	None Detected	Boiler Wing
	72	Boiler Feed Make-up Tank	None Detected	Boiler Wing

Table I – Asbestos Sample Summary, Continued
Main Hospital Structure
122 Hospital Drive

HA#	Sample No.	Description	Analysis Result %/Type ACM	Sample Location
TS03	73	Heat Exchanger Insulation	None Detected	Boiler Wing
	74	Heat Exchanger Insulation	None Detected	Boiler Wing
	75	Heat Exchanger Insulation	None Detected	Boiler Wing
TS04	76	Main Feed Line Flange	None Detected	Boiler Wing
PI03	77	1” Line in Hallways	None Detected	Hallway
	78	1” Line in Hallways	None Detected	Hallway
	79	1” Line in Hallways	None Detected	Hallway
PI04	80	2” Line in Hallways	None Detected	Hallway
	81	2” Line in Hallways	None Detected	Hallway
	82	2” Line in Hallways	None Detected	Hallway
C01	83	Door Caulking, Boiler Wing	None Detected	Boiler Wing
	84	Door Caulking, Boiler Wing	None Detected	Boiler Wing
C02	85	Exterior Caulking	2% Chrysotile	Exterior Doors
	86	Exterior Caulking	None Detected	Exterior Doors
	87	Exterior Caulking	None Detected	Exterior Doors
BR01	88	Built-up Roofing	None Detected	Roof
	89	Built-up Roofing	None Detected	Roof
	90	Built-up Roofing	None Detected	Roof
	91	Built-up Roofing	None Detected	Roof
	92	Built-up Roofing	None Detected	Roof
	93	Built-up Roofing	None Detected	Roof
RF01	94	Roof Flashing	16% Chrysotile	Roof
	95	Roof Flashing	18% Chrysotile	Roof

Table II below summarizes the location of the identified ACM.

Table II – Positive
Asbestos-Containing Homogeneous Areas

HA#	Material Description / Location	Type ACM	Condition	Quantity
FT01 FT02 FT03	12x12 Tan Floor Tile throughout rooms in each wing of the structure	Category I Non-Friable	Damaged	19,700 sf
FP01 FP02	Fireproofing Spray on Sheetrock above Ceiling Tiles throughout the structure	RACM	Good	6,200 sf
L01 L02	Gold Linoleum beneath Carpet in Hallways	Category I Non-Friable	Good	8,400 sf
C02	Door / Window Perimeter Caulking	Category II Non-Friable	Damaged	Exterior Doors and Windows
RF01	Roof Flashing around Air Handlers Throughout the Roof	Category II Non-Friable	Good	Roof Penetrations

SEI, Inc. has received the analytical results from the samples collected during the investigation. The results revealed the following materials were identified as Asbestos-Containing Materials (>1% Asbestos Content).

Homogeneous Area FT01, FT02, and FT03: This 12x12 Tan Floor Tile is located in the rooms on each wing of the structure. This material was considered a Category I Non-Friable material in good condition at the time of the inspection. The inspectors identified approximately 19,700 square feet of this material.

Homogeneous Area FP01, FP02: The Sprayed-on Fire Proofing is located on the sheetrock above the drop ceiling throughout the wings of the structure. This material was considered RACM in good condition at the time of the inspection. The inspectors identified approximately 6,200 square feet of this material.

Homogeneous Area L01, L02: This Gold Linoleum is located beneath the carpet in the hallway of the North Wing of the Structure. This material was considered a Category I Non-Friable material in good condition at the time of the inspection. The inspectors identified approximately 8,400 square feet of this material.

Homogeneous Area C02: This caulking is located on exterior doors and windows around the perimeter of the structure. This material was considered a Category II Non-Friable material in poor condition at the time of the inspection. The inspectors identified this material throughout the exterior windows and doors of the structure.

Homogeneous Area RF01: The Roof Flashing material is located around the air handler above the cafeteria / kitchen portion of the structure. This material was considered a Category II Non-Friable material in good condition at the time of the inspection. The inspectors identified this material on the roofing penetrations throughout the roof.

Findings – Lead-Based Paint

SEI, Inc. collected samples of painted surfaces by manually removing paint down to the substrate using a paint scraper. The inspector attempted to collect enough paint material to achieve minimal detection limits for the analytical method.

The inspectors identified suspect lead-based paint on interior walls, trim, structural steel and the incinerator. Chip samples were taken of these painted surfaces and composited for analysis.

Table III below summarizes the analytical results from the samples collected during the investigation.

Table III
Lead-Based Paint Sample Summary
Cherokee Village Hospital

Sample No.	Description / Location	Results (ppm)
MB-01	Main Building Interior Painted Trim	129.46
MB-02	Main Building Interior Painted Walls	<128.7
MB-03	Main Building Painted Structural Steel	<143.58
MB-04	Main Building Painted Incinerator	722.66

Samples were analyzed via EPA Method SW-846-742 Flame Atomic Absorption Spectroscopy by Crisp Analytical Laboratories.

EPA and HUD define lead-based paint as greater than 5,000 ppm or 0.5% by weight, and the Consumer Product Safety Commission definition is 600 ppm, or 0.06% by weight. However, this property does not fall under the jurisdiction of EPA or HUD, and levels should be compared to the Occupational Safety and Health Administration (OSHA) definition of lead-containing paint as having lead present “in any amount”. The painted interior trim and incinerator contained detectable levels of lead.

Discussion

The Arkansas Department of Environmental Quality (ADEQ) Regulation 21 requires all ACM (Asbestos-Containing Material) which are, or may become friable (RACM) be removed prior to renovation / demolition which will disturb these materials. Demolition, renovations, or response actions, involving RACM, and which are not Small-Scale-Short-Duration (SSSD) (3-square / 3-linear feet) or a minor fiber release episode shall be performed by an Arkansas-Licensed Asbestos Abatement Contractor. Category II Non-

Friable mastic which contains ACM that will be removed by sanding, grinding, cutting, or abrading shall be considered RACM per ADEQ Regulation 21.

A 10-Day Notice of Intent is also required for any demolition or removal of RACM exceeding 160 square or 260 linear feet.

Sample locations and the location of identified asbestos materials are identified on drawings included in the appendices of this report.

Other materials identified at the site, and deemed non-suspect for asbestos, include the following: fiberglass batt insulation, fiberglass pipe insulation.

Limitations

This report relates to the Main Hospital Structure located at 122 Hospital Drive, Cherokee Village, Arkansas. According to the client, the structure is scheduled for future demolition.

Asbestos samples were collected from materials identified as Homogeneous Materials based upon visual inspection of the site. SEI, Inc. is not responsible for assumptions on homogeneity which prove to be incorrect. In addition, samples collected represent only that portion of the entire homogeneous material. SEI, Inc. is not responsible for materials not identified and sampled due to the restraints on accessibility of the material. No warranties, expressed or implied, relate to the previous and/or future conditions.

During any operations involving renovation or demolition, suspect asbestos materials may be encountered which were not identified in this inspection. Work should immediately cease, and a certified inspector contacted for further sampling to identify those additional materials.

Asbestos Analysis was performed by Crisp Analytical Laboratories, LLC Carrolton, Texas. CA Labs is solely responsible for all analytical results contained in and referred to in this report.

This report prepared by:

Josh Roberson
Field Technician
Safety & Environmental Investigations, Inc.

APPENDICIES

FIELD LOGS

Safety & Environmental Investigations, Inc.
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PH:(501)227-8900 FX:(501)227-7535

ASBESTOS SURVEY SHEET

Project Name: Cherokee Village **Inspector:** R. Roberson **Date:** 12/9-12/20
SEI Project #: 16123 R. Barton

Homo Area #	Sam. #	Functional Space	Location and Description of Material (S/TSI/Misc)	Sample Location	F/NF	Cndtn. (SD/D/G)	Pot. Damage (PSD/PD/L)	Square Feet of Material	Substrate/ Comments
NORTH									
FT01	01		12x12 Tile/MASTIC TAN		NF	D	PSD		
	02		BL MASTIC						
CT01	03		2x4 Ceiling Tile		F	SD	PSD		
	04								
CB01	05		BLACK Cove BASE/ MASTIC		NF	G	L		
	06		in Rooms						
CB02	07		Green Cove BASE/ MASTIC		NF	G	L		
	08		HALLWAYS						
SR01	09		Sheet Rock/Mud W/Accents		NF	G	L		
	10								
M01	11		Mud Seal Above C.Tile - Rooms		F	G	PD		
	12								
FP01	13		Fireplace SPRAY on Sheet Rock		F	G	PD		
	14		Above DROP Ceiling						
	15								
L01	16		Gold Linoleum under CAT-		NF	G	L		
	17		HALLWAYS						

FG Lines Above Tiles

Date of Construction: 1970's Description:

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ASBESTOS SURVEY SHEET

Project Name: Cherokee Village **Inspector:** R. Roberson **Date:** 12/19-12/20
SEI Project #: 16123 R. Barton

Homo Area #	Sam. #	Functional Space	Location and Description of Material (S/TSI/Misc)	Sample Location	F/NF	Cndtn. (SD/D/G)	Pot. Damage (PSD/PD/L)	Square Feet of Material	Substrate/ Comments
NORTHWEST WING									
FT02	18		12X12 TAN Tile w/ Black		NF	G	PD		
	19		MASTIC						
CT02	20		2x4 Ceiling Tile Rms/HALL		F	G	PD		
	21								
CB03	22		Black Cove BASE - Rooms		NF	G	L		
	23								
CB04	24		Green Cove BASE - HALLS		NF	G	L		
	25								
SR02	26		Sheet Rock/Mud WALLS		NF	G	PD		
	27								
FP02	28		Fire Proofing SPRAY		F	G	PD		
	29		Above DROP Ceiling						
	30								
L02	31		Linoleum - HALLS under		NF	G	L		
	32		CARPET						
L03	33		Rubberized FLOORING -		NF	G	L		
	34		Nourishment Rm						

Date of Construction: 1970's Description:

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ASBESTOS SURVEY SHEET

Project Name: Cherokee Village **Inspector:** R. Roberson, R. Barton **Date:** 10/19-12/20
SEI Project #: 16123

Homo Area #	Sam. #	Functional Space	Location and Description of Material (S/TSI/Misc)	Sample Location	F/NF	Cndtn. (SD/D/G)	Pot. Damage (PSD/PD/L)	Square Feet of Material	Substrate/ Comments
SOUTH	WING								
FL03	35		12x12 TAN Tile/ MASTIC		NF	G	PD		
	36								
CT03	37		2x4 Ceiling Tile		F	G	PD		
	38								
L04	39		TAN Linoleum - Surgical		NF	G	L		
	40		Suites						
PL01	41		PLASTER WALLS/ Ceilings		NF	G	L		
	42		Surg. Suites/ Rec./ Coating						
	43								
CB03	NA		Black Cove/ MASTIC SAME		NF	G	L		
M02	44		Mud Sealant on SR -						
	45		Above Door Ceiling						
ADMIN									
CT04	46		2x4 LAY-IN Ceiling Tile		F	G	PD		
	47								

Date of Construction: 1970's Description:

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ASBESTOS SURVEY SHEET

Project Name: Cherokee Village — Boiler Work
SEI Project #: 16123
Inspector: R. Robertson, R. Barton
Date: 12/20

Homo Area #	Sam. #	Functional Space	Location and Description of Material (S/TSI/Misc)	Sample Location	F/NF	Cndtn. (SD/D/G)	Pot. Damage (PSD/PD/L)	Square Feet of Material	Substrate/ Comments
CTO5	48		2x4 Lay-in Ceiling Tile -		F	G	PD		
	49		Cafeteria						
BO1	50		80 lb Steam over Smoky Hz		F	D	PSD		
	51								
	52								
CB04	53		Brown Cove Base/Mastic		NF	G	L		
	54		Kitchen						
SR03	55		Sheet Rock/Mud - Kitchen		NF	G	L		Cell behind wall
	56								
	57								
PI01	58		1" HARD Insulated Lines -		F	A	PSD		150'
	59		Boiler Room						
	60								
PI02	61		2 & 3" Lines Boiler Rm		F	G	PD		200'
	62								
	63								
PS01	64		1" Line Elbows		F	G	PD		21
	65								
	66								

Date of Construction: 1970's Description:

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ASBESTOS SURVEY SHEET

Project Name: Cherokee Village **Inspector:** R. Roberson, R. Barton **Date:** 12/14-12/20
SEI Project #: 16123

Homo Area #	Sam. #	Functional Space	Location and Description of Material (S/TSI/Misc)	Sample Location	F/NF	Cndtn. (SD/D/G)	Pot. Damage (PSD/PD/L)	Square Feet of Material	Substrate/ Comments
PS02	67		Pipe Joint 2+3" Lines		F	D	PSD		4/
	68		Boiler Room						
	69								
BS02	70		B. Feed make-up TANK	END	F	D	PSD		5'x30"D
	71			END					
	72			Side					
TS03	73		Heat Exchanger - By Boiler #2		F	G	PD		4'x24"D
	74								
	75								
TS04	76		Flange on MAIN Feed	Gasket	F	D	PSD		3"x24"D
G01	N/A		Assumed Gaskets on Boiler						~~4'x24"~~ D
PI03	77		1" CAL-SIL in BR Hall		F	G	PD		
	78								
	79								
PI04	80		2" CAL-SIL BR HALL +		F	G	PD		
	81		Throughout						
	82								
FD01	N/A		Fire Doors - Assumed	Housekeeping, B. Room, DRY STORAGE					
			~30 Throughout Patient	Areas					

Boilers FG FD1 - MAINT. ORR / FG 1-6" Line Chilled

Date of Construction: 1970's Description:

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ASBESTOS SURVEY SHEET

Project Name: Cherokee Villabe
SEI Project #: 16123
Inspector: R. Robertson, R. Burton
Date: 12/20

Homo Area #	Sam. #	Functional Space	Location and Description of Material (S/TSI/Misc)	Sample Location	F/NF	Cndtn. (SD/D/G)	Pot. Damage (PSD/PD/L)	Square Feet of Material	Substrate/ Comments
~~CF01~~	~~46~~		~~2x4 Lay-in Ceiling~~						
	~~47~~		~~Tile~~						
C01	83		Door Caulk - Boiler Hall		NF	G	PD		
	84								
C02	85		Door/Window Perimeter		NF	G	PD		
	86		Caulking						
	87								
RF01	88		Built up Roofing - North Wing		NF	G	PD		
	~~89~~								
	89		BU Roofing N West Wing		NF	G	PD		
	90		BU @ Dock						
	91		Emergency						
	92		South Wing						
	93		SE Wing - ICU						
RF01	94		Flashing @ S wing Air Handler		NF	G	PD		
	95		Air Handler @ Cafeteria/Kitchen						

Date of Construction: 1970's Description:

LABORATORY ANALYSIS RESULTS

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Safety & Environmental Investigations, Inc.
P.O. Box 22038
Little Rock, AR 72201

Attn: Robert Roberson
Customer Project: 16123, Cherokee Village Hospital
Reference #: CAL16128473CB Date: 12/28/2016

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 16123, Cherokee Village Hospital **CA Labs Project #:** CAL16128473CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
FT01-01	*01-1*	*tan floor tile*	***2% Chrysotile***	***tan floor tile***
FT01-02	*02-1*	*tan floor tile*	***2% Chrysotile***	***white textured surfacing*** ***tan patterned linoleum*** ***black sealant*** ***various black tar and black felt layers***
FP01-13	*13-1*	*white textured surfacing*	***2% Chrysotile***	
FP01-14	*14-1*	*white textured surfacing*	***2% Chrysotile***	
FP01-15	*15-1*	*white textured surfacing*	***3% Chrysotile***	
L01-16	*16-2*	*tan patterned linoleum*	***24% Chrysotile***	
L01-17	*17-2*	*tan patterned linoleum*	***24% Chrysotile***	
FT02-18	*18-1*	*tan floor tile*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Overview of Project Sample Material Containing Asbestos

Customer Project: 16123, Cherokee Village Hospital **CA Labs Project #:** CAL16128473CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
FT02-19	*19-1*	*tan floor tile*	***2% Chrysotile***	
FP02-28	*28-1*	*white textured surfacing*	***2% Chrysotile***	
FP02-29	*29-1*	*white textured surfacing*	***3% Chrysotile***	
FP02-30	*30-1*	*white textured surfacing*	***3% Chrysotile***	
FP02-31	*31-2*	*tan patterned linoleum*	***24% Chrysotile***	
	32-1	*tan patterned linoleum*	***25% Chrysotile***	
FT03-35	*35-1*	*tan floor tile*	***2% Chrysotile***	
FT03-36	*36-1*	*tan floor tile*	***2% Chrysotile***	

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C02-85	*85-1*	*black sealant*	***2% Chrysotile***	
RF01-94	*94-1*	*various black tar and black felt layers*	***16% Chrysotile***	
RF01-95	*95-1*	*various black tar and black felt layers*	***18% Chrysotile***	

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Roberson
Safety & Environmental Investigations, Inc.
P.O. Box 22038
Little Rock, AR 72201

Phone # 501-227-8900
Fax # 501-227-7535

Customer Project:
16123, Cherokee Village Hospital
Turnaround Time:
3 Days

CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
FT01-01		*01-1*	*tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca
		01-2	*black mastic*	*y*	***None Detected***		100% gy,bi
FT01-02		*02-1*	*tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca
		02-2	*black mastic*	*y*	***None Detected***	1% ce	99% gy,bi
CT01-03		*03-1*	*white drywall with brown paper*	*n*	***None Detected***	26% ce	74% qu,gy
CT01-04		*04-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
		04-2	*tan ceiling tile*	*y*	***None Detected***	41% ce 41% fg	18% qu,pe,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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Turnaround Time:
3 Days

CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
CB01-05		*05-1*	*black base board*	*y*	***None Detected***		100% gy,ma
		05-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
CB01-06		*06-1*	*black base board*	*y*	***None Detected***		100% gy,ma
		06-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
CB02-07		*07-1*	*blue base board*	*y*	***None Detected***		100% gy,ma
		07-2	*tan and brown mastic*	*n*	***None Detected***		100% gy,bi
CB02-08		*08-1*	*blue base board*	*y*	***None Detected***		100% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Analyst

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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10. TEM analysis suggested

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16123, Cherokee Village Hospital
Turnaround Time:
3 Days

CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		08-2	*tan and brown mastic*	*n*	***None Detected***		100% gy,bi
SR01-09		*09-1*	*white compound*	*y*	***None Detected***		100% qu,mi,ca
		09-2	*white drywall with brown paper*	*n*	***None Detected***	26% ce	74% qu,gy
SR01-10		*10-1*	*tan surfaced white compound*	*n*	***None Detected***		100% qu,mi,ca
		10-2	*white drywall with brown paper*	*n*	***None Detected***	26% ce	74% qu,gy
M01-11		*11-1*	*white compound*	*y*	***None Detected***		100% qu,mi,ca
		11-2	*tan insulation*	*y*	***None Detected***	100% fg	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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QAC
Leslie Crisp, P.G.

Technical Manager
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10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

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16123, Cherokee Village Hospital
Turnaround Time:
3 Days

CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
M01-12		*12-1*	*white compound*	*y*	***None Detected***		100% qu,mi,ca
		12-2	*tan insulation*	*y*	***None Detected***	100% fg	
FP01-13		*13-1*	*white textured surfacing*	*y*	***2% Chrysotile***	3% ta	95% qu,bi,ca
FP01-14		*14-1*	*white textured surfacing*	*y*	***2% Chrysotile***	2% ta	96% qu,bi,ca
FP01-15		*15-1*	*white textured surfacing*	*y*	***3% Chrysotile***	2% ta	95% qu,bi,ca
L01-16		*16-1*	*tan mastic*	*y*	***None Detected***		100% gy,bi
		16-2	*tan patterned linoleum*	*y*	***24% Chrysotile***		76% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

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	4	*16-3*	*tan mastic*				
L01-17		*17-1*	*tan mastic*	*y*	***None Detected***		100% gy,bi
		17-2	*tan patterned linoleum*	*y*	***24% Chrysotile***		76% gy,bi
	4	*17-3*	*tan mastic*				
FT02-18		*18-1*	*tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca
		18-2	*black mastic*	*y*	***None Detected***	2% sy	98% gy,bi
FT02-19		*19-1*	*tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca

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CT02-20		*20-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
		20-2	*tan ceiling tile*	*y*	***None Detected***	41% ce 41% fg	18% qu,pe,ca
CT02-21		*21-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
		21-2	*tan ceiling tile*	*y*	***None Detected***	41% ce 41% fg	18% qu,pe,ca
CB03-22		*22-1*	*black base board*	*y*	***None Detected***		100% gy,ma
		22-2	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

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Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Roberson
Safety & Environmental Investigations, Inc.
P.O. Box 22038
Little Rock, AR 72201

Phone # 501-227-8900
Fax # 501-227-7535

Customer Project:
16123, Cherokee Village Hospital
Turnaround Time:
3 Days

CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
CB03-23		*23-1*	*blue base board*	*y*	***None Detected***		100% gy,ma
		23-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
CB04-24		*24-1*	*blue base board*	*y*	***None Detected***		100% gy,ma
		24-2	*tan and brown mastic*	*n*	***None Detected***		100% gy,bi
CB04-25		*25-1*	*blue base board*	*y*	***None Detected***		100% gy,ma
		25-2	*tan and brown mastic*	*n*	***None Detected***		100% gy,bi
SR02-26		*26-1*	*tan surfaced white compound*	*n*	***None Detected***		100% qu,mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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6. Anthophyllite in association with Fibrous Talc
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9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

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Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		26-2	*white compound (beneath tape)*	*y*	***None Detected***		100% qu,mi,ca
SR02-27		*27-1*	*blue surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		27-2	*white drywall with brown paper*	*n*	***None Detected***	26% ce	74% qu,gy
FP02-28		*28-1*	*white textured surfacing*	*y*	***2% Chrysotile***	2% ta	96% qu,mi,bi,ca
FP02-29		*29-1*	*white textured surfacing*	*y*	***3% Chrysotile***	2% ta	95% qu,mi,bi,ca
FP02-30		*30-1*	*white textured surfacing*	*y*	***3% Chrysotile***	2% ta	95% qu,mi,bi,ca
FP02-31		*31-1*	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		31-2	*tan patterned linoleum*	*y*	***24% Chrysotile***		76% gy,ma
	4	*31-3*	*tan mastic*				
FP02-32		*32-1*	*tan patterned linoleum*	*y*	***25% Chrysotile***		75% gy,ma
	4	*32-2*	*tan mastic*				
L03-33		*33-1*	*tan rubber flooring*	*y*	***None Detected***		100% qu,ma
		33-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
L03-34		*34-1*	*tan floor tile*	*y*	***None Detected***		100% qu,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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CA Labs Project #:
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Date: 12/28/2016
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Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		34-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
FT03-35		*35-1*	*tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca
		35-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
FT03-36		*36-1*	*tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca
		36-2	*black mastic*	*y*	***None Detected***		100% gy,bi
CT03-37		*37-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
		37-2	*tan ceiling tile*	*y*	***None Detected***	41% ce 41% fg	18% qu,pe,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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ma - matrix	qu - quartz	sy - synthetic	

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Tanner Rasmussen
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QAC
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Technical Manager
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Turnaround Time:
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CA Labs Project #:
CAL16128473CB

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Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
CT03-38		*38-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
		38-2	*tan ceiling tile*	*y*	***None Detected***	41% ce 41% fg	18% qu,pe,ca
L04-39		*39-1*	*tan rubber flooring*	*y*	***None Detected***		100% qu,ma
		39-2	*black mastic*	*y*	***None Detected***	2% ce	98% gy,bi
L04-40		*40-1*	*tan rubber flooring*	*y*	***None Detected***		100% qu,ma
		40-2	*tan and black mastic*	*n*	***None Detected***	2% ce	98% gy,bi
PL01-41		*41-1*	*white surfaced white finishing plaster*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot -other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

Approved Signatories:

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Analyst

Tanner Rasmussen
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PL01-42		*42-1*	*white surfaced white finishing plaster*	*n*	***None Detected***		100% qu,bi,ca
PL01-43		*43-1*	*white surfaced white finishing plaster*	*n*	***None Detected***		100% qu,bi,ca
		43-2	*pink plaster*	*y*	***None Detected***		100% qu,ca
M02-44		*44-1*	*white compound*	*y*	***None Detected***		100% qu,mi,ca
		44-2	*tan insulation*	*y*	***None Detected***	100% fg	
M02-45		*45-1*	*white compound*	*y*	***None Detected***		100% qu,mi,ca
CT04-46		*46-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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		46-2	*tan ceiling tile*	*y*	***None Detected***	41% ce 41% fg	18% qu,pe,ca
CT04-47		*47-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
		47-2	*tan ceiling tile*	*y*	***None Detected***	41% ce 40% fg	19% qu,pe,ca
CT05-48		*48-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
		48-2	*tan ceiling tile*	*y*	***None Detected***	41% ce 41% fg	18% qu,pe,ca
CT05-49		*49-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
		49-2	*tan ceiling tile*	*y*	***None Detected***	42% ce 41% fg	17% qu,pe,ca

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TS01-50		*50-1*	*tan woven covering*	*y*	***None Detected***	100% ce	
		50-2	*white insulation*	*y*	***None Detected***	11% sy 4% fg	85% qu,ca,ma
TS01-51		*51-1*	*tan woven covering*	*y*	***None Detected***	100% ce	
		51-2	*white insulation*	*y*	***None Detected***	13% sy 5% fg	82% qu,ca,ma
TS01-52		*52-1*	*white insulation*	*y*	***None Detected***	12% sy 4% fg	84% qu,ca,ma
CB04-53		*53-1*	*brown base board*	*y*	***None Detected***		100% gy,ma
		53-2	*brown mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
CB04-54		*54-1*	*brown base board*	*y*	***None Detected***		100% gy,ma
		54-2	*brown mastic*	*y*	***None Detected***		100% gy,bi
SR03-55		*55-1*	*tan surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
		55-2	*white drywall with brown paper*	*n*	***None Detected***	23% ce	77% qu,gy
SR03-56		*56-1*	*white compound*	*y*	***None Detected***		100% qu,ca
		56-2	*white drywall with brown paper*	*n*	***None Detected***	24% ce	76% qu,gy
SR03-57		*57-1*	*tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

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CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Roberson
Safety & Environmental Investigations, Inc.
P.O. Box 22038
Little Rock, AR 72201

Phone # 501-227-8900
Fax # 501-227-7535

Customer Project:
16123, Cherokee Village Hospital
Turnaround Time:
3 Days

CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		57-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		57-3	*white drywall with brown paper*	*n*	***None Detected***	22% ce	78% qu,gy
PI01-58		*58-1*	*white insulation*	*y*	***None Detected***	13% sy 5% fg	82% qu,ca,ma
PI01-59		*59-1*	*tan sealant with paper and foil*	*n*	***None Detected***	24% ce	76% qu,bi,ot
		59-2	*white insulation*	*y*	***None Detected***	12% ce	88% qu,ca,ma
PI01-60		*60-1*	*white insulation*	*y*	***None Detected***	12% sy 3% fg	85% qu,ca,ma
PI02-61		*61-1*	*white insulation*	*y*	***None Detected***	14% sy 2% fg	84% qu,ca,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot -other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

Approved Signatories:

Julio Robles
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Turnaround Time:
3 Days

CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
PI02-62		*62-1*	*tan woven covering*	*y*	***None Detected***	100% ce	
		62-2	*white insulation*	*y*	***None Detected***	14% sy 3% fg	83% qu,ca,ma
PI02-63		*63-1*	*white insulation*	*y*	***None Detected***	13% sy 6% fg	81% qu,ca,ma
PJ01-64		*64-1*	*tan insulation*	*y*	***None Detected***	14% fg	86% qu,ca,ma
PJ01-65		*65-1*	*tan insulation*	*y*	***None Detected***	18% ce	82% qu,ca,ma
PJ01-66		*66-1*	*tan insulation*	*y*	***None Detected***	20% ce	80% qu,ca,ma
PJ02-67		*67-1*	*tan insulation*	*y*	***None Detected***	18% ce	82% qu,ca,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Analyst

Tanner Rasmussen
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QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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Turnaround Time:
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CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
PJ02-68		*68-1*	*tan insulation*	*y*	***None Detected***	21% ce	79% qu,ca,ma
PJ02-69		*69-1*	*tan insulation*	*y*	***None Detected***	17% fg	83% qu,ca,ma
TS02-70		*70-1*	*tan woven covering*	*y*	***None Detected***	100% ce	
		70-2	*tan insulation*	*y*	***None Detected***	13% ce	87% qu,ca,ma
		70-3	*white insulation*	*y*	***None Detected***	16% fg	84% qu,ca,ma
TS02-71		*71-1*	*tan insulation*	*y*	***None Detected***	15% fg	85% qu,ca,ma
TS02-72		*72-1*	*white insulation*	*y*	***None Detected***	13% fg	87% qu,ca,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

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CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
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Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
TS03-73		*73-1*	*tan insulation*	*y*	***None Detected***	22% ce	78% qu,ca,ma
TS03-74		*74-1*	*white insulation*	*y*	***None Detected***	18% sy	82% qu,ca,ma
TS03-75		*75-1*	*white insulation*	*y*	***None Detected***	16% sy	84% qu,ca,ma
TS04-76		*76-1*	*tan insulation*	*y*	***None Detected***	21% ce	79% qu,ca,ma
PI03-77		*77-1*	*tan insulation*	*y*	***None Detected***	18% ce	82% qu,ca,ma
PI03-78		*78-1*	*tan insulation*	*y*	***None Detected***	19% ce	81% qu,ca,ma
PI03-79		*79-1*	*tan insulation*	*y*	***None Detected***	18% ce	82% qu,ca,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
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Turnaround Time:
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CA Labs Project #:
CAL16128473CB

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Purchase Order #:

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PI04-80		*80-1*	*tan insulation*	*y*	***None Detected***	16% ce	84% qu,ca,ma
PI04-81		*81-1*	*white insulation*	*y*	***None Detected***	14% fg	86% qu,ca,ma
PI04-82		*82-1*	*white insulation*	*y*	***None Detected***	16% fg	84% qu,ca,ma
C01-83		*83-1*	*black sealant*	*y*	***None Detected***		100% qu,gy,bi
C01-84		*84-1*	*black sealant*	*y*	***None Detected***		100% qu,gy,bi
C02-85		*85-1*	*black sealant*	*y*	***2% Chrysotile***		98% qu,gy,bi
C02-86		*86-1*	*black sealant*	*y*	***None Detected***		100% qu,gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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CA Labs Project #:
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C02-87		*87-1*	*black sealant*	*y*	***None Detected***		100% qu,gy,bi
BR01-88		*88-1*	*various black tar and black felt layers*	*n*	***None Detected***	13% ce 6% fg	81% qu,bi
BR01-89		*89-1*	*various black tar and black felt layers*	*n*	***None Detected***	14% ce 5% fg	81% qu,bi
BR01-90		*90-1*	*various black tar and black felt layers*	*n*	***None Detected***	16% fg	84% qu,bi
BR01-91		*91-1*	*various black tar and black felt layers*	*n*	***None Detected***	15% fg	85% qu,bi
BR01-92		*92-1*	*various black tar and black felt layers*	*n*	***None Detected***	17% fg	83% qu,bi
BR01-93		*93-1*	*various black tar and black felt layers*	*n*	***None Detected***	16% fg	84% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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Customer Project:
16123, Cherokee Village Hospital
Turnaround Time:
3 Days

CA Labs Project #:
CAL16128473CB

Date: 12/28/2016
Samples Received: 12/23/16 12pm
Date Of Sampling: 12/19/16
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
RF01-94		*94-1*	*various black tar and black felt layers*	*n*	***16% Chrysotile***		84% qu,bi
RF01-95		*95-1*	*various black tar and black felt layers*	*n*	***18% Chrysotile***		82% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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PO Box 22038
Little Rock, AR 72201
Ph.: (501)227-8900 Fax: (501)227-7535
E-mail: sei.inc@comcast.net

Chain-of-Custody Record

CAL1612847 3

Project Name: Cherokee Village Hospital	**SEI Project#: 16123**	**Date: 12/22/16**
Address: 122 Hospital Drive	**Requested Turnaround: 3-Day**	
Cherokee Village, AR		
Samples Collected by: R. Roberson/R. Barton	**Date Collected: 12/19/16**	
Sample Type: Bulk Asbestos/PLM	**# Samples: 95**	

Sample ID	Description	Sample ID	Description
FT01-01	12X12 Tile/Mastic	M01-11	Mud Wall Sealant
FT01-02	12X12 Tile/Mastic	M01-12	Mud Wall Sealant
CT01-03	2x4 Lay-in Ceiling Tile	FP01-13	Fireproof Wallboard Spray
CT01-04	2x4 Lay-in Ceiling Tile	FP01-14	Fireproof Wallboard Spray
CB01-05	Bk Cove Base/Mastic	FP01-15	Fireproof Wallboard Spray
CB01-06	Bk Cove Base/Mastic	L01-16	Gold Linoleum
CB02-07	Green Cove Base/Mastic	L01-17	Gold Linoleum
CB02-08	Green Cove Base/Mastic	FT02-18	12X12 Tile/Mastic
SR01-09	Sheet Rock/Mud	FT02-19	12X12 Tile/Mastic
SR01-10	Sheet Rock/Mud	CT02-20	2X4 Lay-in Ceiling Tile

Relinquished By:	Date/Time	Received By:	Date/Time
	12/22/16 4:20		12/23/16 12pm

Special Instructions:

Safety & Environmental Investigations, Inc.
PO Box 22038
Little Rock, AR 72201
Ph.: (501)227-8900 Fax: (501)227-7535
E-mail: sei.inc@comcast.net

Chain-of-Custody Record

CAL16128473

Project Name: Cherokee Village Hospital	**SEI Project#: 16123**	**Date: 12/22/16**
Address: 122 Hospital Drive	**Requested Turnaround: 3-Day**	
Cherokee Village, AR		
Samples Collected by: R. Roberson/R. Barton	**Date Collected: 12/19/16**	
Sample Type: Bulk Asbestos/PLM	**# Samples: 95**	

Sample ID	Description	Sample ID	Description
CT02-21	2x4 Lay-in Ceiling Tile	L02-31	Gold Linoleum
CB03-22	Bk Cove Base/Mastic	L02-32	Gold Linoleum
CB03-23	Bk Cove Base/Mastic	L03-33	Rubberized Flooring
CB04-24	Green Cove Base/Mastic	L03-34	Rubberized Flooring
CB04-25	Green Cove Base/Mastic	FT03-35	12X12 Tile/Mastic
SR02-26	Sheet Rock/Mud	FT03-36	12X12 Tile/Mastic
SR02-27	Sheet Rock/Mud	CT03-37	2X4 Lay-in Ceiling Tiles
FP02-28	Fireproof Wallboard Spray	CT03-38	2X4 Lay-in Ceiling Tiles
FP02-29	Fireproof Wallboard Spray	L04-39	Tan Linoleum
FP02-30	Fireproof Wallboard Spray	L04-40	Tan Linoleum

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	12/22/16 4:20	[signature]	12/23/16 12a

Special Instructions:

_____

_____

Safety & Environmental Investigations, Inc.
PO Box 22038
Little Rock, AR 72201
Ph.: (501)227-8900 Fax: (501)227-7535
E-mail: sei.inc@comcast.net

Chain-of-Custody Record

CAL16128473

Project Name: Cherokee Village Hospital	**SEI Project#: 16123**	**Date: 12/22/16**
Address: 122 Hospital Drive	**Requested Turnaround: 3-Day**	
Cherokee Village, AR		
Samples Collected by: R. Roberson/R. Barton	**Date Collected: 12/19/16 – 12/20/16**	
Sample Type: Bulk Asbestos/PLM	**# Samples: 95**	

Sample ID	Description	Sample ID	Description
PL01-41	Wall/Ceiling Plaster	TS01-51	80 Lbs Steam Line
PL01-42	Wall/Ceiling Plaster	TS01-52	80 Lbs Steam Line
PL01-43	Wall/Ceiling Plaster	CB04-53	Brown Cove Base/Mastic
M02-44	Mud Wall Sealant	CB04-54	Brown Cove Base/Mastic
M02-45	Mud Wall Sealant	SR03-55	Sheet Rock/Mud
CT04-46	2X4 Lay-in Ceiling Tiles	SR03-56	Sheet Rock/Mud
CT04-47	2X4 Lay-in Ceiling Tiles	SR03-57	Sheet Rock/Mud
CT05-48	2X4 Lay-in Ceiling Tiles	PI01-58	1" Line Insulation
CT05-49	2X4 Lay-in Ceiling Tiles	PI01-59	1" Line Insulation
TS01-50	80 Lbs Steam Line	PI01-60	1" Line Insulation

Relinquished By:	Date/Time	Received By:	Date/Time
	12/22/16 4:10		12/23/16 12pm

Special Instructions:

Safety & Environmental Investigations, Inc.
PO Box 22038
Little Rock, AR 72201
Ph.: (501)227-8900 Fax: (501)227-7535
E-mail: sei.inc@comcast.net

Chain-of-Custody Record

CAL1612 8473

Project Name: Cherokee Village Hospital	**SEI Project#: 16123**	**Date: 12/22/16**
Address: 122 Hospital Drive	**Requested Turnaround: 3-Day**	
Cherokee Village, AR		
Samples Collected by: R. Roberson/R. Barton	**Date Collected: 12/20/16**	
Sample Type: Bulk Asbestos/PLM	**# Samples: 95**	

Sample ID	Description	Sample ID	Description
PI02-61	2 & 3" Line Insulation	TS02-71	Make-up Tank Insulation
PI02-62	2 & 3" Line Insulation	TS02-72	Make-up Tank Insulation
PI02-63	2 & 3" Line Insulation	TS03-73	Heat Exchanger Insulation
PJ01-64	1" Line Joints, T's, Elbows	TS03-74	Heat Exchanger Insulation
PJ01-65	1" Line Joints, T's, Elbows	TS03-75	Heat Exchanger Insulation
PJ01-66	1" Line Joints, T's, Elbows	TS04-76	Flange on Main Feed
PJ02-67	2/3" Line Jnts, T's, Elbows	PI03-77	1" Line/Hallways
PJ02-68	2/3" Line Jnts, T's, Elbows	PI03-78	1" Line/Hallways
PJ02-69	2/3" Line Jnts, T's, Elbows	PI03-79	1" Line/Hallways
TS02-70	Make-up Tank Insulation	PI04-80	2" Line/Hallways

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	12/22/16 4:30	[signature]	12/23/16 12pm

Special Instructions:

Safety & Environmental Investigations, Inc.
PO Box 22038
Little Rock, AR 72201
Ph.: (501)227-8900 Fax: (501)227-7535
E-mail: sei.inc@comcast.net

Chain-of-Custody Record

CAL 16128473

Project Name: Cherokee Village Hospital	**SEI Project#: 16123**	**Date: 12/22/16**
Address: 122 Hospital Drive	**Requested Turnaround: 3-Day**	
Cherokee Village, AR		
Samples Collected by: R. Roberson/R. Barton	**Date Collected: 12/20/16**	
Sample Type: Bulk Asbestos/PLM	**# Samples: 95**	

Sample ID	Description	Sample ID	Description
PI04-81	2" Line/Hallways	BR01-91	Built-up Roofing
PI04-82	2" Line/Hallways	BR01-92	Built-up Roofing
C01-83	Door Caulking	BR01-93	Built-up Roofing
C01-84	Door Caulking	RF01-94	Roof Flashing
C02-85	Exterior Caulking	RF01-95	Roof Flashing
C02-86	Exterior Caulking		
C02-87	Exterior Caulking		
BR01-88	Built-up Roofing		
BR01-89	Built-up Roofing		
BR01-90	Built-up Roofing		

Relinquished By:	Date/Time	Received By:	Date/Time
	12/22/16 4:30		12/23/16 12pm

Special Instructions:

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Atomic Absorption Lead Report

Analysis Method: Lead in Paint analyzed by Atomic Absorption (AA)/SW-846-7420;
This analysis is not covered by the scope of accreditation by NVLAP or AIHA.

Sample Prep Method: Samples are dissolved in nitric acid, extracted, and analyzed on a properly calibrated AA; Absorbency curve was calculated, bandwidth corrected, and wavelength at the time of the analysis was measured and recorded.

Client Information:
Safety & Environmental Investigations, Inc.
P.O. Box 22038
Little Rock, AR 72201
Phone: 501-227-8900
Fax: 501-227-7535

Client Project:
16123, Cherokee Village Hospital, 122 Hospital Drive, CV, AR

Turnaround Time: 24 Hours
Attn:

CA Labs Project #:
CAL1701163JE

Date of Sampling: 1/5/17
Report Date: 1/13/17

Samples Received: 1/13/17 10:30am
Purchase Order #:

Sample#		Sample Concentration: parts per million (ppm)	Weight Percent:
MB-01 Main Bldg. Interior Trim		129.46	0.0129
MB-02 Main Bldg. interior Walls		<128.7	<0.0129
MB-03 Main Bldg. Structural Steel		<143.58	<0.0144
MB-04 Main Bldg. Incinerator		722.66	0.0723
BC-05 L. Clinic Interior Trim / Door		<140.35	<0.0140
BC-06 L. Clinic Interior Walls		<108.58	<0.0109
BC-07 L. Clinic – Exterior Trim		<123.53	<0.0124
BC-08 L. Clinic – Outside Walls		<107.87	<0.0108
SC-09 S. Clinic – Interior Walls		<115.61	<0.0116
Lab Blank	< 1.00	----	----

Quality Control:
Duplicate: 1.0 RPD
Spike: 98.9 % Recovery

All samples received in good condition unless noted

NVLAP # 200349-0

Approved Signatories:

Robert Olivarez
Analyst

TDH # 30-0235

Page 1 of 1

Leslie Crisp
Laboratory Director

Chad Lytle
Senior Analyst

Notes:
The current guidelines for lead in paint from the Consumer Products Safety Council (CPSC) is 0.06% by weight; the Housing and Urban Development (HUD) guideline is 0.5% by weight.

Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006; phone (972) 242-2754, fax (972) 242-2798.

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

ATOMIC ABSORPTION
LEAD ANALYSIS
LABORATORY ANALYSIS REPORT

Safety & Environmental Investigations, Inc.
P.O. Box 22038
Little Rock, AR 72201

Reference number: CAL1701163JE

LABORATORY ANALYSIS:

Summary of lead analysis by atomic absorption in all relevant media using the method described in SW-846-7420. All analysts have received the necessary in-house and extramural training to perform analysis of samples for the presence of lead. A duplicate analysis is performed on greater than ten percent of all samples. A spiked concentration sample is analyzed with each sample group for instrument calibration. All analysts are required to participate in quality control analysis rounds. Instrument calibrations are performed on a daily, weekly, and monthly basis.

CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM) and by the USEPA for analysis of asbestos in drinking water. CA Labs is accredited by the American Industrial Hygiene Association (AIHA LAP, LLC) PLM, TEM and PCM Asbestos fields of testing for industrial hygiene. This analysis is not covered by the scope of accreditation by NVLAP. This method is not covered by the AIHA accreditation for Industrial Hygiene.

METHOD:

The procedure for paint chip analysis follows AOAC5.009(974.02) and SW-846-7420. The analysis of soil, wipes, and wastewater for the presence of lead is also referenced by SW-846-7420. Methodology for the analysis of lead in air samples follows NIOSH Method 7082.

Analysis performed at Crisp Analytical Labs, L.L.C. 1929 Old Denton Road Carrollton, TX 75006: phone (972) 242-2754; fax (972) 242-2798.

CRC1701103

Safety & Environmental Investigations, Inc.
PO Box 22038
Little Rock, AR 72221
Ph:(501)227-8900/Fx:(501)227-7535
e-mail: sei.inc@comcast.net

Chain-of-Custody Record

Project Name: Cherokee Village Hospital	**SEI Project#: 16123**	**Date: 1/10/17**
Address: 122 Hospital Drive, CV, AR	**Requested Turnaround: 24 Hour**	
Samples Collected by: Robert Roberson	**Date Collected: 1/5/17**	
Sample Type: Lead Paint Composite	**# Samples: 9**	

Sample ID	Description		
MB-01	Main Bldg. Interior Trim		
MB-02	Main Bldg. Interior Walls		
MB-03	Main Bldg. Structural Steel		
MB-04	Main Bldg. Incinerator		
BC-05	L.Clinic Interior Trim/Door		
BC-06	L.Clinic Interior Walls		
BC-07	L.Clinic – Exterior Trim		
BC-08	L. Clinic – Outside Walls		
SC-09	S. Clinic – Interior Walls		

	1/12/17 4:30pm		1/13/17 10:30a

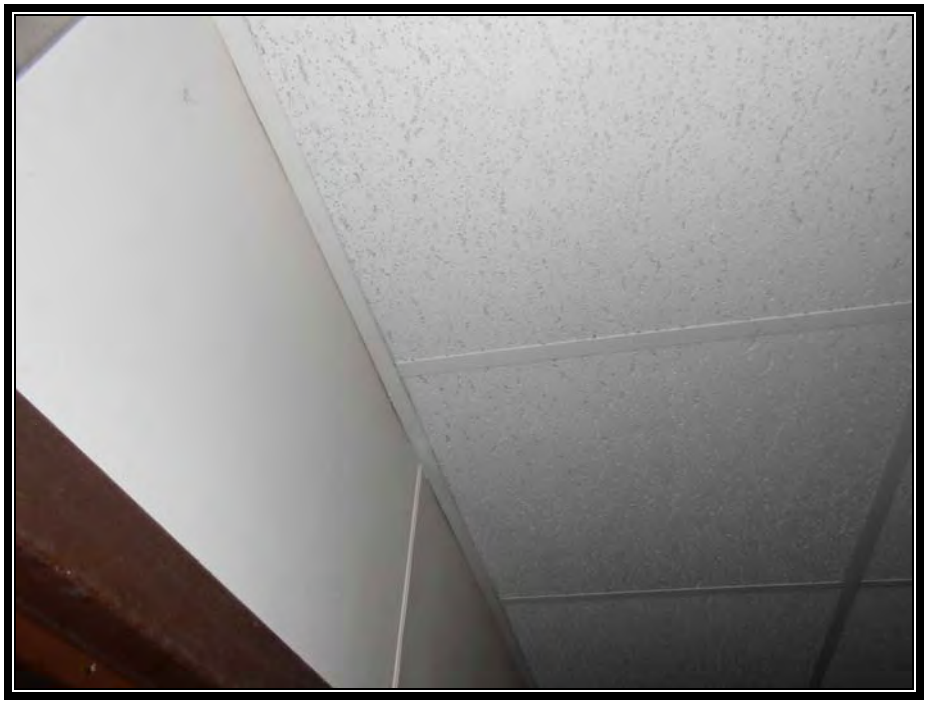
Special Instructions:

_____

_____

PHOTOGRAPHS

FT01 – 12x12 ACM Floor Tile Only



CT01 – 2x4 Lay-in Ceiling Tile

CB01 – Black Cove Base / Mastic

CB02 – Green Cove Base / Mastic

SR01 – Sheet Rock / Mud

M01 – Mud Wall Sealant

FP01 – ACM Fireproof Wallboard Spray

L01 – ACM Gold Linoleum

FT02 – ACM 12x12 Floor Tile Only

CT02 – 2x4 Lay-in Ceiling Tile

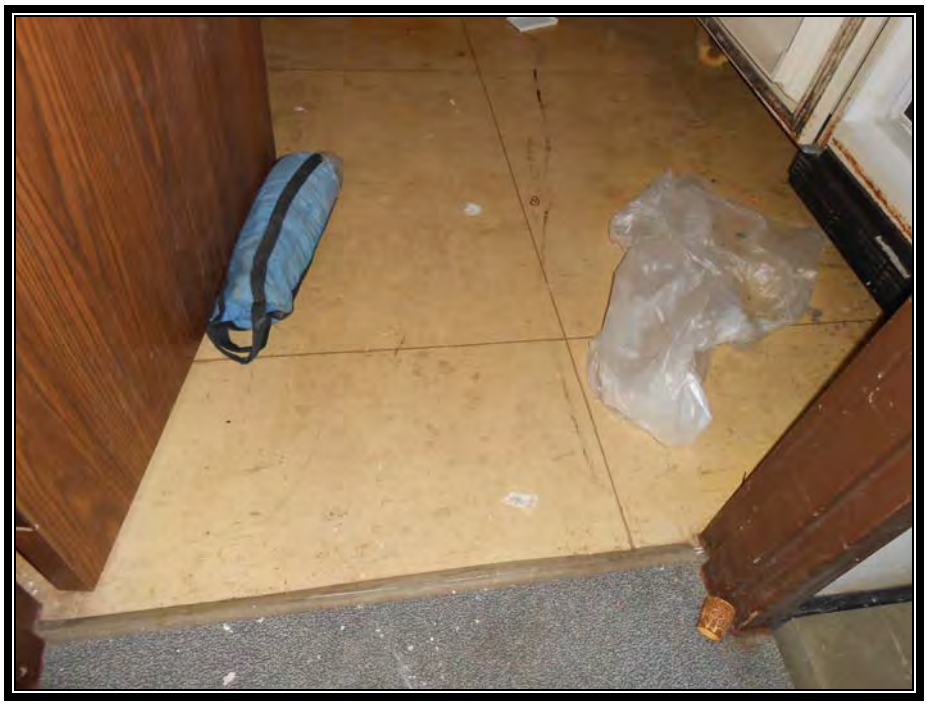
CB03 – Black Cove Base / Mastic

CB04 – Green Cove Base / Mastic

SR02 – Sheet Rock / Mud

FP02 – ACM Fireproof Wallboard Spray

L02 – ACM Gold Linoleum



L03 – Rubberized Flooring

FT03 – ACM 12x12 Floor Tile Only

CT03 – 2x4 Lay-in Ceiling Tile

L04 – Tan Linoleum

PL01 – Wall / Ceiling Plaster

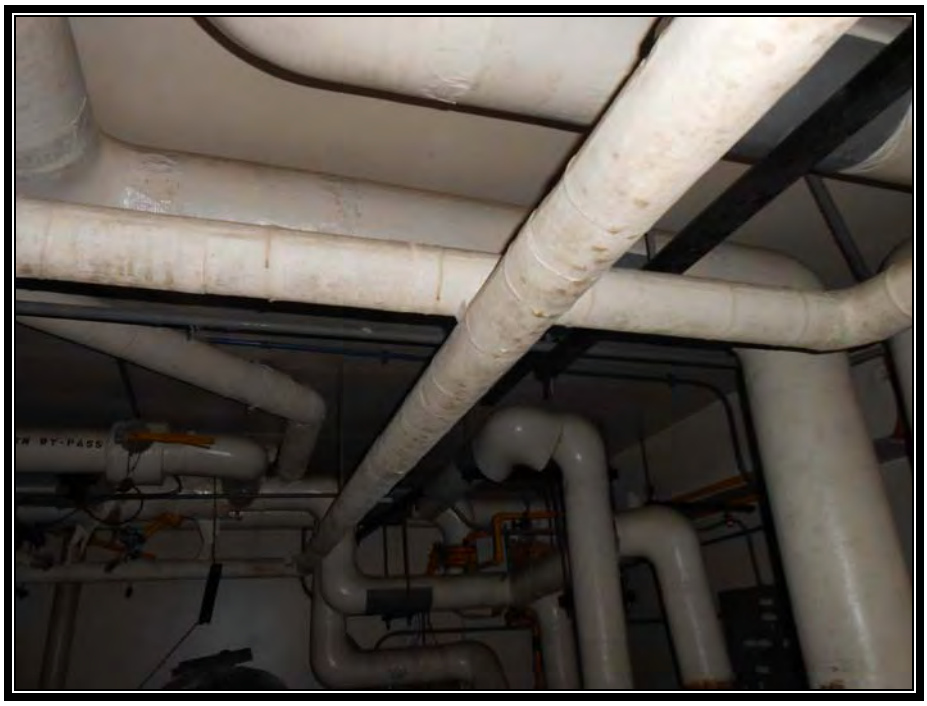
M02 – Mud Wall Sealant

CT05 – 2x4 Lay-in Ceiling Tile

TS01 – 80 lb Steam Line

CB04 – Brown Cove Base / Mastic

SR03 – Sheet Rock / Mud



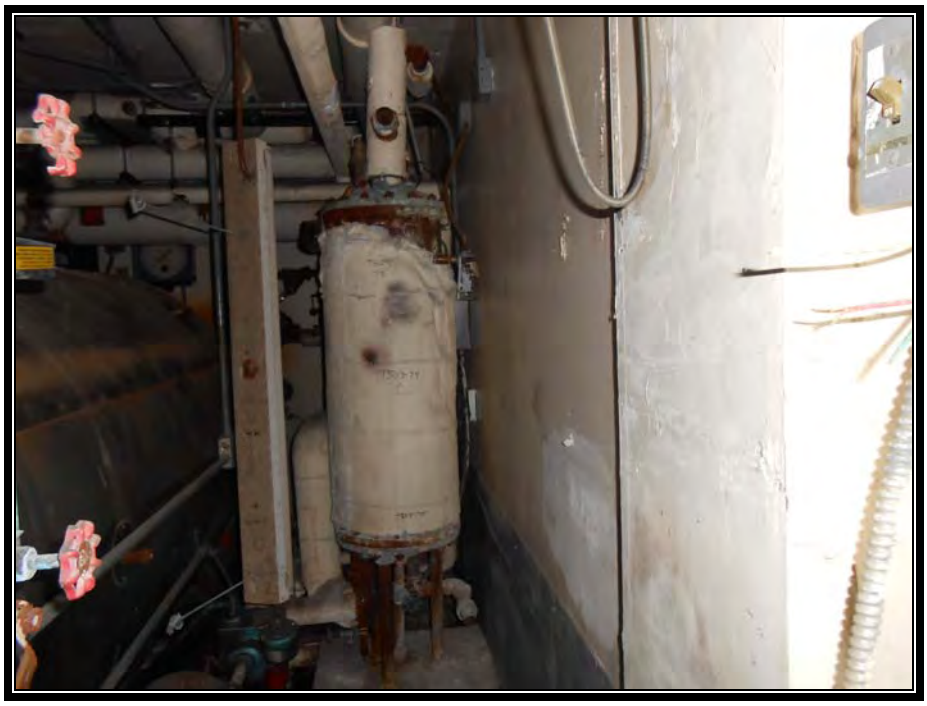
PI01 – 1” Line Insulation

PI02 – 2&3” Line Insulation

PJ01 – 1” Line Joints, T’s, Elbows

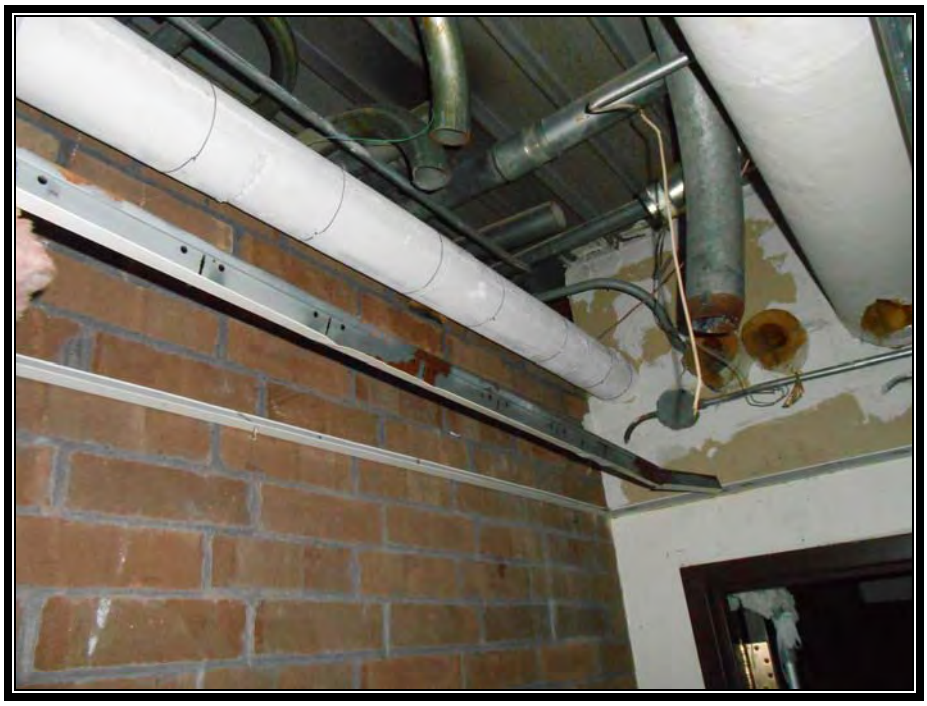
PJ02 – 2/3” Line Joints, T’s, Elbows

TS02 – Make-up Tank Insulation



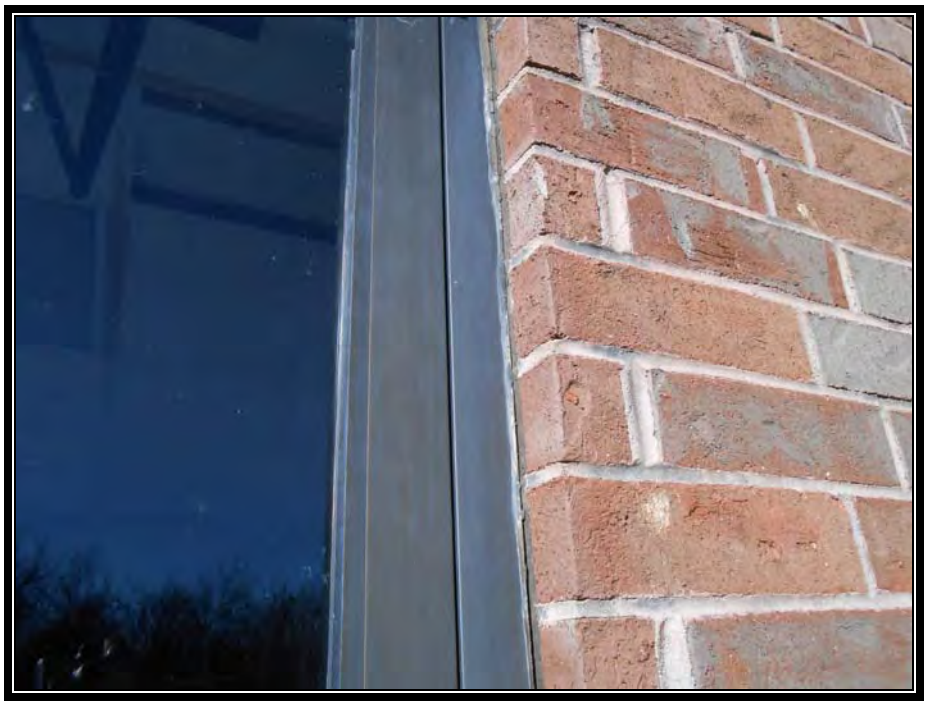
TS03 – Heat Exchanger Insulation

TS04 – Flange on Main Feed



PI03 – 1” Line in Hallways

PI04 – 2” Line in Hallways



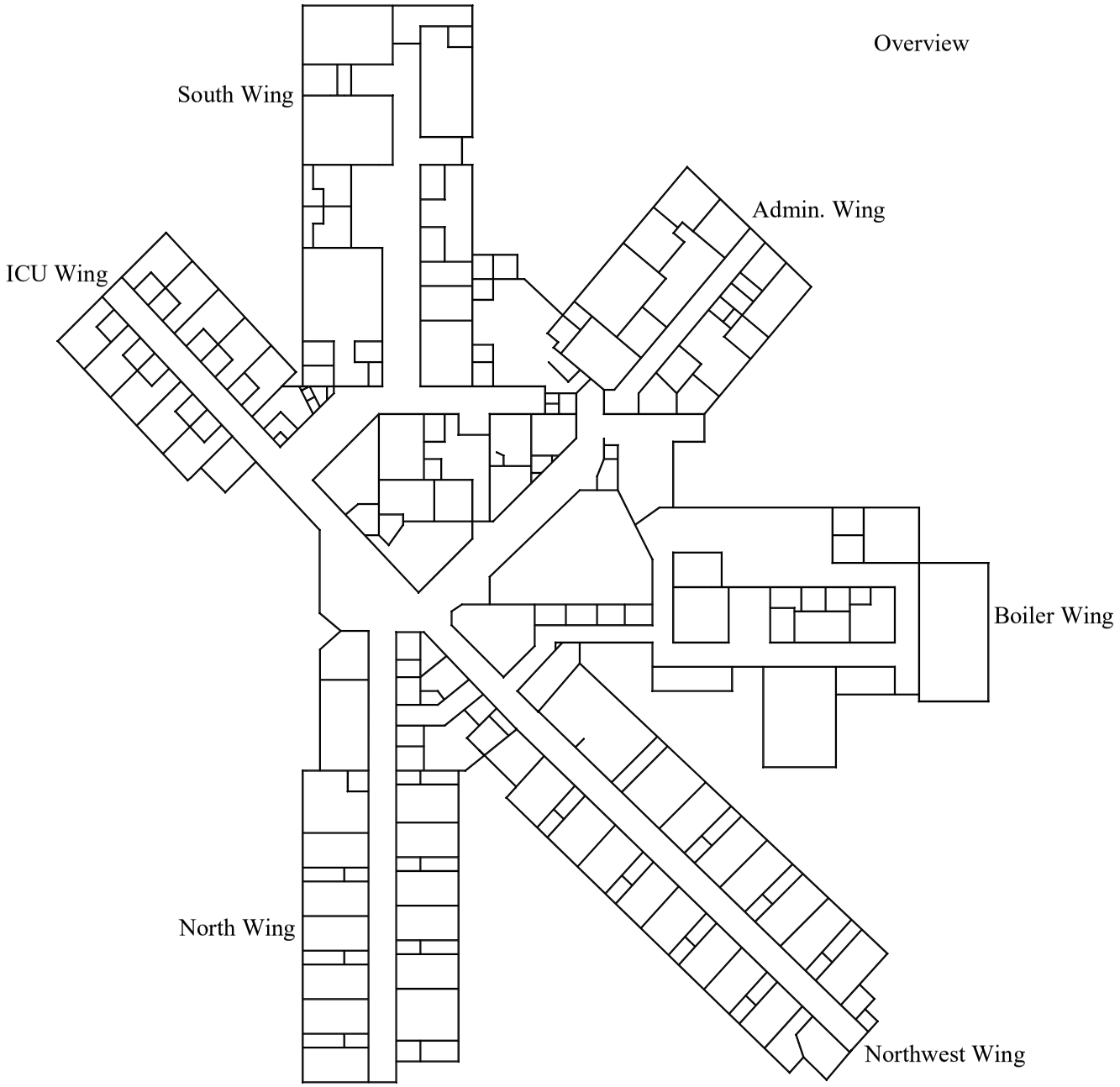
C01 – Door Caulking

C02 – ACM Exterior Caulking

BR01 – Built-up Roofing

RF01 – ACM Roof Flashing

DRAWINGS

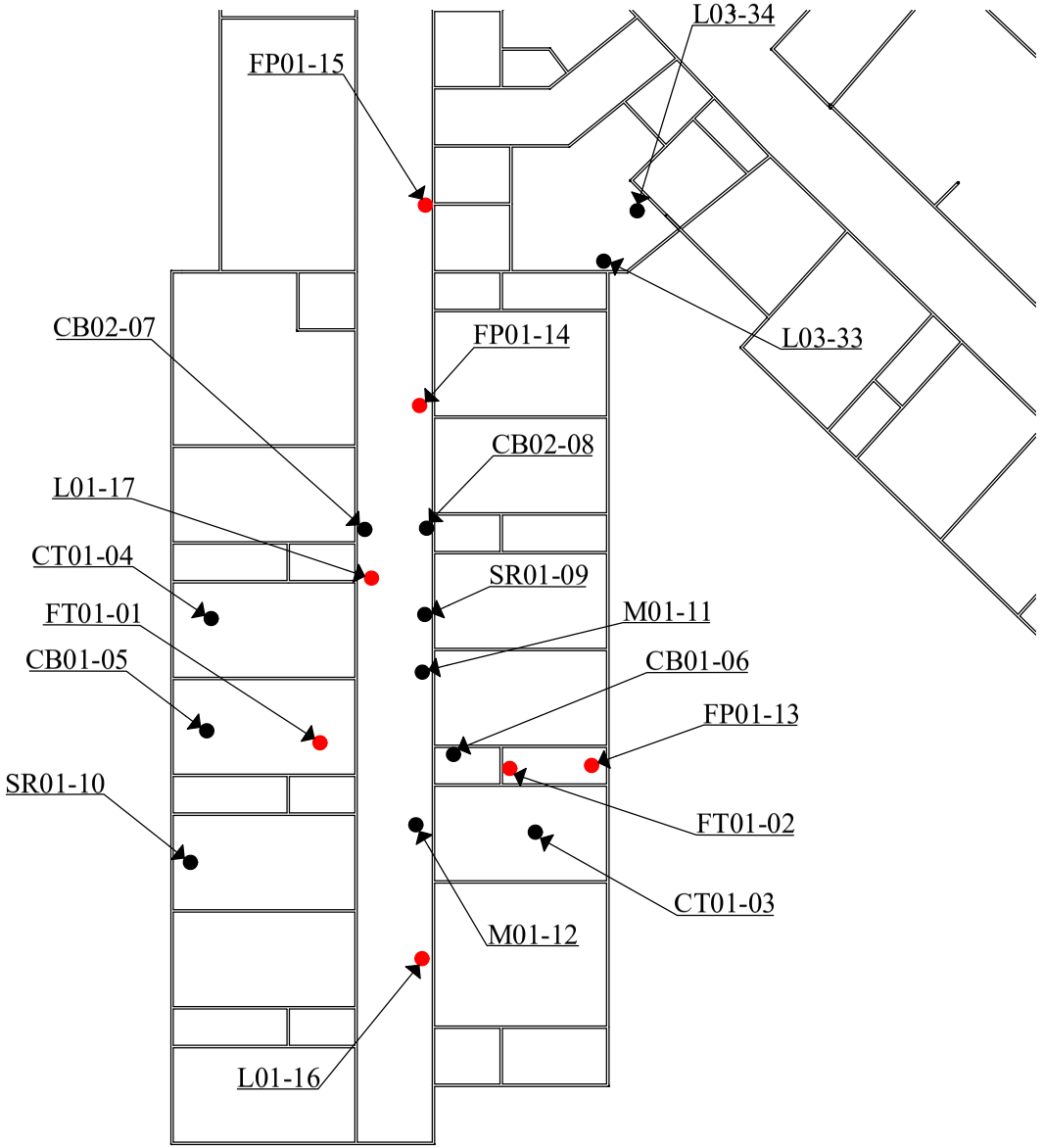


Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

N

SEI, Inc.

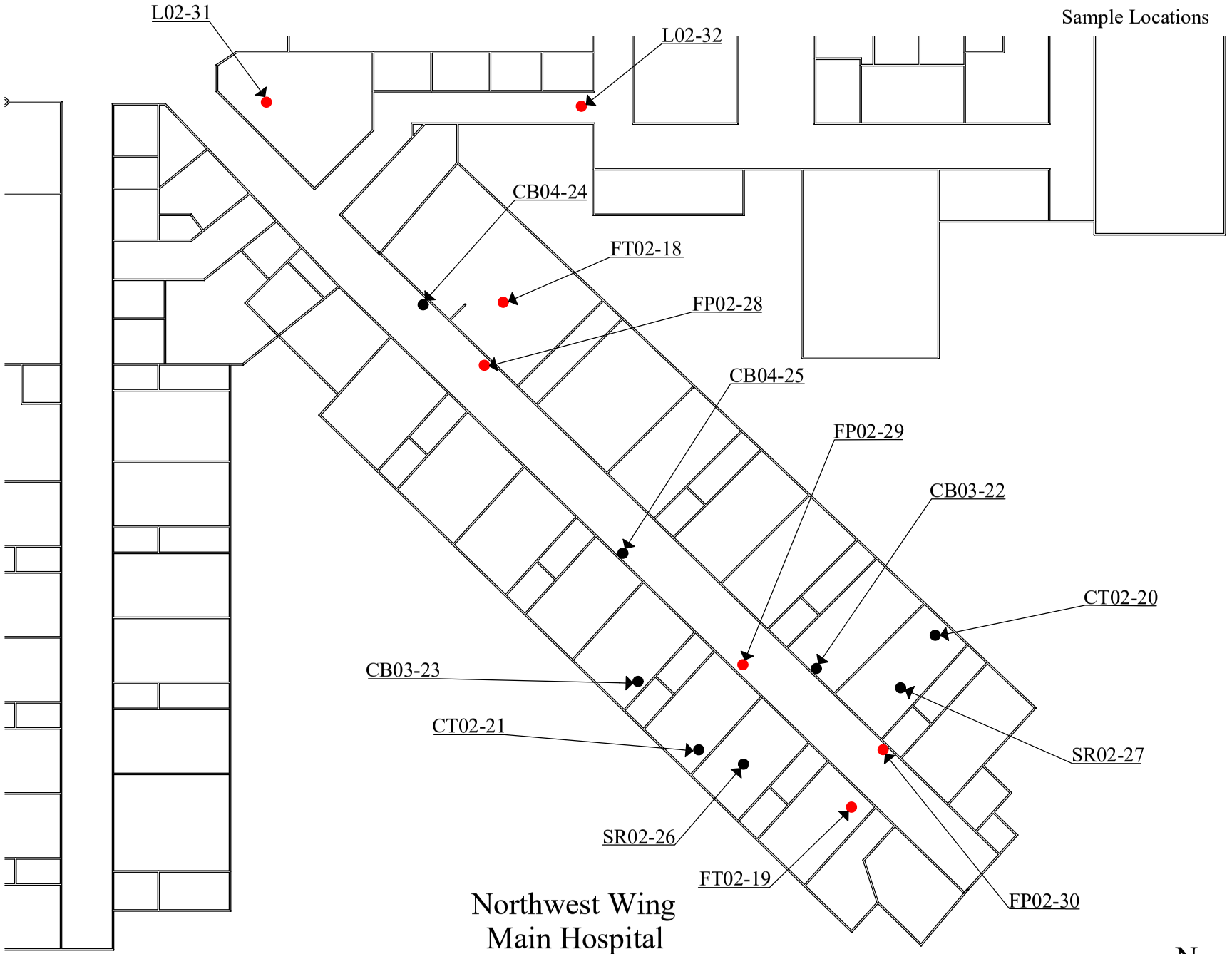
Sample Locations



North Wing
Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

N

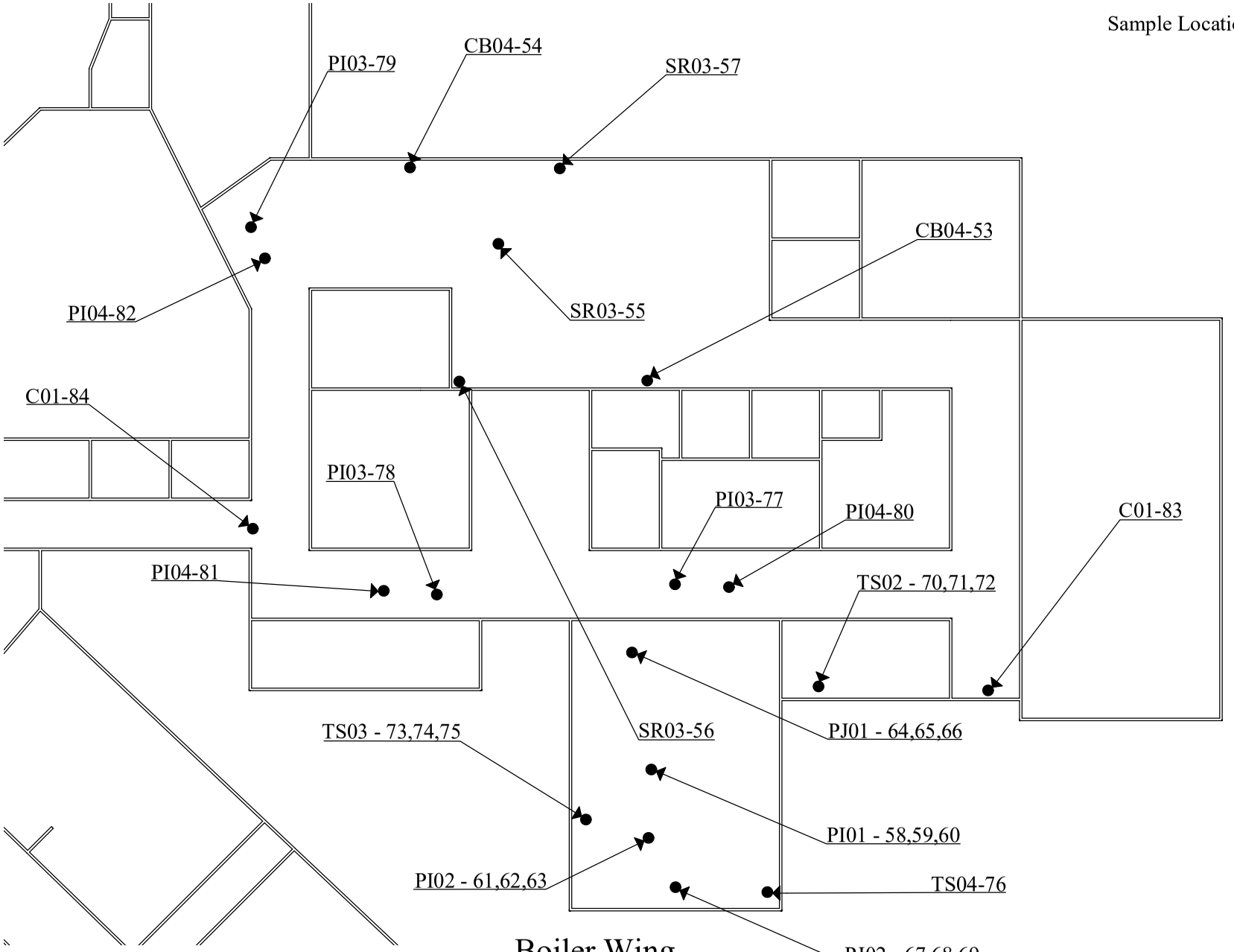
SEI, Inc.



Northwest Wing
Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

SEI, Inc.

Sample Locations

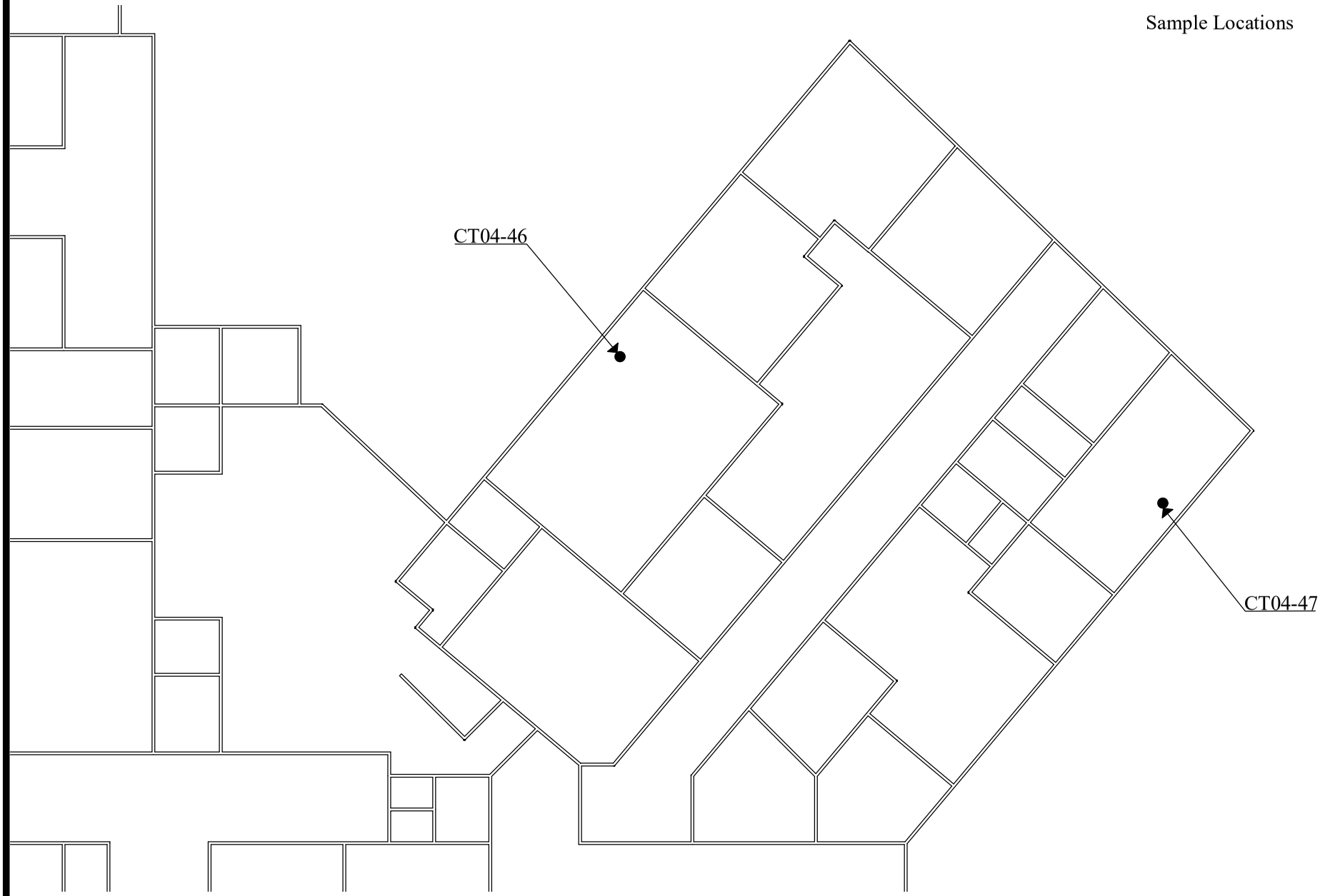


Boiler Wing
Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

SEI, Inc.

N

Sample Locations

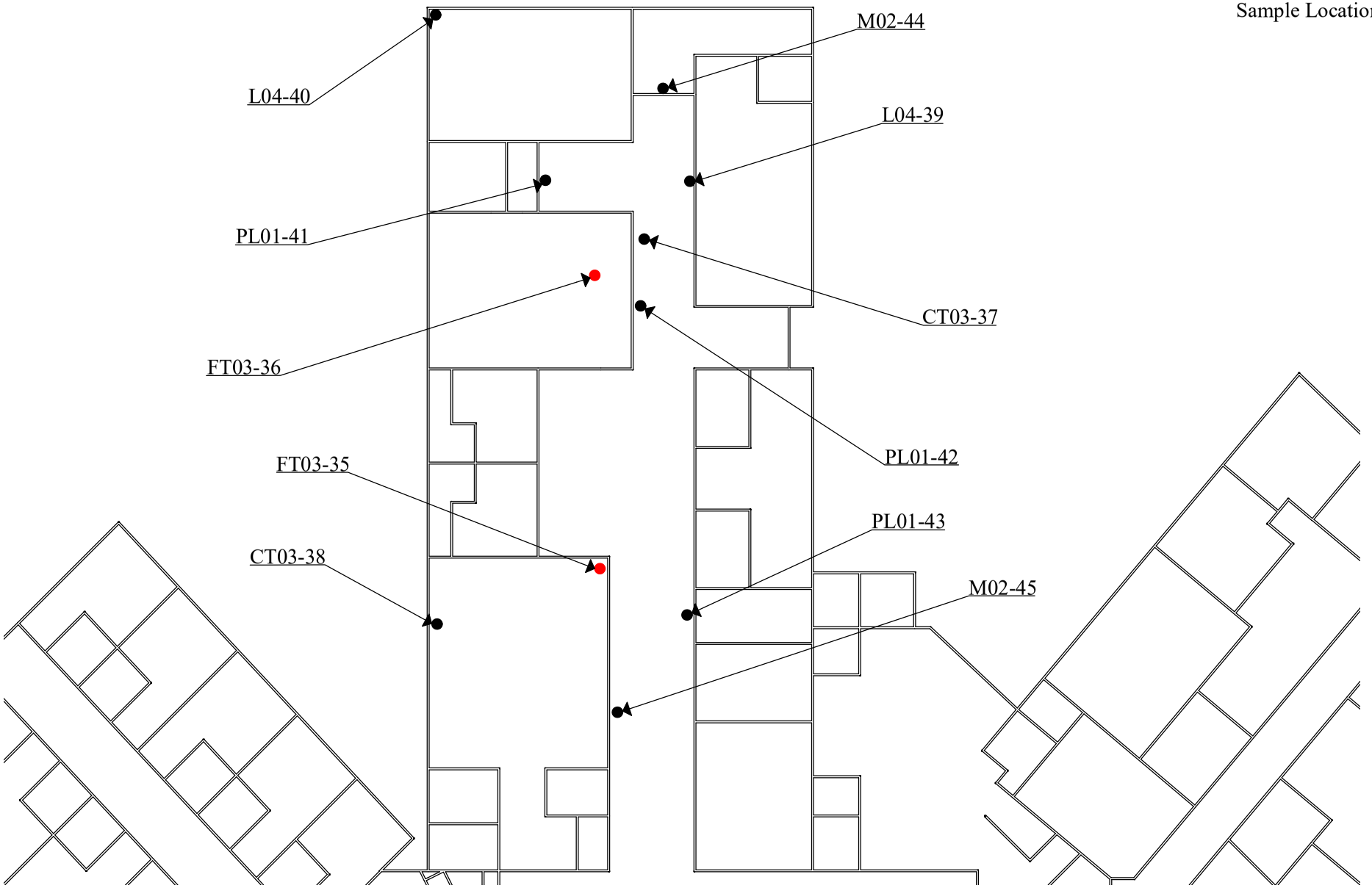


Administration Wing
Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

SEI, Inc.

N

Sample Locations

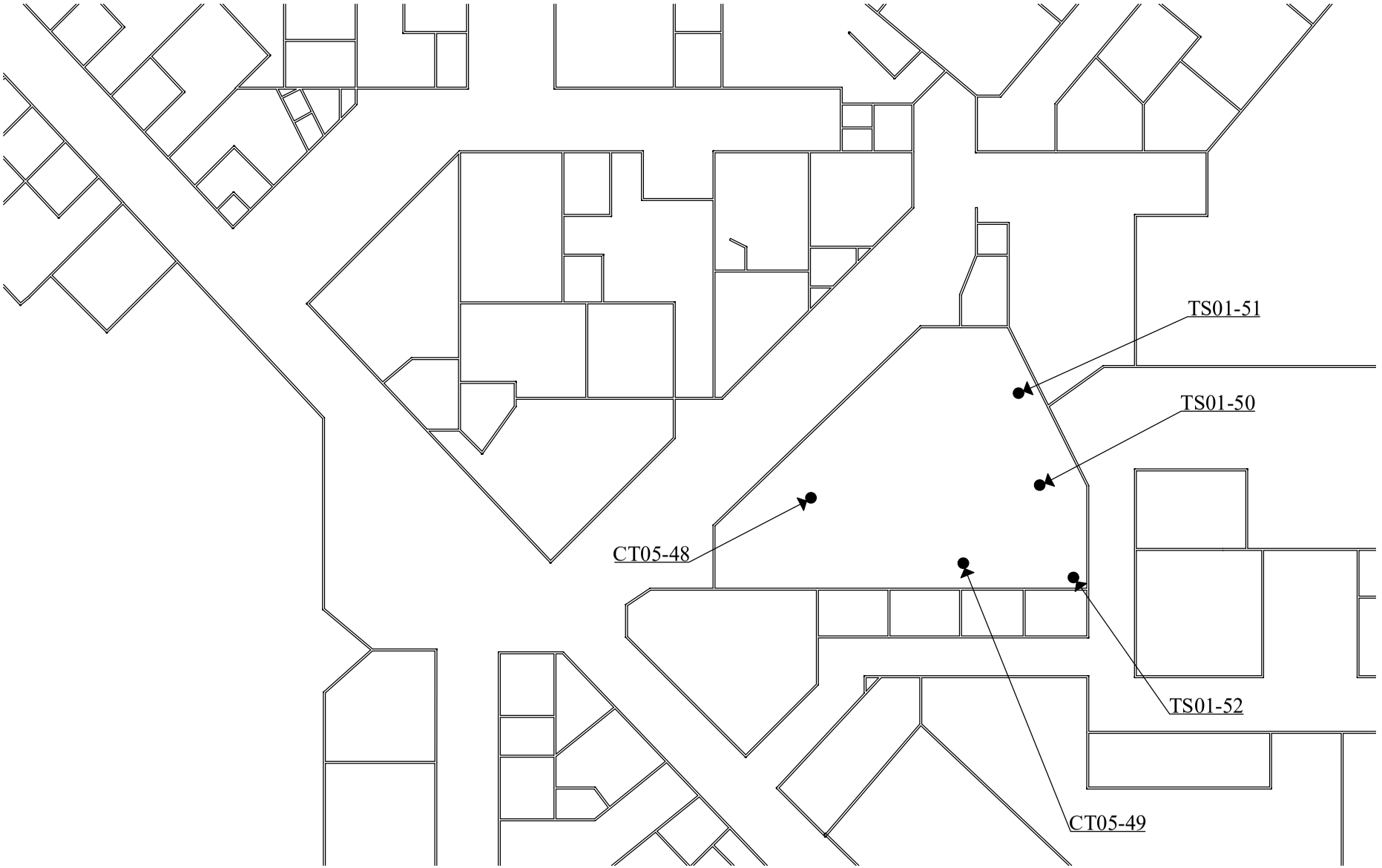


South Wing
Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

N

SEI, Inc.

Sample Locations

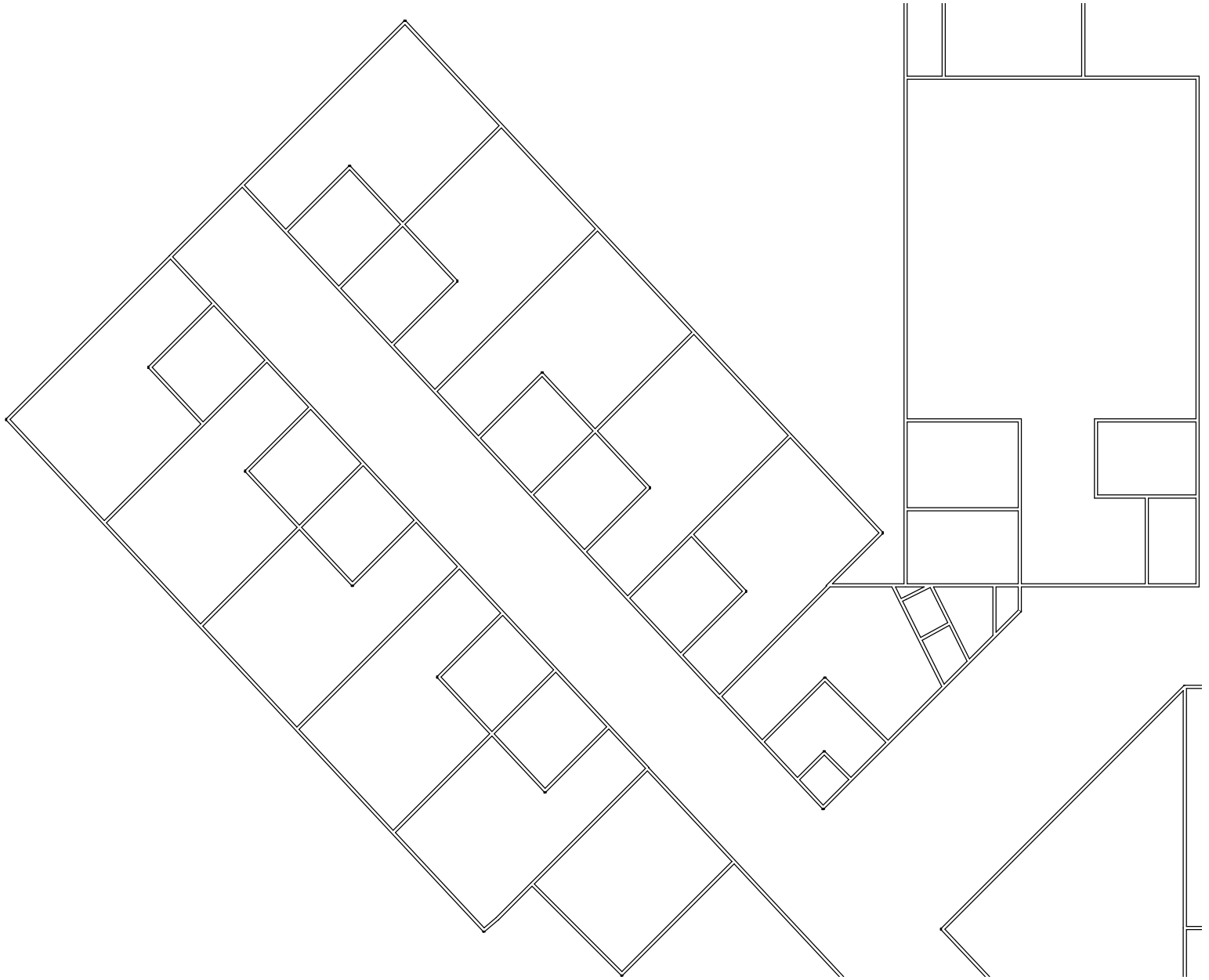


Center
Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

N

SEI, Inc.

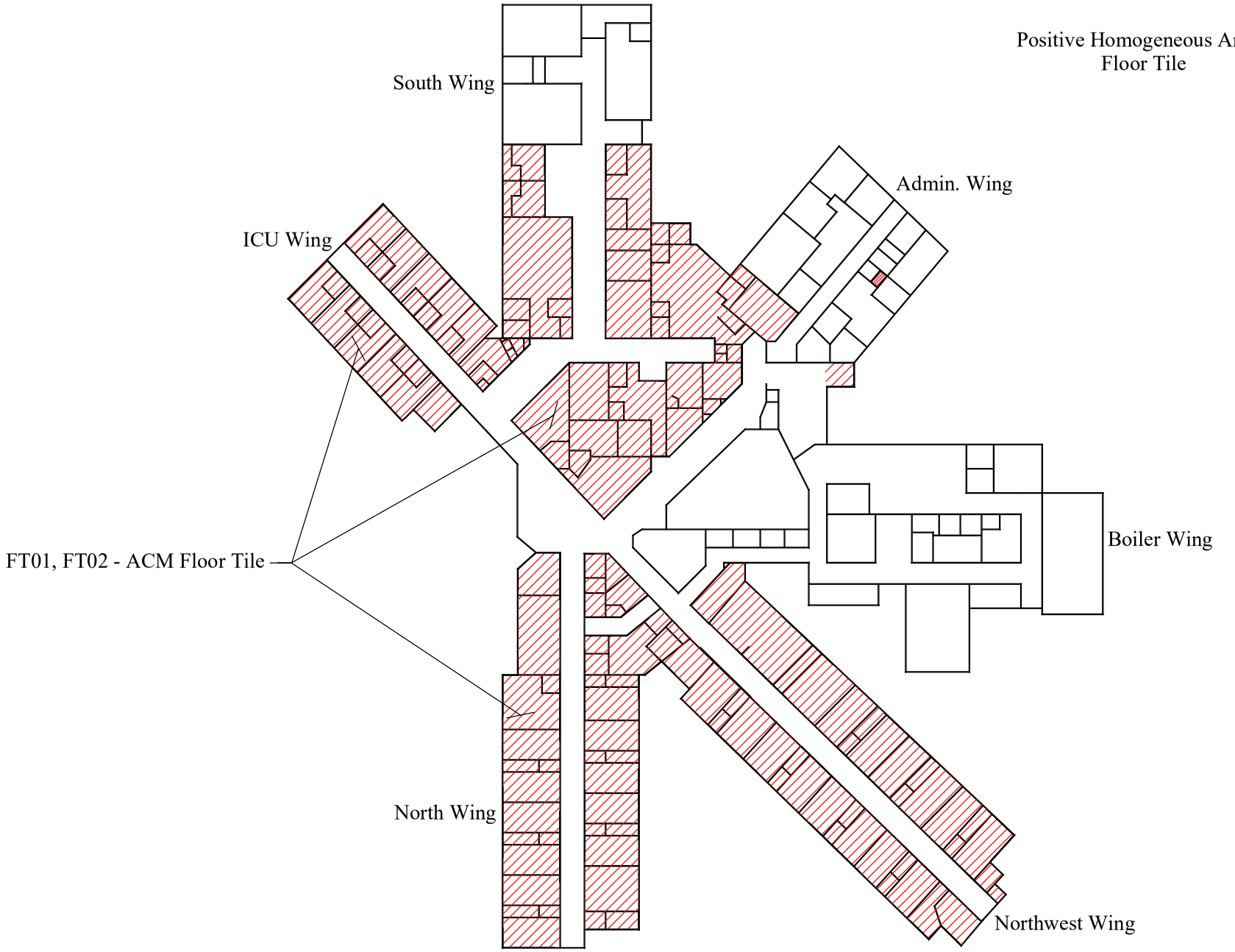
Sample Locations



ICU Wing
Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

N

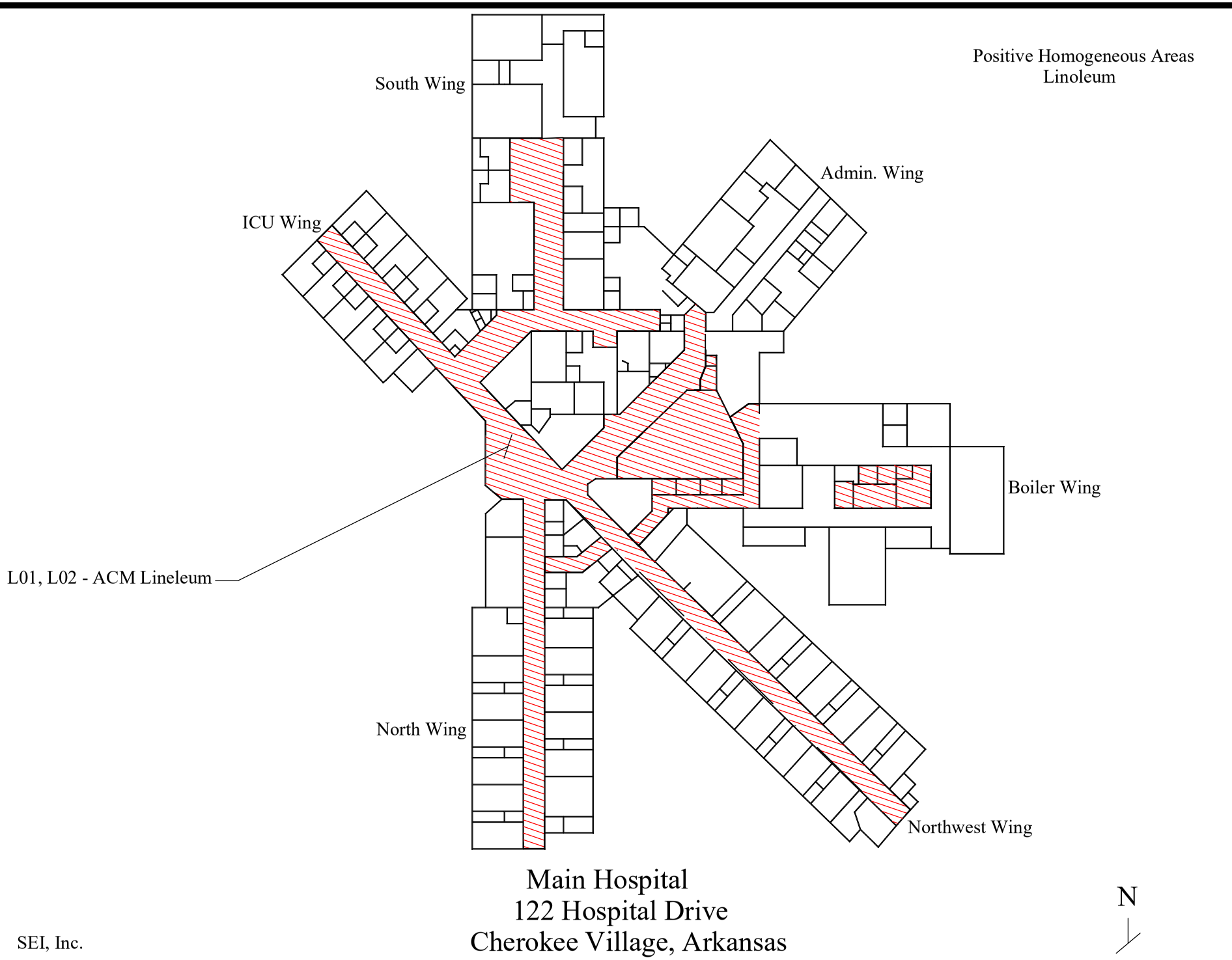
SEI, Inc.

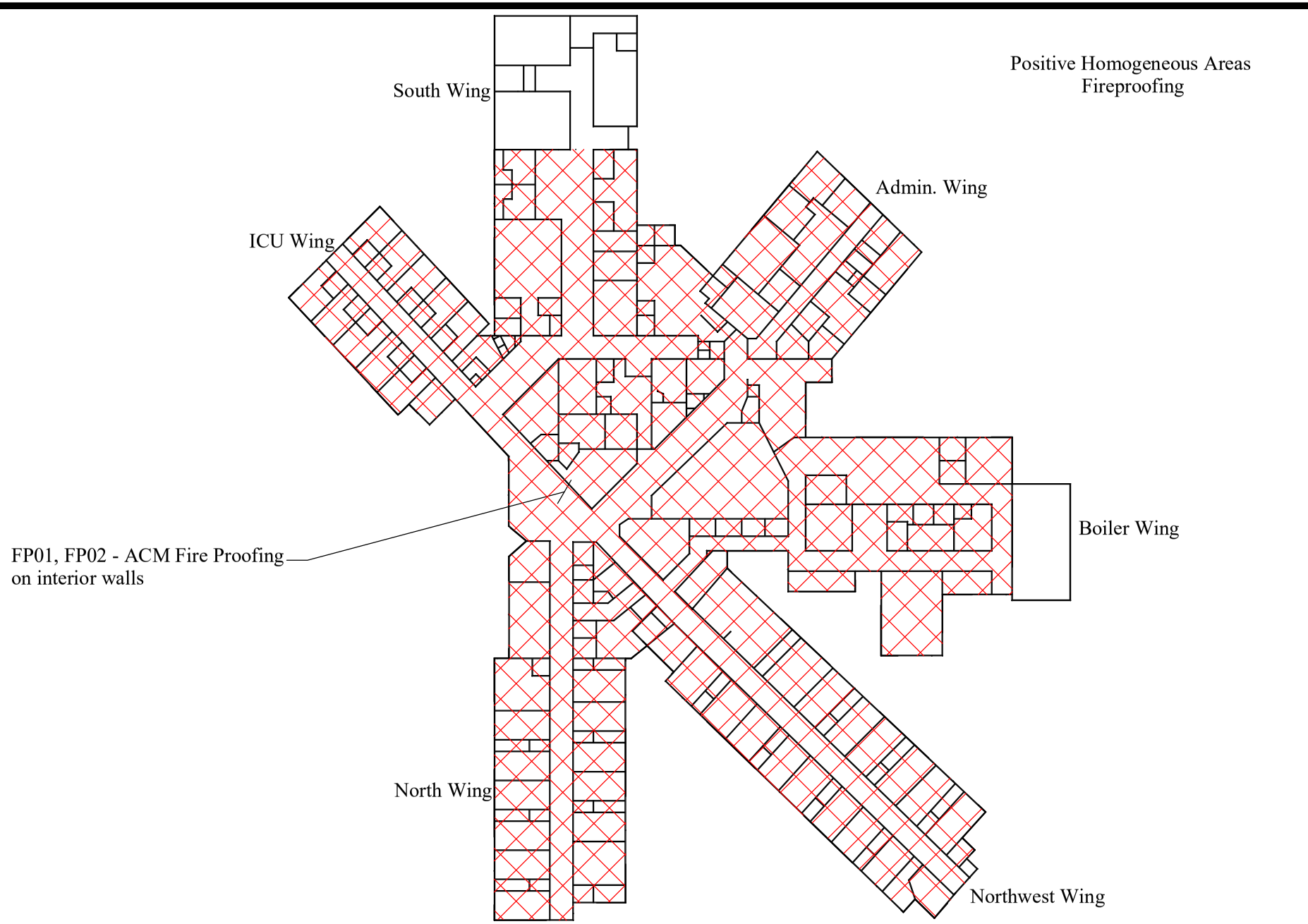


Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

N

SEI, Inc.


Positive Homogeneous Areas
Linoleum
South Wing
Admin. Wing
ICU Wing
Boiler Wing
L01, L02 - ACM Lineleum
North Wing
Northwest Wing
Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas
N
SEI, Inc.



Main Hospital
122 Hospital Drive
Cherokee Village, Arkansas

SEI, Inc.

N

COMPANY & INSPECTOR CERTIFICATIONS

Arkansas Department of Environmental Quality

SAFETY & ENVIRO INVESTIGATIONS

is a licensed

Asbestos Abatement Consultant

having qualified as required by law in accordance with the regulations adopted by the Arkansas Pollution Control and Ecology Commission's Regulation 21 pursuant to Arkansas Code Annotated §20-27-1001 et seq., relative to abatement of asbestos-containing material within the state of Arkansas.

License Number: 000260

Issue Date: 2016 December 28

Expire Date: 2017 December 30

Becky W. Keogh

Becky W. Keogh
ADEQ Director

Arkansas Department of Environmental Quality

011542 ROBERT W. ROBERSON

having satisfied the requirements necessary to meet the provisions of AHERA/ASHARA under TSCA Title II and the Arkansas Pollution Control and Ecology Commission's Regulation 21 and is hereby certified in the State of Arkansas in the discipline(s) of Asbestos

Air Monitor 10/19/2017

Inspector 10/20/2017

Management Planner 1/31/2017

Project Designer 4/30/2017

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

Issue Date:02-Nov-2016

Becky W. Keogh

Becky W. Keogh
ADEQ Director

Arkansas Department of Environmental Quality

000296 RICKY BARTON

having satisfied the requirements necessary to meet the provisions of AHERA/ASHARA under TSCA Title II and the Arkansas Pollution Control and Ecology Commission's Regulation 21 and is hereby certified in the State of Arkansas in the discipline(s) of Asbestos

Air Monitor 8/10/2017

Contractor/Supervisor 8/10/2017

Inspector 8/11/2017

Project Designer 8/16/2017

Issue Date:08-Sep-2016

Becky W. Keogh
ADEQ Director