Umstead Correctional Center

Building Assessment

Prepared for

The Town of Butner, North Carolina

12-18-19

Prepared by

Tony Conner

HagerSmith Design

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Executive Summary

This Conditions Assessment was prepared for the Town of Butner, NC as a tool for determining future work needed to bring the building into compliance with applicable codes as well as practical functionality. The report will also suggest other options for future development of the property.

Assessment of the existing conditions was carried out in October thru November of 2019 by professional staff of HagerSmith Design, PA, Bass Nixon and Kennedy, Legacy Builders, and previously by Brumbaugh – Herrick, Inc.

There are basically nine individual buildings on this site with a couple of ancillary spaces. Four of the buildings are connected with covered walkways. Two of the buildings are residential dwellings. For use in this report, the buildings will be referred to by numbers, One - Nine. Reference the aerial map for numbering.

Buildings one and two, residential dwellings, are both Type V (wood) building types. Building one residence is clad with wood siding, masonry and an asphalt shingle roof. Building two of the residence structures is brick veneer with a small wood sided porch and an asphalt shingle roof.

Buildings three and four are Type V (wood and masonry) building types. Each of these buildings have load bearing masonry exterior walls and wood framed/truss roof structures. The roof appears to have been a built-up roof system. Both of these buildings are also in extremely poor condition and are dangerous as they sit today.

Building five, the Shop/Facilities building is a Type II (non-combustible construction) building type. It is comprised of masonry exterior walls and steel truss roof supports with a flat membrane roof.

Building six, the gymnasium/classroom building is a Type II (non-combustible construction) building type. Is has masonry walls, steel roof trusses/joist and a membrane roof. This building has a large gymnasium floor (VCT tile) and smaller spaces surrounding the floor.

Building seven, eight and nine are presumable Type V (some wood framing) building types. These buildings have masonry walls and metal roof joist. These building have a fairly new metal roof system. It is unknow how the new metal roof system installed by the State was built but we suspect there is wood framing supporting the metal.

None of the building listed above are sprinkled but some do have new fire alarm wiring without any devises. The buildings had been heated with a central boiler system and there were a few older chillers. The residence buildings were heated and cooled with split system heat pumps.

Specific Building Observations

Residence #1

Walls, Windows and Doors

The exterior wall construction for this structure consist of wood siding and masonry end walls. The windows are wood framed with single pane glass. The doors are wood and wood louver doors. The wood siding is in fair condition and the brick portions of the wall are in good condition. The windows and doors are in poor condition and are showing signs of water damage and decay. Signs of water leakage is evident at the window/frame connections and at the floor level of the exterior doors.

Floor

The floor appears to be a concrete slab on grade with a tile floor. No specific comments were noted.

Roof

The roof is an asphalt shingle roof that is showing signs of failure. Debris and shingle deformities are evident on the roof. Our team was not able to gain access inside the building but based on the teams through the window visual inspection there were some signs of leakage, but no major leaks were observed.

Overall assessment

This structure is in immediate need of repairs. It is unclear what damage may exist in the floor system or in the interior framing. A complete interior gut will most likely have to take place in order to mediate the mold and mildew damage. All door and windows will have to be replaced and a new roof, including some underlayment will also have to be replaced in order to save the structure from further decay. Further inspections will be required to ensure no termite damage exist.

Photographs

Images of this structure are on the next 2 pages.


CONDEMNED

Residence #2

Walls, Windows and Doors

The exterior wall construction for this structure consist of brick and wood siding. The windows are wood framed with single pane glass. The doors are wood. The wood siding is in poor condition and the brick portions of the wall are in fair to good condition. The windows and doors are in poor condition and are showing signs of water damage and decay. Signs of water leakage is evident at the window/frame connections. The exterior doors are in poor condition due to water damage and lack of maintenance.

Floor

The floor system is wood framed over a crawl space. The floor is in extremely poor to non-existent condition. Due to water intrusion the floor system is not safe or usable. There are major holes in the floor and the remaining floor system is close to collapse.

Roof

The roof is an asphalt shingle roof that is failing. Debris and shingle deformities are evident on the roof. Our team was not able to gain access inside the building but based on the teams through the window visual inspection there were some major signs of leakage.

Overall assessment

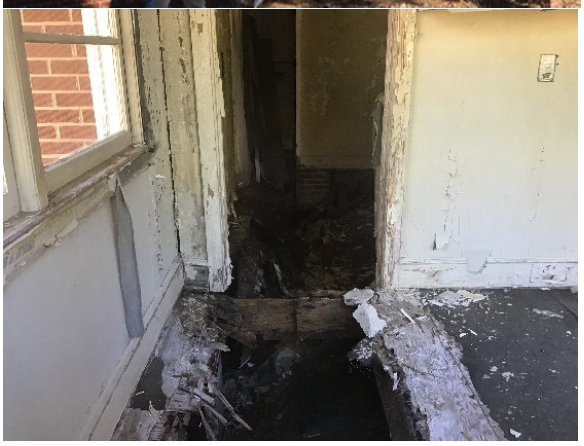
This structure is beyond practical repair and should be demolished.

Photographs

Images of this structure are on the next 2 pages.








Dormitory #3 and #4

Walls, Windows and Doors

The exterior wall construction for this structure is load bearing masonry. The windows are metal framed with single pane glass. The doors are wood and metal. The windows and doors are in poor condition and are rusting or have water damage. Signs of water leakage is evident at the window/frame connections. The exterior doors are in poor to non-existent condition. Generally, the exterior wall is in fair condition although signs of water intrusion are evident.

Floor

The floor system is a concrete slab on grade with tile floors. The condition of the slab is unknown due to the amount of building debris from furnishings and the roof. The tile has been soaked with water and is no longer adhered to the slab.

Roof

The roof is an asphalt built up roof. The roof has failed and has collapsed in many locations. In locations that have not collapsed the wood structure is beyond the point of repair and will need to be replaced.

Overall assessment

These structures are beyond practical repair and should be demolished.

Photographs

Images of this structure are on the next 3 pages.











Shop and Facilities #5

Walls, Windows and Doors

The exterior wall construction for this structure consist of brick and block. The windows are aluminum framed with insulated pane glass. The doors are storefront and metal. The windows and doors are in fair condition and are rusting or have water damage. Signs of water leakage is evident at the exterior wall/roof intersection and interior to the roof in several places. The exterior sectional doors are in poor condition. Generally, the exterior wall is in fair condition although signs of water intrusion are evident.

Floor

The floor system is a slab on grade and is in generally good condition except for being wet from the various leaks in the roof and walls.

Roof

The roof is a membrane roof of some type. The structure for the roof is steel joist and is a single slope to the rear. Signs of water leakage is evident at the exterior wall/roof intersection and interior to the roof in several places.

Overall assessment

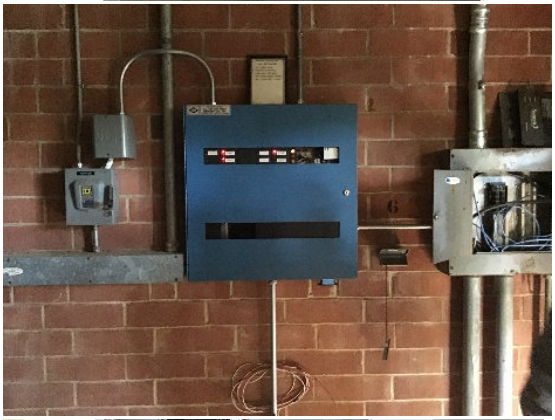
This structure is in fair condition and could be repaired for future use. Mold and mildew remediation must occur once any leaks have been repaired.

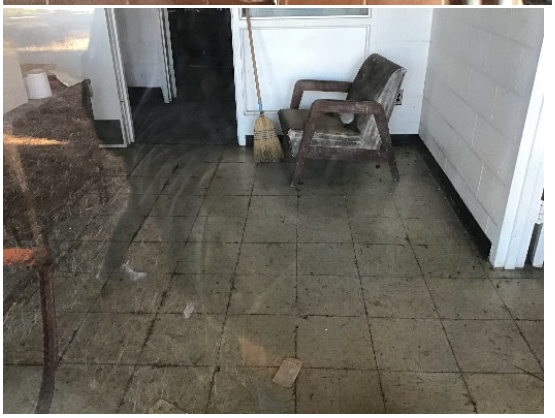
Photographs

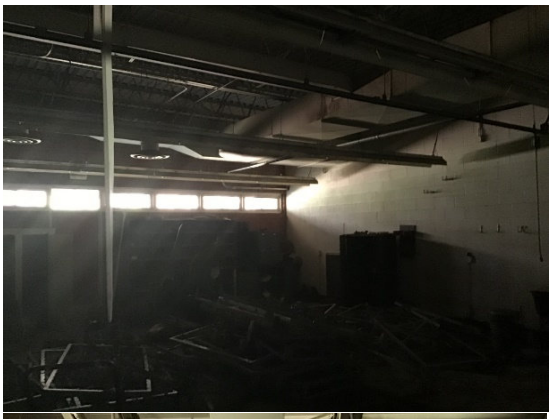
Images of this structure are on the next 2 pages.













Gymnasium #6

Walls, Windows and Doors

The exterior wall construction for this structure consist of brick and block with a metal panel soffit facia. The windows are metal, and aluminum framed with mostly insulated pane glass. The doors are hollow metal and metal. The windows and doors are in fair condition with some insulated glass panels that have broken seals. Generally, the exterior wall is in fair condition although signs of water intrusion are evident. There are several areas of the soffit that the facia has fallen off and has been exposed to the weather for some time. These areas will have to be repaired or completely replaced.

Floor

The floor system is a slab on grade and over the mechanical tunnel/crawl space system and is in generally good condition. There is a mix of terrazzo and VCT tiles that make up the floor finish.

Roof

The roof system is a membrane of some type, most likely EPDM/TPO and built up roof combination. The structure for the roof is steel joist. The roof is leaking in some areas throughout the building. Insulation will most likely have to be replaced due to moisture content during any roof replacement.

Overall assessment

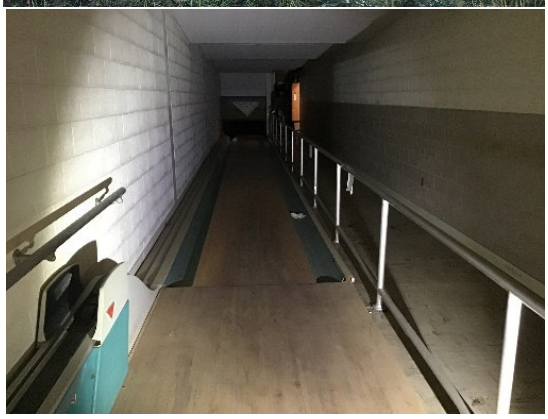
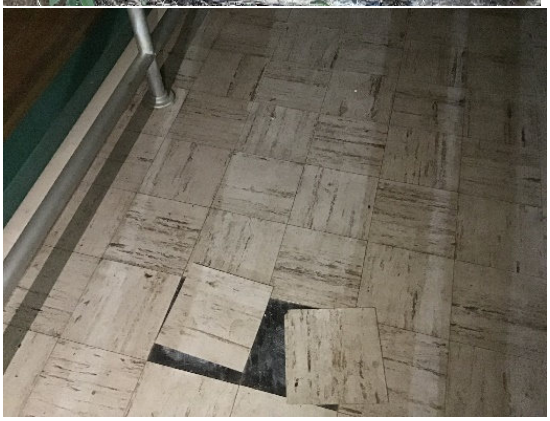
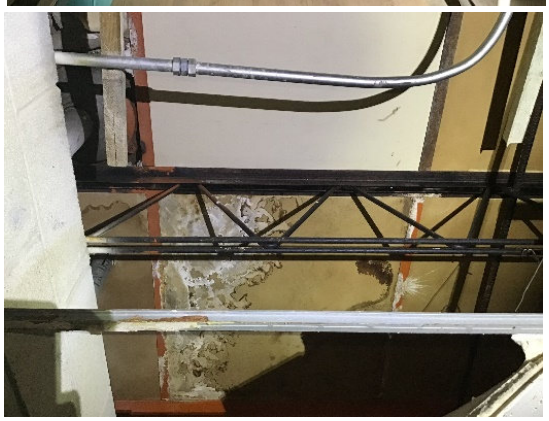
This structure is in fair condition and could be repaired for future use. Mold and mildew remediation must occur once any leaks have been repaired.

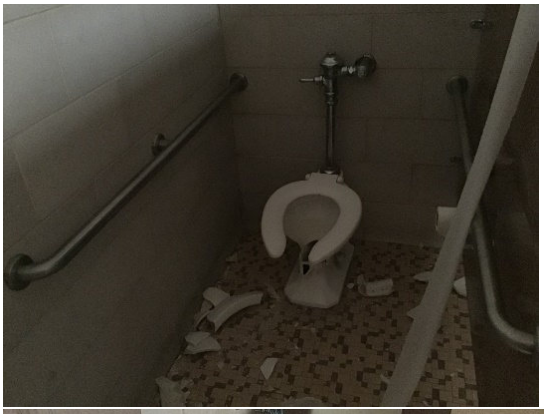
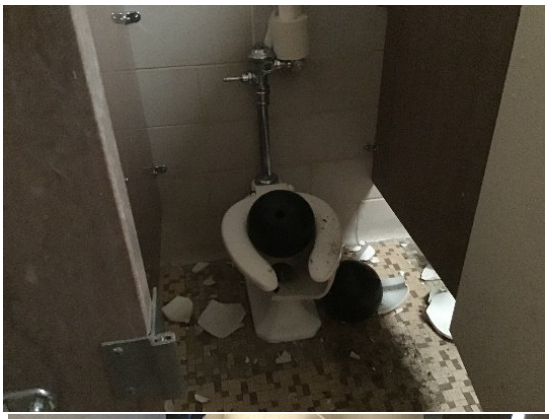
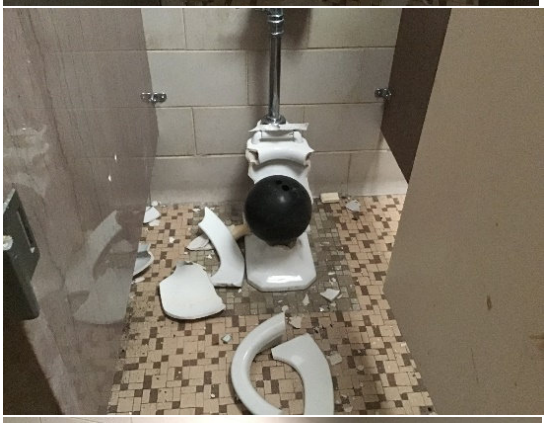
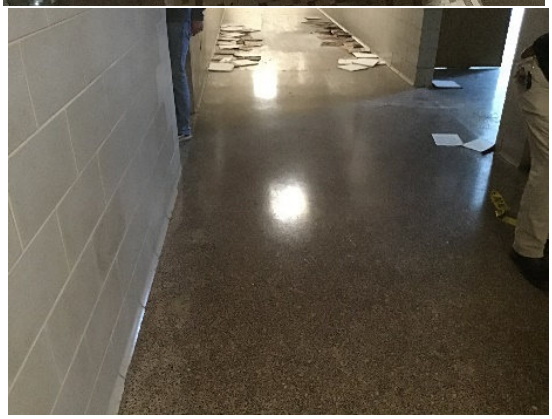
Photographs

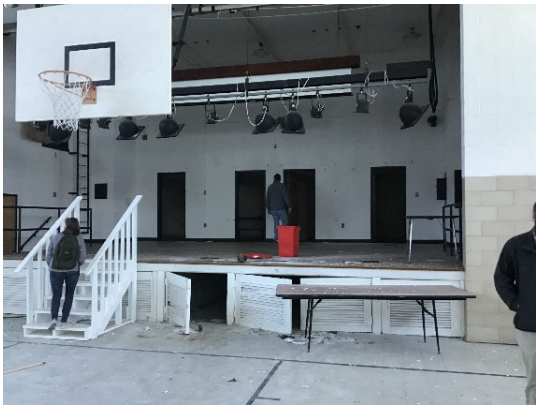
Images of this structure are on the next 4 pages.

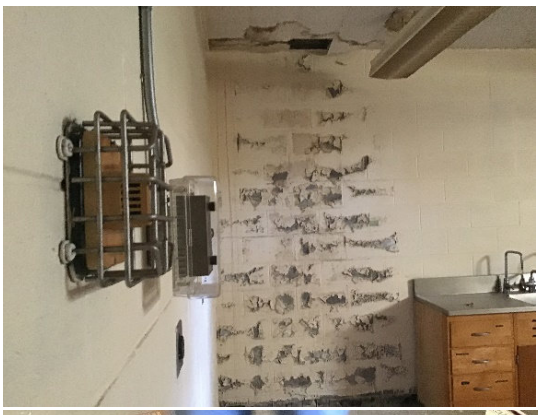


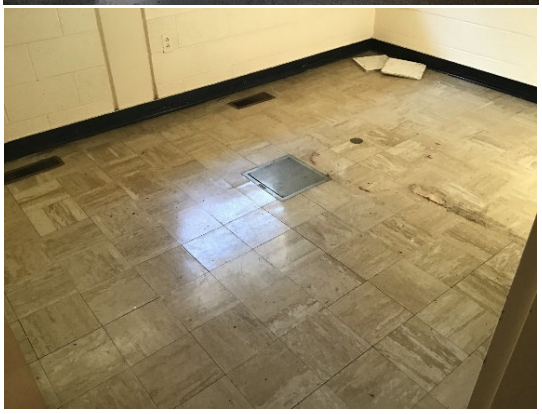


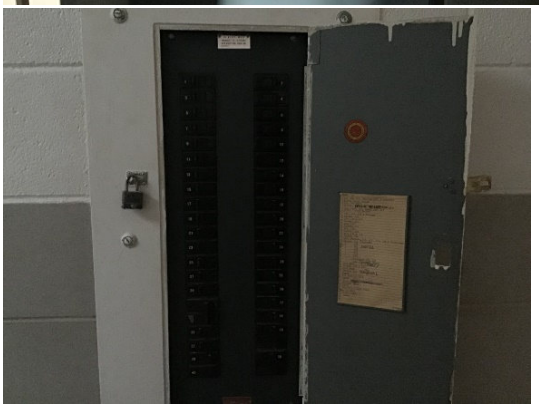





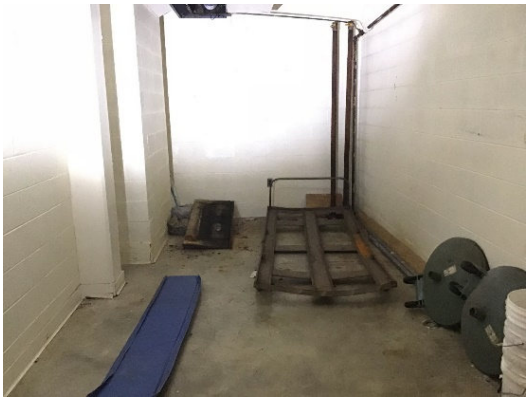





Dormitory #7

Walls, Windows and Doors

The exterior wall construction for this structure consist of brick and block. The windows are metal framed with non-insulated pane glass. The doors are hollow metal and metal. The windows and doors are in poor condition with signs of water and rust damage. Generally, the exterior wall is in fair condition although signs of water intrusion are evident.

Floor

The floor system is an elevated slab and over a partial crawl space and is in generally good condition. There are VCT tiles that make up the floor finish.

Roof

The roof system has been capped with a metal roof system. The framing for this roof is unknown but is probably wood framing. Our opinion is that the original built up roof system still exist under the new metal roof installation.

Overall assessment

This structure is in fair condition and could be repaired for future use. There is evidence of water damage throughout the building. This damage most likely occurred prior to the installation of the new metal roof. Mold and mildew remediation must occur once any leaks have been repaired.

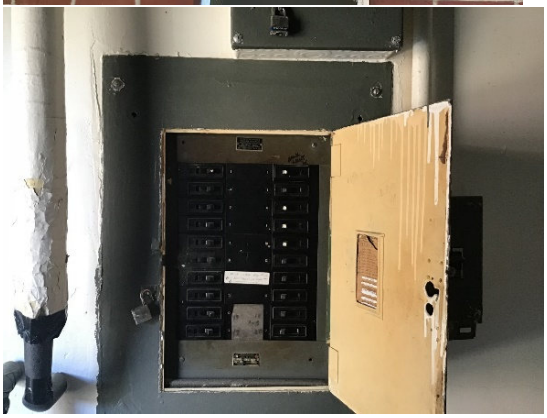
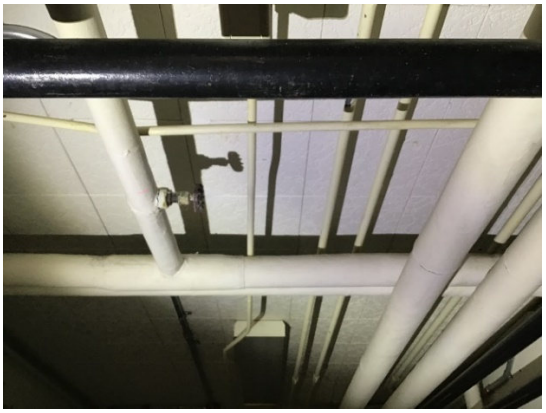
Photographs

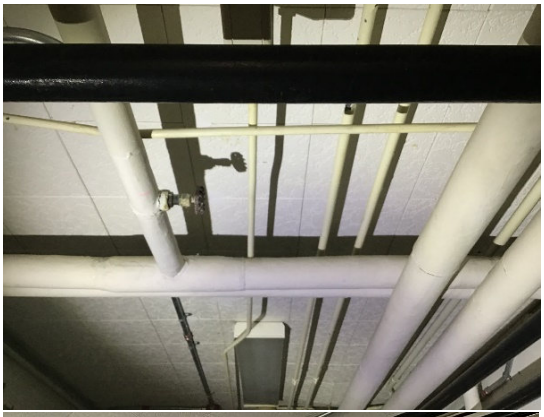
Images of this structure are on the next 3 pages.



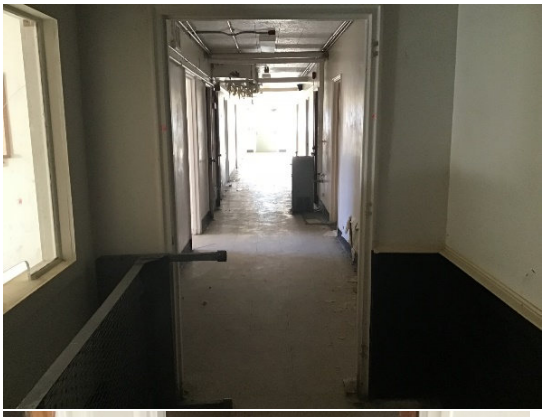











Administration/Classroom #8

Walls, Windows and Doors

The exterior wall construction for this structure consist of brick and block. The windows are metal framed with non-insulated pane glass. The doors are hollow metal and metal. The windows and doors are in poor condition with signs of water and rust damage. Generally, the exterior wall is in fair condition although signs of water intrusion are evident.

Floor

The floor system is an elevated slab and over a partial crawl space and is in generally good condition. There are VCT tiles that make up the floor finish. There are several windows that have been broken and remain open.

Roof

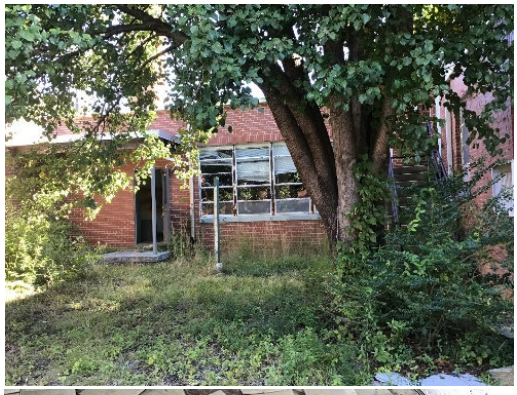
The roof system has been capped with a single sloped metal roof system. The framing for this roof is unknown. Our opinion is that the original built up roof system still exist under the new metal roof installation.

Overall assessment

This structure is in fair condition and could be repaired for future use. There is evidence of water damage throughout the building. This damage most likely occurred prior to the installation of the new metal roof. Mold and mildew remediation must occur with any repairs.

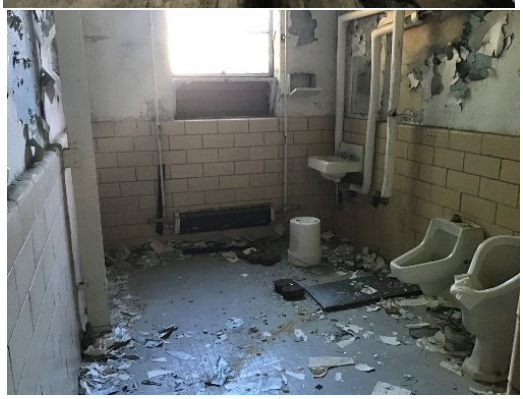
Photographs

Images of this structure are on the next 4 pages.











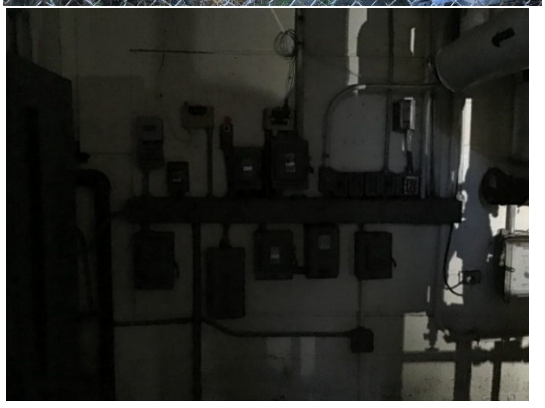













STAY
AWAY


EXIT

Dormitory #9

Walls, Windows and Doors

The exterior wall construction for this structure consist of brick and block. The windows are metal framed with non-insulated pane glass. The doors are hollow metal and metal. The windows and doors are in poor condition with signs of water and rust damage. Generally, the exterior wall is in fair condition although signs of water intrusion are evident.

Floor

The floor system is an elevated slab and over a partial crawl space and is in generally good condition. There are VCT tiles that make up the floor finish.

Roof

The roof system has been capped with a metal roof system. The framing for this roof is unknown but is probably wood framing. Our opinion is that the original built up roof system still exist under the new metal roof installation.

Overall assessment

This structure is in fair condition and could be repaired for future use. There is evidence of water damage throughout the building. This damage most likely occurred prior to the installation of the new metal roof. Mold and mildew remediation must occur once any leaks have been repaired.

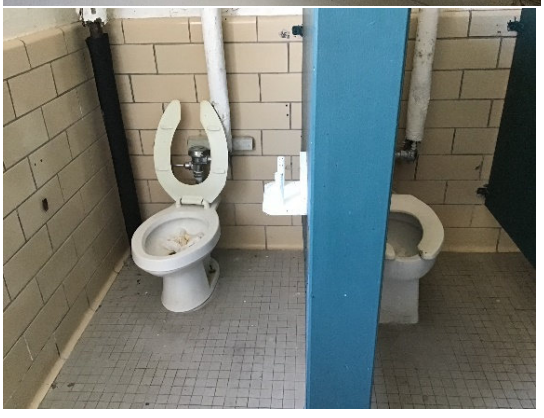
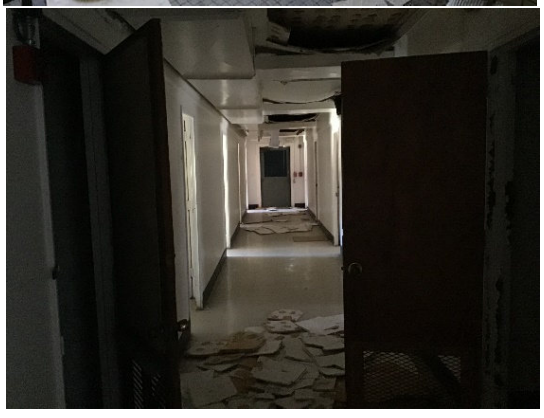
Photographs

Images of this structure are on the next page.







Structural Assessment

Based on our visual walk-thru for the buildings we offer the following opinions regarding structural soundness. The following comments are broken down per individual structure.

Residence #1

Our team was not allowed access to this structure but based on our visual inspection from outside there appeared to be minimal water damage to structural elements. However, a thorough inspection will have to be performed in order to assess the structure from a termite activity perspective. The floor is a slab on grade. The rest of the structure is wood framing and wood trusses.

Residence #2

Our team was not allowed access to this structure but based on our visual inspection from outside there appeared to be major water damage to structural elements. This residence is a conventionally built residential wood structure. There has been catastrophic damage done to the roof, floor and walls. This building is unsafe and not structurally sound.

Dormitory #3

Our team was not allowed access to this structure but based on our visual inspection from outside there appeared to be major water damage to most components of the building. This building has structural load bearing exterior walls and a concrete slab on grade floor. The roof construction is wood with a built-up roof membrane. There has been catastrophic damage done to the roof and interior walls due to the failure of the roof. This building is unsafe and not structurally sound.

Dormitory #4

Based on our visual inspection there was major to most components of the building. This building has structural load bearing exterior walls and a concrete slab on grade floor. The roof construction is wood with a built-up roof membrane. There has been catastrophic damage done to the roof and interior walls due to the failure of the roof. This building is unsafe and not structurally sound.

Shop/Facilities Building #5

Based on our visual inspection there were no major deficiencies to structural elements. This building has structural load bearing exterior walls, a concrete slab on grade floor and a light-weight steel frame with bar joist. While there has been water infiltration into the building the materials used for the structure have not sustained substantial damage.

Gymnasium/Classroom #6

Based on our visual inspection there were no major deficiencies to structural elements. This building has structural load bearing interior and exterior walls, a concrete slab on grade floor and metal bar joist roof supports. While there has been water infiltration into the building the materials used for the structure have not sustained substantial damage. An inspection was not conducted in the tunnel system/crawl space that is under the building, but no significant settlement was found.

Dormitory #7

Based on our visual inspection there were no major deficiencies to structural elements. This building has structural load bearing interior and exterior walls, a concrete slab on grade floor and metal bar joist roof supports. While there has been water infiltration into the building the materials used for the structure have not sustained substantial damage. An inspection was not conducted in the crawl space under the building, but no significant settlement was found.

Administration/Classroom Building #8

Based on our visual inspection there were no major deficiencies to structural elements. This building has structural load bearing interior and exterior walls, a concrete slab on grade and elevated floor and metal bar joist roof supports. While there has been water infiltration into the building the materials used for the structure have not sustained substantial damage. An inspection was not conducted in the crawl space under the building, but no significant settlement was found.

Dormitory #9

Based on our visual inspection there was no major deficiencies to structural elements. This building has structural load bearing interior and exterior walls, a concrete slab on grade floor and metal bar joist roof supports. While there has been water infiltration into the building the materials used for the structure have not sustained substantial damage. An inspection was not conducted in the crawl space under the building, but no significant settlement was found.

Electrical, Mechanical and Plumbing Assessment

Based on our visual walk-thru for the buildings we offer the following opinions regarding Electrical, Mechanical and Plumbing systems. The following comments are not broken down per individual structure. These are blanket statements for all buildings. These opinions are based on experience working with existing systems of these types in buildings of this age and condition.

Electrical Systems

All electrical systems should be demolished and rebuilt to current code and safety standards from the service point (Power company transformer). This opinion is based on the condition of the existing systems observed and the conditions, or non-conditions, that the systems have been kept.

Mechanical Systems

There are no mechanical systems that are salvageable. All boilers, chillers, heat pumps and related equipment will have to be demolished and replaced with code compliant systems. In addition to the actual mechanical units, all ductwork and associated piping will have to be replaced as well. This opinion is based on the age of the inactive systems and the conditions, or non-conditions, that the systems have been kept.

Plumbing System

All plumbing fixtures should be replaced. A detailed investigation should be run regarding the main drain lines to the SGWASA sewer system. Our experience has shown that the probably cast-iron pipes (they could be clay tile) that serve these structures has degraded beyond repair. The waterlines that serve the structures are, in our opinion also no longer serviceable and should be replaced.

Summary

All electrical, mechanical and plumbing systems will be required to be rebuilt from scratch to serve the building in a safe and code compliant manner.

Hazardous Materials Survey Report	Attachment A
Gymnasium Roof Condition Assessment	Attachment B
Gymnasium Roof Replacement Quote	Attachment C
Campus Demolition Quote	Attachment D

Conclusion

Based on the assessment teams finding, our opinions are as follows:

Buildings #1, #2, #3 and #4 are beyond the point of practical renovation. These buildings would best be demolished to regain the land that they currently sit on. Of the 4 buildings listed, building #1 has the most potential to be saved, however it would take significant renovations to render the building habitable. We estimate an investment of approximately $175,000 to $200,000 to renovate this building up to a point that it could be considered as a rental property. Building #2 has reached the point of no return in the team's opinion. It is not practical to spend any funds to save the structure. Building #3 and #4 are also beyond practical renovations. The renovation cost for these buildings is approximately between $250 and $275 per square foot. New buildings of this same square footage would cost approximately $200 to $250 per square foot. **The total investment to renovate buildings #3 and #4 would be approximately $3,353,600. Two new buildings of the same square footage would be approximately $2,880,000.**

Building #5, the Shop/Facilities Building is arguably the building that has the most potential, as it sits. The renovation of this building would include a roof replacement at a cost of approximately $50,000. In addition to the roof replacement we estimate a renovation cost of $100 to $125 per square foot. This estimate includes renovation to bring the building back to its original use. **The total investment for this building would be approximately $675,000.**

Buildings #6, #7, #8 and #9 are in fair condition and could be renovated for approximately $250 to $300 per square foot, depending the type of mechanical system installed. The main issue with these buildings is that the load barring walls will adversely affect the future layout of the space. Due to this inflexibility it would be very difficult to upfit spaces that could effectively be used. In addition, the common space created by the large corridors and open areas would drive the rental factor too high to be sustainable. The total square footage of these buildings is approximately 61,000 square feet. **The total investment to renovate these buildings would be approximately $16,775,000.**

The total to renovate all buildings except building #2 would be approximately $21,000,000.

The total investment to demolish the structures listed above would be approximately $695,000 plus asbestos remediation.

Assuming the Town could lease the leasable spaces for $13 per square foot, not including investment cost, management and upkeep, the annual income would be approximately $624,000. At that rate it would take **35 + years** for the investment to break even.

It is the Assessment Team's opinion that it would be in the best interest of investment to demolish the buildings on the campus. This could be done in one of two ways. Either the Town could demolish the buildings and develop Town owned uses for the site, or the Town could develop an RFP for developers to respond to. The RFP could require the developer to demolish the buildings prior to development of the site.

This concludes the assessment for the Umstead Correctional Center Campus,

Tony Conner

President

HageSmith Design

Attachment A

FACILITY ASBESTOS INSPECTION REPORT

For:

Umstead Correctional Center
Facility Name

4255
Facility Number

April, 1996
Date of Inspection

This inspection was conducted by an inspector accedited in the State of North Carolina.

Inspection and Report by:

Jeffrey P. Kramer — 11351 Accreditation # — signature

Brumbaugh-Herrick, Inc.
3861 Monroe Street
Toledo, OH 43606

BHI
Brumbaugh-Herrick, Inc.
3861 Monroe Street Toledo, Ohio 43606 Tel (419)475-1253 Fax (419)475-0163

MEMORANDUM

To: Mr. Joseph A. Simpson
Director, Safety & Environmental Health
NC Department of Correction

From: Jeff Kramer
Brumbaugh-Herrick, Inc.

Subject: **Umstead** Building List Update

Old List		New List
Administration Bldg.	----------OK----------	Administration Bldg.
Staff Housing	------Now Known As-------	Staff Housing A
Staff Housing	------Now Known As-------	Staff Housing B
Industrial Arts Bldg.	------Now Known As-------	Maintenance Shop
Supt's House	----------OK----------	Supt's House
Wood Bldg./Gym	----------OK----------	Wood Bldg.
Warehouse	----------OK----------	Warehouse
Duplex 1-2	----------OK----------	Duplex 1-2
	Also Add:	A Dormitory
		B Dormitory

Asbestos Inspection Survey Report - Umstead Correctional Center

Introduction

This work is being performed by Brumbaugh-Herrick, Inc. under contract to the North Carolina Department of Correction. The purpose of this inspection is to identify the Asbestos Containing Building Materials (ACBM) in all pre-1981 buildings at the Umstead facility for compliance with the OSHA asbestos standards 29 CFR 1910.1001 and 29 CFR 1926.1101. The information obtained from this report may subsequently be used to help reduce the risk of potential asbestos exposure to employees. Sampling and analysis were conducted in accordance with the state of the art inspection methods detailed in the EPA AHERA asbestos regulation [40 CFR 763 Subpart E-763.80 - 763.99] as referenced in the OSHA standard for General Industry 1921.1001 (j)(8)(ii)(B).

Summary of Results

This is the report for the asbestos inspection survey which was conducted on April 8th, 1996 at the Umstead Correctional Center in Butner, North Carolina. Certain materials were found to contain asbestos in parts of the facility. A table which lists these materials follows this page. Color coded drawings show the location of these materials in buildings larger than 2,500 square feet.

The materials are identified by building, room or location, an assigned homogeneous area identification number, the type and quantity of material, the percentage of asbestos they contain, the condition of the material and whether it is friable or non-friable. A glossary of the Type of Material Codes is an appendix to this report. A homogeneous area is the location of a material which is uniform in color, texture, size and time of installation. The condition of the material is rated as Good, Fair or Poor. Friability is a term used to describe whether a material may be crumbled or reduced to powder by hand pressure.

Unstead Correctional Center
Confirmed Asbestos Containing Materials

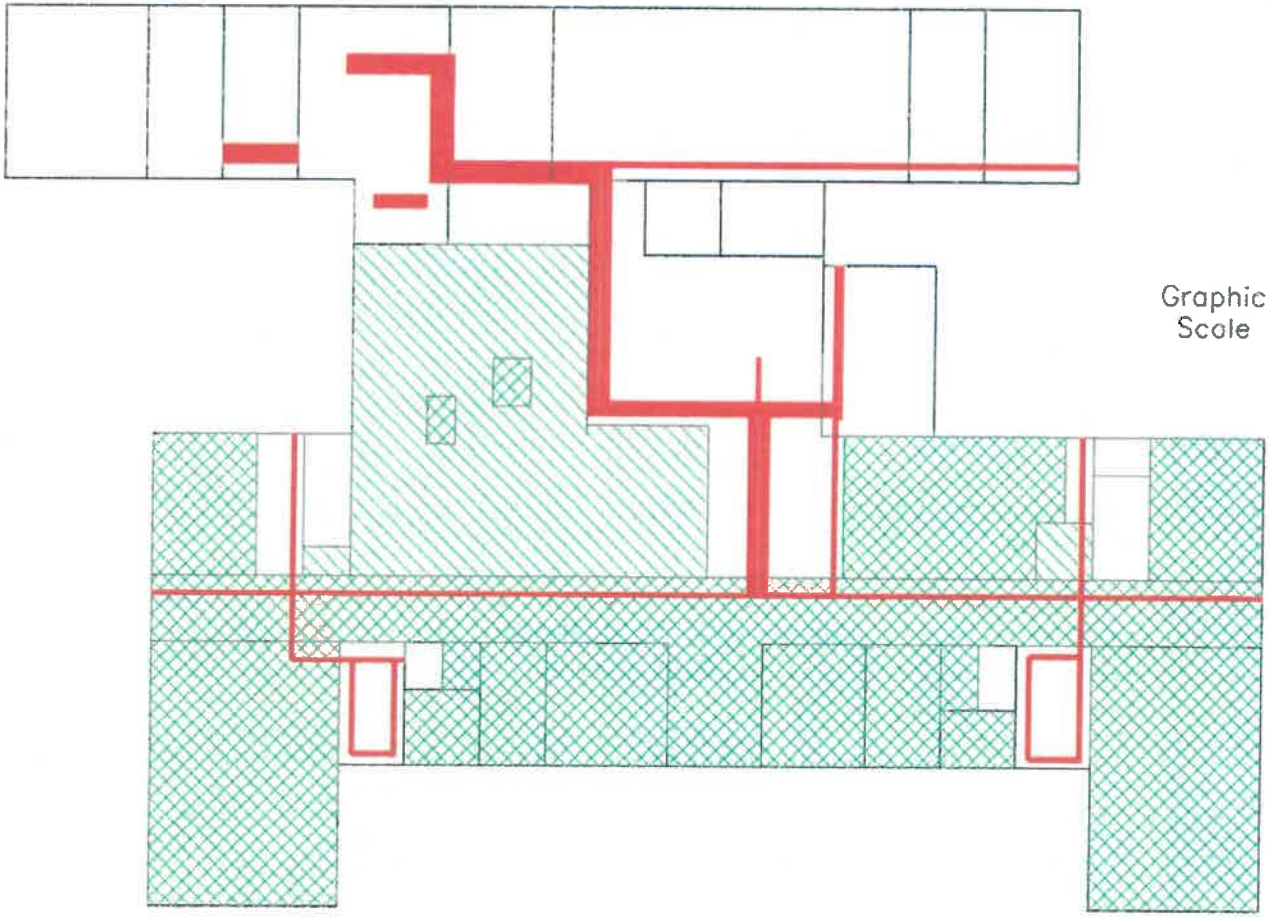
Building	Room	HA #	Type	Material Description	Size	Cond	Friable	Asb 1	%	Asb 2	%
A Dorm	Basement/Crawlspace Throughout	031B	MAG	Magnesia insulation on pipes	600 LF	F	Y	Chry	5	Amos	25
		026	FT	12" beige speckled	3,400 SF	G	N	Chry	2		
		026A	FTM	Mastic for floor tile 026	3,400 SF	G	N	Chry	15		
A Staff House	closets	028	MAG	Magnesia insul on pipes	300 LF	GF	Y	Chry	20	Amos	15
		034	FT	9" green w/yellow streaks	950 SF	G	N	Chry	18		
	Various	034A	FTM	Mastic for floor tile 034	950 SF	G	N	Chry	5		
		032	FT	9" brown w/yellow streaks	690 SF	G	N	Chry	15		
		032A	FTM	Mastic for floor tile 032	690 SF	G	N	Chry	10		
		033	FT	9" black w/yellow streaks	530 SF	G	N	Chry	10		
		033A	FTM	Mastic for floor tile 033	530 SF	G	N	Chry	15		
		036	FT	9" gray w/streaks	280 SF	G	N	Chry	12		
		036A	FTM	Mastic for floor tile 036	280 SF	G	N	Chry	10		
		037	FT	9" tan w/dark streaks	140 SF	G	N	Chry	8		
		037A	FTM	Mastic for floor tile 037	140 SF	G	N	Chry	5		
		038	FT	9" brown/yellow streaked	360 SF	G	N	Chry	8		
		038A	FTM	Mastic for floor tile 038	360 SF	G	N	Chry	15		
		039A	FTM	Mastic for floor tile 039	100 SF	G	N	Chry	15		
		040	LN	brown/gold block pattern linoleum	260 SF	G	N	Chry	40		
		042	FT	9" brick red w/tan streaks	200 SF	G	N	Chry	8		
		042A	FTM	Mastic for floor tile 042	200 SF	G	N	Chry	5		
		043	FT	9" gray w/multi-colored streaks	420 SF	G	N	Chry	8		
		043A	FTM	Mastic for floor tile 043	420 SF	G	N	Chry	10		
A Staff House/Boiler Rm	Boiler Room	044	LP	Layered paper pipe insulation	75 LF	F	Y	Chry	60		
Administration	Boiler Room	008	MAG	Mag insulation on steam lines	350 LF	G	Y	Amos	30		
		010	MAG	Mag insulation on hot H20 tank	100 SF	G	Y	Chry	40		
	Dining Patch	007	FT	9" blue w/green streaks	40 SF	G	N	Chry	2		
		007A	FTM	Mastic for floor tile 007	40 SF	G	N	Chry	5		
	Dining, Stairwells Throughout	004	FT	9" beige w/brown flecks	1,325 SF	G	N	Chry	4		
		011	MAG	Magnesia pipe insulation	2,000 LF	G	Y	Chry	10	Amos	20
		016	MUD	Mud fittings on steam/water lines	400 EA	G	Y	Chry	60		
	Throughout 1st floor	001	FT	12" beige speckled	6,000 SF	G	N	Chry	2		
		001A	FTM	Mastic for floor tile 001	6,000 SF	G	N	Chry	5		
	Throughout 2nd floor	013	FT	9" brown w/streaks	3,300 SF	G	N	Chry	10		
		013A	FTM	Mastic for floor tile 013	3,300 SF	G	N	Chry	10		

Umstead Correctional Center
Confirmed Asbestos Containing Materials

Building	Room	HA #	Type	Material Description	Size	Cond	Friable	Asb 1	%	Asb 2	%
B Dorm	Throughout	017	FT	12" beige speckled	4,000 SF	G	N	Chry	3		
		017A	FTM	Mastic for floor tile 017	4,000 SF	G	N	Chry	15		
		019	MAG	Mag insulation on steam pipes	900 LF	G	Y	Chry	25	Amos	10
		020	MUD	Mud fittings on hot H20 lines	150 EA	G	Y	Chry	60		
B Staff House	Various Rooms	055	FT	9" green w/yellow streaks	520 SF	G	N	Chry	8		
		055A	FTM	Mastic for floor tile 055	520 SF	G	N	Chry	10		
		056	FT	9" brown w/multi-colored streaks	630 SF	GF	N	Chry	8		
		056A	FTM	Mastic for floor tile 056	630 SF	GF	N	Chry	10		
		057	FT	9" black w/white streaks	480 SF	G	N	Chry	10		
		057A	FTM	Mastic for floor tile 057	480 SF	G	N	Chry	10		
		058	FT	9" gray w/light & dark streaks	280 SF	G	N	Chry	10		
		058A	FTM	Mastic for floor tile 058	280 SF	G	N	Chry	10		
		059	FT	9" brown w/yellow streaks	280 SF	P	N	Chry	12		
		059A	FTM	Mastic for floor tile 059	280 SF	P	N	Chry	20		
		060	FT	12" white w/black streaks	700 SF	GF	N	Chry	2		
		060A	FTM	Mastic for floor tile 060	700 SF	GF	N	Chry	5		
		062	FT	9" gray w/multi-colored streaks	630 SF	G	N	Chry	15		
		062A	FTM	Mastic for floor tile 062	630 SF	G	N	Chry	20		
		063	FT	9" beige w/dark streaks	470 SF	G	N	Chry	10		
		063A	FTM	Mastic for floor tile 063	470 SF	G	N	Chry	20		
		064	FT	9" red w/light streaks	130 SF	G	N	Chry	12		
		064A	FTM	Mastic for floor tile 064	130 SF	G	N	Chry	15		
G Staff House/Boiler Rm	Boiler Room	066	LP	Layered paper pipe insulation	55 LF	FP	Y	Chry	60	Amos	2
		067	MUD	Mudded insul on FG pipe insul	10 EA	G	Y	Chry	15		
Duplex	Furnace Rooms	052	TP	Transite Panels	380 SF	GF	N	Chry	55		
	Throughout	050	FT	12" white w/beige streaks	2,100 SF	G	N	Chry	2		
		050A	FTM	Mastic for floor tile 050	2,100 SF	G	N	Chry	5		
Maintenance Bldg	Office/Lobby/Tool Rm	069	FT	12" gold w/brown streaks	530 SF	G	N	Chry	2		
		069A	FTM	Mastic for floor tile 069	530 SF	G	N	Chry	10		
Supt's Residence	Furnace Room	048	TP	Transite Panels	190 SF	F	N	Chry	55		
	Kitchen/Back Porch	047	LN	Green linoleum	280 SF	F	N	Chry	5		
Wood Building	Boiler Room into Tunnel	072	MUD	Mud fittings on old FG pipe insul	100 EA	G	Y	Chry	40		
	Bowling/Various Offices/Class	074	FT	9" beige w/brown streaks	2,750 SF	G	N	Chry	4		
		074A	FTM	Mastic for floor tile 074	2,750 SF	G	N	Chry	10		

Unstead Correctional Center
Confirmed Asbestos Containing Materials

Building	Room	HA #	Type	Material Description	Size	Cond	Friable	Asb 1	%	Asb 2	%
Wood Building	Comm work prog offices	076	FT	9" white w/black & pink streaks	650 SF	G	N	Chry	3		
		076A	FTM	Mastic for floor tile 076	650 SF	G	N	Chry	10		
	Dressing Rms./Therapy4	075	FT	9" gray w/white streaks	750 SF	G	N	Chry	3		
		075A	FTM	Mastic for floor tile 075	750 SF	G	N	Chry	10		
	Gymnasium	077	FT	9" white w/multi-colored streaks	5,400 SF	G	N	Chry	6		
		077A	FTM	Mastic for floor tile 077	5,400 SF	G	N	Chry	12		
	X-Ray/Copy Room	079	FT	9" gold/brown/white streaks	300 SF	G	N	Chry	4		



Graphic Scale

0 5 15 50 feet

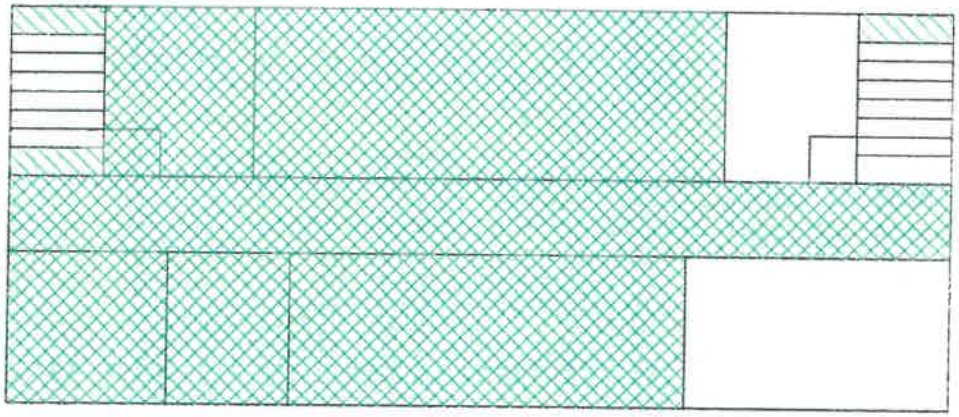
Key:

- Flooring Only
- Mastic Only
- Flooring & Mastic
- Thermal Insulation
- Ceiling Tile
- Surfacing Material

Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Admin. Building – 1st Floor	
Sheet Title:	Location of Asbestos Materials	
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–01–1A

Graphic Scale

0 5 15 50 feet



Key:

- Flooring Only
- Mastic Only
- Flooring & Mastic
- Thermal Insulation
- Ceiling Tile
- Surfacing Material

Project: NC Department of Correction OSHA Asbestos Survey Umstead – Admin. Building – 2nd Floor		
Sheet Title: Location of Asbestos Materials		
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–01–2A

Graphic Scale

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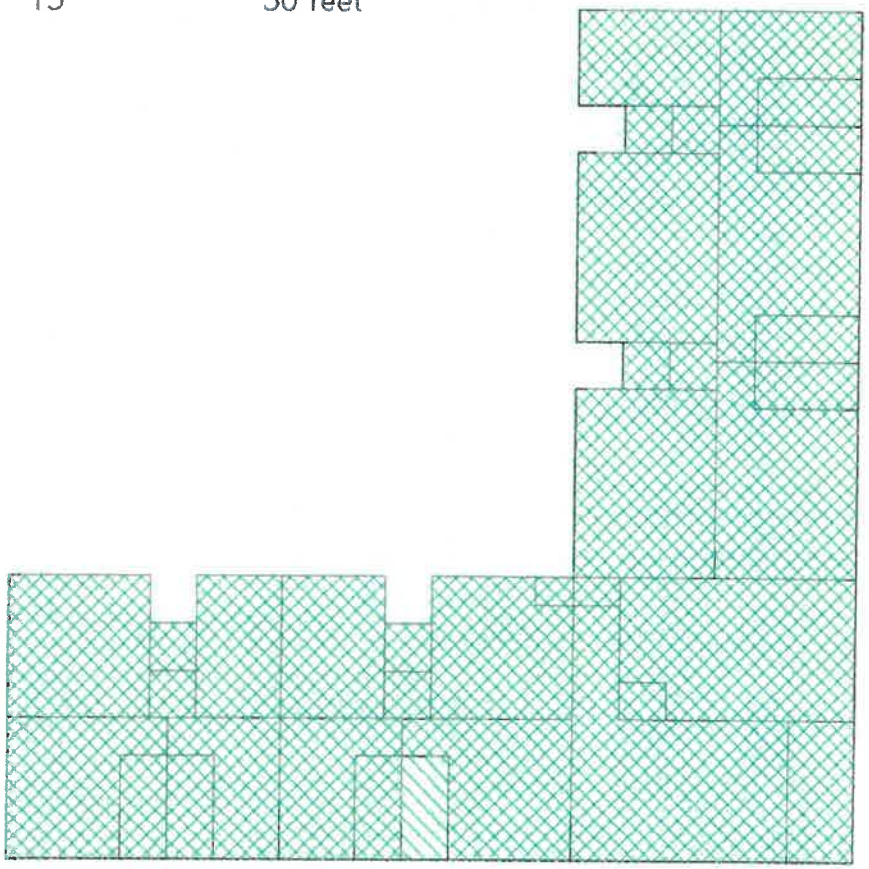

Key:

- Flooring Only
- Mastic Only
- Flooring & Mastic
- Thermal Insulation
- Ceiling Tile
- Surfacing Material

Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Staff House "A"	
Sheet Title:	Location of Asbestos Materials	
Drawn By: BLB Checked: Date: 6/09/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–02A

Graphic Scale

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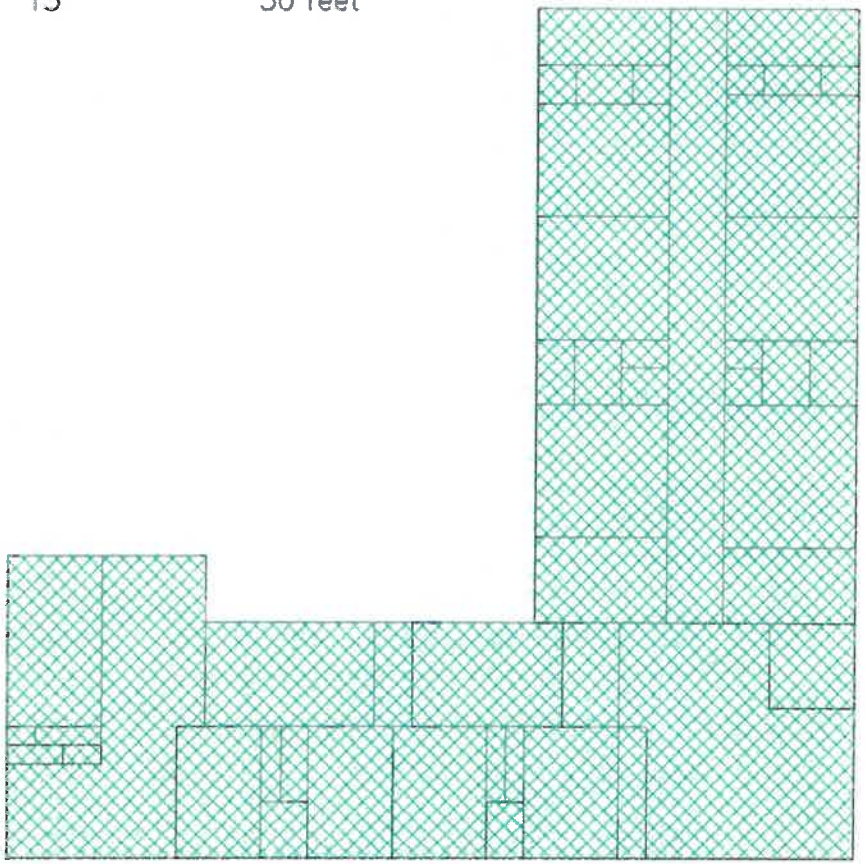


Key:

- Flooring Only
- Mastic Only
- Flooring & Mastic
- Thermal Insulation
- Ceiling Tile
- Surfacing Material

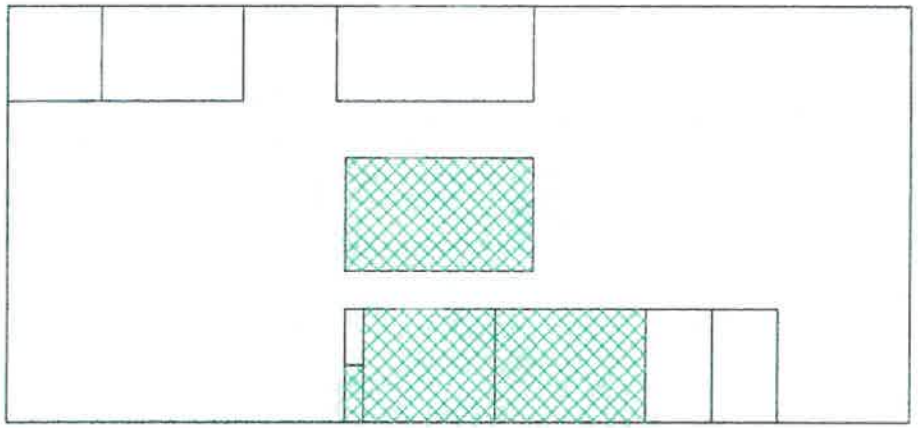
Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Staff House "B"
Sheet Title:	Location of Asbestos Materials
Drawn By: BLB	
Checked:	
Date: 6/09/96	

Brumbaugh–Herrick, Inc.
3861 Monroe Street
Toledo, OH 43606
(419) 475–1253

Project No:	95120
Sheet No:	4255–03A

Graphic Scale

0 5 15 50 feet



Key:

- Flooring Only
- Mastic Only
- Flooring & Mastic
- Thermal Insulation
- Ceiling Tile
- Surfacing Material

Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Maintenance Shop	
Sheet Title:	Location of Asbestos Materials	
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475-1253	Project No: 95120 Sheet No: 4255-04A

Graphic Scale

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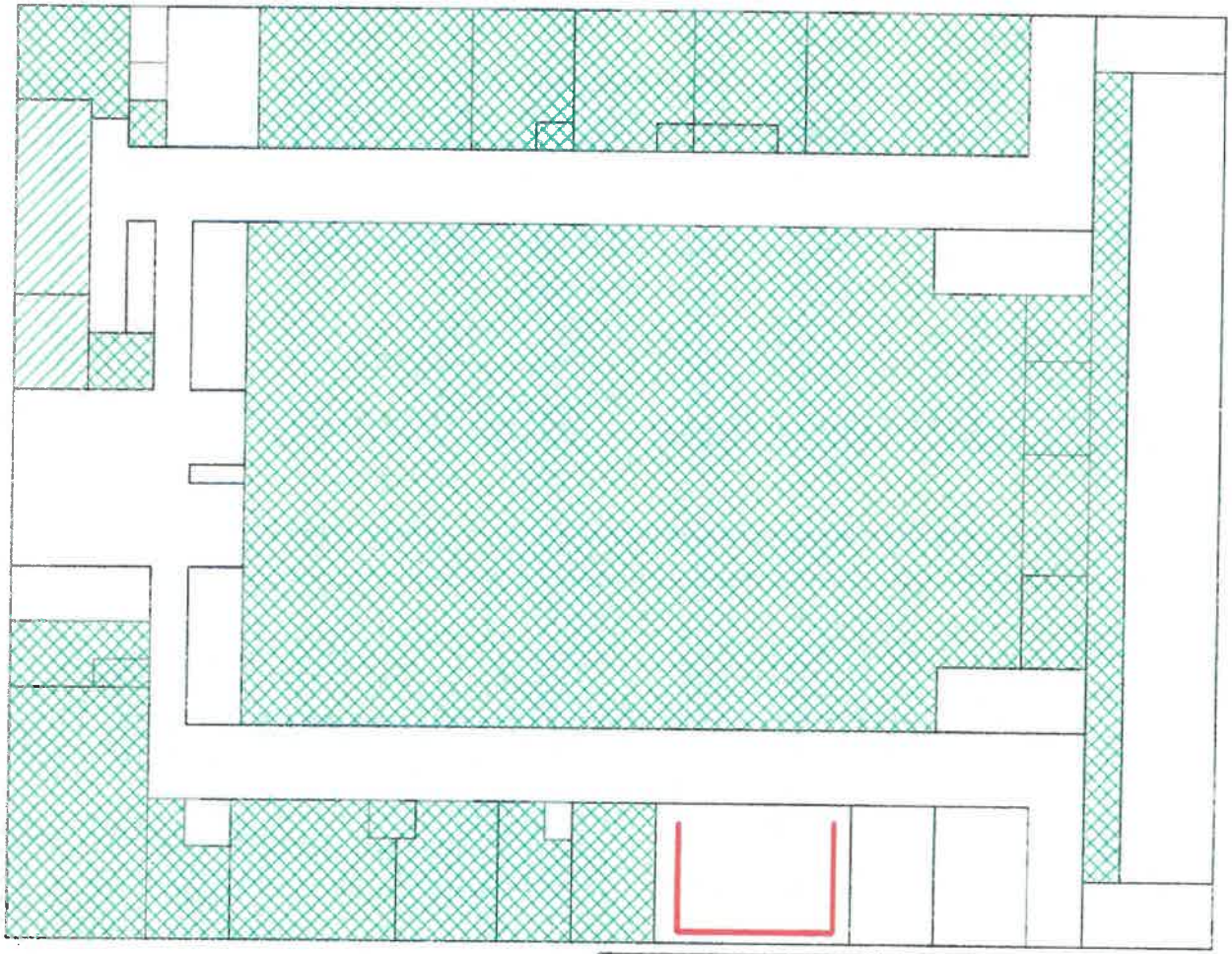

Key:

- Flooring Only
- Mastic Only
- Flooring & Mastic
- Thermal Insulation
- Ceiling Tile
- Surfacing Material

Project: NC Department of Correction OSHA Asbestos Survey Umstead – Wood Building/Gym – 1st Floor		
Sheet Title: Location of Asbestos Materials		
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–05–1A

Graphic Scale

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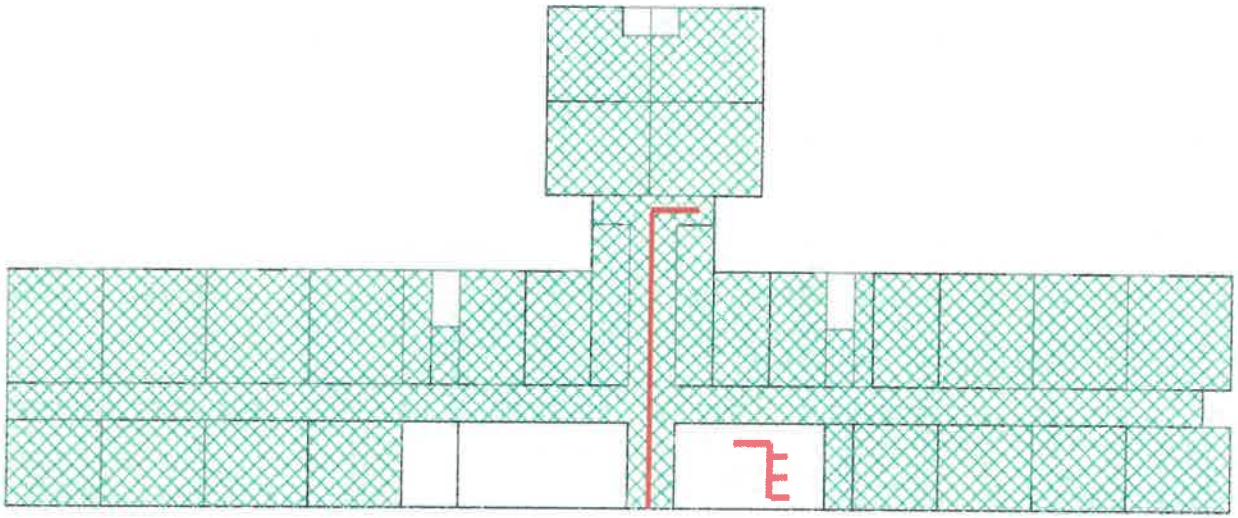

Key:

- Flooring Only
- Mastic Only
- Flooring & Mastic
- Thermal Insulation
- Ceiling Tile
- Surfacing Material

Project:	NC Department of Correction OSHA Asbestos Survey Umstead – "A" Dormitory	
Sheet Title:	Location of Asbestos Materials	
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–06A

Graphic Scale

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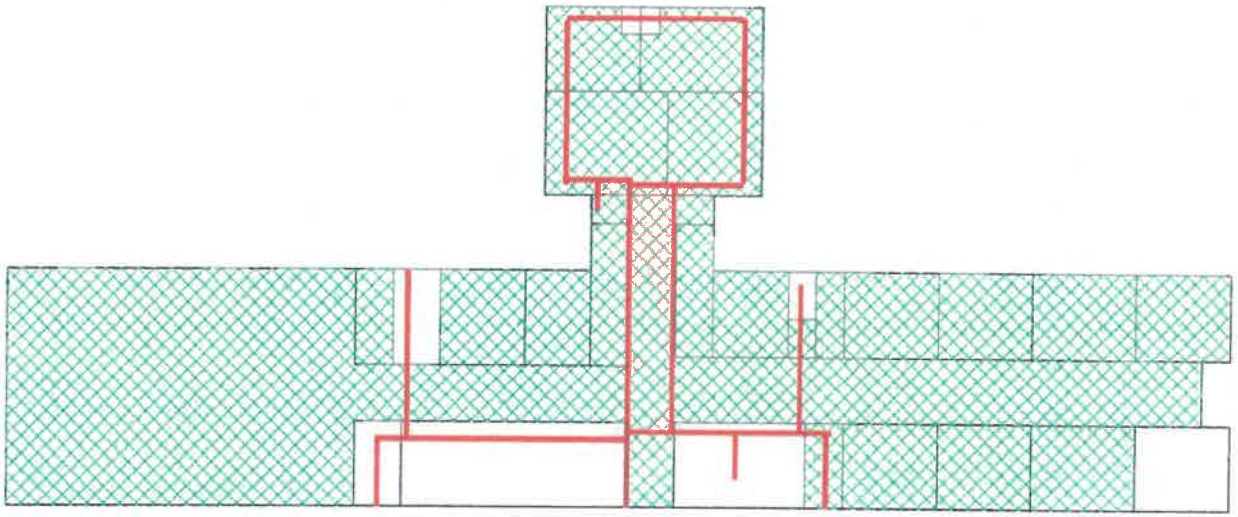


Key:

- Flooring Only
- Mastic Only
- Flooring & Mastic
- Thermal Insulation
- Ceiling Tile
- Surfacing Material

Project:	NC Department of Correction OSHA Asbestos Survey Umstead -- "B" Dormitory	
Sheet Title:	Location of Asbestos Materials	
Drawn By: BLB Checked: Date: 6/09/96	Brumbaugh-Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475-1253	Project No: 95120 Sheet No: 4255-07A

Asbestos Inspection Survey Report - Umstead Correctional Center

Accreditation of Project Participants

The inspection survey was conducted by Mr. Jeffrey P. Kramer who is licensed as an Asbestos Inspector by the NC Department of Environment, Health and Natural Resources, Asbestos Branch:

Jeffrey P. Kramer - #11351

The laboratory used for the analysis of all bulk samples was EMSL Analytical, Inc. of Greensboro, NC. EMSL is an approved laboratory which is accredited by the NVLAP program (National Voluntary Laboratory Accreditation Program), Certification #2104.

Sampling and Analytical Procedures

Each building was visually inspected for materials suspected to contain asbestos. Bulk sampling of suspected ACBM was based on appearance, texture and location of the material, and any material suspected to contain asbestos was hand-touched during the evaluation to determine its friability. The selection of sampling locations was random throughout each homogeneous area of material. Three samples were collected for most homogeneous areas although five or seven samples may have been necessary for surfacing, sprayed-on or trowelled-on materials depending on the quantity of the material. Each sample was individually collected, bagged and labeled. All bulk samples were analyzed utilizing current EPA methods for Polarized Light Microscopy (PLM) by an approved Laboratory which is accredited by the NVLAP program (National Voluntary Laboratory Accreditation Program). As noted in the RFP, analysis in any given homogeneous area was discontinued when a positive result for asbestos was obtained. For quality control purposes five percent of the bulk samples were "split" and sent to a second accredited laboratory for analysis to ensure the quality of the analytical results.

Discussion

Each of the pre-1981 buildings at this facility was visually inspected for any material suspected to contain asbestos. Accessible areas included ceilings, walls, floors, surfaces above suspended ceilings, thermal pipe and boiler insulation, ductwork, air plenums and heating and air handling units. The following categories of building materials were considered to be suspect materials:

floor tile
floor tile mastic (separate from floor tile)
linoleum
linoleum backing (separate from linoleum)
thermal insulation - boiler lagging
- pipe wrap
- tank insulation
- mudded fittings
- jacketing

fireproofing on structural steel
transite (asbestos cement paneling)
acoustical plaster
hard plaster
"popcorn" ceiling coatings / decorative surfacings
wallboard / sheet rock system
ceiling tile
gaskets

During the inspection each suspect material was identified by homogeneous area, type of material, location, estimated quantity of material and the condition of the material. Each building, room or area suspected to contain ACBM has been recorded in the table which can be found as an appendix to this report.

Asbestos containing pipe insulation was commonly used during the era when many of the buildings at this facility were constructed. Some areas of the buildings may have piping between the walls or in other locations that were inaccessible during the survey. No destructive actions were taken to search for such inaccessible materials during this survey.

Asbestos Inspection Survey Report - Umstead Correctional Center

The following building at the Umstead facility had suspect ACBM's, were sampled, and the analytical results were negative for asbestos:

Warehouse

Unstead Correctional Center
All Suspect Asbestos Containing Materials

Building	Room	HA #	Type	Material Description	Size	Spl #	ACM
A Dorm	Basement/Crawlspace	031B	MAG	Magnesia insulation on pipes	600 LF	082, 083, 084	Y
	Lobby	027	CT	1x1 white w/holes	3,400 SF	065, 066, 067	N
	Throughout	026	FT	12" beige speckled	3,400 SF	062, 063, 064	Y
		026A	FTM	Mastic for floor tile 026	3,400 SF	062A, 063A, 064A	Y
		02G	MAG	Magnesia insul on pipes	300 LF	068, 069, 070	Y
		029	MUD	Mudded fittings on pipe insul	75 EA	071, 072, 073	N
		03D	HP	Hard Plaster	4,200 SF	074, 075, 076	N
A Staff House	closets	034	FT	9" green w/yellow streaks	950 SF	092, 093, 094	Y
		034A	FTM	Mastic for floor tile 034	950 SF	092A, 093A, 094A	Y
	Throughout	035	WB	Wallboard/Sheet Rock	10,000 SF	095, 096, 097	N
	Various	032	FT	9" brown w/yellow streaks	690 SF	086, 087, 088	Y
		032A	FTM	Mastic for floor tile 032	690 SF	086A, 087A, 088A	Y
		033	FT	9" black w/yellow streaks	530 SF	089, 090, 091	Y
		033A	FTM	Mastic for floor tile 033	530 SF	089A, 090A, 091A	Y
		036	FT	9" gray w/streaks	280 SF	098, 099, 100	Y
		036A	FTM	Mastic for floor tile 036	280 SF	098A, 099A, 100A	Y
		037	FT	9" tan w/dark streaks	140 SF	101, 102, 103	Y
		037A	FTM	Mastic for floor tile 037	140 SF	101A, 102A, 103A	Y
		038	FT	9" brown/yellow streaked	360 SF	104, 105, 106	Y
		038A	FTM	Mastic for floor tile 038	360 SF	104A, 105A, 106A	Y
		039	FT	12" beige speckled	100 SF	107, 108, 109	N
		039A	FTM	Mastic for floor tile 039	100 SF	107A, 108A, 109A	Y
		040	LH	brown/gold block pattern linoleum	260 SF	110, 111, 112	Y
		041	CT	1x1 white w/holes	280 SF	113, 114, 115	N
		042	FT	9" brick red w/tan streaks	200 SF	116, 117, 118	Y
		042A	FTM	Mastic for floor tile 042	200 SF	116A, 117A, 118A	Y
		043	FT	9" gray w/multi-colored streaks	420 SF	119, 120, 121	Y
		043A	FTM	Mastic for floor tile 043	420 SF	119A, 120A, 121A	Y
A Staff House/Boiler Rm	Boiler Room	044	LP	Layered paper pipe insulation	75 LF	122, 123, 124	Y
		045	MUD	Mud insul on foamglass insulation	10 EA	125, 126, 127	N
Administration	Boiler Room	008	MAG	Mag insulation on steam lines	350 LF	012, 013, 014	Y
		009	MUD	Mudded fittings on steam lines	75 EA	015, 016, 017	N
		010	MAG	Mag insulation on hot H20 tank	100 SF	018, 019, 020	Y
	Dining Patch	007	FT	9" blue w/green streaks	40 SF	009, 010, 011	Y

Unstead Correctional Center
All Suspect Asbestos Containing Materials

Building	Room	HA #	Type	Material Description	Size	Spl #	ACM
Administration	Dining Patch	007A	FTM	Mastic for floor tile 007	40 SF	009A, 010A, 011A	Y
	Dining, 2nd Flr. Hall	006	CT	2x2 large fissures w/holes	2,125 SF	006, 007, 008	N
	Dining, Stairwells	004	FT	9" beige w/brown flecks	1,325 SF	999, 001, 002	Y
		004A	FTM	Mastic for floor tile 004	1,325 SF	999A, 001A, 002A	N
	Front offices	002	CT	1x1 white w/holes	480 SF	993, 994, 995	N
	Kitchen	005	CT	1x1 large fissured	650 SF	003, 004, 005	N
	Nurse's Office	003	CT	2x2 smooth	360 SF	996, 997, 998	N
	Throughout	011	MAG	Magnesia pipe insulation	2,000 LF	021, 022, 023	Y
		012	LP	Layered paper pipe insulation	700 LF	024	N
		015	HP	Hard Plaster	15,000 SF	031, 032, 033	N
		016	MUD	Mud fittings on steam/water lines	400 EA	034, 035, 036	Y
	Throughout 1st floor	001	FT	12" beige speckled	6,000 SF	990, 991, 992	Y
		001A	FTM	Mastic for floor tile 001	6,000 SF	990A, 991A, 992A	Y
	Throughout 2nd floor	013	FT	9" brown w/streaks	3,300 SF	025, 026, 027	Y
		013A	FTM	Mastic for floor tile 013	3,300 SF	025A, 026A, 027A	Y
		014	CT	1x1 large fissures	3,200 SF	028, 029, 030	N
B Dorm	Lobby	018	CT	1x1 white w/holes	300 SF	040, 041, 042	N
	Throughout	017	FT	12" beige speckled	4,000 SF	037, 038, 039	Y
		017A	FTM	Mastic for floor tile 017	4,000 SF	037A, 038A, 039A	Y
		019	MAG	Mag insulation on steam pipes	900 LF	043, 044, 045	Y
		020	MUD	Mud fittings on hot H20 lines	150 EA	046, 047, 048	Y
		022	LP	Layered paper pipe insulation	300 LF	052	N
		023	HP	Hard Plaster walls	8,000 SF	053, 054, 055	N
		024	HP	Hard Plaster ceiling	3,400 SF	056, 057, 058	N
		025	HP	Brown coat ceiling	3,400 SF	059, 060, 061	N
	Throughout dorms	021	CT	2x1 w/holes	3,100 SF	049, 050, 051	N
B Staff House	Throughout	065	WB	Wallboard/Sheet Rock	10,000 SF	179, 180, 181	N
	Various Rooms	055	FT	9" green w/yellow streaks	520 SF	149, 150, 151	Y
		055A	FTM	Mastic for floor tile 055	520 SF	149A, 150A, 151A	Y
		056	FT	9" brown w/multi-colored streaks	630 SF	152, 153, 154	Y
		056A	FTM	Mastic for floor tile 056	630 SF	152A, 153A, 154A	Y
		057	FT	9" black w/white streaks	480 SF	155, 156, 157	Y
		057A	FTM	Mastic for floor tile 057	480 SF	155A, 156A, 157A	Y
		058	FT	9" gray w/light & dark streaks	280 SF	158, 159, 160	Y

Unstead Correctional Center
All Suspect Asbestos Containing Materials

Building	Room	HA #	Type	Material Description	Size	Spl #	ACM
B Staff House	Various Rooms	050A	FTM	Mastic for floor tile 058	200 SF	158A, 159A, 160A	Y
		059	FT	9" brown w/yellow streaks	280 SF	161, 162, 163	Y
		059A	FTM	Mastic for floor tile 059	280 SF	161A, 162A, 163A	Y
		060	FT	12" white w/black streaks	700 SF	164, 165, 166	Y
		060A	FTM	Mastic for floor tile 060	700 SF	164A, 165A, 166A	Y
		061	CI	1x1 w/holes	260 SF	167, 168, 169	N
		062	FT	9" gray w/multi-colored streaks	630 SF	170, 171, 172	Y
		062A	FTM	Mastic for floor tile 062	630 SF	170A, 171A, 172A	Y
		063	FT	9" beige w/dark streaks	470 SF	173, 174, 175	Y
		063A	FTM	Mastic for floor tile 063	470 SF	173A, 174A, 175A	Y
		064	FT	9" red w/light streaks	130 SF	176, 177, 178	Y
		064A	FTM	Mastic for floor tile 064	130 SF	176A, 177A, 178A	Y
B Staff House/Boiler Rm	Boiler Room	066	LP	Layered paper pipe insulation	55 LF	182	Y
		067	MUD	Mudded insul on FG pipe insul	10 EA	183, 184, 185	Y
Duplex	Furnace Rooms	052	TP	Transite Panels	380 SF	144	Y
		053	JF	Jacket on FG pipe insul	20 LF	145	N
		054	MUD	Mud fittings on FG pipe insul	9 LF	146, 147, 148	N
	Throughout	050	FT	12" white w/beige streaks	2,100 SF	138, 139, 140	Y
		050A	FTM	Mastic for floor tile 050	2,100 SF	138A, 139A, 140A	Y
		051	WB	Wallboard/Sheet Rock	5,000 SF	141, 142, 143	N
Maintenance Bldg	Office/Lobby/Tool Rm	069	FT	12" gold w/brown streaks	530 SF	189, 190, 191	Y
		069A	FTM	Mastic for floor tile 069	530 SF	189A, 190A, 191A	Y
	Throughout	068	MUD	Mudded insul on FG pipe insul	22 EA	186, 187, 188	N
		070	WB	Wallboard/Sheet Rock	2,500 SF	192, 193, 194	N
Supt's Residence	Bathrooms	046	LN	White w/black & gray flecks	55 SF	128, 129, 130	N
		046A	LNB	Backing for linoleum 046	55 SF	128A, 129A, 130A	N
	Furnace Room	048	TP	Transite Panels	190 SF	134	Y
	Kitchen/Back Porch	047	LN	Green linoleum	280 SF	131, 132, 133	Y
		047A	LNB	Backing for linoleum 047	280 SF	131A, 132A, 133A	N
	Throughout	049	WB	Wallboard/Sheet Rock	4,000 SF	135, 136, 137	N
Warehouse	Throughout ceiling	031	SF	Sprayed-on fireproofing	1,330 SF	077, 078, 079	N
Wood Building	Boiler Room into Tunnel	071	JF	Jacket on FG pipe insul, old	25 LF	195, 196, 197	N
		072	MUD	Mud fittings on old FG pipe insul	100 EA	198, 199, 200	Y
	Bowling/Various Offices/Class	074	FT	9" beige w/brown streaks	2,750 SF	204, 205, 206	Y

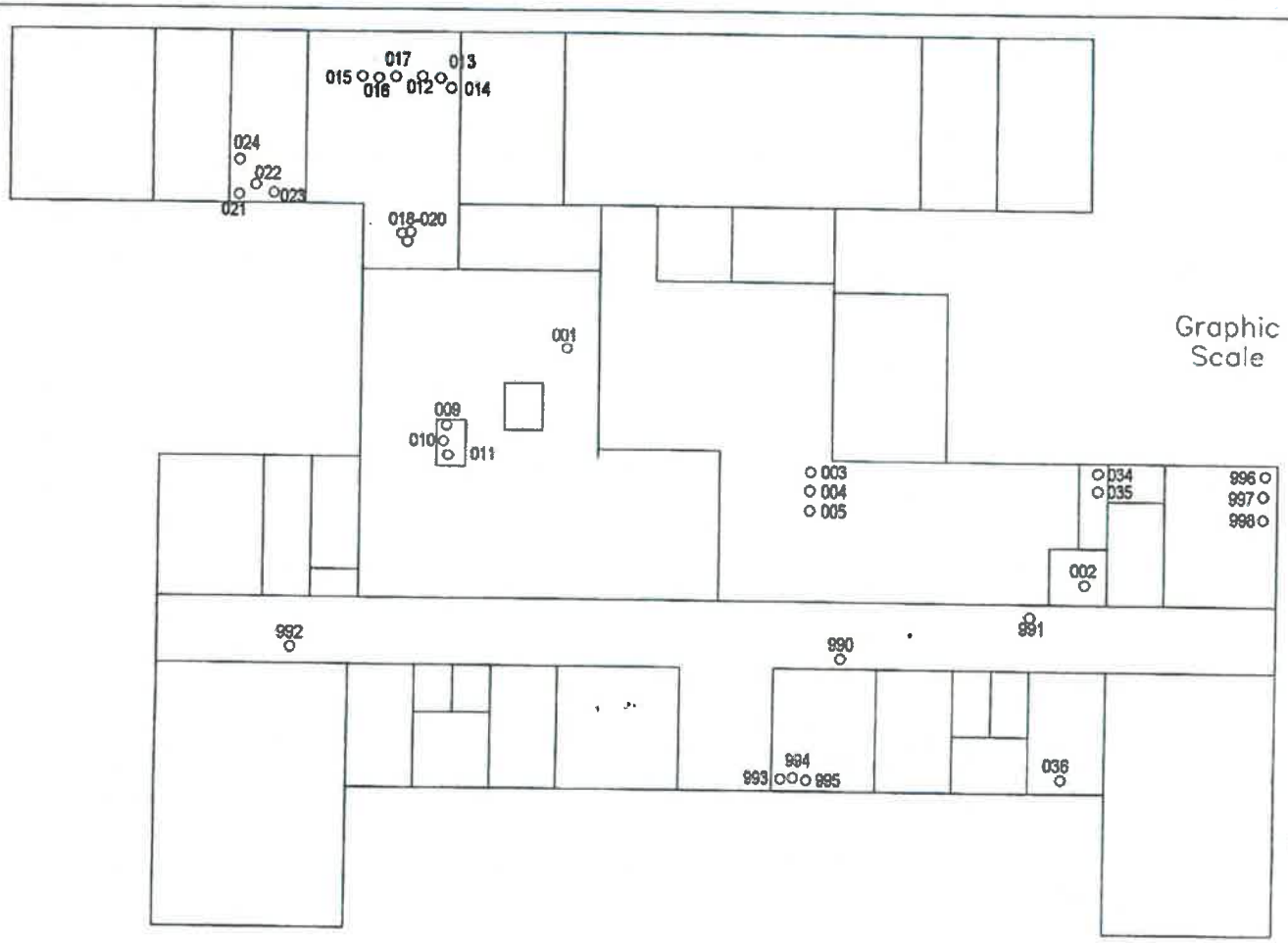
Unstead Correctional Center
All Suspect Asbestos Containing Materials

Building	Room	HA #	Type	Material Description	Size	Spl #	ACM
Wood Building	Bowling/Various Offices/Class	074A	FTM	Mastic for floor tile 074	2,750 SF	204A, 205A, 206A	Y
	Comm work prog offices	076	FT	9" white w/black & pink streaks	650 SF	210, 211, 212	Y
		076A	FTM	Mastic for floor tile 076	650 SF	210A, 211A, 212A	Y
	Dressing Rms./Therapy4	075	FT	9" gray w/white streaks	750 SF	207, 208, 209	Y
		075A	FTM	Mastic for floor tile 075	750 SF	207A, 208A, 209A	Y
	Gymnasium	077	FT	9" white w/multi-colored streaks	5,400 SF	213, 214, 215	Y
		077A	FTM	Mastic for floor tile 077	5,400 SF	213A, 214A, 215A	Y
	Hallways, Various Rms	073	CT	1x1 white w/large fissures, small holes	6,500 SF	201, 202, 203	N
	Waiting Rm/Dental Clinic	078	FT	12" white w/gray fleckks	475 SF	216, 217, 218	N
		078A	FTM	Mastic for floor tile 078	475 SF	216A, 217A, 218A	N
	X-Ray/Copy Room	079	FT	9" gold/brown/white streaks	300 SF	219, 220, 221	Y
		079A	FTM	Mastic for floor tile 079	300 SF	219A, 220A, 221A	N

TYPE OF MATERIAL CODES

N.C. DEPARTMENT OF CORRECTION

CODE	DESCRIPTION
AC	AIRCELL THERMAL INSULATION
CT	CEILING TILE
DS	DECORATIVE CEILING MATERIAL
FD	FIRE DOOR
FT	FLOOR TILE
FTM	FLOOR TILE MASTIC
GA	GASKET
PL	HARD PLASTER (WALL OR CEILING)
JF	JACKET ON FIBERGLASS THERMAL INSULATION
LN	LINOLEUM FLOORING
LNB	LINOLEUM BACKING
MAG	MAGNESIA OR CALCIFORM THERMAL INSULATION
MJP	MUDDED JOINT PACKING
MW	MINERAL WOOL, MINERAL FIBER, ETC
PI	OTHER PIPE INSULATION
SF	SPRAYED-ON FIREPROOFING
TP	ASBESTOS CEMENT PANELING
WB	WALLBOARD/SHEETROCK/JOINT COMPOUND



Graphic Scale

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Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Admin. Building – 1st Floor
Sheet Title:	Asbestos Sample Locations
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253
Project No: 95120 Sheet No: 4255–01–1S	

Graphic Scale

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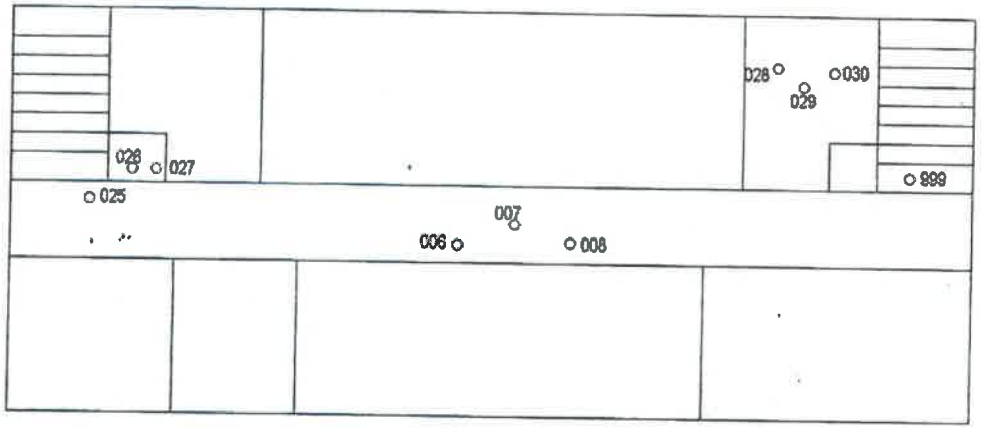

Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Admin. Building – 2nd Floor
Sheet Title:	Asbestos Sample Locations
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253
Project No: 95120 Sheet No: 4255–01–2S	

Graphic Scale

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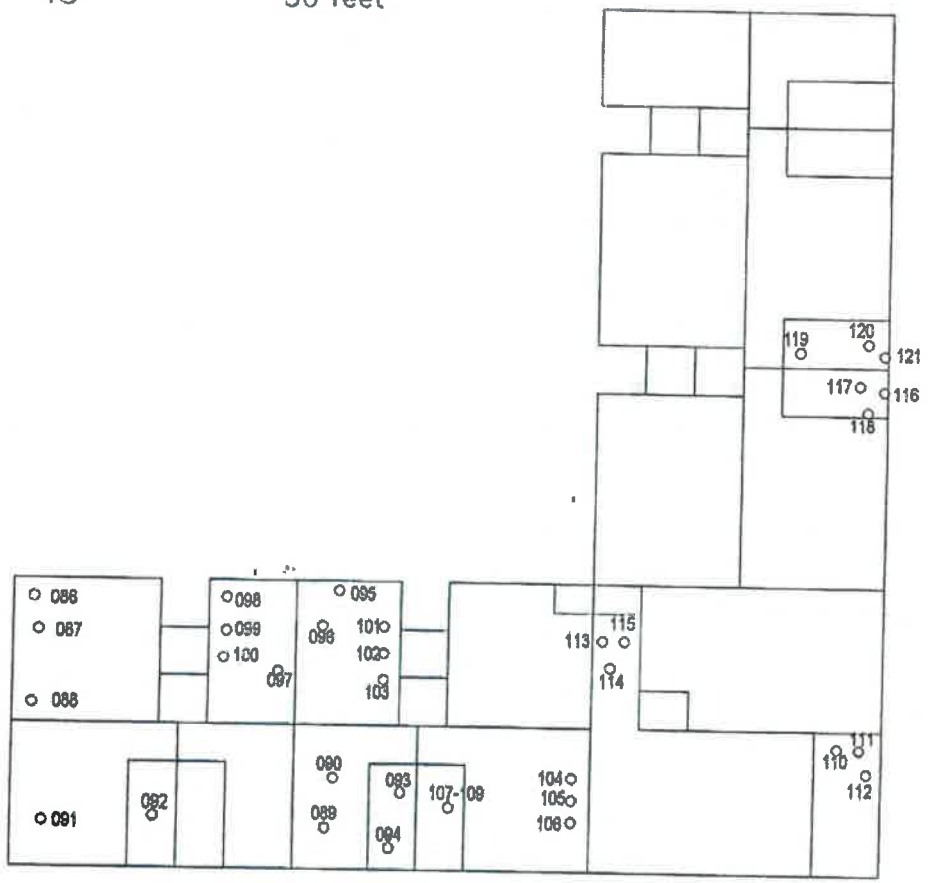

Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Staff House "A"		
Sheet Title:	Asbestos Sample Locations		
Drawn By: BLB Checked: Date: 6/09/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–025	

Graphic Scale

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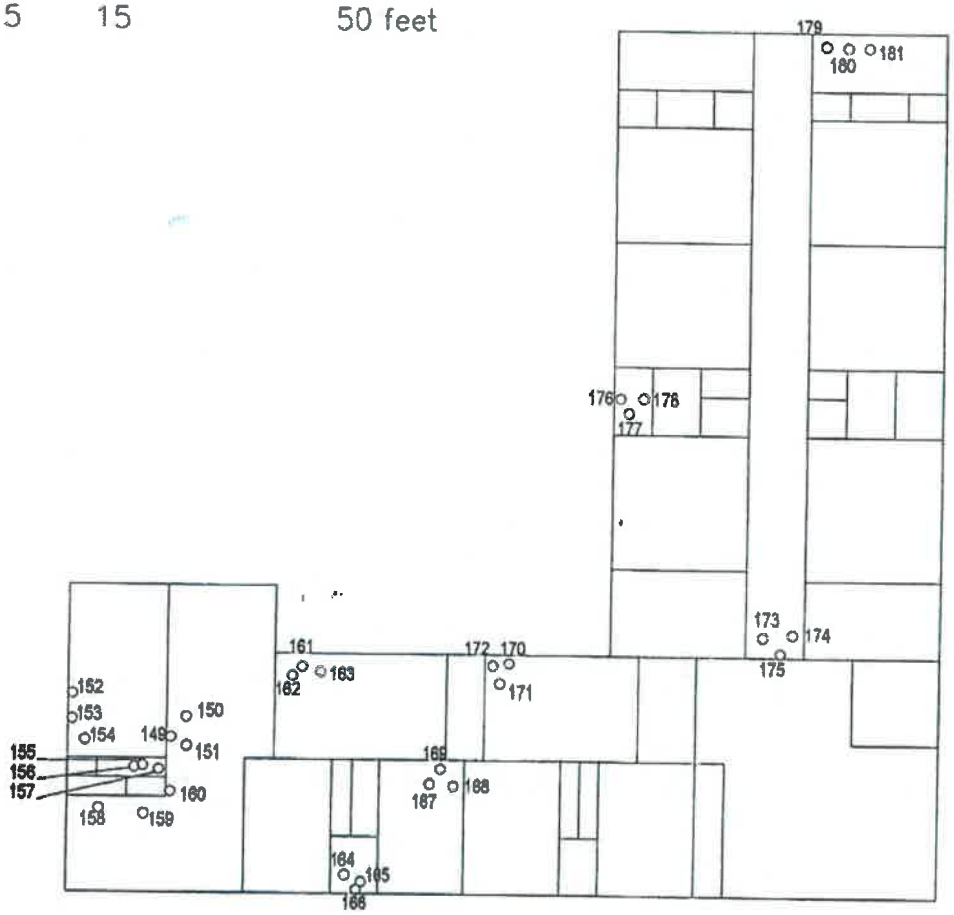

Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Staff House "B"	
Sheet Title:	Asbestos Sample Locations	
Drawn By: BLB Checked: Date: 6/09/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–03S

Graphic Scale

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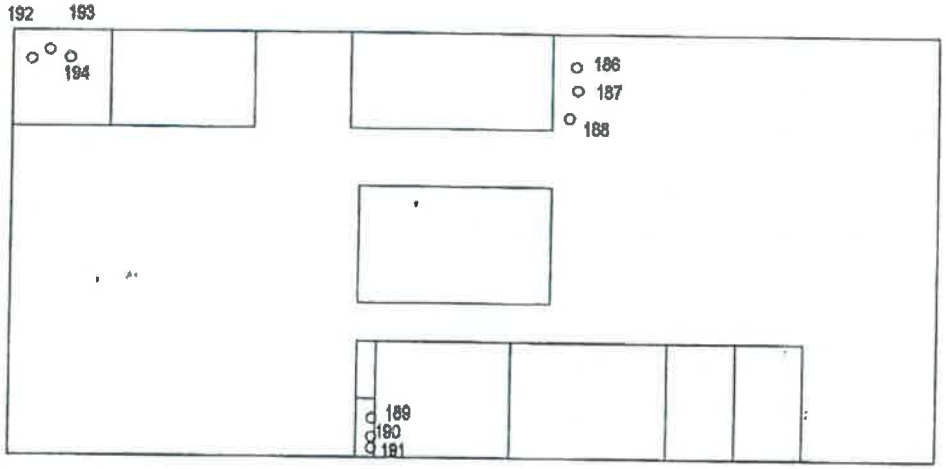
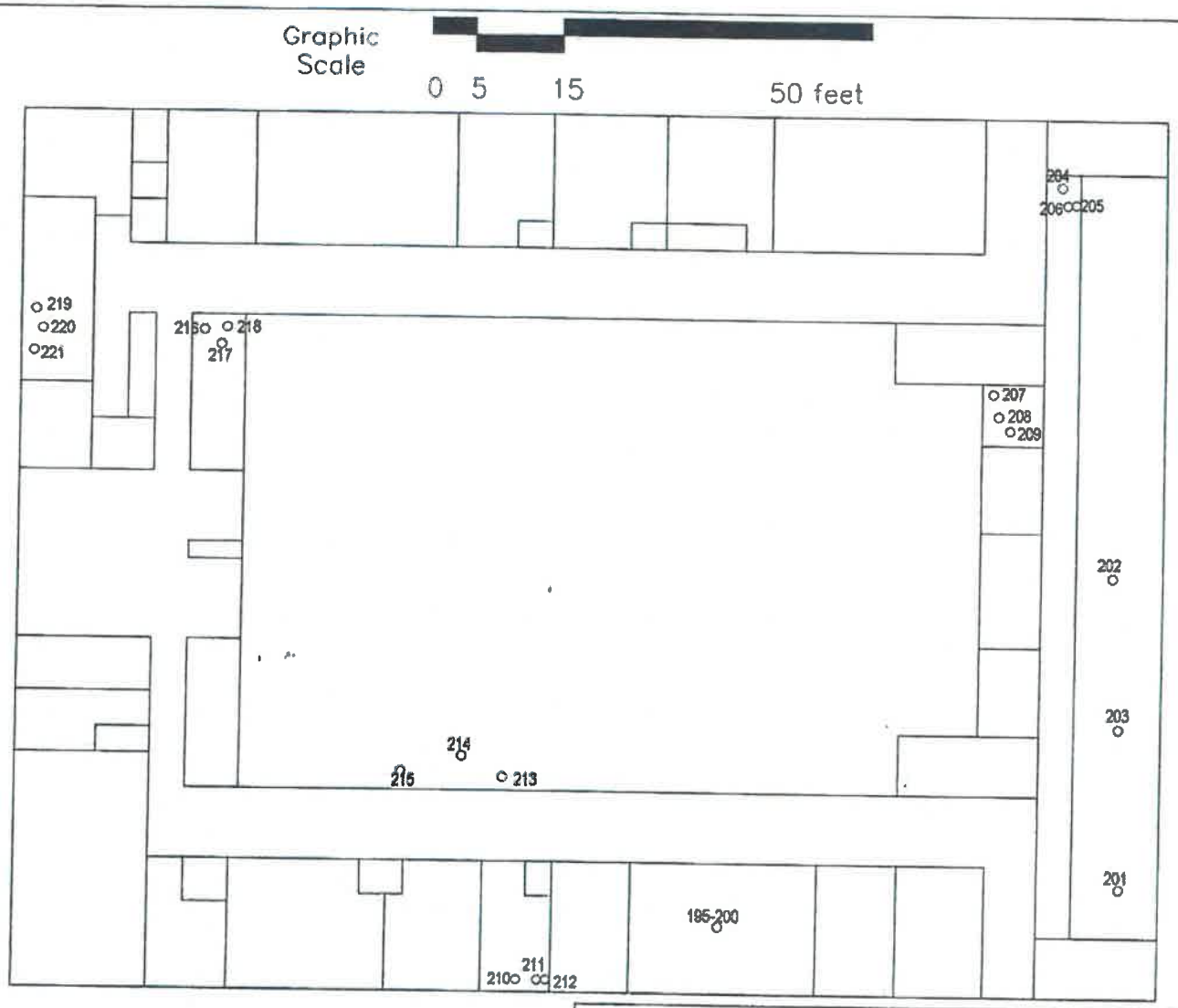


Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Maintenance Shop
Sheet Title:	Asbestos Sample Locations
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253
Project No: 95120 Sheet No: 4255–04S	



Project:	NC Department of Correction OSHA Asbestos Survey Umstead – Wood Building/Gym – 1st Floor
Sheet Title:	Asbestos Sample Locations
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253
Project No: 95120 Sheet No: 4255–05–1S	

Graphic Scale

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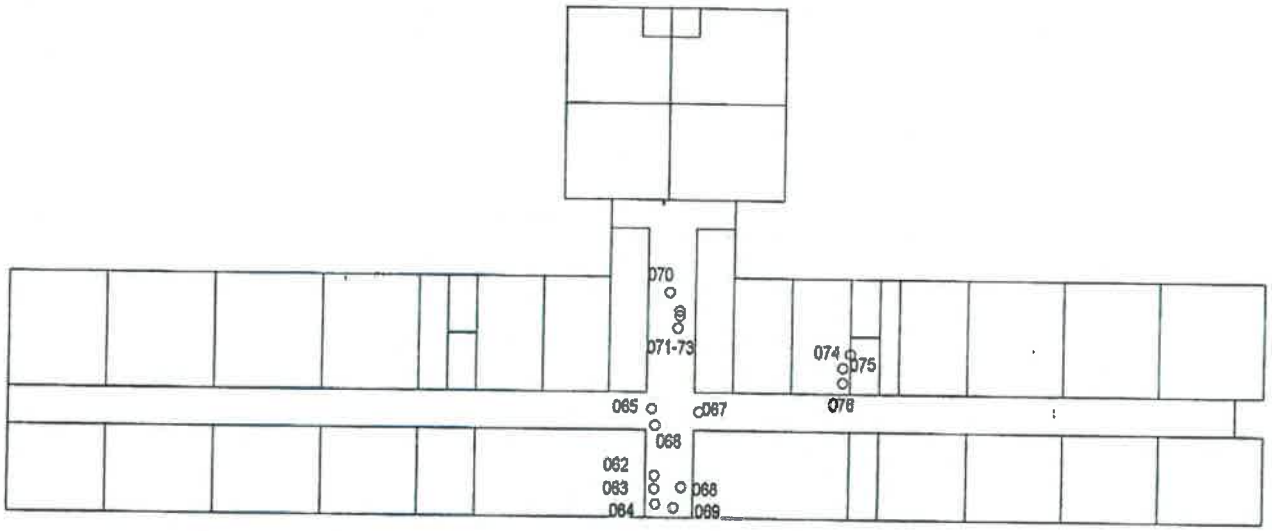
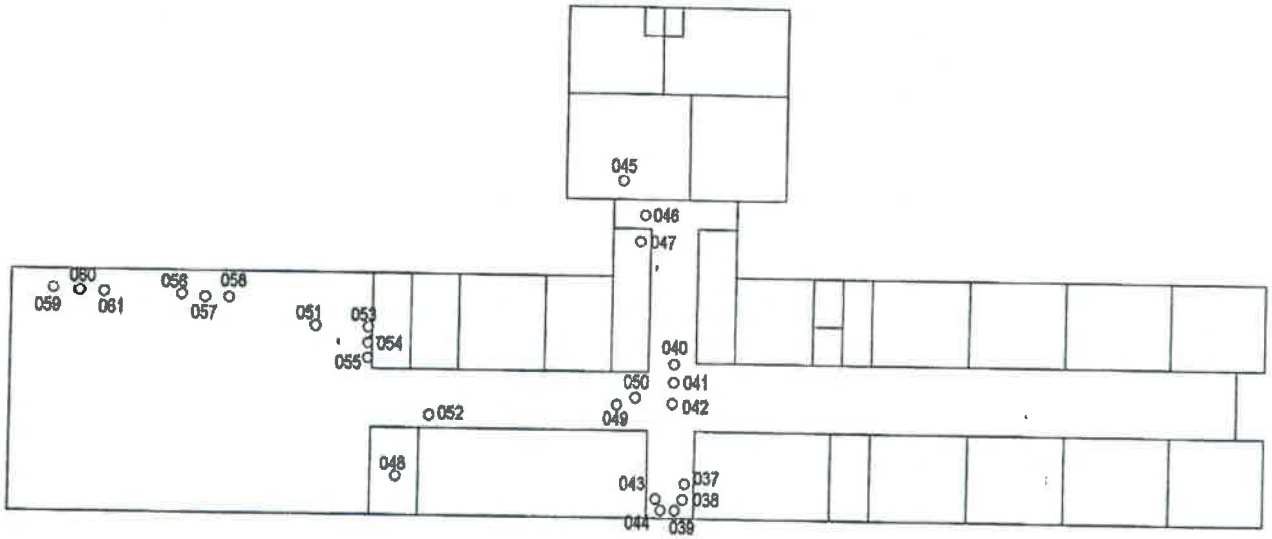


Project:	NC Department of Correction OSHA Asbestos Survey Umstead – "A" Dormitory		
Sheet Title:	Asbestos Sample Locations		
Drawn By: BLB Checked: Date: 6/08/96	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–06S	

Graphic Scale

0 5 15 50 feet



Project:	NC Department of Correction OSHA Asbestos Survey Umstead – "B" Dormitory	
Sheet Title:	Asbestos Sample Locations	
Drawn By: BLB Checked: Date: 6/09/98	Brumbaugh–Herrick, Inc. 3861 Monroe Street Toledo, OH 43606 (419) 475–1253	Project No: 95120 Sheet No: 4255–07S

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EMSL

Herrick Engineering Inc.
1705 Chatsworth Lane
Raleigh, NC 27614

Friday, April 26, 1996

Ref Number: NC962692

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
L990	Tile	Beige Non-Fibrous Homogeneous	Crushed/Dissolved	2%	Chrysotile	1%	Cellulose	97%	Other
L990A	Mastic	Black Non-Fibrous Homogeneous	Teased	5%	Chrysotile	2%	Cellulose	93%	Other
L993	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed	None Detected				100%	Other
L993A	Ceiling tile	Brown Fibrous Homogeneous	Teased	None Detected		100%	Cellulose		
L994	Ceiling tile	Brown Fibrous Homogeneous	Teased	None Detected		100%	Cellulose		
L995	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed	None Detected				100%	Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Note: Sample- M107 (A) is at the end of report.

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
95A	Ceiling tile	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
96		Orange Fibrous Homogeneous	Teased		None Detected	1% 99%	Cellulose Min. Wool		
97	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed		None Detected	2%	Wollastonite	98%	Other
97A	Orange fibers	Orange Fibrous Homogeneous	Teased		None Detected	100%	Min. Wool		
98		Orange Fibrous Homogeneous	Teased		None Detected	100%	Min. Wool		
99	Tile	Beige Non-Fibrous Homogeneous	Crushed/Dissolved	4%	Chrysotile			96%	Other

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
)04A	Ceiling tile	Grey Fibrous Homogeneous	Crushed		None Detected	97%	Min. Wool	3%	Other
)05	Paint	Grey Fibrous Homogeneous	Crushed		None Detected	98%	Min. Wool	2%	Other
)05A	Ceiling tile	Grey Fibrous Homogeneous	Crushed		None Detected	98%	Min. Wool	2%	Other
)06	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed		None Detected	3%	Min. Wool	97%	Other
)06A	Ceiling tile	Grey Fibrous Homogeneous	Crushed		None Detected	60% 35%	Min. Wool Cellulose	5%	Perlite
)07	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed		None Detected	3%	Min. Wool	97%	Other

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
M007A	Ceiling tile	Grey Fibrous Homogeneous	Crushed		None Detected	60% 35%	Min. Wool Cellulose	5%	Perlite
M008	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed		None Detected	2%	Min. Wool	98%	Other
M008A	Ceiling tile	Grey Fibrous Homogeneous	Crushed		None Detected	60% 30%	Min. Wool Cellulose	10%	Perlite
M009	Tile	Blue/Green Non-Fibrous Homogeneous	Crushed/Dissolved	2%	Chrysotile			98%	Other
M009A	Mastic	Brown Non-Fibrous Homogeneous	Teased		None Detected	5%	Cellulose	95%	Other
M010A	Mastic	Brown/Black Non-Fibrous Homogeneous	Teased		None Detected	5%	Cellulose	95%	Other

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Friday, April 26, 1996

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
L999A	Mastic	Brown Non-Fibrous Homogeneous	Teased		None Detected	2%	Cellulose	98%	Other
M001A	Mastic	Brown/Black Non-Fibrous Homogeneous	Teased		None Detected	5% < 1%	Cellulose Min. Wool	95%	Other
M002A	Mastic	Brown Non-Fibrous Homogeneous	Teased		None Detected	2%	Cellulose	98%	Other
M003	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected	2%	Min. Wool	98%	Other
M003A	Ceiling tile	Grey Fibrous Homogeneous	Crushed		None Detected	95%	Min. Wool	5%	Other
M004	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected	2%	Min. Wool	98%	Other

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Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
)11A	Mastic	Brown Non-Fibrous Homogeneous	Teased	None Detected	5% Cellulose	95% Other
)11B	Black mastic	Black Non-Fibrous Homogeneous	Teased	5% Chrysotile		95% Other
)12		White Fibrous Homogeneous	Teased/Crushed	30% Amosite	2% Cellulose	68% Other
)15		Grey Fibrous Homogeneous	Crushed	None Detected	35% Min. Wool	65% Other
)16		Grey Fibrous Homogeneous	Crushed	None Detected	40% Min. Wool	60% Other
)17		Grey Fibrous Homogeneous	Crushed	None Detected	40% Min. Wool	60% Other

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POLARIZED LIGHT MICROSCOPY (PLM)

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SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
M018		Grey Fibrous Homogeneous	Teased	40% Chrysotile		60% Other
M021		Pink Fibrous Homogeneous	Teased/Crushed	10% Chrysotile 20% Amosite		70% Other
M024	Brown paper layer	Brown Fibrous Homogeneous	Teased	None Detected	100% Cellulose	
M024A	Black paper layer	Black Fibrous Homogeneous	Teased	None Detected	98% Cellulose	2% Other
M025	Tile	Brown Non-Fibrous Homogeneous	Crushed/Dissolved	10% Chrysotile		90% Other
M025A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile	2% Cellulose	88% Other

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1705 Chatsworth Lane
Raleigh, NC 27614

Friday, April 26, 1996

Ref Number: NC962692

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
)28	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
)28A	Ceiling tile	Grey Fibrous Homogeneous	Crushed		None Detected	98%	Min. Wool	2%	Other
)29	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
)29A	Ceiling tile	Grey Fibrous Homogeneous	Crushed		None Detected	98%	Min. Wool	2%	Other
)30	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed		None Detected	1%	Min. Wool	99%	Other
)30A	Ceiling tile	Grey Homogeneous	Crushed		None Detected	98% < 1%	Min. Wool Cellulose	2%	Other

mments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately.
so, "# of Layers" refers to number of separable subsamples.
te: Sample- M107 (A) is at the end of report.

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				ASBESTOS		NONASBESTOS		
SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	%	TYPE	%	FIBROUS	% NONFIBROUS
M031	Paint	Yellow/Green Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100% Other
M031A	Plaster	White Non-Fibrous Homogeneous	Crushed		None Detected	< 1%	Cellulose	100% Other
M032	Paint	Yellow Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100% Other
M032A	Gray layer	Grey Non-Fibrous Homogeneous	Crushed		None Detected	2%	Min. Wool	98% Other
M032B	White layer	White Non-Fibrous Homogeneous	Crushed		None Detected	< 1%	Cellulose	100% Other
M033	Paint	Yellow/Green Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100% Other

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SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
133A	Gray layer	Grey Non-Fibrous Homogeneous	Crushed	None Detected		50% Quartz 50% Other
133B	White layer	White Non-Fibrous Homogeneous	Crushed	None Detected	< 1% Cellulose	100% Other
134		Grey Fibrous Homogeneous	Crushed	60% Chrysotile	20% Min. Wool	20% Other
137	Tile	Beige Non-Fibrous Homogeneous	Crushed/Dissolved	3% Chrysotile		97% Other
137A	Mastic	Black Non-Fibrous Homogeneous	Teased/Crushed	15% Chrysotile	10% Cellulose	75% Other
140		Brown Fibrous Homogeneous	Teased	None Detected	100% Cellulose	

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M041		Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M042		Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M043		White Fibrous Homogeneous	Teased	25%	Chrysotile 10% Amosite			65%	Other
M046		Grey Fibrous Homogeneous	Crushed		None Detected	60%	Min. Wool	40%	Other
M047		Grey Fibrous Homogeneous	Crushed		None Detected	60%	Min. Wool	40%	Other
M048		Grey Fibrous Homogeneous	Teased	60%	Chrysotile	5%	Min. Wool	35%	Other

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)49	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
)49A	Ceiling tile	Grey Fibrous Homogeneous	Teased		None Detected		70% Min. Wool 30% Cellulose		
)50	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
)50A	Ceiling tile	Grey Fibrous Homogeneous	Teased		None Detected		70% Min. Wool 30% Hair		
)51	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
)51A	Ceiling tile	Grey Fibrous Homogeneous	Teased		None Detected		70% Min. Wool 30% Cellulose		

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M052	Brown paper	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M052A	Black paper	Black Fibrous Homogeneous	Teased		None Detected	98%	Cellulose	2%	Other
M053		White Non-Fibrous Homogeneous	Crushed		None Detected	< 1% < 1%	Cellulose Min. Wool	100%	Other
M054		White Non-Fibrous Homogeneous	Crushed		None Detected	< 1%	Min. Wool	100%	Other
M055		White Non-Fibrous Homogeneous	Crushed		None Detected	< 1%	Cellulose	100%	Other
M056	Paint	Beige/Green Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other

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156A	Plaster	White Non-Fibrous Homogeneous	Crushed		None Detected	1% < 1%	Min. Wool Cellulose	20% 79%	Perlite Other
157	Paint	Beige/Green Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
157A	Plaster	White Non-Fibrous Homogeneous	Crushed		None Detected			30% 70%	Quartz Other
158	Paint	Beige/Green Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
158A	Plaster	White Non-Fibrous Homogeneous	Crushed		None Detected			20% 80%	Quartz Other
159		Brown Non-Fibrous Homogeneous	Crushed		None Detected			80% 20%	Quartz Other

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M060		Brown Non-Fibrous Homogeneous	Crushed		None Detected	< 1%	Min. Wool	80%	Quartz 20% Other
M061		Brown Non-Fibrous Homogeneous	Crushed		None Detected	< 1%	Min. Wool	80%	Quartz 20% Other
M062	Tile	Beige Non-Fibrous Homogeneous	Crushed/Dissolved	2%	Chrysotile	< 1%	Other	98%	Other
M062A	Mastic	Black Non-Fibrous Homogeneous	Teased	15%	Chrysotile	2%	Cellulose	83%	Other
M065		Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M066		Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		

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)67		Brown Fibrous Homogeneous	Teased	None Detected	100% Cellulose	
)68		White Fibrous Homogeneous	Teased	20% Chrysotile 15% Amosite		65% Other
)71		Grey Fibrous Homogeneous	Crushed	None Detected	70% Min. Wool < 1% Cellulose	30% Other
)72		Grey Fibrous Homogeneous	Crushed	None Detected	75% Min. Wool	25% Other
)73		Grey Fibrous Homogeneous	Crushed	None Detected	75% Min. Wool < 1% Cellulose	25% Other
)74		Grey Non-Fibrous Homogeneous	Crushed	None Detected		60% Quartz 40% Other

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M075		Grey Non-Fibrous Homogeneous	Crushed		None Detected	1%	Cellulose	70% 29%	Quartz Other
M076		Grey Non-Fibrous Homogeneous	Crushed		None Detected			70% 30%	Quartz Other
M077		Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M078		Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M079		Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M080		Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		

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)81		Brown Fibrous Homogeneous	Teased	None Detected	100% Cellulose	
)82		Pink Fibrous Homogeneous	Teased	5% Chrysotile 25% Amosite		70% Other
)86	Tile	Brown Non-Fibrous Homogeneous	Crushed/Dissolved	15% Chrysotile		85% Other
)86A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile	2% Cellulose	88% Other
)89	Tile	Black Non-Fibrous Homogeneous	Crushed/Dissolved	10% Chrysotile		90% Other
)89A	Mastic	Black Non-Fibrous Homogeneous	Teased	15% Chrysotile	2% Cellulose	83% Other

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M092	Tile	Green Non-Fibrous Homogeneous	Crushed/Dissolved	18% Chrysotile		82% Other
M092A	Mastic	Black Non-Fibrous Homogeneous	Teased	5% Chrysotile	10% Cellulose 5% Synthetic	80% Other
M095	Paint	Beige/Blue Non-Fibrous Homogeneous	Ashed/Crushed	None Detected		100% Other
M095A	Wallboard	Grey Non-Fibrous Homogeneous	Crushed	None Detected	15% Cellulose	85% Other
M096	Paint	Beige/Blue Non-Fibrous Homogeneous	Ashed/Crushed	None Detected	< 1% Other	100% Other
M096A	Wallboard	Grey Non-Fibrous Homogeneous	Crushed	None Detected	15% Cellulose	85% Other

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)97		Grey Non-Fibrous Homogeneous	Crushed	None Detected	15% Cellulose	85% Other
)98	Tile	Grey Non-Fibrous Homogeneous	Crushed/Dissolved	12% Chrysotile		88% Other
)98A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile	2% Cellulose	88% Other
101	Tile	Tan Non-Fibrous Homogeneous	Crushed/Dissolved	8% Chrysotile		92% Other
101A	Mastic	Black Non-Fibrous Homogeneous	Teased	5% Chrysotile	10% Cellulose	85% Other
104	Tile	Brown Non-Fibrous Homogeneous	Crushed/Dissolved	8% Chrysotile		92% Other

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M104A	Mastic	Black Non-Fibrous Homogeneous	Teased	15%	Chrysotile			85%	Other
M107**	Tile	Beige Non-Fibrous Homogeneous	Crushed/Dissolved		None Detected			100%	Other
M108	Tile	Beige Non-Fibrous Homogeneous	Crushed/Dissolved		None Detected			100%	Other
M109	Tile	Brown/Tan Non-Fibrous Homogeneous	Crushed/Dissolved		None Detected			100%	Other
M110		Brown/Tan Other Heterogeneous	Teased	40%	Chrysotile	10%	Cellulose	50%	Other
M113	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other

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113A	Ceiling tile	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
114	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
114A	Ceiling tile	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
115	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
115A	Ceiling tile	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
116	Tile	Red Non-Fibrous Homogeneous	Crushed/Dissolved	8%	Chrysotile			92%	Other

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M116A	Mastic	Black Non-Fibrous Homogeneous	Teased	5% Chrysotile	5% Cellulose	90% Other
M119	Tile	Grey Non-Fibrous Homogeneous	Crushed/Dissolved	8% Chrysotile		92% Other
M119A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile	5% Cellulose	85% Other
M122	Gray paper layer	Grey Fibrous Homogeneous	Teased	60% Chrysotile	30% Cellulose	10% Other
M122A	Brown paper layer	Brown Fibrous Homogeneous	Teased	None Detected	100% Cellulose	
M123A	Brown paper layer	Brown Fibrous Homogeneous	Teased	None Detected	100% Cellulose	

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Note: Sample- M107 (A) is at the end of report.

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Herrick Engineering Inc.
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Friday, April 26, 1996

Ref Number: NC962692

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
24A	Brown paper layer	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
24B	White woven mesh	White Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
25		Grey Non-Fibrous Homogeneous	Crushed		None Detected	30%	Min. Wool	70%	Other
26		Grey Non-Fibrous Homogeneous	Crushed		None Detected	30%	Min. Wool	70%	Other
27		Grey Non-Fibrous Homogeneous	Crushed		None Detected	30%	Min. Wool	70%	Other
28	Linoleum	Various Other Heterogeneous	Teased		None Detected	40% 20%	Cellulose Synthetic	40%	Other

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
M128A	Mastic	Black Non-Fibrous Homogeneous	Teased		None Detected	5%	Cellulose	95%	Other
M129	Linoleum	Various Other Heterogeneous	Teased		None Detected	50% 10%	Cellulose Synthetic	40%	Other
M129A	Mastic	Grey/Black Non-Fibrous Homogeneous	Teased		None Detected	10%	Cellulose	90%	Other
M130	Linoleum	Various Other Heterogeneous	Teased		None Detected	50% 10%	Cellulose Synthetic	40%	Other
M130A	Mastic	Grey Non-Fibrous Homogeneous	Teased/Crushed		None Detected	10%	Cellulose	90%	Other
M131	Linoleum	Green/Black Other Heterogeneous	Teased/Dissolved	5%	Chrysotile	45% 5%	Cellulose Synthetic	45%	Other

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Note: Sample- M107 (A) is at the end of report.

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
31A	Mastic	Brown Non-Fibrous Homogeneous	Teased		None Detected	5% 5%	Cellulose Synthetic	90%	Other
32A	Mastic	Brown Non-Fibrous Homogeneous	Crushed		None Detected	10%	Cellulose	90%	Other
33A	Mastic	Brown Non-Fibrous Homogeneous	Teased		None Detected	5%	Cellulose	95%	Other
34		Grey Fibrous Homogeneous	Teased/Crushed	55%	Chrysotile	5%	Cellulose	40%	Other
35		Brown/Grey Other Heterogeneous	Crushed		None Detected	15%	Cellulose	85%	Other
36		Brown/Grey Other Heterogeneous	Crushed		None Detected	15%	Cellulose	85%	Other

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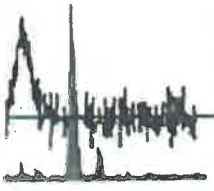

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
M137		Brown/Grey Other Heterogeneous	Crushed	None Detected	15% Cellulose	85% Other
M138	Tile	White Non-Fibrous Homogeneous	Crushed/Dissolved	2% Chrysotile	1% Cellulose	97% Other
M138A	MAstic	Black Non-Fibrous Homogeneous	Teased	5% Chrysotile		95% Other
M141		Grey Fibrous Homogeneous	Crushed	None Detected	15% Cellulose	85% Other
M142		Grey Fibrous Homogeneous	Crushed	None Detected	15% Cellulose	85% Other
M143		Grey Fibrous Homogeneous	Crushed	None Detected	15% Cellulose	85% Other

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
44		Grey Fibrous Homogeneous	Teased	55%	Chrysotile			45%	Other
45	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
45A	White fabric	White Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
45B	Tan paper layer	Tan Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
46		Grey Non-Fibrous Homogeneous	Crushed		None Detected	50%	Min. Wool	50%	Other
47		Grey Non-Fibrous Homogeneous	Crushed		None Detected	50%	Cellulose	50%	Other

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Ref Number: NC962692

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
M148		Grey Non-Fibrous Homogeneous	Crushed	None Detected	45% Cellulose	55% Other
M149	Tile	Green Non-Fibrous Homogeneous	Crushed/Dissolved	8% Chrysotile		92% Other
M149A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile	2% Cellulose	88% Other
M152	Tile	Brown Non-Fibrous Homogeneous	Crushed/Dissolved	8% Chrysotile		92% Other
M152A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile		90% Other
M155	Tile	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile		90% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Note: Sample- M107 (A) is at the end of report.

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Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
55A	Mastic	Black Non-Fibrous Homogeneous	Teased	None Detected	2% Cellulose	98% Other
56A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile		90% Other
58	Tile	Grey Non-Fibrous Homogeneous	Crushed/Dissolved	10% Chrysotile		90% Other
58A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile		90% Other
61	Tile	Brown Non-Fibrous Homogeneous	Crushed/Dissolved	12% Chrysotile		88% Other
61A	Mastic	Black Non-Fibrous Homogeneous	Teased	20% Chrysotile		80% Other

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
M164	Tile	White Non-Fibrous Homogeneous	Crushed/Dissolved	2% Chrysotile		98% Other
M164A	Mastic	Black Non-Fibrous Homogeneous	Teased	5% Chrysotile	5% Cellulose	90% Other
M167	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed	None Detected		100% Other
M167A	Ceiling tile	Brown Fibrous Homogeneous	Teased	None Detected	100% Cellulose	
M168	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed	None Detected		100% Other
M168A	Ceiling tile	Brown Fibrous Homogeneous	Teased	None Detected	100% Cellulose	

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Note: Sample- M107 (A) is at the end of report.

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
169	Paint	Beige Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
169A	Ceiling tile	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
170	Tile	Grey Non-Fibrous Homogeneous	Crushed/Dissolved	15%	Chrysotile			85%	Other
170A	Mastic	Black Non-Fibrous Homogeneous	Teased	20%	Chrysotile			80%	Other
173	Tile	Beige Non-Fibrous Homogeneous	Crushed/Dissolved	10%	Chrysotile			90%	Other
173A	Mastic	Black Non-Fibrous Homogeneous	Teased	20%	Chrysotile	2%	Cellulose	78%	Other

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POLARIZED LIGHT MICROSCOPY (PLM)

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SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
M176	Tile	Red Non-Fibrous Homogeneous	Crushed/Dissolved	12%	Chrysotile	1%	Cellulose	87%	Other
M176A	Mastic	Black Non-Fibrous Homogeneous	Teased	15%	Chrysotile	3% < 1%	Cellulose Min. Wool	82%	Other
M179		White Non-Fibrous Homogeneous	Crushed		None Detected	20%	Cellulose	80%	Other
M180		White Non-Fibrous Homogeneous	Crushed		None Detected	20%	Cellulose	80%	Other
M181		White Non-Fibrous Homogeneous	Crushed		None Detected	20%	Cellulose	80%	Other
M182	White paper	White Fibrous Homogeneous	Teased	60% 2%	Chrysotile Amosite	35%	Cellulose	3%	Other

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
182A	Brown paper	Black Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
182B	Black paper	Black Fibrous Homogeneous	Teased		None Detected	98%	Cellulose	2%	Other
183		White Fibrous Homogeneous	Teased	15%	Chrysotile	45%	Min. Wool	40%	Other
186		Grey Fibrous Homogeneous	Crushed		None Detected	65%	Min. Wool	35%	Other
187		Grey Fibrous Homogeneous	Crushed		None Detected	65%	Min. Wool	35%	Other
188		Grey Fibrous Homogeneous	Crushed		None Detected	60%	Min. Wool	40%	Other

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POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
M189	Tile	Grey Non-Fibrous Homogeneous	Crushed/Dissolved	2%	Chrysotile			98%	Other
M189A	mastic	Black Non-Fibrous Homogeneous	Teased	10%	Chrysotile	2%	Cellulose	88%	Other
M192		Grey Other Homogeneous	Crushed		None Detected	15%	Cellulose	85%	Other
M193		Grey Other Homogeneous	Crushed		None Detected	10%	Cellulose	90%	Other
M194		Grey Other Homogeneous	Crushed		None Detected	10%	Cellulose	90%	Other
M195	Paint	Black Non-Fibrous Homogeneous	Teased		None Detected			100%	Other

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POLARIZED LIGHT MICROSCOPY (PLM)

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SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
195A	Woven layers	White Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
195B	Brown paper	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
195C	Black paper	Black Fibrous Homogeneous	Teased		None Detected	98%	Cellulose	2%	Other
195D	White paper	White Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
198	Paint	Black Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
196A	Woven layers	White Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		

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SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
M196B	Brown paper	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M196C	Black paper	Black Fibrous Homogeneous	Teased		None Detected	98%	Cellulose	2%	Other
M196D	White paper	White Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M197	Paint	Black Non-Fibrous Homogeneous	Ashed/Crushed		None Detected			100%	Other
M197A	Woven layers	White Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		
M197B	Brown paper	Brown Fibrous Homogeneous	Teased		None Detected	100%	Cellulose		

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SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
197C	Black paper	Black Fibrous Homogeneous	Teased	None Detected	98% Cellulose	2% Other
197D	White paper	White Fibrous Homogeneous	Teased	None Detected	100% Cellulose	
198		White Fibrous Homogeneous	Teased	40% Chrysotile		60% Other
201	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed	None Detected	2% Min. Wool	98% Other
201A	Ceiling tile	Grey Fibrous Homogeneous	Teased	None Detected	65% Min. Wool 35% Cellulose	
202	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed	None Detected	3% Min. Wool	97% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. So, "# of Layers" refers to number of separable subsamples.

Note: Sample- M107 (A) is at the end of report.

David H. Buetow
David Buetow
Analyst

R.K. Mahoney
Laboratory
Supervisor

Other Approved
Signatory

Westmont, NJ 609-858-4800 | Piscataway, NJ 908-981-0550 | Carle Place, NY 516-997-7251 | Manhattan, NY 212-290-0052 | Melbourne, FL 407-725-5222 | Ann Arbor, MI 313-668-6810 | San Mateo, CA 415-578-5401 | Smyrna, GA 404-333-8666

EMSL

Herrick Engineering Inc.
1705 Chatsworth Lane
Raleigh, NC 27614

Friday, April 26, 1996

Ref Number: NC962692

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
M202A	Ceiling tile	Grey Fibrous Homogeneous	Teased	None Detected	70% Min. Wool 30% Cellulose	
M203	Paint	White Non-Fibrous Homogeneous	Ashed/Crushed	None Detected	2% Min. Wool	98% Other
M203A	Ceiling tile	Grey Fibrous Homogeneous	Teased	None Detected	70% Min. Wool 30% Cellulose	
M204	Tile	Beige Non-Fibrous Homogeneous	Crushed/Dissolved	4% Chrysotile	1% Cellulose	95% Other
M204A	Mastic	Black Non-Fibrous Homogeneous	Teased	10% Chrysotile	1% Cellulose	89% Other
M207	Tile	Grey Non-Fibrous Homogeneous	Crushed/Dissolved	3% Chrysotile		97% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Note: Sample- M107 (A) is at the end of report.

David H. Buetow
David Buetow
Analyst

R.K. Mahoney
Laboratory
Supervisor

Other Approved
Signatory

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EMSL

Herrick Engineering Inc.
1705 Chatsworth Lane
Raleigh, NC 27614

Friday, April 26, 1996

Ref Number: NC962692

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
07A	Mastic	Black Non-Fibrous Homogeneous	Teased	10%	Chrysotile			90%	Other
10	Tile	White Non-Fibrous Homogeneous	Crushed/Dissolved	3%	Chrysotile			97%	Other
10A	Mastic	Black Non-Fibrous Homogeneous	Teased	10%	Chrysotile	2%	Cellulose	88%	Other
13	Tile	White Non-Fibrous Homogeneous	Crushed/Dissolved	6%	Chrysotile	1%	Cellulose	93%	Other
13A	Mastic	Black Non-Fibrous Homogeneous	Teased	12%	Chrysotile	2%	Cellulose	86%	Other
16	Tile	White Non-Fibrous Homogeneous	Crushed/Dissolved	None Detected				100%	Other

mments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately.
o, "# of Layers" refers to number of separable subsamples.
te: Sample- M107 (A) is at the end of report.

David H. Buetow
David Buetow
Analyst

R. K. Mahoney
Laboratory
Supervisor

Other Approved
Signatory

Westmont, NJ 609-858-4800 | Piscataway, NJ 908-981-0050 | Carle Place, NY 516-997-7251 | Manhattan, NY 313-290-0052 | Melbourne, FL 407-725-5823 | Ann Arbor, MI 313-668-6810 | San Mateo, CA 415-570-5401 | Smyrna, GA 404-333-8068

EMSL

Herrick Engineering Inc.
1705 Chatsworth Lane
Raleigh, NC 27614

Friday, April 26, 1996

Ref Number: NC962692

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
M216A	Mastic	Black Non-Fibrous Homogeneous	Teased	None Detected	15% Cellulose	85% Other
M217	Tile	White Non-Fibrous Homogeneous	Crushed/Dissolved	None Detected		100% Other
M217A	Mastic	Black Non-Fibrous Homogeneous	Teased	None Detected	20% Cellulose	80% Other
M218	Tile	White Non-Fibrous Homogeneous	Crushed/Dissolved	None Detected	< 1% Cellulose	100% Other
M218A	Mastic	Black Non-Fibrous Homogeneous	Teased	None Detected	20% Cellulose	80% Other
M219	Tile	Tan Non-Fibrous Homogeneous	Crushed/Dissolved	4% Chrysotile	1% Cellulose	95% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.
Note: Sample- M107 (A) is at the end of report.

David H. Buetow
David Buetow
Analyst

R.K. Mahoney
Laboratory
Supervisor

Other Approved
Signatory

Westmont, NJ 609-858-4800 | Piscataway, NJ 908-981-0650 | Carle Place, NY 516-997-7251 | Manhattan, NY 212-290-0052 | Melbourne, FL 407-725-5223 | Ann Arbor, MI 313-668-6810 | San Mateo, CA 415-570-5401 | Smyrna, GA 404-333-6068

EMSL

Herrick Engineering Inc.
1705 Chatsworth Lane
Raleigh, NC 27614

Friday, April 26, 1996

Ref Number: NC962692

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Correction Project No. 95120- Umstead Facility

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
19A	Mastic	Black Non-Fibrous Homogeneous	Teased		None Detected	5%	Cellulose	95%	Other
20A	Mastic	Black Non-Fibrous Homogeneous	Teased		None Detected	5%	Cellulose	95%	Other
21A	Mastic	Black Non-Fibrous Homogeneous	Teased		None Detected	2%	Cellulose	98%	Other
07A	Mastic	Black Non-Fibrous Homogeneous	Teased	15%	Chrysotile	5%	Cellulose	80%	Other

mments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately.
so, "# of Layers" refers to number of separable subsamples.
te: Sample- M107 (A) is at the end of report.

David H. Buetow
David Buetow
Analyst

R.K. Mahaney
Laboratory
Supervisor

Other Approved
Signatory

Westmont, NJ 609-858-4800 | Piscataway, NJ 908-981-0550 | Carle Place, NY 516-997-7251 | Manhattan, NY 212-290-0052 | Melbourne, FL 407-725-5222 | Ann Arbor, MI 313-668-6810 | San Mateo, CA 415-570-5401 | Smyrna, GA 404-333-6066 | Greensboro, NC 910-297-1487 | Houston, TX 713-688-3636

EMSL

Herrick Engineering Inc.
1705 Chatsworth Lane
Raleigh, NC 27614

Friday, May 03, 1996

Ref Number: GA96656

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Corrections/Umstead QC

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
L990QC (FLOOR TILE)		Off-White/Grey Non-Fibrous Layers # 2	Dissolved	5% Chrysotile	None Detected	95% Other
L990QC (MASTIC)		Black Non-Fibrous Layers # 2	Dissolved	5% Chrysotile	None Detected	95% Other
M009QC (FLOOR TILE)		White/Green Non-Fibrous Layers # 2	Dissolved	3% Chrysotile	None Detected	97% Other
M009QC (MASTIC)		Amber Non-Fibrous Layers # 2	Dissolved	None Detected	< 1% Cellulose	100% Other
M021QC		Pink Fibrous Homogeneous	Dissolved	15% Chrysotile 15% Amosite	None Detected	70% Other
M037QC (FLOOR TILE)		Off-White/Grey Non-Fibrous Layers # 2	Dissolved	10% Chrysotile	None Detected	90% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Craig Coombs
Analyst

Laboratory Supervisor

Other Approved Signatory

Westmont, NJ 609-858-4800 | Piscataway, NJ 908-981-0050 | Carle Place, NY 516-997-7251 | Manhattan, NY 212-290-0052 | Melbourne, FL 407-725-5223 | Ann Arbor, MI 313-668-6818 | San Mateo, CA 415-570-5401 | Smyrna, GA 404-333-6068 | Greensboro, NC 910-297-1487 | Houston, TX 713-688-3636

EMSL

Herrick Engineering Inc.
1705 Chatsworth Lane
Raleigh, NC 27614

Friday, May 03, 1996

Ref Number: GA96656

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Corrections/Umstead QC

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
M179QC		White Fibrous Homogeneous	Dissolved	None Detected	10% Cellulose	90% Other
M201QC		White/Grey Fibrous Heterogeneous	Dissolved	None Detected	40% Cellulose 50% Min. Wool	10% Other
M216QC (FLOOR TILE)		Off-White Non-Fibrous Layers # 2	Dissolved	None Detected	None Detected	100% Other
M216QC (MASTIC)		Black Non-Fibrous Layers # 2	Dissolved	None Detected	10% Cellulose	90% Other
M219QC (FLOOR TILE)		Off-White/Grey Non-Fibrous Layers # 2	Dissolved	10% Chrysotile	None Detected	90% Other
M219QC (MASTIC)		Black Non-Fibrous Layers # 2	Dissolved	None Detected	< 1% Cellulose	100% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

Craig Coombs
Analyst

Laboratory
Supervisor

Other Approved
Signatory

ortmont, NJ	Piscataway, NJ	Carle Place, NY	Manhattan, NY	Melbourne, FL	Ann Arbor, MI	San Mateo, CA	Smyrna, GA	Greensboro, NC	Houston, TX
09-858-4900	908-881-0550	516-997-7251	212-290-0463	407-725-5222	313-668-6510	415-570-5401	404-333-6068	910 297-1487	713 686-3635

EMSL

Herrick Engineering Inc.
1705 Chatsworth Lane
Raleigh, NC 27614

Friday, May 03, 1996

Ref Number: GA96656

POLARIZED LIGHT MICROSCOPY (PLM)

Project: NC Dept. of Corrections/Umstead QC

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS % TYPE	NONASBESTOS % FIBROUS	% NONFIBROUS
4037QC (MASTIC)		Black Non-Fibrous Layers # 2	Dissolved	10% Chrysotile	None Detected	90% Other
4082QC		Pink Fibrous Homogeneous	Dissolved	15% Chrysotile 15% Amosite	None Detected	70% Other
4128QC (LINOLEUM)		White/Grey/Black Fibrous Layers # 2	Dissolved	None Detected	30% Cellulose 10% Synthetic	60% Other
4128QC (MASTIC)		Brown Non-Fibrous Layers # 2	Dissolved	None Detected	5% Cellulose	95% Other
4141QC		White Fibrous Homogeneous	Crushed/Dissolved	None Detected	10% Cellulose	90% Other
4167QC		White/Beige Fibrous Heterogeneous	Teased	None Detected	90% Cellulose	10% Other

omments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. lso, "# of Layers" refers to number of separable subsamples.

Craig Coombs
Analyst

Laboratory
Supervisor

Other Approved
Signatory

STATE OF NORTH CAROLINA
OFFICE OF STATE PERSONNEL
116 WEST JONES STREET
RALEIGH 27603-8004

JAMES B. HUNT, JR.
GOVERNOR

RONALD G. PENNY
STATE PERSONNEL DIRECTOR

February 3, 1998

TO: Joe Simpson, Safety and Health Director
Department of Correction

FROM: Mary Fulmer, Accredited Asbestos Inspector #10546 MF
Risk Control Services, OSP

SUBJECT: Asbestos Inspection of the Umstead Laundry Building and Heat Reclamation Building on January 23, 1998

Chrysotile asbestos was detected in bulk samples of these materials in the Umstead Laundry Building and Heat Reclamation Building:
Sample # 4. Grey floor tile in the processing assistant's office and in the manager's office (2%)
Sample # 5. Black mastic on the grey floor tile in the processing assistant's office and in the manager's office (5%)

No asbestos was detected in bulk samples of these materials:
Samples 1 and 1A. Wall surfacing material (white paint and tan plaster and grey coat) in the processing assistant's and in the manager's office
Sample 2. Black backing on the wall surfacing material (plaster) in the processing assistant's office and in the manager's office
Sample 3. Black coating on the interior side of the brick wall in the processing assistant's office and in the manager's office
Sample 6. Brown and white ceiling tile in the processing assistant's office and in the manager's office
Sample 7. Paint and cloth wrapping on fiberglass thermal system insulation on the steam distribution line behind dryers 1-5
Sample 8. Wrapping and mud on fiberglass thermal system insulation on the inlet steam line going into dryers 1-5

Sample 9. Grey mud on fittings on the steam distribution line behind washers 1-5
Sample 10.. Grey insulation on the front and back of the hot water heater in the heat reclamation building
Sample 11. Brown mud from joint on the hot water pipes in the heat reclamation building
Sample 12. Paint and cloth wrapping on mudded joint on the hot water pipes in the heat reclamation building
Sample 13. White insulation on hot water pipe in the heat reclamation building
Sample 14. White wrapping on hot water pipe in the heat reclamation building
Sample 15. Black wrapping on fiberglass insulation on steam pipes in crawl space under hand presses in the laundry building

The samples were analyzed by EMSL Analytical, Inc. The laboratory report is attached.

cc: Randy Penland, NC Department of Correction Enterprise Laundries, 2020 Yonkers Road, Raleigh, NC 27604

EMSL Analytical, Inc.

620-G Guilford College Rd
Greensboro, NC 27409
Phone: (336) 297-1487 Fax: (336) 297-1676

Attn.: Joe Simpson
North Carolina Office of State Personnel
116 W. Jones
Raleigh, NC 27603-8004

Monday, February 02, 1998

Ref Number: NC98285

POLARIZED LIGHT MICROSCOPY (PLM)

Performed by EPA 600/R-93/116 Method*

Project: Umstead Laundry Bldg & Heat Reclamation Bldg

				ASBESTOS		NONASBESTOS	
SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	% TYPE	% FIBROUS	% NONFIBROUS	
1	Paint & Plaster	Tan/White Non-Fibrous Heterogeneous	Teased	None Detected		100% Other	
1A	Grey Coat	Grey Non-Fibrous Homogeneous	Teased	None Detected		100% Other	
2		Black Non-Fibrous Homogeneous	Dissolved/Teased	None Detected		100% Other	
3		Black Non-Fibrous Homogeneous	Dissolved/Teased	None Detected		100% Other	

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

* NY samples also analyzed by ELAP 198-1 Method

Tom Ferrante
Analyst

Approved
Signatory

EMSL Analytical, Inc.

620-G Guilford College Rd
Greensboro, NC 27409
Phone: (336) 297-1487 Fax: (336) 297-1676

Attn.: Joe Simpson
North Carolina Office of State Personnel
116 W. Jones
Raleigh, NC 27603-8004

Monday, February 02, 1998

Ref Number: NC98285

POLARIZED LIGHT MICROSCOPY (PLM)

Performed by EPA 600/R-93/116 Method*

Project: Umstead Laundry Bldg & Heat Reclamation Bldg

				ASBESTOS		NONASBESTOS	
SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	%	TYPE	% FIBROUS	% NONFIBROUS
4		Grey Non-Fibrous Homogeneous	Dissolved/Teased	2%	Chrysotile		98% Other
6		Black Fibrous Homogeneous	Dissolved/Teased	5%	Chrysotile	2% Cellulose < 1% Glass	93% Other
6		Brown/White Fibrous Heterogeneous	Teased	None Detected		98% Cellulose	2% Other
7	Paint & Cloth	Various Fibrous Heterogeneous	Teased	None Detected		60% Cellulose	40% Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

* NY samples also analyzed by ELAP 198-1 Method

Tom Ferrante
Analyst

R.K. Malone
Approved
Signatory

EMSL Analytical, Inc.

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Phone: (336) 297-1487 Fax: (336) 297-1676

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116 W. Jones
Raleigh, NC 27603-8004

Monday, February 02, 1998

Ref Number: NC98285

POLARIZED LIGHT MICROSCOPY (PLM)

Performed by EPA 600/R-93/116 Method*

Project: Umstead Laundry Bldg & Heat Reclamation Bldg

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONFIBROUS
8	Wrap & Mud	Various Fibrous Heterogeneous	Teased		None Detected	40% 20% 10%	Cellulose Glass Min. Wool	30%	Other
9		Grey Fibrous Homogeneous	Teased		None Detected	40% 10%	Glass Min. Wool	50%	Other
10		Grey Fibrous Homogeneous	Teased		None Detected	40% 10%	Glass Min. Wool	50%	Other
11		Brown Fibrous Homogeneous	Teased		None Detected	70% 20% 5%	Cellulose Glass Min. Wool	5%	Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

* NY samples also analyzed by ELAP 198-1 Method

Tom Ferrante
Analyst

Approved
Signatory

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116 W. Jones
Raleigh, NC 27603-8004

Monday, February 02, 1998

Ref Number: NC98285

POLARIZED LIGHT MICROSCOPY (PLM)

Performed by EPA 600/R-93/116 Method*

Project: Umstead Laundry Bldg & Heat Reclamation Bldg

				ASBESTOS		NONASBESTOS	
SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	% TYPE	% FIBROUS	% NONFIBROUS	
12	Paint & Cloth	Various Fibrous Heterogeneous	Teased	None Detected	70% Cellulose	30% Other	
13		White Fibrous Homogeneous	Teased	None Detected	30% Cellulose	70% Other	
14		White Fibrous Homogeneous	Teased	None Detected	100% Cellulose		
15		Black Fibrous Homogeneous	Dissolved/Teased	None Detected	25% Cellulose	75% Other	

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

* NY samples also analyzed by ELAP 198-1 Method

Tom Ferrante
Analyst

R. K. Mahoney
Approved Signatory

Attachment B

UMSTEAD CORRECTIONAL CENTER
Butner, NC

Roof Condition Report

Inspection Date: 08/22/2019

PREPARED BY:

Tal Eidson
PO Box 991
Kinston, NC 28502
tal@curtiscc.com
910-992-1180

PREPARED FOR:

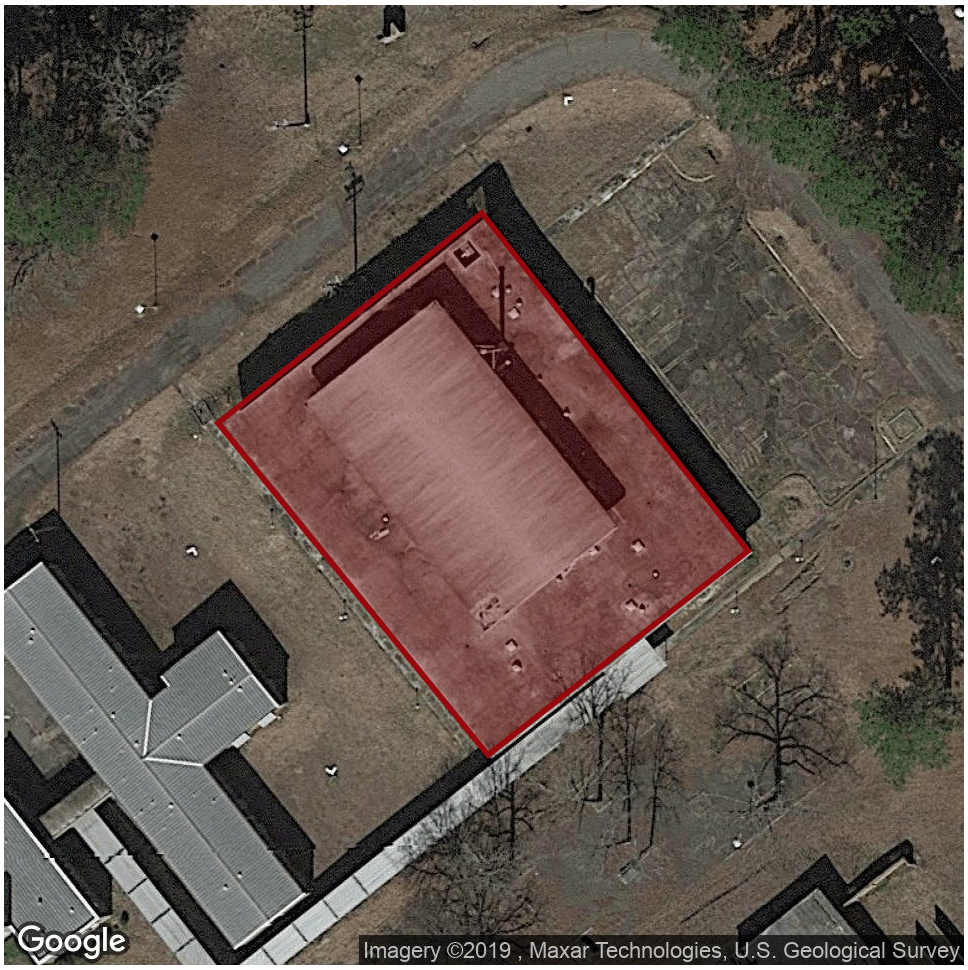
Reid Daniel
Director
Town of Butner
rdaniel@butnernc.org. Phone:
919-691-0095

FACILITY INFORMATION:

Umstead Correctional Facility
400 West D Street
Butner, NC 27509
Building Type: Dormitory/detention
Neighborhood: Open Terrain

UMSTEAD CORRECTIONAL CENTER - BUTNER, NC

Roof Repair/Replacement Costs



ROOFTOP SUMMARY:

Roof Sections: 1
Total Issues: 19
Total Details: 2

Section	Severity	Recommendation	Repair Cost	Replacement Cost
A)	Major	Replace	N/A	N/A
			$0.00	**$0.00**

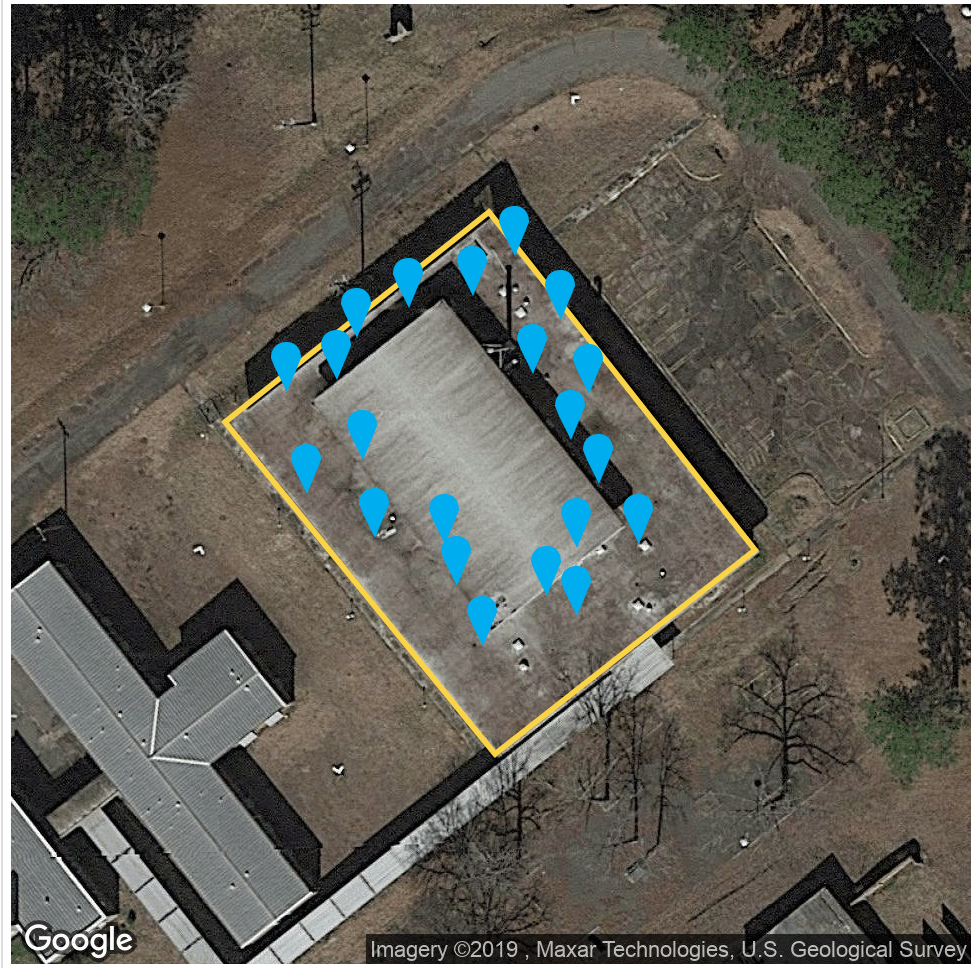
Disclaimer

This report has been prepared by an individual trained by experience and education in this industry. However, this report is not intended to be and does not constitute an expert opinion on the cause of any deficiencies found, rather it addresses such deficiencies, if found, and proposed corrective action to restore the effectiveness and long term viability of the roof. This report was not prepared by a licensed professional engineer and is not intended to be a statement or opinion concerning the quality of the installation inspected, since its focus is on remediation of any conditions found. This report is for the exclusive use for the recipient and may not be used by any other person or entity without the prior express consent of the author.

Notice: Scale drawings, preliminary specifications and documentation provided by are preliminary. The successful bidder is responsible for all building permits, field conditions and compliance with building codes. Any budgetary figures are preliminary only and not guaranties. Preliminary specifications and budgeting parameters are based upon field inspections and test cuts when applicable and are subject to revisions based upon final field conditions and construction issues. The successful bidder is responsible to conduct their own field tests and construction inspections to assure proper installation and compliance with building codes. No structural analysis has been provided in these preliminary specifications.

Versico nor their independent representatives are architects and therefore it is not the intent herein to describe all of the details for roofing and flashing. The roofing contractors shall assure themselves that they have been provided with all information and details required by the membrane manufacturer or project conditions to achieve a complete water-tight installation regardless of whether or not such information or details are expressed specifically herein. The roofing contractor shall provide immediate notice to the owner in the event the roofing contractor determines that additional information, details or drawings are necessary to achieve a complete watertight installation. All work shall be performed by the roofing contractor in accordance with local, state and federal laws, codes and regulation. Owner shall accept responsibility for the adequacy of the design and the conformance of the design with all local, state, federal laws, codes. To the extent applicable, Owner accepts responsibility for any identification, analysis removal and disposal of asbestos containing material.

Section A Overview:



Section Outcome:
Replace

Severity:
Major

Section Summary:
Section Issues: 19
Section Details: 2

Section Recommendation:
This roof system is over 20 years old. The system is in the downward trend of its life-cycle. Typically a gravel built-up system will show signs of deterioration at the perimeter edges and penetrations. This system is a product of these phenomenons. Facia, soffit, and wall restoration will also be required to create a watertight building envelope. Our recommendation is to invest in a new roof system before any building improvements are made. Normal maintenance has not been conducted and there are deficiencies and leaks throughout the roof area.

Section A:

Detail AD-1: Overview of front-side - main roof area

Detail:
Overview of front-side - main roof area

Description:
Front-side roof area.

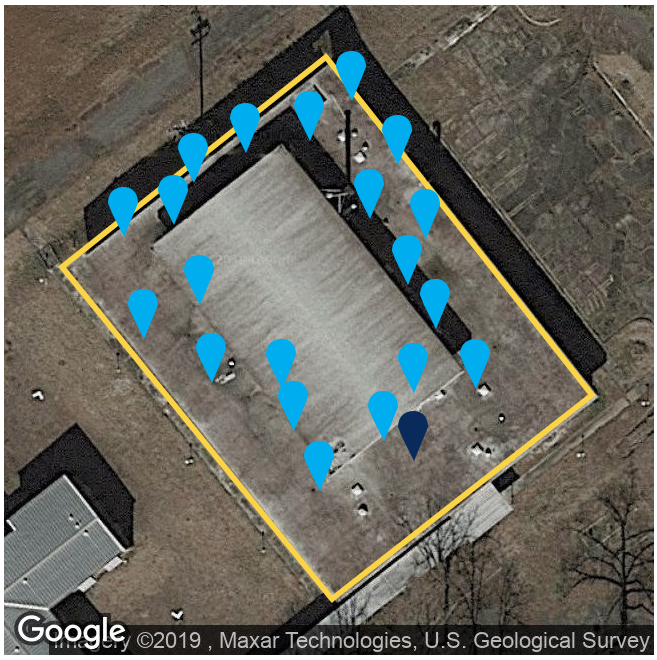


Figure 1

Figure 2

Section A:

Detail AD-2: Roof Composition

Detail:
Roof Composition

Description:
Image of roof composition (2.5") over concrete deck.

Figure 1

Figure 2

Section A:

Issue AI-1: Alligatoring

Description:
The cracking of the surfacing bitumen asphalt which occurs during the aging process in which the loss of volatile oils and the oxidation brought about by solar radiation; produces a pattern of cracks similar to an alligator's hide. The cracks may or may not extend through the surfacing bitumen.

Why is this an issue?
When alligatoring cracks extend through the entire waterproofing surface, the underlying felts can become exposed to moisture, which will progressively cause the strength in the felts to decrease. Splitting of the roof membrane may result.

Severity:
Moderate

Action:
Requires Repair

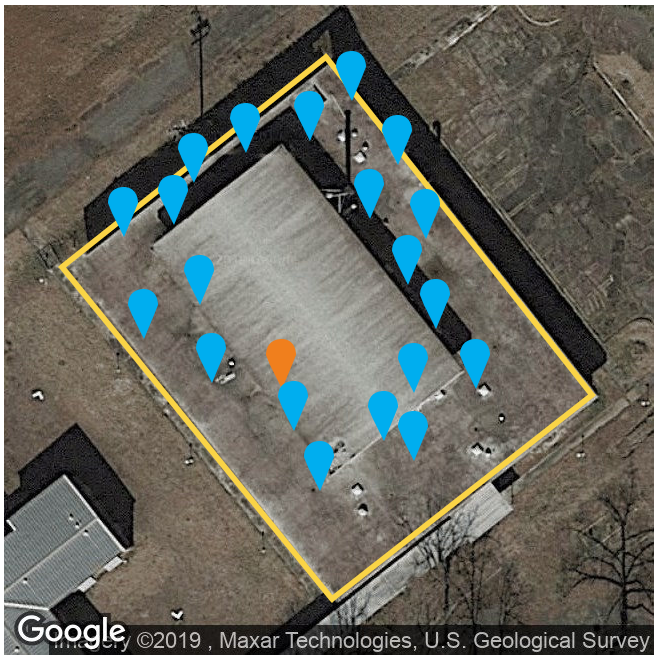



Figure 1


Figure 2


Figure 3

Section A:

Issue AI-2: Alligatoring

Description:
The cracking of the surfacing bitumen asphalt which occurs during the aging process in which the loss of volatile oils and the oxidation brought about by solar radiation; produces a pattern of cracks similar to an alligator's hide. The cracks may or may not extend through the surfacing bitumen.

Why is this an issue?
When alligatoring cracks extend through the entire waterproofing surface, the underlying felts can become exposed to moisture, which will progressively cause the strength in the felts to decrease. Splitting of the roof membrane may result.

Severity:
Moderate

Action:
Requires Repair

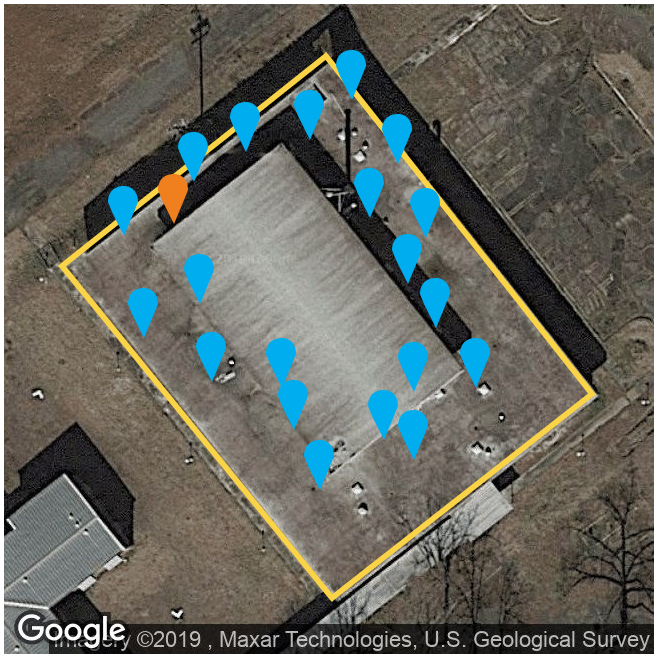


Figure 1

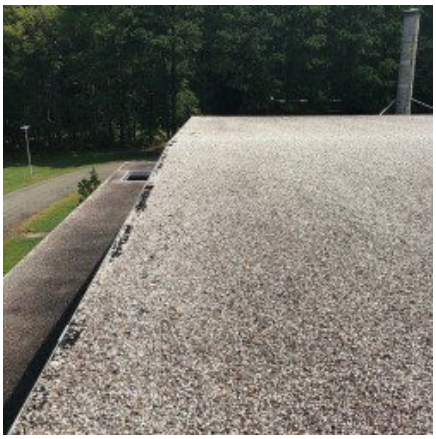


Figure 2

Section A:

Issue AI-3: Vegetation

Description:
A roof top environment that is rich with moisture and air born dirt and particulates can be the breeding ground for seeds.

Why is this an issue?
These seeds can grow into vegetation with root structures that can penetrate and rupture the strongest of roof membranes, resulting in leakage into the roof system and the building's interior.

Severity:
Moderate

Action:
Requires Repair

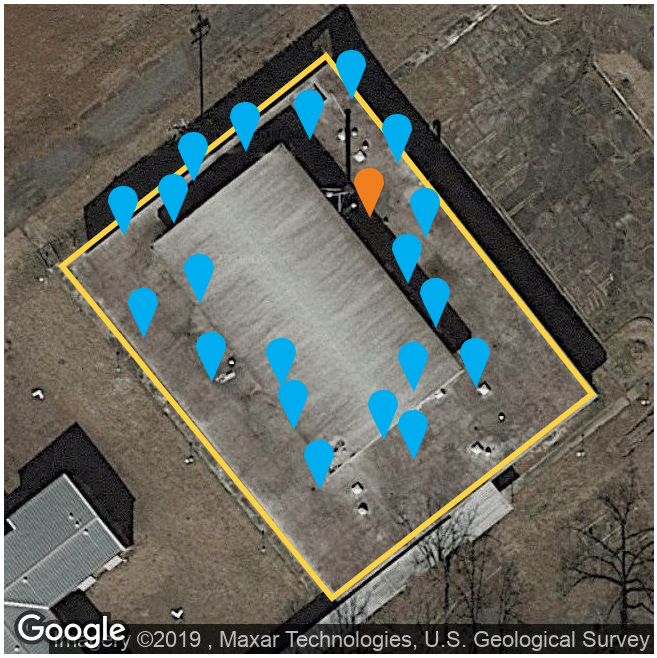


Figure 1

Figure 2

Section A:

Issue AI-4: Clogged drain

Description:
Foreign objects clogging the drain strainer or drain bowl.

Why is this an issue?
Clogged drains impede positive drainage and result in the development of ponding water conditions. Additional water adds weight to the roofing system. This condition requires immediate correction. In its extreme, this could result in deck deflection or roof collapse.

Severity:
Major

Action:
Requires Repair

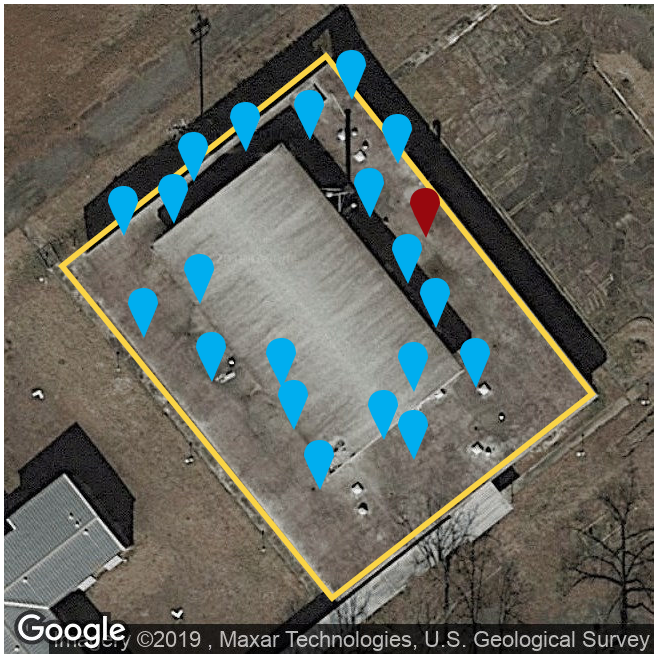


Figure 1

Section A:

Issue AI-5: Skylight/Curb Damaged

Description:
Broken skylights throughout the roof areas. Open void in roof system/building.

Why is this an issue?
Water intrusion is occurring. Interior is compromised.

Severity:
Major

Action:
Requires Repair

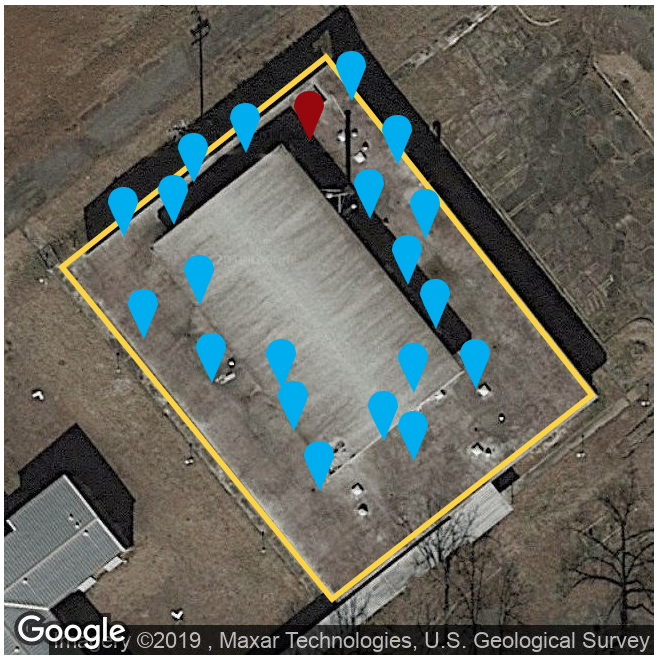


Figure 1

Section A:

Issue AI-6: Drain broken strainer

Description:
Drains are installed with strainers to prevent debris and other foreign objects from entering the piping system.

Why is this an issue?
Broken or missing roof drain strainers may allow dirt and debris into roof drains. This condition may clog or impede drainage causing ponding water on the roof. If the roof membrane or drain flashing is compromised in a ponding area, the water may drain into the roof system and into the building.

Severity:
Major

Action:
Requires Repair

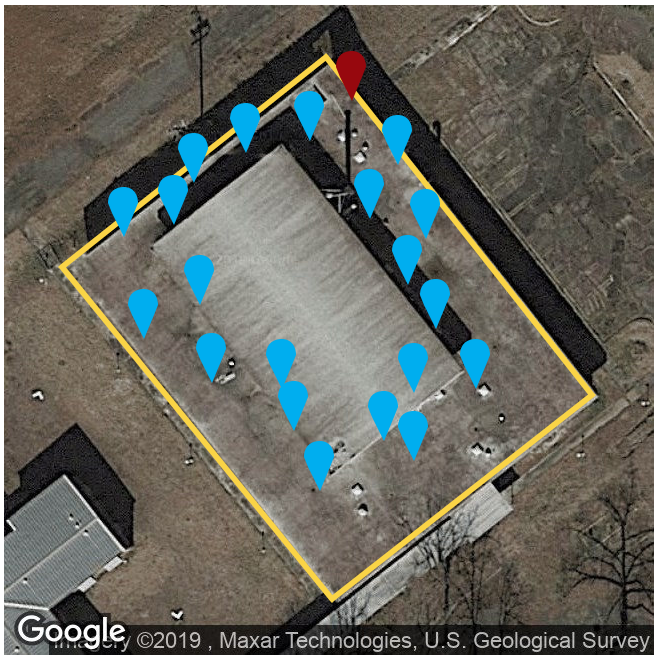


Figure 1

Section A:

Issue AI-7: Open siding

Description:
Open siding allows driving rain and snow to enter the building.

Why is this an issue?
Building wall siding must be watertight and sealed from driving rain and snow. Open siding allows moisture and water to enter the building or roof system, causing deterioration and failure of insulation substrates and interior finishes.

Severity:
Major

Action:
Requires Repair

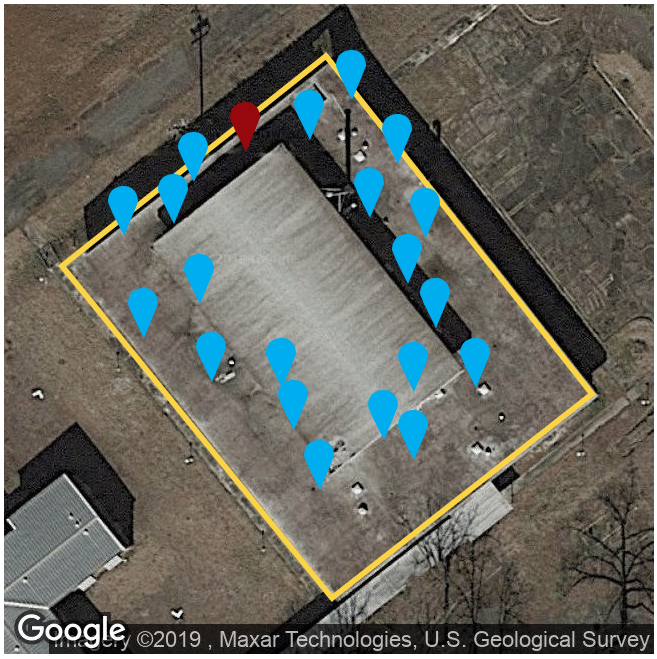


Figure 1

Section A:

Issue AI-8: Clogged drain

Description:
Foreign objects clogging the drain strainer or drain bowl.

Why is this an issue?
Clogged drains impede positive drainage and result in the development of ponding water conditions. Additional water adds weight to the roofing system. This condition requires immediate correction. In its extreme, this could result in deck deflection or roof collapse.

Severity:
Major

Action:
Requires Repair

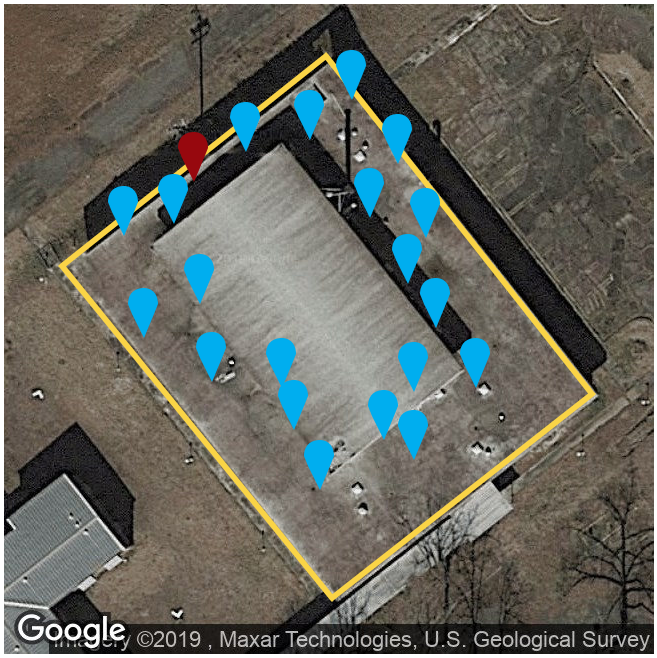


Figure 1

Figure 2

Section A:

Issue AI-9: Broken Skylight

Description:
Skylight/curb is damaged. Open void to building's interior.

Why is this an issue?
Water intrusion is occurring. Building's interior is compromised.

Severity:
Major

Action:
Requires Repair

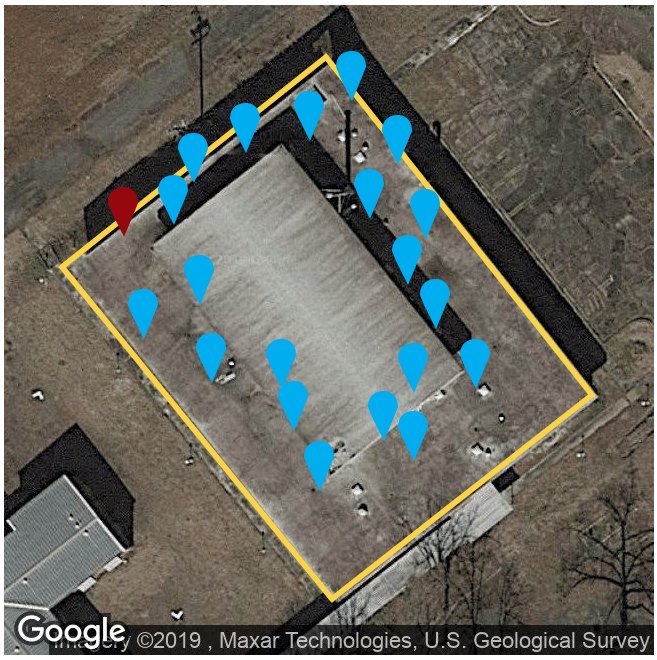


Figure 1

Section A:

Issue AI-10: Open siding

Description:
Open siding allows driving rain and snow to enter the building.

Why is this an issue?
Building wall siding must be watertight and sealed from driving rain and snow. Open siding allows moisture and water to enter the building or roof system, causing deterioration and failure of insulation substrates and interior finishes.

Severity:
Major

Action:
Requires Repair

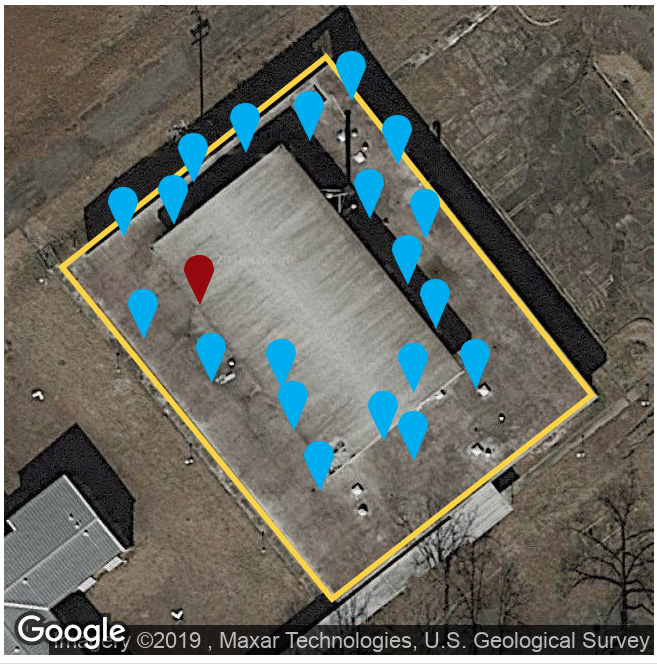
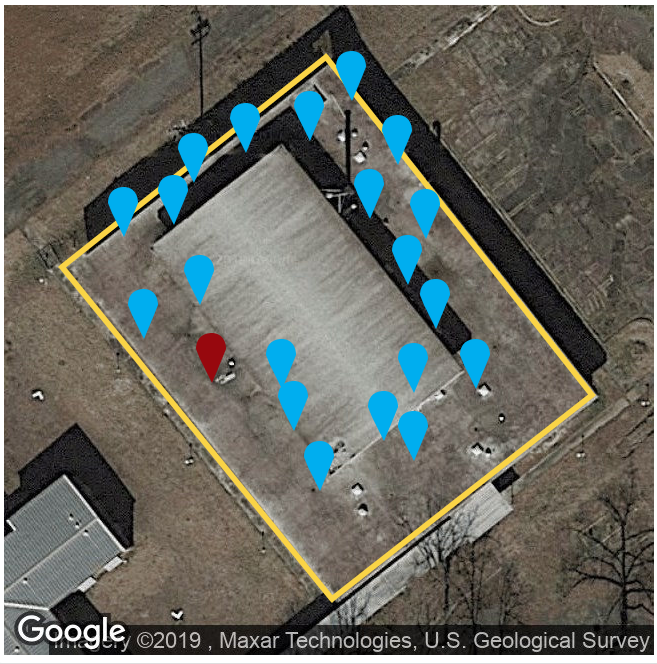


Figure 1

Section A:

Issue AI-11: Ponding

Description:
Ponding water can be traced to any of several factors. First, a roof may pond water as a result of poor housekeeping on the roof which contributes to clogged drains, gutters and downspouts. The build up of roof top debris or displaced gravel ballast frequently blocks water flow and creates ponds. Secondly, the building's roof top drainage system may not have been designed properly. Finally, ponds form as a result of such common conditions as building settlement and deck deflection.



Why is this an issue?
The NRCA has classified "undesirable" ponding water as standing for more than 48 hours, though ponding can pose a threat in even shorter time spans. Since ponds occur in low areas of a roof, a pond becomes a repository for debris, sediment, and chemical emissions. Ponding encourages microorganism and bacterial degradation, roof deflection, magnified ultraviolet exposure and premature failure of the roof system. A matter of "deep" concern in the roofing industry is the fact that a 1" deep pond weighs 5.2 lbs. / sq. ft. and many structures cannot handle this extra load.

Severity:
Major

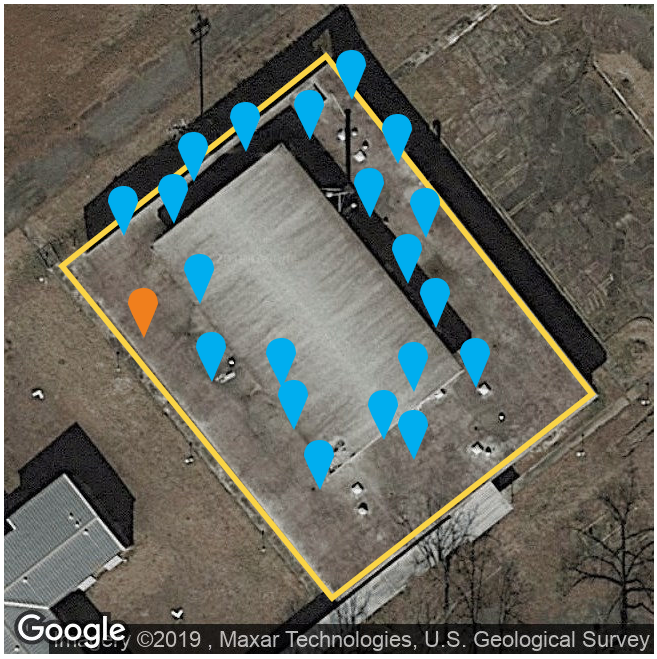
Action:
Requires Repair

Figure 1

Section A:

Issue AI-12: Ponding

Description:
Ponding water can be traced to any of several factors. First, a roof may pond water as a result of poor housekeeping on the roof which contributes to clogged drains, gutters and downspouts. The build up of roof top debris or displaced gravel ballast frequently blocks water flow and creates ponds. Secondly, the building's roof top drainage system may not have been designed properly. Finally, ponds form as a result of such common conditions as building settlement and deck deflection.



Why is this an issue?
The NRCA has classified "undesirable" ponding water as standing for more than 48 hours, though ponding can pose a threat in even shorter time spans. Since ponds occur in low areas of a roof, a pond becomes a repository for debris, sediment, and chemical emissions. Ponding encourages microorganism and bacterial degradation, roof deflection, magnified ultraviolet exposure and premature failure of the roof system. A matter of "deep" concern in the roofing industry is the fact that a 1" deep pond weighs 5.2 lbs. / sq. ft. and many structures cannot handle this extra load.

Severity:
Moderate

Action:
Requires Repair

Figure 1

Figure 2

Section A:

Issue AI-13: Drain broken strainer

Description:
Drains are installed with strainers to prevent debris and other foreign objects from entering the piping system.

Why is this an issue?
Broken or missing roof drain strainers may allow dirt and debris into roof drains. This condition may clog or impede drainage causing ponding water on the roof. If the roof membrane or drain flashing is compromised in a ponding area, the water may drain into the roof system and into the building.

Severity:
Major

Action:
Requires Repair

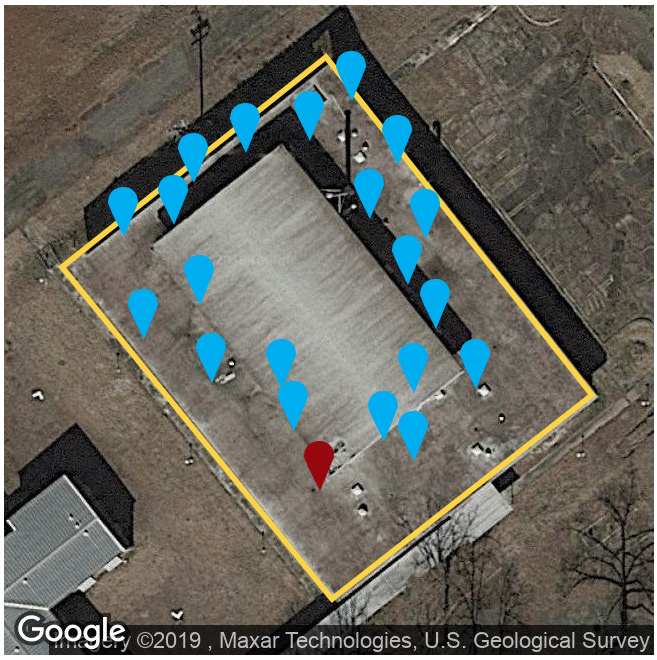


Figure 1

Section A:

Issue AI-14: Open siding

Description:
Open siding allows driving rain and snow to enter the building.

Why is this an issue?
Building wall siding must be watertight and sealed from driving rain and snow. Open siding allows moisture and water to enter the building or roof system, causing deterioration and failure of insulation substrates and interior finishes.

Severity:
Major

Action:
Requires Repair

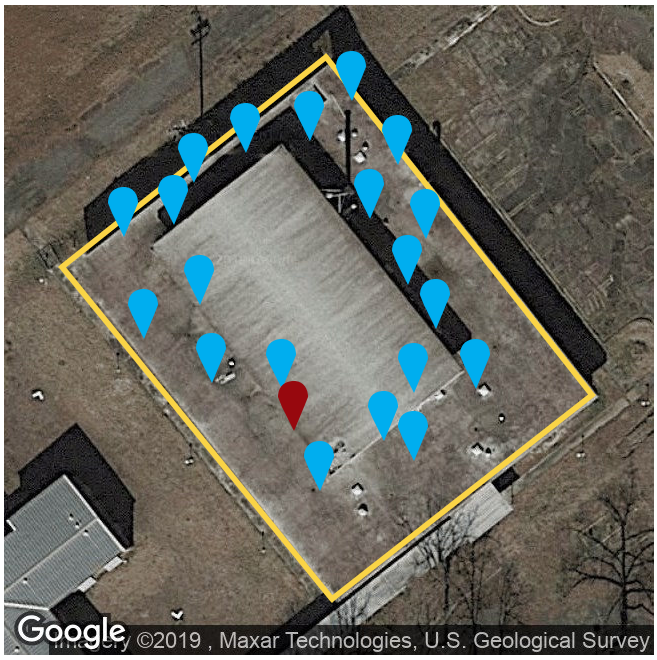


Figure 1

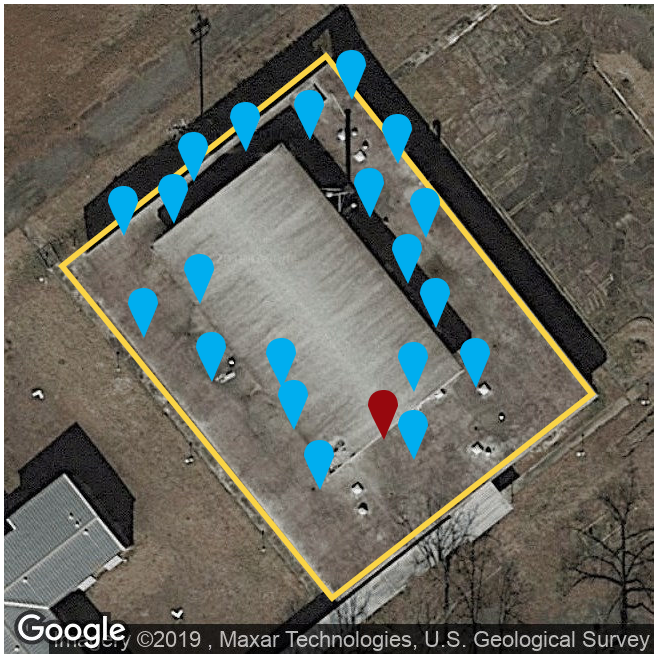
Figure 2

Section A:

Issue AI-15: Debris

Description:
Any foreign objects on the surface of the roof. These foreign objects could include vegetation such as dead leaves and man made objects such as broken glass, nails, etc.

Why is this an issue?
The buildup of rooftop debris frequently impedes positive drainage, clogs drains and results in the development of ponding water conditions. In its extreme, this could result in roof collapse. Sharp foreign objects can puncture a roof membrane if stepped upon, resulting in wet insulation, roof leaks and interior damage.



Severity:
Major

Action:
Requires Repair

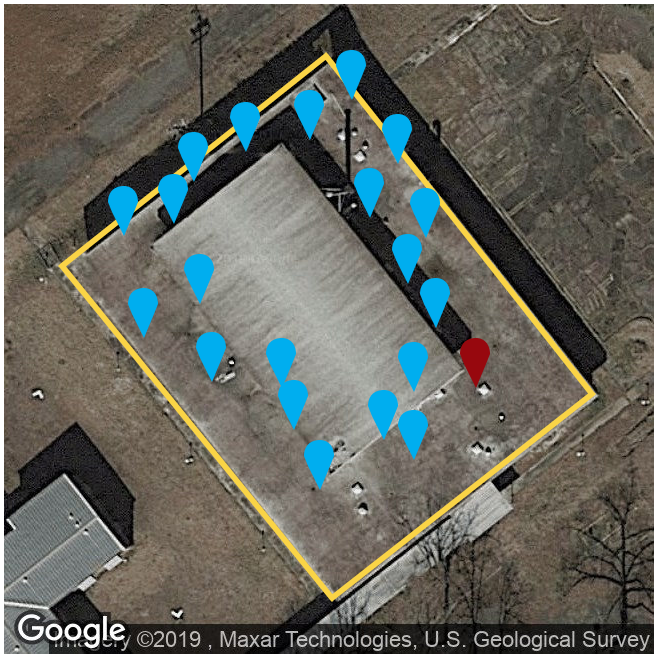
Figure 1

Figure 2

Section A:

Issue AI-16: Alligatoring

Description:
The cracking of the surfacing bitumen asphalt which occurs during the aging process in which the loss of volatile oils and the oxidation brought about by solar radiation; produces a pattern of cracks similar to an alligator's hide. The cracks may or may not extend through the surfacing bitumen. This is typical of the majority of curbs throughout the roof area.



Why is this an issue?
When alligatoring cracks extend through the entire waterproofing surface, the underlying felts can become exposed to moisture, which will progressively cause the strength in the felts to decrease. Splitting of the roof membrane may result.

Severity:
Major

Action:
Requires Repair

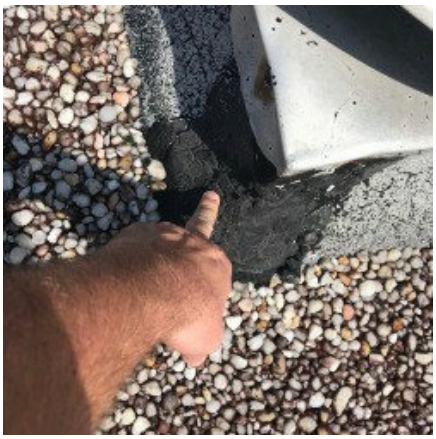


Figure 1

Figure 2

Section A:

Issue AI-17: Open siding

Description:
Open siding allows driving rain and snow to enter the building.

Why is this an issue?
Building wall siding must be watertight and sealed from driving rain and snow. Open siding allows moisture and water to enter the building or roof system, causing deterioration and failure of insulation substrates and interior finishes.

Severity:
Major

Action:
Requires Repair

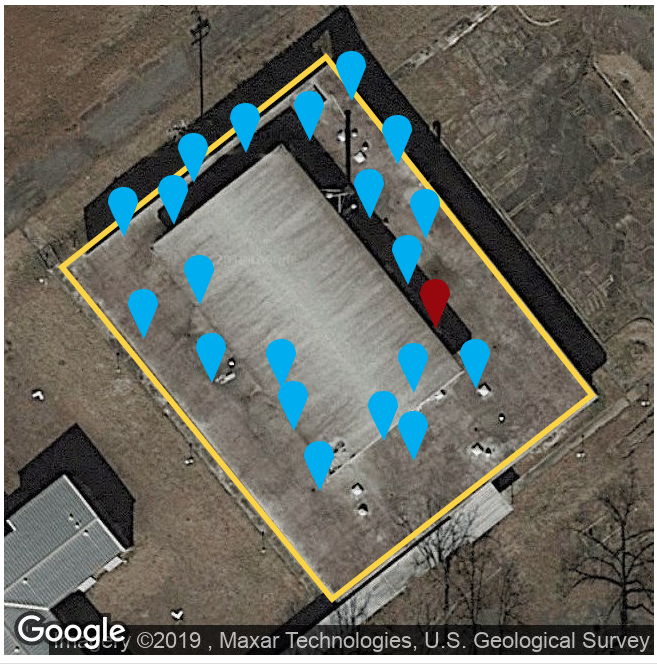


Figure 1

Figure 2

Section A:

Issue AI-18: Flashing defect - crazed and cracked

Description:
Flashings exhibit a crazed or cracked appearance in the top layer of the flashings surface. Extended exposure to UV rays over time causes the flashing to split.

Why is this an issue?
Splits permit water entry into the roofing system and potentially into the building interior.

Severity:
Major

Action:
Requires Repair

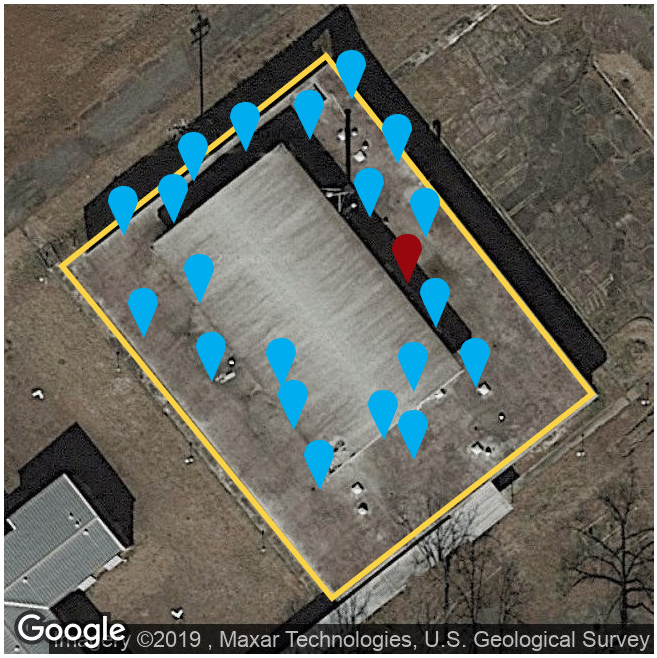


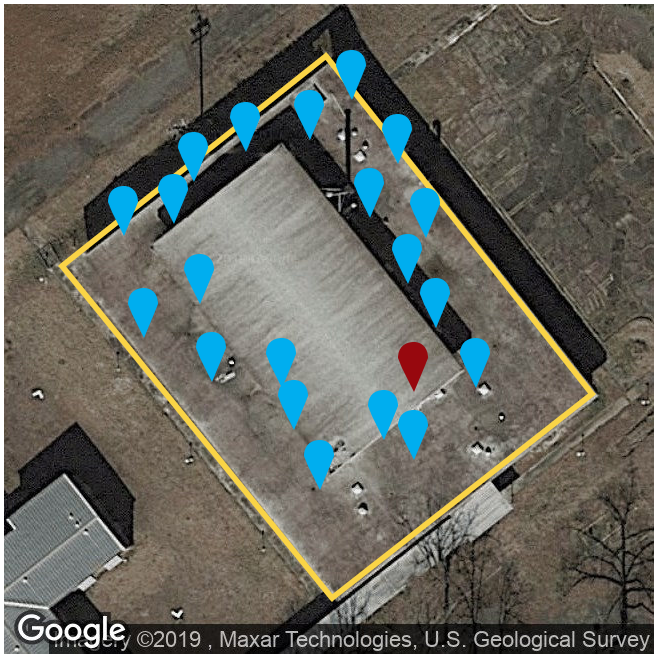
Figure 1

Figure 2

Section A:

Issue AI-19: Masonry deterioration

Description:
Open masory wall and coping mortar joints resulting from wall movement, disbonding, cracked or deteriorated mortar. Masonary wall and coping mortar joints are the most common means of water entry into a masonry wall.



Why is this an issue?
Water penetration is responsible for many of the problems in masonry walls. If a wall is saturated with water, freezing and thawing may cause cracking, spalling, and disintegration. Water and moisture can cause masonry to experience dimensional changes, metal to corrode, insulation to lose its effectiveness, interior finishes to deteriorate and efflorescence to appear on exterior surfaces.

Severity:
Major

Action:
Requires Repair

Figure 1

Attachment C

CURTIS
CONSTRUCTION CO., INC.
ROOFING & SHEET METAL

PO Box 991
Kinston, NC 28502

T 252.523.1078
F 252.523.6151

CurtisCC.com

August 23rd, 2019

BUDGET/ESTIMATE FOR RE-ROOF

Town of Butner
Public Works
403 West G Street
Butner, NC 27509

Attention: **Reid Daniel**
Director

Reference: **Umstead Correctional Facility – Roof Assessment & Re-Roofing**
Budgetary Figure

Reid,

We propose to provide the labor, material, taxes, insurance, equipment, permits and supervision to provide the following scope of work:

Roof System Details

- Demo existing roof system down to the concrete decking. Any work-related debris will be disposed of in local County landfill.
- Install vapor barrier over existing concrete deck.
- Fully adhere polyisocyanurate insulation board (insulation system/design to be determined).
- Fully adhere a 36-mil FiberTite membrane roof as per Manufacturer's details and instructions per building specific wind uplift calculations and to meet NC Building Code requirements.
- Flash all perimeters and penetrations as per Manufacturer's details and instructions. At existing parapet walls, new membrane will be terminated at existing coping with new counter-flashing.
- Fabricate and install counter-flashing from 24-gauge pre-finished steel. Standard colors only.

See Page 2

CURTIS
CONSTRUCTION CO., INC.
ROOFING & SHEET METAL

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Kinston, NC 28502

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CurtisCC.com

- Upon completion and final acceptance, a Contractor's (2) year warranty will be issued in conjunction with a Manufacturer's Total System (25) year warranty.

All for the sum of……$575,000.00

This information is only for budget/planning. A formal proposal will be provided upon request.

Sincerely,

Tal Eidson
Business Development
Curtis Construction Company, Inc.

Budgeted Roof Area

Attachment D

BUDGET PROPOSAL

D. H. GRIFFIN WRECKING CO., INC.
421 RALEIGH VIEW ROAD, RALEIGH, NC 27610
PHONE 919-772-4711 FAX 919-772-4311
www.dhgriffin.com - License # 35452

PROPOSAL TO: HagerSmith Design **DATE: January 27, 2012**
ATTN: Tony Conner **DHGW Proposal #: 1950-120**
JOB NAME: Correctional Facility Demolition **LOCATION: 400 West D St., Butner, NC**
Direct: 919-838-5104 **EMAIL: tconner@hagersmith.com**

Based on site inspection and verbal descriptions, D. H. Griffin Wrecking Co., Inc. (DHGW) proposes the following scope of services:

1. Provide necessary labor, equipment, trucking, disposal cost, materials, insurance, etc. to perform work as indicated.
2. DHGW will demolish and dispose of materials off site in accordance with local, state and federal regulations.
3. Coordinate all utility disconnects with the appropriate agencies
4. Apply for and secure the Town of Butner demolition permit when approved
5. Remove Freon as mandated by state regulations
6. File required *National Emission Standards for Hazardous Air Pollutants* (NESHAP) forms ten (10) working days prior to commencement of any work related activities as mandated by state and federal law.
7. Demolish and dispose of the existing buildings (main, gym, & maintenance) complete with slabs grade beams and footers.
8. Remove and dispose of asphalt paving.
9. Rough grade areas utilizing on site material

We propose hereby to perform the work as listed above for the BUDGET lump sum amount of: Six Hundred Ninety-Five Thousand Dollars ($695,000.00) **

Project Clarification:

** **Owner to provide water and electrical for abatement****
** **Owner to provide abatement design, air monitoring, and clearance****
** **Building demolition includes the removal of slabs, grade beams, and footers****
** **Price includes one (1) mobilization****
** **Engineering layout if required is by others****
** **The above quote is based on working Monday – Friday ****
** **Any delays or stoppages of work will be handled as an extra cost incurred by DHGW and will be invoiced to the owner or general contractor at an hourly or daily rate on equipment and labor****

DHGW does exclude the following items:

- Removal of underground utilities
- Protection and/or replacement of driveways and sidewalks that are to remain
- Demolition and/or removal of above and/or below ground items other then the above-mentioned
- Removal and/or protection of fences, trees and shrub
- Relocation, evacuation, disconnection, rerouting, capping, locating and marking of utilities within the demolition limits or protection of unmarked utilities within the limits of demolition
- Sediment or erosion control, tree protection, construction/ security fences and barricades
- Backfill and compaction
- Removal and disposition of any hazardous or asbestos materials, including paint, except those items, if any, which are described and itemized above, whether concealed or not.
- Identification or removal of underground storage tanks (USTs) or their contents, removal of tires, and oil
- Cost of performance and payment bonds (*can be provided at an additional cost*)
- Signs and/or barricades

DHGW retains salvage rights to materials under contract.

If awarded contract, DHGW requests that a signed copy of this proposal become part of contract documents.

Payment to be made as follows: **Upon Completion or Monthly Progress Billings**

All payments are due and payable as noted. Whenever retainage is required to be withheld, upon completion of D.H. Griffin Wrecking Company, Inc.'s (DHGW) scope of work (contract or sub-contract) DHGW will issue an invoice for work performed and a separate final invoice for retainage. All retainage is to be paid in full no later than forty-five (45) days from date of final invoice. Should the project duration exceed thirty (30) days monthly progress billings will be submitted and paid within thirty (30) days of submission. The undersigned further

agrees to pay to D.H. Griffin Wrecking Company, Inc., a reasonable attorney's fee if the obligation evicenced hereby be collected by an attorney-at-law after maturity. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate.

Authorized Signature: *Ed Blount*

NOTE: This proposal may be withdrawn by DHGW if not accepted within 30 days of above date.

Ed Blount – Estimator; Mobile # 919-427-2174 // eblount@dhgriffin.com

PLEASE SIGN, DATE AND RETURN ORIGINAL

Acceptance of Proposal *– The above prices, specifications and conditions are satisfactory and are hereby accepted. You are* ***authorized to do the work as specified. Payment will be made as outlined above.***

Signature	Name and Title	Date of Acceptance