

NARRATIVE REPORT

1.0 BUILDING INFORMATION

West Dining Center was originally constructed in 1972; although specific information could not be located, small renovations are evident.

West Dining Center is a two-story, 25,772 ft² building which primarily serves as classroom and cafeteria areas for students. Sevrinson Hall (A067) and Thompson Hall (A068) are attached via a tunnel system to the east side of West Dining Center and are each reported separately; Seim Hall (A076) and Pavak Hall (A077) are attached via a tunnel system to the west side of West Dining Center and are each reported separately. Both tunnel systems (east and west) are included in this report.

The interior floor finishes included carpet, floor tile, linoleum, concrete, brick, and ceramic tile; the interior wall finishes included plaster, concrete, wood, brick, concrete block, ceramic block, gypsum wallboard, and carpet; and the interior ceiling finishes included concrete, ceiling tile, plaster, and ceramic tile. The roofing system is a flat rubber-membrane roof and the exterior of the structure is brick.

The piping systems were insulated; fiberglass pipe insulation (with and without hard fittings) is located in the building. Steam enters the building from the west tunnel system; steam is supplied by Seim hall (A076). Domestic water enters the building in room 11. HVAC systems located in the building consisted of forced air furnaces equipped with heating/cooling coils.

2.0 ASBESTOS SURVEY INFORMATION

West Dining Center was surveyed as part of a larger project on NDSU's Fargo, ND Campus. This report is part of "Volume 8" of a nine volume series. This report includes building specific information only; please refer to the opening section of "Volume 8" for methodologies, definitions, and other pertinent supporting information.

A total of 103 samples were collected from suspect asbestos-containing materials (ACM) from West Dining Center on June 8, 2007, an additional 1 sample was collected on February 27, 2008, and an additional 14 samples were collected on March 10, 2008. Laboratory analysis results indicate **21 of these samples tested positive for asbestos.**

2.1 Suspect Materials Identified and Sampled

| | |
|--|-----------------------------|
| Ceiling Tile (7 types) | Joint Compound (3 types) |
| Gypsum Wallboard | Window Caulk |
| Floor Surfacing | Stair Tread Adhesive |
| Floor Tile (2 types) | Floor Tile Mastic (2 types) |
| Carpet Mastic (2 types) | Floor Filler Material |
| Baseboard Adhesive (2 types) | Hard Plaster- Basecoat |
| Wall Texture (3 types) | Hard Plaster- Skimcoat |
| Gray HVAC Duct Caulk | Concrete Wall Coating |
| Hard Fittings on Fiberglass Insulation | Tank Insulation (2 types) |
| Encapsulant on Fiberglass Insulation | Rainleader Bowl Insulation |
| Tar Pipe Wrap | Penetration Putty (on wire) |
| Exterior Window Caulk (4 types) | Roof Flashing |

Exterior Window/Door System Caulk (2 types)
 Sink Undercoating
 Underlayment Paper for Linoleum (2 types)
 Window Glazing (2 types)

Ceiling Texture (3 types)
 Sink/Counter Undercoating (2 types)
 Linoleum (2 types)
 Window Glazing on Door

The Asbestos Bulk Sample Results Table includes asbestos sampling data.

2.2 **Asbestos Containing Materials**

Window Caulk
 Troweled Wall Texture (residual adhesive)
 Tank #80-011-19 Insulation
 Small Red Vertical Tank Insulation
 Exterior Window Caulk (1 type)
 Waffle Slab Ceiling Texture
 East Tunnel System Ceiling Texture
 2'x2' White/Beige Ceiling Tile with Squiggles
 Pink Sink Undercoating
 Silver/Tan Sink/Counter System Undercoating
 Black Sink/Counter System Undercoating
 Underlayment Paper for Tan Pebble Pattern Linoleum
 Window Glazing (2 types)
 Window Glazing on Door

The ACM Locations/ Friable Materials Assessments Table includes ACM locations data.

2.3 **Cost Estimates**

Legend Technical Services Inc. estimates abatement costs (removal & disposal) of ACM for West Dining Center Hall as follows:

| ACM | QUANTITY | UNIT COST | TOTAL COST |
|---|-----------------------|-------------------------|--------------------|
| Asbestos Window Caulk (all types) | 46 ea | \$125.00/ea | \$5,750.00 |
| Asbestos Wall Texture | 215 ft ² | \$7.50/ft ² | \$1,612.50 |
| Asbestos Tank Insulation | 40 ft ² | \$10.00/ft ² | \$400.00 |
| Asbestos Ceiling Texture (all types) | 5,742 ft ² | \$7.50/ft ² | \$43,065.00 |
| Asbestos Ceiling Tile | 75 ea | \$60.00/ea | \$4,500.00 |
| Asbestos Sink & Sink/Counter Undercoating (all types) | 3 ea | \$150.00/ea | \$450.00 |
| Asbestos Underlayment Paper | 559 ft ² | \$4.00/ft ² | \$2,236.00 |
| Asbestos Window Glazing (all types) | 11 ea | \$225.00/ea | \$2,475.00 |
| Total Estimated Abatement Costs: | | | \$60,488.50 |

2.4 **Survey Notes**

LEGEND collected samples of 7 separate types (homogeneous areas) of ceiling tile throughout West Dining Center. A review of the data indicates 1 type is ACM: 2'x2' White/Beige Ceiling Tile with Squiggles. This ceiling tile was identified in hallways 88 and 188 and in rooms 1, 6, 6E, and 6G; in each location several other types of ceiling tile were present. A set of ACM Ceiling Tile Locations Diagrams has been included with this report to provide exact locations of the ACM ceiling tile.

Due to multiple varieties of ceiling tile in each area, LEGEND was unable to determine if the ACM ceiling tile was original vintage or a replacement vintage. LEGEND recommends abating all ceiling tile in hallways 88 and 188 and rooms 1, 6, 6E, and 6G; due to the possible contamination of the ceiling tile track that would have resulted from the ACM tile being the original vintage.

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
WEST DINING CENTER (BUILDING A080)

| ROOM/ ACM | ASBESTOS TYPE | EST. QUANTITY | ACM TYPE | MATERIAL CONDITION | DAMAGE POTENTIAL | LOW MOD HIGH | ASSES. CAT. ¹ | NOTES |
|--|---------------|------------------|------------------------------|-----------------------|--------------------------------------|---|-----------------------------|--|
| Room 1 Abated Winter/Spring 2010 | | | | | | | | |
| 2'x2' White/Beige Ceiling Tile with Squiggles | 3% Amosite | 22 ea | Friable Miscellaneous | Damaged | Physical Air Erosion Vibration | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 4 | Refer to the ACM Ceiling Tile Locations Diagram for exact locations. |
| Room 6 Abated Winter/Spring 2010 | | | | | | | | |
| 2'x2' White/Beige Ceiling Tile with Squiggles | 3% Amosite | 3 ea | Friable Miscellaneous | Damaged | Physical Air Erosion Vibration | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 4 | Refer to the ACM Ceiling Tile Locations Diagram for exact locations. |
| Room 6E Abated Winter/Spring 2010 | | | | | | | | |
| 2'x2' White/Beige Ceiling Tile with Squiggles | 3% Amosite | 1 ea | Friable Miscellaneous | Damaged | Physical Air Erosion Vibration | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 4 | Refer to the ACM Ceiling Tile Locations Diagram for exact locations. |
| Room 6C Abated Winter/Spring 2010 | | | | | | | | |
| Window Caulk | 5% Chrysotile | 2 windows | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | N/A* | The asbestos window caulk is around the windows in the south wall. |
| Room 6D Abated Winter/Spring 2010 | | | | | | | | |
| Window Caulk | 5% Chrysotile | 1 window | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | N/A* | The asbestos window caulk is around the window in the south wall. |
| Room 6F Abated Winter/Spring 2010 | | | | | | | | |
| Window Caulk | 5% Chrysotile | 1 window | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | N/A* | The asbestos window caulk is around the window in the south wall. |

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
WEST DINING CENTER (BUILDING A080)

| ROOM/ ACM | ASBESTOS TYPE | EST. QUANTITY | ACM TYPE | MATERIAL CONDITION | DAMAGE POTENTIAL | LOW MOD HIGH | ASSES. CAT. ¹ | NOTES |
|--------------|---------------|------------------|----------|-----------------------|---------------------|--------------------|-----------------------------|-------|
|--------------|---------------|------------------|----------|-----------------------|---------------------|--------------------|-----------------------------|-------|

Room 6G Abated Winter/Spring 2010

| | | | | | | | | |
|--|------------|-------|--------------------------|------|-------------|---|---|--|
| 2'x2' White/Beige Ceiling Tile with Squiggles | 3% Amosite | 14 ea | Friable Miscellaneous | Good | Physical | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | 6 | Refer to the ACM Ceiling Tile Locations Diagram for exact locations. |
| | | | | | Air Erosion | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | | |
| | | | | | Vibration | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | | |

Room 6J Now Rooms 70, 72, 82 and 84 along with east wall of hallways outside those rooms.

| | | | | | | | |
|---|---------------|--------------------|------------------------------|------|------|------|--|
| Troweled Wall Texture (residual adhesive) | 2% Chrysotile | 83 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | The asbestos troweled wall texture is on the east wall. |
| Window Caulk | 5% Chrysotile | 2 windows | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | The asbestos window caulk is around the windows in the south wall. |

Abated Winter/Spring 2010

Room 6K Now Rooms 70, 72, 82 and 84 along with east wall of hallways outside those rooms.

| | | | | | | | |
|---|---------------|--------------------|------------------------------|------|------|------|---|
| Troweled Wall Texture (residual adhesive) | 2% Chrysotile | 60 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | The asbestos troweled wall texture is on the east wall. |
|---|---------------|--------------------|------------------------------|------|------|------|---|

Room 6L Now Rooms 70, 72, 82 and 84 along with east wall of hallways outside those rooms.

| | | | | | | | |
|---|---------------|--------------------|------------------------------|------|------|------|---|
| Troweled Wall Texture (residual adhesive) | 2% Chrysotile | 72 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | N/A* | The asbestos troweled wall texture is on the east wall. |
|---|---------------|--------------------|------------------------------|------|------|------|---|

Room 11 Abated May 2008

| | | | | | | | | |
|---|-----------------------------|--------------------|----------------|---------|-------------|---|---|--|
| Tank #80-011-19 Insulation | 5% Chrysotile 5% Amosite | 15 ft ² | Friable TSI | Damaged | Physical | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | 1 | Tank #80-011-19 is painted red and is in the east end of the room. |
| | | | | | Air Erosion | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | | |
| | | | | | Vibration | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | | |
| Small Red Vertical Tank Insulation | 70% Chrysotile | 25 ft ² | Friable TSI | Damaged | Physical | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | 1 | The small red vertical tank is in the east end of the room. |
| | | | | | Air Erosion | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | | |
| | | | | | Vibration | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | | |

* = Non-Friable materials were not assessed

LEGEND TECHNICAL SERVICES, INC.
ACM LOCATIONS/FRIABLE MATERIALS ASSESSMENTS TABLE

LEGEND No. 0700048 (NDSU)
WEST DINING CENTER (BUILDING A080)

| ROOM/ ACM | ASBESTOS TYPE | EST. QUANTITY | ACM TYPE | MATERIAL CONDITION | DAMAGE POTENTIAL | LOW MOD HIGH | ASSES. CAT. ¹ | NOTES |
|--------------|---------------|------------------|----------|-----------------------|---------------------|--------------------|-----------------------------|-------|
|--------------|---------------|------------------|----------|-----------------------|---------------------|--------------------|-----------------------------|-------|

Hallway 88

| | | | | | | | | |
|--|---------------|-----------|------------------------------|---------|--|--|------|---|
| 2'x2' White/Beige Ceiling Tile with Squiggles Abated Winter/Spring 2010 | 3% Amosite | 32 ea | Friable Miscellaneous | Damaged | Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | 4 | Refer to the ACM Ceiling Tile Locations Diagram for exact locations. (including 1 ceiling tile by room 7) |
| Window Glazing (domed window) | 3% Chrysotile | 3 windows | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window glazing is on the domed windows to room 3 and the domed window by room 6A. |
| Window Caulk | 5% Chrysotile | 1 window | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window caulk is around a wood panel near the east stairway. It is residual, the window has been removed. |

Room 101B Abated Winter/Spring 2010

| | | | | | | | | |
|---|----------------|------|------------------------------|------|------|--|------|--|
| Silver/Tan Sink/Counter Undercoating | 10% Chrysotile | 1 ea | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos silver/tan sink/counter undercoating is along the north wall. |
|---|----------------|------|------------------------------|------|------|--|------|--|

Room 102 Abated Winter/Spring 2010

| | | | | | | | | |
|--|------------------|---------------------|----------------------|------|--|--|---|-------|
| Waffle Slab Ceiling Texture | 3-10% Chrysotile | 463 ft ² | Friable Surfacing | Good | Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | 6 | None. |
|--|------------------|---------------------|----------------------|------|--|--|---|-------|

Room 103 Abated Winter/Spring 2010

| | | | | | | | | |
|---------------------------------------|----------------|------|--------------------------|------|------|--|------|---|
| Pink Sink Undercoating | 10% Chrysotile | 1 ea | Non-Friable Surfacing | N/A* | N/A* | | N/A* | The asbestos pink sink undercoating is along the west wall. |
|---------------------------------------|----------------|------|--------------------------|------|------|--|------|---|

Room 104 Now Room 124

| | | | | | | | | |
|--|------------------|-----------------------|----------------------|------|--|--|---|-------|
| Waffle Slab Ceiling Texture Abated Winter/Spring 2010 | 3-10% Chrysotile | 2,858 ft ² | Friable Surfacing | Good | Physical <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Air Erosion <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Vibration <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | 6 | None. |
|--|------------------|-----------------------|----------------------|------|--|--|---|-------|

* = Non-Friable materials were not assessed

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LEGEND No. 0700048 (NDSU)
WEST DINING CENTER (BUILDING A080)

| ROOM/ ACM | ASBESTOS TYPE | EST. QUANTITY | ACM TYPE | MATERIAL CONDITION | DAMAGE POTENTIAL | LOW MOD HIGH | ASSES. CAT. ¹ | NOTES |
|--------------|---------------|------------------|------------------------------|-----------------------|---------------------|--------------------|-----------------------------|--|
| Window Caulk | 5% Chrysotile | 22 windows | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window caulk is around the windows on the east, west, and south windows. |

Room 105 Now Room 118

| | | | | | | | | |
|--|------------------|---------------------|------------------------------|------|-------------|---|------|---|
| Waffle Slab Ceiling Texture | 3-10% Chrysotile | 950 ft ² | Friable Surfacing | Good | Physical | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | 6 | None. |
| Abated Winter/Spring 2010 | | | | | Air Erosion | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | | |
| | | | | | Vibration | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | |
| Window Caulk | 5% Chrysotile | 7 windows | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window caulk is around the windows on the west wall. |
| Abated July 2018 | | | | | | | | |

Room 105A **Abated Winter/Spring 2010**

| | | | | | | | | |
|---|----------------|---------------------|------------------------------|------|------|--|------|-------|
| Underlayment Paper for Tan Pebble Pattern Linoleum | 10% Chrysotile | 288 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | None. |
|---|----------------|---------------------|------------------------------|------|------|--|------|-------|

Room 105A1 Now Room 124

| | | | | | | | | |
|---|----------------|---------------------|------------------------------|------|------|--|------|--|
| Underlayment Paper for Tan Pebble Pattern Linoleum | 10% Chrysotile | 271 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | None. |
| Abated Winter/Spring 2010 | | | | | | | | |
| Window Caulk | 5% Chrysotile | 2 windows | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window caulk is on the west windows. |
| Black Sink/Counter System Undercoating | 10% Chrysotile | 1 ea. | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos black sink/counter system undercoating is on the east wall. |
| Abated July 2018 | | | | | | | | |

Southeast Stairway **Abated Winter/Spring 2010**

| | | | | | | | | |
|--|------------------|--------------------|----------------------|------|-------------|---|---|-------|
| Waffle Slab Ceiling Texture | 3-10% Chrysotile | 19 ft ² | Friable Surfacing | Good | Physical | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | 6 | None. |
| | | | | | Air Erosion | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | | |
| | | | | | Vibration | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | |

* = Non-Friable materials were not assessed

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LEGEND No. 0700048 (NDSU)
WEST DINING CENTER (BUILDING A080)

| ROOM/ ACM | ASBESTOS TYPE | EST. QUANTITY | ACM TYPE | MATERIAL CONDITION | DAMAGE POTENTIAL | LOW MOD HIGH | ASSES. CAT. ¹ | NOTES |
|-------------------------|---------------|------------------|------------------------------|-----------------------|---------------------|--------------------|-----------------------------|---|
| Window Caulk | 5% Chrysotile | 8 windows | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window caulk is around the windows on the west wall. |

Hallway 188 (including all 1st floor hallways and the north and west entryways) Abated Winter/Spring 2010

| | | | | | | | | |
|--|---------------|-----------|------------------------------|------|----------|---|------|---|
| 2'x2' White/Beige Ceiling Tile with Squiggles | 3% Amosite | 3 ea. | Friable Miscellaneous | Good | Physical | <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | 6 | Refer to the ACM Ceiling Tile Locations Diagram for exact locations. |
| Window Glazing | 3% Chrysotile | 6 windows | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window glazing is on the windows by the entry doors in the north entryway and the west entryway. |
| Window Glazing on Door | 5% Chrysotile | 2 doors | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window glazing is on the exterior doors in the north entryway and the west entryway. |

East Tunnel System Abated April 2021

| | | | | | | | | |
|---|---------------|-----------------------|------------------------------|------|------|--|------|--|
| East Tunnel System Ceiling Texture | 3% Chrysotile | 1,452 ft ² | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos ceiling texture is throughout the east tunnel system (tunnels to Sevrinson Hall and Thompson Hall). |
|---|---------------|-----------------------|------------------------------|------|------|--|------|--|

Exterior

| | | | | | | | | |
|--------------|---------------|-----------|------------------------------|------|------|--|------|---|
| Window Caulk | 5% Chrysotile | 7 windows | Non-Friable Miscellaneous | N/A* | N/A* | | N/A* | The asbestos window caulk is around the windows by rooms 124 . (including 1 door/window system) |
|--------------|---------------|-----------|------------------------------|------|------|--|------|---|

¹Assessment Categories:

- | | |
|--|---|
| <ul style="list-style-type: none"> 1) Damaged or Significantly Damaged TSI ACM 2) Damaged Friable Surfacing ACM 3) Significantly Damaged Friable Surfacing ACM 4) Damaged or Significantly Damaged Friable Miscellaneous ACM | <ul style="list-style-type: none"> 5) ACM with Potential for Damage 6) ACM with Potential for Significant Damage 7) Any Remaining Friable ACM or Friable Suspected ACM |
|--|---|

End

* = Non-Friable materials were not assessed