

United States Department of the Interior  
National Park Service

1212

# National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.



### 1. Name of Property

Historic name: 3M Administration Building  
Other names/site number: Building 21; Headquarters Building  
Name of related multiple property listing: N/A  
(Enter "N/A" if property is not part of a multiple property listing)

### 2. Location

Street & number: 777 Forest Street  
City or town: St. Paul State: MN County: Ramsey  
Not For Publication:  N/A Vicinity:  N/A

### 3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this  nomination  request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property  meets  does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

national  statewide  local  
Applicable National Register Criteria:  
 A  B  C  D

Barbara Mitchell Howard December 8, 2014  
Signature of certifying official/Title: Barbara Mitchell Howard, Deputy SHPO, MNHS Date  
\_\_\_\_\_  
State or Federal agency/bureau or Tribal Government

In my opinion, the property  meets  does not meet the National Register criteria.  
\_\_\_\_\_  
Signature of commenting official: Date  
\_\_\_\_\_  
Title: State or Federal agency/bureau or Tribal Government

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**4. National Park Service Certification**

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:)

for   
Signature of the Keeper

1/27/15  
Date of Action

**5. Classification**

**Ownership of Property**

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

**Category of Property**

(Check only **one** box.)

- Building(s)
- District
- Site
- Structure
- Object

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**Number of Resources within Property**

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u>1</u>	_____	buildings
_____	_____	sites
_____	_____	structures
_____	_____	objects
<u>1</u>	_____	Total

Number of contributing resources previously listed in the National Register N/A

**6. Function or Use**

**Historic Functions**

(Enter categories from instructions.)

COMMERCE/TRADE/Business

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Current Functions**

(Enter categories from instructions.)

VACANT/NOT IN USE

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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## 7. Description

### Architectural Classification

(Enter categories from instructions.)

MODERN MOVEMENT/Moderne

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**Materials:** (enter categories from instructions.)

Principal exterior materials of the property:

STONE: Indiana Limestone, Granite

METAL: Aluminum

### Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

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### Summary Paragraph

The two-story Moderne-style 3M Administration Building (Building 21) is located at the center of what was the larger 3M Saint Paul campus in the East Side neighborhood of Saint Paul. The immediate area surrounding the Administration Building is now primarily vacant land which once housed 3M factory buildings to the north that were clustered along the Chicago, St. Paul, Minneapolis and Omaha (now Union Pacific) railroad tracks. The surrounding buildings that were once part of the 3M campus—including, most immediately, a cluster of buildings north of the 3M Administration Building and Building 42 to the south—were demolished by the Saint Paul Port Authority between 2009 and 2011; this work was pursuant to a historic resources mitigation plan developed in consultation with the Minnesota State Historic Preservation Office to comply with Section 106 of the National Historic Preservation Act. The building occupies the southeast corner of the intersection of East Mendota Street and Bush Avenue, and fronts onto Bush Avenue. The building is set back from the sidewalk by narrow sloping lawns on Mendota Street and Bush Avenue. A 66-foot high steel flagpole, set on an octagonal granite base, is also



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placed at this corner. It was installed in 1941. A former parking lot on the east side of the building extends to Forest Street. The lot that once held Building 42 (completed in 1951; demolished in 2010) to the north of the building has been redeveloped with a new office building and surrounding surface parking. The building retains its integrity of location, although the integrity of setting has been diminished by the demolition of 3M buildings to the south and east.

### **Narrative Description**

All four elevations of the two-story limestone-clad building have similar symmetrical arrangements and architectural detailing, with the main entrance on the Bush Avenue face. The recessed windows are grouped vertically and set in limestone reveals, providing a distinct vertical emphasis. Each window opening has two, two-over-two, aluminum-sash windows that are separated by spandrels of polished black granite. A mechanical penthouse faced with cream-colored brick is centered on the flat built-up roof surface of gravel over asphalt.

The 3M Administrative Building was the corporate headquarters and main office for 3M between April 1940 and the summer of 1962. The building was designed in 1939 by the Saint Paul-based architectural and engineering firm, Toltz, King and Day, Inc., in association with noted Detroit firm, Albert Kahn, Inc., as consulting architect. The building retains its integrity of design. It was constructed as a two-story office building with a basement. Exterior alterations have been minimal. The building interior has retained many of its original Moderne-style features and finishes (Figure 1). The first-floor lobby and entrance vestibule remain largely intact from the period of significance, although there have been alterations.

The building retains its integrity of materials. Limestone is the predominant material of the exterior, including square limestone-panel facing, a projecting limestone water table, and a projecting limestone cornice. The north facade (Photo Nos. 1 and 2) is arranged symmetrically with a pattern of vertical window openings set in limestone reveals flanking a two-story projecting pavilion that contains the main entrance (Photo No. 4 and Figure 2). The entrance pavilion is approached by wide gray granite steps flanked by gray granite wing walls (Figure 3). Vertical window openings set in limestone reveals flank the center entrance, which is defined by a polished black granite surround with a sawtooth-patterned brass cornice. Brass letters reading "Minnesota Mining and Manufacturing Company" are set on the surround. Double-leaf brass and glass doors are set below a transom. The building cornerstone, inscribed "1939," is set at the west end of the north facade.

The east and west elevations (Photo Nos. 1 and 3) continue the pattern of vertical window openings set in limestone reveals. The west elevation includes a secondary entrance (Photo No. 5), approached by steps and a walkway. Limestone piers flank the west doorway, which is sheltered by a projecting canopy with rounded corners. A recessed single-leaf aluminum and glass door is set below the transom. The east elevation is approached by an at-grade walkway, leading to a doorway that contains a single-leaf and aluminum and glass door set below a transom. The south elevation includes an additional entrance (now covered over) (Photo No. 6), which was connected to Building 42 in 1951 by a two-story enclosed passageway, removed

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when Building 42 was demolished. Landscaped courtyards, also removed, extended to the east and west from the enclosed passageway.

The building retains its integrity of workmanship. The interior of the 3M Administration Building retains many of its original Moderne-style features and finishes which are described as follows. The interior spaces are organized around a central lobby at the first floor and office spaces at the second floor. At the first floor, the main entrance opens into a small vestibule with a patterned marble floor and mahogany-paneled walls. A brass and glass revolving door opens into the lobby. The lobby (Photo No. 7) has cream-colored and tan marble floor tiles and mahogany-paneled walls with rounded corners. The coved ceiling has recessed lighting. The deep window sills on the north wall are of granite. The original curved mahogany reception desk has been replaced by a rectangular desk in the southwest corner. On the south wall, a pair of swinging doors finished with quilted leather leads into an elevator lobby and corridor (Photo No. 8), which extends east-west through the building. The elevator doors are faced with mahogany. Immediately off the corridor is an open stairway with curving chrome railings and marble steps (Photo No. 9). The corridors on the first and second floors have terrazzo flooring, marble baseboards, sand-finished plaster walls, single- and double-leaf wood doors with octagonal glass windows, and suspended light fixtures of brass and copper.

On each floor of the 3M Administration Building, open spaces (Photo No. 10) marked by large, square structural columns flank the central stairway-elevator lobby. Three rows of columns run north to south and four rows of columns run east to west. Private offices and meeting rooms, all with wood doors with octagonal windows, are located along the north and south exterior walls of the large, open spaces.

The office suite of long-time company president and chairman of the board William L. McKnight and the corporate boardroom (Photo No. 11) are located in the northeast corner of the 3M Administration Building on the second floor (Figure 4). The office of Archibald G. Bush, chairman of the 3M executive committee between 1949 and 1966, is immediately to the west of the boardroom. These rooms are finished with mahogany paneling, marble sills and baseboards, sand-finished plaster walls, and mahogany doors with octagonal windows. These spaces and features reinforce the integrity of setting and feeling.

The below-grade basement occupies the full footprint of the building. The central core contains a stairway and elevator, flanked by restrooms. An east-west corridor extends along the north side of the basement with small storage and conference rooms located to the north. The remainder of the basement is divided into several larger meeting rooms marked by square structural columns. These spaces originally held the 3M product display room and the employee cafeteria.

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## 8. Statement of Significance

### Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

### Criteria Considerations

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

### Areas of Significance

(Enter categories from instructions.)

COMMERCE

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INDUSTRY

INVENTION

ARCHITECTURE

\_\_\_\_\_

\_\_\_\_\_

**Period of Significance**

1940-1962

\_\_\_\_\_

\_\_\_\_\_

**Significant Dates**

1940

\_\_\_\_\_

\_\_\_\_\_

**Significant Person**

(Complete only if Criterion B is marked above.)

N/A

\_\_\_\_\_

\_\_\_\_\_

**Cultural Affiliation**

N/A

\_\_\_\_\_

\_\_\_\_\_

**Architect/Builder**

Toltz, King and Day, Inc. (Saint Paul architect)

Albert Kahn, Inc. (consulting architect)

\_\_\_\_\_



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**Statement of Significance Summary Paragraph** (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The 3M Administration Building is nationally significant under Criterion A for its association with the history and development of the 3M Company during its rise to international prominence in the areas of Commerce, Industry, and Invention. It also falls within the Minnesota Statewide Historic Context of "Urban Centers, 1870-1940," and the Saint Paul Historic Context of "Transportation Corridors: 1857-1950." Its completion in 1940 was a visible, physical manifestation of the growth that 3M had experienced during the 1930s under the leadership of William L. McKnight. McKnight devoted the company's resources to research, new product development, and product diversification, a policy which the company continues to follow. The period of significance for Criterion A begins with the completion of the building in 1940 and extends to 1962 when the 3M corporate headquarters were relocated to the new 3M Center in Maplewood, Minnesota, which set the stage for a corporate management transition. As the most intact and architecturally distinctive building on the Saint Paul campus, it best conveys the significance of 3M at that site.

The 3M Administration Building is locally significant under Criterion C in the area of Architecture, as it embodies the distinctive characteristics of a type and period of construction. The building is a distinctive example of the Moderne style of the 1930s and 1940s with its abstracted classical forms, as designed by the Saint Paul architectural and engineering firm of Toltz, King and Day, Inc., in association with the noted Detroit architectural and engineering firm of Albert Kahn, Inc., as consulting architect. The period of significance for Criterion C coincides with the completion date of the building.

**Narrative Statement of Significance** (Provide at least **one** paragraph for each area of significance.)

### **The Significance of 3M in Commerce, Industry, and Invention and the Relationship to the 3M Administration Building**

The 3M Administration Building has been called the "house that research built" (Figure 5).<sup>1</sup> Its construction in 1939-1940 was a visible, physical manifestation of the growth that 3M had experienced during the 1930s under the leadership of William L. McKnight who had become president of the company in 1929 (Figures 6-8). McKnight devoted company resources to research, new product development, and product diversification. Foremost among these inventions were pressure-sensitive adhesives, beginning with Scotch masking tape in 1925, and Scotch cellulose tape in 1930. Company research was carried out under the broad overview of Richard P. Carlton, who had promoted research and technical expertise since he was hired in 1921. Overall sales and promotion were under the purview of Archibald G. Bush, who helped to establish 3M's prominence in commerce.

<sup>1</sup> "Research Makes Jobs," *Look Magazine*, August 7, 1945, 53

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As the sales of 3M products continued to increase in the 1930s, the company needed to expand to keep up the volume. In September 1937, McKnight announced a half million dollar expansion program.<sup>2</sup> In the next few years, several buildings were constructed, rebuilt, or expanded by Toltz, King, and Day. These included the construction of Building 20 in 1937-1938 and the rebuilding of Building 1 in 1938-1939 as factory buildings. The company's administrative functions and offices were relocated from space it had outgrown in Building 2 to the 3M Administration Building, the showcase headquarters of the company designed by Toltz, King, and Day and Albert Kahn, Inc.<sup>3</sup> This was the first company building devoted solely to administrative functions. Shortly after the company moved into the building, it began to marshal its resources to support the national defense effort and within the next 18 months was strategizing for the production of new materials as the United States entered the Second World War. The company personnel administration department, located in the 3M Administration Building, had to plan for a major increase in employees as the plant shifted to a 24-hour, 7-day work schedule.

The 3M Administration Building was the location of the company's major executive officers and key board members, including McKnight, Bush, and Carlton. The company's various executive and management committees and the board of directors all met in the 3M Administration Building as they formulated company policies and procedures. The 3M Administration Building was also the site of annual shareholder meetings between 1940 and 1950, initially in the board room on the second floor and then in the product display room in the basement, until the number of shareholder-attendees outgrew the space.

In addition to personnel, other company-wide functions were located in the 3M Administration Building, including advertising, public relations, and marketing, which furthered 3M advances in commerce, and internal publications like the *Megaphone*. Bush oversaw the company's overall sales strategy from the 3M Administration Building. A centralized product display room was located in the basement for use as a training tool and a marketing vehicle. When the company engineering department was created in 1944, it was headquartered in the 3M Administration

<sup>2</sup> Virginia Huck, *Brand of the Tartan: The 3M Story* (New York: Appleton-Century-Crofts, 1955), 167-170. In a letter to the stockholders of the Minnesota Mining and Manufacturing Company, February 18, 1937, McKnight stated: "The sales of the products now being manufactured at St. Paul are running in excess of the volume which can economically be produced with the facilities available. It will be necessary, during the Year 1937, to expend a substantial amount of funds for increased plant capacity either in St. Paul or elsewhere." In his letter to stockholders of February 19, 1938, McKnight noted: "Plant enlargement necessary for efficient operation of the business has been deferred for approximately three years because of the uncertain Minnesota tax situation. . . . Your Directors felt warranted in starting, in part, the needed expansion program in St. Paul. . . . The first step in this program, started in September, 1937, is the erection of a reinforced-concrete building containing 127,000 square feet of floor space." Notices of Annual Meetings of Stockholders, 3M Historical Corporate Records, Minnesota Historical Society. See also "Minnesota Mining to Spend \$440,000 Here on Expansion; Company Heads Say Easing of Tax Situation Prompts Move," *St. Paul Dispatch*, September 2, 1937.

<sup>3</sup> "The Story of 3M: Fourth Installment—1935-1938," *3M Megaphone* 9 (December 1949): 5-7. Apparently responding to shareholder questions about the expansion program and the new office building, McKnight stated in 1939: "In the past, I do not think any of the stockholders' money has been wasted in its reinvestment, unless some 50 or 60 thousand dollars we are spending in connection with our new office building for looks and comfort—as compared to the cheapest construction possible—is a waste." Typescript, W. L. McKnight to Stockholders Meeting, May 1939, 3M Historical Corporate Records, Minnesota Historical Society.

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Building. The engineering department was key to company expansion and innovation as it designed new buildings and the accompanying machinery for fabrication and production, reinforcing 3M's position in industry.

As the company grew and its products became more diversified, McKnight implemented a vertical organization structure, beginning in 1944 with adhesives and coatings, and extended to Colorquartz, SCOTCHLITE, and chemical and color, with an executive vice president or general manager at the head of each division. The vertical organization model was fully in place in 1948, with abrasives and tape added as the fifth and sixth divisions. Executive vice presidents for sales, production, and engineering were established to span the divisions. All the executive vice presidents had their offices in the 3M Administration Building on the second floor, along with McKnight, Bush, and Carlton. The vertical division structure was intended to be flexible enough, so that divisions could be expanded and reorganized as the company branched out into new products. McKnight saw this structure as key to the ongoing strength and profitability of the company.

In September 1949, McKnight was named chairman of the board, Bush was named chairman of the newly formed executive committee, and Carlton was promoted as president of the company. All maintained their offices in the 3M Administration Building. All Saint Paul employees had an opportunity to meet the three in person at a reception held in the directors' room on September 30. Over 1,800 3Mers attended.<sup>4</sup>

Carlton had created a technical policy committee in the 1940s. In his new role as president he continued the push to diversified research and product development. In 1950, he announced a nationwide \$20 million expansion program. In Saint Paul that program had begun with the construction of Building 24 for the expanded tape division and Building 42 for expanded office and administrative functions. It led to the purchase of 125 acres of land in Maplewood, just east of the Saint Paul boundary, for the purpose of constructing buildings for research and development. The following year, 1951, 3M launched an International Division, and opened facilities in Australia, Brazil, Canada, France, Germany, Mexico, and the United Kingdom, with C.B. Sampair as president. Like the parent company, 3M International was headquartered in the 3M Administration Building.<sup>5</sup> Carlton stepped down as president in May 1953 for health reasons and died a month later.

Herbert P. Buetow, another longtime 3M employee and an executive vice president, succeeded Carlton as president. Buetow's strengths were administration and finance. He had taken charge of the company's response to the explosion in the minerals building in February 1951. In his new role as president, he spearheaded the development of the Maplewood campus, known as the 3M Center. He reinforced the vertical organization policies that had been set in place by McKnight and the expansion policies begun under Carlton. He also strengthened the sales and marketing policies that had been so effectively promoted by Bush. Buetow stepped down as president in

<sup>4</sup> "3Mployes Greet Executives," *3M Megaphone* 9 (October 1949): 7.

<sup>5</sup> "In the Beginning an Idea," *3M Megaphone* 13 (July 1952): 9; *A Century of Innovation: The 3M Story* (Saint Paul: Minnesota Mining and Manufacturing Company, 2002), 129-130; R.L. Duning, "St. Paul," *3M Megaphone* 13 (April 1954): 3.



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1963, a few months after 3M relocated its headquarters in the summer of 1962 from the 3M Administration Building to the newly completed Building 220 at the 3M Center.<sup>6</sup>

### Architectural Significance of the 3M Administration Building

The 3M Administration Building was designed in a Moderne style by the Saint Paul architectural and engineering firm of Toltz, King, and Day, Inc., with the noted Detroit architectural and engineering firm Albert Kahn, Inc. as consulting architect. It embodies the distinctive characteristics of a type and period of construction. Architectural historian Paul Clifford Larson has characterized the building as “the last major monument of the style” in Saint Paul with a “design that strips classicism to its bones. All significant exterior contour is eliminated except for the vertical reveals of the windows. The result is an utterly abstract composition of voids and solids.”<sup>7</sup>

The 3M Administration Building has a rectangular plan, multiple stories, and a flat roof which is characteristic of the Moderne style. Other characteristics of the Moderne style include symmetrical elevations and overall emphasis on verticality as well as abstracted classicism. Both are demonstrated in the 3M Administration Building by the use of a central entrance flanked by symmetrical wings and recessed window openings that are grouped vertically and set in limestone reveals, all of which emphasize the verticality of the structure. Juxtaposition of materials used on the exterior also demonstrates distinctive characteristics of the Moderne style. Limestone is the predominant material, and the entrance is defined by a polished black granite surround with a sawtooth-patterned brass cornice. Double-leaf brass and glass doors are set below a transom, and brass letters reading “Minnesota Mining and Manufacturing Company” are featured at the entrance. Moderne-style features and finishes continue on the interior in the lobby, which include: patterned marble floor, mahogany-paneled walls, brass and glass revolving doors, swinging doors finished with quilted leather, and an open stairway with curving chrome railings and marble steps.

### Developmental history/additional historic context information:

#### Early Growth and Development of 3M

At the turn of the twentieth century, commercial quantities of corundum were discovered and mined in Ontario, Canada.<sup>8</sup> Eastern manufacturers sought this diamond-hard mineral for use in the production of grinding wheels, whetstones, and sandpaper. A discovery of what was believed to be corundum was made by prospector Ed Lewis in Minnesota, near the Baptism River on the North Shore of Lake Superior.<sup>9</sup> Two companies were formed when news of this discovery came,

<sup>6</sup> McKnight remained chairman of the board until 1966, and Bush remained chairman of the executive committee until his death in 1966. Buetow remained on the board until 1969.

<sup>7</sup> Jeffrey A. Hess and Paul Clifford Larson, *St. Paul's Architecture: A History* (Minneapolis: University of Minnesota Press, 2006), 163.

<sup>8</sup> “The Story of 3M: First Installment—1902-1919,” *3M Megaphone* 8 (June 1949): 4.

<sup>9</sup> Louise Thureen, “Birth of a Giant: 3M’s North Shore Heritage,” *Lake Superior Magazine* 2 (June-July 1992): 39.

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the Minnesota Abrasive Company in 1901, and the Minnesota Mining and Manufacturing Company, later known as 3M, the following year.<sup>10</sup>

The Minnesota Mining and Manufacturing Company was formed in July 1902 in Two Harbors, Minnesota, by five local businessmen: Henry S. Bryant, Dr. J. Danley Budd, John Dwan, Hermon W. Cable, and William A. McGonogle. It set up business in Dwan's office building (NRHP 1992). The company planned to mine the diamond-hard corundum at Crystal Bay and sell it in bulk to grinding wheel manufacturers, just as the Minnesota Abrasive Company had been doing.<sup>11</sup>

By 1903, 3M had incorporated, shares were sold, mining plans were laid, and 3M had purchased controlling interest in the Minnesota Abrasive Company. Although 3M had no orders, the company moved forward with plans to market and manufacture bulk corundum.<sup>12</sup> Because grinding wheel manufacturers had no interest in buying the unprocessed corundum, 3M constructed a mineral crushing and screening plant near Crystal Bay in the summer of 1903, with hopes of being in production by the fall of that same year.<sup>13</sup> At the same time, Cable, who had become general manager, worked relentlessly to order equipment, build a conveyor system, have housing built, and hire dependable help, all with dwindling funds. In March of 1904 the first and only sale of crushed corundum was made to the Champion Corundum Wheel Company.<sup>14</sup> By the summer of 1904, 3M decided to make grinding stones and to relocate to Duluth, Minnesota. Financial issues plagued the company, and in 1905 the directors decided to manufacture sandpaper.<sup>15</sup>

As 3M shifted its manufacturing strategy, Saint Paul businessmen Edgar B. Ober and Lucius P. Ordway began to play an important role in 3M's operations. Ober had made an initial investment in the company in 1903 of \$5,000, but he became convinced that the company could not sell bulk corundum. Ober, who was to become president, convinced Ordway to purchase a controlling interest in the company, pay off the debts, and invest additional money for conversion of a flour mill in Duluth into a sandpaper factory.<sup>16</sup> Late in 1905 the first sandpaper came out of the Duluth factory, and although some sales were made, the local corundum was an inferior abrasive material compared to garnet, which was the principal abrasive used in manufacturing sandpaper. In 1907, 3M imported a substantial shipment of garnet from Spain with the hope of producing higher quality sandpaper. Production problems continued, however, because Duluth's humid climate was not suited to sandpaper manufacture.<sup>17</sup>

With on-going production problems and the lease on the Duluth plant set to expire in 1910, Ordway determined to move the company to Saint Paul. He acquired property and constructed a

<sup>10</sup> "The Story of 3M," June 1949, 4.

<sup>11</sup> Thureen, 40; Huck, 6-10.

<sup>12</sup> Huck 9-11.

<sup>13</sup> Ibid., 18.

<sup>14</sup> Ibid., 18-21.

<sup>15</sup> "The Story of 3M," June 1949, 5.

<sup>16</sup> Huck, 24-31.

<sup>17</sup> "The Story of 3M," June 1949, 6.



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three-story, brick building, designed by architect Franklin Ellerbe, for \$35,302.<sup>18</sup> The building was located off Forest Street near Fauquier Avenue (now Bush Avenue) by the viaduct over the Chicago, St. Paul, Minneapolis and Omaha railroad tracks. The building, which would become known as Building 1, was adequate for 3M's needs at the time. However, the location of the plant between other industrial developments and residential neighborhoods would mean the purchase and demolition of surrounding buildings for 3M to expand.<sup>19</sup>

### Innovations, Success and Growth

By 1911, 3M was gradually expanding as William L. McKnight, hired in 1907 as a bookkeeper, was promoted to sales manager. He devised a new marketing strategy that led to one-on-one contact with clients to discuss their sandpaper needs. Through these contacts McKnight relayed the complaints from buyers directly to those responsible for production methods. This eventually improved the quality of 3M's product.<sup>20</sup> In 1914, McKnight was made general manager in Saint Paul and continued to improve production by implementing accurate screening of abrasive minerals.<sup>21</sup> Complaints continued to plague the young company after a contaminated shipment of garnet produced low quality sandpaper. In response, McKnight insisted on the creation of a laboratory in Building 1 to test product quality. The closet-size laboratory cost under \$500, and eventually led to an expanded quality control and research program.<sup>22</sup> One of the early research efforts resulted in the invention of an abrasive cloth product that used the artificial mineral aluminum oxide. The abrasive cloth was called "THREE-M-ITE," and its flexibility and toughness was unlike anything on the market.<sup>23</sup>

During World War I, 3M continued to grow, and in 1917, a partial fourth story, 85 feet by 30 feet, was added to Building 1. During the next year, the plant expanded with the construction of the two-story Building 2. Both were designed by Toltz, King, and Day.<sup>24</sup> Company president Ober suggested that McKnight look into relocating 3M to a city closer to customers and raw materials, instead of increasing the size of the Saint Paul campus. McKnight felt that "the job of moving the entire plant to another city looked just too big to me. So we expanded in St. Paul and continued to be hampered by high freight costs."<sup>25</sup>

As the American manufacturing economy grew, the consumption of abrasive products in the United States nearly doubled between 1914 and 1919.<sup>26</sup> During the 1920s 3M developed important new products. In 1920, Francis G. Okie, a Philadelphia printer, developed waterproof sandpaper, and in 1921, 3M purchased the patent and named the new product "WETORDRY" sandpaper.<sup>27</sup> The product quadrupled 3M's earnings and enabled the company to move into the

<sup>18</sup> "The Story of 3M," June 1949, 7. Huck, 58.

<sup>19</sup> Huck, 58.

<sup>20</sup> Ibid., 62-71

<sup>21</sup> "The Story of 3M," June 1949, 7.

<sup>22</sup> Huck, 72-80.

<sup>23</sup> "The Story of 3M," June 1949, 7.

<sup>24</sup> Huck, 90. "The Story of 3M," June 1949, 7.

<sup>25</sup> Huck, 90.

<sup>26</sup> Ibid., 91.

<sup>27</sup> Ibid., 92-94.

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international market.<sup>28</sup> Okie, who came to work for 3M, would also develop "LACQUA POLISH," "LUSTRA WAX" (later known as "RETSUL"), and "3M SANDING LIQUID" for the expanding automotive industry.<sup>29</sup>

Colored roofing granules were a 3M innovation in abrasives, developed during the early 1930s. In 1929, 3M purchased Wausau Abrasives Company in Wausau, Wisconsin, its only Midwest competitor. Along with the company's structures, machinery and transportation, 3M gained access to raw quartz. This was 3M's first acquisition under its new president William L. McKnight. The laboratory began experimenting with quartz, and in 1931, 3M introduced "COLORQUARTZ," ceramic-coated quartz roofing granules, to the market.<sup>30</sup>

### Development of Non-abrasive Products

The automotive industry would prove to be profitable for 3M during the 1920s. Richard G. Drew, a laboratory employee, began testing tape products in 1925 to solve the problem of masking car finishes for painting. Designed for the automotive industry, Drew's new tape was called "SCOTCH" Brand masking tape. During 1927, the first year it was on the market, sales were \$164,279 and steadily grew to \$1,151,023 by 1935.<sup>31</sup> In 1930 Drew began testing cellophane and adhesives, which led to the invention of "SCOTCH" Brand cellulose tape. It was put on the market that year.<sup>32</sup> Cellulose tape was renamed cellophane tape in December 1948. Despite the deepening economic depression, the product was a great success and many uses were found for the transparent tape. They included: mending clothes, broken toys, torn pages, and sheet music; sealing open cans; and attaching labels to home-canned foods.<sup>33</sup>

### Research, Development and Acquisition

During the Great Depression when many companies declared bankruptcy, slashed payrolls, and discontinued dividends, 3M remained profitable. New product development was a source of profits, and with this capital, 3M acquired more of its competitors. Baeder-Adamson Company from Philadelphia was purchased in 1930 and shut down by McKnight. The employees and machinery were moved to Saint Paul, which increased 3M's dollar volume with a minimal increase in production costs.<sup>34</sup>

Demand for the "SCOTCH" Brand tapes increased through the 1930s, and as production grew, 3M needed to expand its facilities. In 1937, McKnight announced a half-million-dollar expansion program.<sup>35</sup> The program included the creation of a Central Research Laboratory, a New Products Department, a Products Fabrication Laboratory, and an expansion of the Engineering

<sup>28</sup> Ibid., 95-103.

<sup>29</sup> Ibid., 127.

<sup>30</sup> Ibid., 150-151.

<sup>31</sup> Ibid., 131-138.

<sup>32</sup> Ibid., 139.

<sup>33</sup> Ibid., 144.

<sup>34</sup> Ibid., 179-180.

<sup>35</sup> Ibid., 167-170.

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Department. New construction included Building 20 (1937), a factory building, to house the growing 3M Company product lines.<sup>36</sup>

The administrative offices were to be relocated from Buildings 1 and 2, where they had coexisted with the sandpaper production facilities. Construction began in May 1939 for a new, 77,200-square-foot 3M headquarters building.<sup>37</sup> McKnight presided at the cornerstone laying with a large crowd observing the ceremonies. Completed in April 1940, the administration building was used as the company's headquarters until 1962.<sup>38</sup> Designed in a Moderne style, it includes two floors of offices and related meeting spaces above a basement with meeting rooms and open work spaces.

In 1937, 3M's expanded research program developed its first new product, "SCOTCHLITE" Brand reflective sheeting to be used as center striping on roadways. The glass-beaded product was first tested for durability on Victoria Street in Saint Paul near the intersection of Marshall Avenue. A year later it was tested along Arcade Street (Highway 61) just northwest of the Saint Paul campus.<sup>39</sup> Because of technical failures, the glass-beaded strips were abandoned, but a glass-beaded covering for vertical highway signs was pursued.<sup>40</sup> The first "SCOTCHLITE" Reflective Sheeting highway traffic sign was located at the intersection of Excelsior Boulevard and Highway 100, just outside Minneapolis.<sup>41</sup> By 1947, the product had gone through additional testing and refinement for a wide variety of applications, and it became a profitable product for 3M.<sup>42</sup>

### World War II and Post-War Growth

During the late 1930s, a majority of 3M's production was going into defense. After the United States entered World War II, 3M directed all of its energy and resources to the war effort. The Central Research Laboratory was challenged to develop productive war materials with minimal raw materials. "SAFETY-WALK" Brand non-slip sheeting was one of the products developed during wartime. The sheeting was covered with granules that allowed for safe walking on ship decks, airplane wings and other surfaces where water and oil could prove slippery. "SCOTCHLITE" Brand reflective sheeting had special wartime uses, including: reflective strips on paddles for life rafts, military highway signs, and reflective markers along unlit airstrips.<sup>43</sup>

In 1948, under McKnight, 3M restructured its management to a vertical organization structure due to the continued growth and diversification of its products. At that time the divisions were: Abrasives, Adhesives and Coatings, Colorquartz, Chemical and Color, SCOTCHLITE Reflective

<sup>36</sup> Ibid., 199-200.

<sup>37</sup> "The Story of 3M," June 1949, 6-7.

<sup>38</sup> "The Story of 3M," December 1949, 6-7; "Main Plant Facts," on file at 3M, Saint Paul. *The Tartan*, First and Second Quarters 1962, were published from 900 Bush Avenue, Saint Paul. *The Tartan*, Third Quarter 1962, was published from 2501 Hudson Road, Maplewood, Minnesota.

<sup>39</sup> Huck, 215-219.

<sup>40</sup> Ibid., 221.

<sup>41</sup> "The Story of 3M: Fifth Installment—1938-1941," *3M Megaphone* 9 (February 1950): 6.

<sup>42</sup> Huck, 221.

<sup>43</sup> Ibid., 227-228.

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Sheeting, and Tape. Three vice presidents were appointed for areas that cut across division lines: Sales, Production, and Engineering. A year later, McKnight became chairman of the board, a new post, and Richard P. Carlton became the company's fifth president. Bush was named chairman of the newly formed executive committee.<sup>44</sup>

### National Growth

During the late 1940s and early 1950s, 3M expanded its sales, and to meet the demands, it built new manufacturing plants around the United States. In 1947, a wartime hemp factory in Hutchinson, Minnesota, was purchased from the War Assets Administration for tape-converting activities. In that same year, 3M opened an adhesives plant in Los Angeles, California, and a roofing granules plant in Little Rock, Arkansas.<sup>45</sup> By 1949, the Saint Paul campus employed 4,300 people.<sup>46</sup>

"SCOTCH" Brand filament tape No. 890 was developed by 3M in 1950 and was hailed as the "strongest tape ever." It was embedded with glass filaments giving it a tensile strength of ¼ ton per inch of width. The tape was designed for heavy packaging, and numerous experiments were performed demonstrating its strength, including towing a car and building a swing for a woman with a single loop of tape.<sup>47</sup>

In 1944, 3M began experimenting with a magnetic sound-recording tape in its Central Research Laboratory.<sup>48</sup> By 1951, after coordination with sound-recording machine manufacturers, electronics engineers, and others, 3M developed "SCOTCH" Brand magnetic sound-recording tape. Bing Crosby was instrumental in promoting 3M's new product. He first used it to record his hourly dinner show for the American Broadcasting Company. The Magnetic Tape Division produced three types of sound recording products between 1953 and 1954: high output tape, extra play tape, and a striped 35-mm tape.<sup>49</sup>

"SCOTCHLITE" Brand reflective sheeting grossed approximately \$10 million annually by 1953 (partly due to 3M's patent of red reflective sheeting that was visible at night). The successful use of this product led the U.S. Joint Committee on Uniform Traffic Control Devices to adopt red STOP signs, instead of yellow, as a national standard in June 1953.<sup>50</sup>

3M established its International Division in 1951. Through acquisitions and building of new facilities, offices and plants were opened in Australia, Brazil, Canada, France, Germany, Mexico, and the United Kingdom. By the end of 1954, international sales reached \$35,000,000.<sup>51</sup>

<sup>44</sup>William L. McKnight, "Inter-Office correspondence, To the Division Heads," April 13, 1948, 3M Historical Corporate Records, Minnesota Historical Society; Huck, 237-239.

<sup>45</sup> Huck, 232.

<sup>46</sup> "The Story of 3M," December 1949, 12.

<sup>47</sup> "The Story of 3M," February 1950, 6.

<sup>48</sup> Huck, 203.

<sup>49</sup> Ibid., 209-211.

<sup>50</sup> Ibid., 226.

<sup>51</sup> Ibid., 241-243.



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In 1953, 3M began planning for a new \$3,500,000 campus in Maplewood, Minnesota, to be called 3M Center. The Central Research Laboratory was the first building completed at the new campus in 1955.<sup>52</sup> Corporate headquarters were relocated there in the summer of 1962 when a new administration building was completed. 3M retained the Saint Paul campus until 2009.

Since 3M's incorporation in 1902, the company has expanded from a manufacturer of a single product, abrasive sandpaper, to an international corporation with thousands of diverse products and a program for research, development, and testing of new products. 3M's approach to marketing, by speaking directly with those using the products, created a relationship with areas of industry that eventually led to products that met the needs of a large cross section of society, both in the United States and internationally.

### Architectural Context

The 3M Administration Building was designed in a Moderne style by the Saint Paul architectural and engineering firm of Toltz, King, and Day, Inc., with the noted Detroit architectural and engineering firm Albert Kahn, Inc. as consulting architect. Toltz, King, and Day had enjoyed an association with 3M since at least 1923.<sup>53</sup>

The predecessor firm to Toltz, King, and Day was formed as Toltz Engineering in 1908 by Max Toltz, who had risen to Chief Engineer at the Great Northern Railway. Toltz was joined in 1910 by Wesley King, who had been an engineer in the Great Northern bridge office. Beaver Day, an architect, joined Toltz and King in partnership to form Toltz, King, and Day in 1919. Perhaps better known for its engineering designs for bridges and other infrastructure, the firm designed some notable buildings, including the Hamm Building in Saint Paul, as well as a number of county courthouses, schools, and industrial buildings. The firm later became Toltz, King, Duvall, and Anderson, and is currently TKDA Associates.<sup>54</sup>

Albert Kahn was a pioneer in the field of architect-designed industrial buildings that were innovative solutions to the problem of housing the modern manufacturing processes within structures that also provided sufficient light and ventilation for the workers. Kahn was born in Germany in 1869 and immigrated to the United States with his parents and five siblings in 1880.<sup>55</sup> Kahn trained professionally as an apprentice with the firm of Mason and Rice in Detroit and in 1891 was awarded a scholarship for a year of travel in Europe.<sup>56</sup> In 1896, he formed a

<sup>52</sup> Ibid., 244.

<sup>53</sup> A photograph of an architectural rendering, A1782-46, in the 3M Historical Corporate Records, Minnesota Historical Society, is signed Toltz King & Day Inc. Archts; Albert Kahn Inc. Consulting Architects. See also Biographical Notes, Toltz, King, and Day Papers (N92), Northwest Architectural Archives, University of Minnesota, Minneapolis.

<sup>54</sup> Biographical Notes, Toltz, King, and Day Papers (N92). See Alan K. Lathrop, *Minnesota Architects: A Biographical Dictionary* (Minneapolis: University of Minnesota Press, 2010), 212-214.

<sup>55</sup> Ibid., 7-9.

<sup>56</sup> Ibid.



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partnership with George W. Nettleton, who left to become dean of Cornell University School of Architecture in 1897, and Alexander B. Trowbridge, who died in 1900.<sup>57</sup>

By 1902, Kahn's friendship with Henry B. Joy, president of the Packard Motor Car Company, would be instrumental in Kahn's selection for projects at the University of Michigan and for the Packard company.<sup>58</sup> Since Kahn practiced in Detroit it was natural for his career to follow the growth of the automotive industry, and between 1903 and 1905, he designed nine factories for the Packard Motor Car Company. Kahn's factories pioneered the use of steel-sash windows in concrete-framed structures, maximum natural lighting and ventilation, continuous strip windows, roof monitors or skylights, and long-span steel trusses to open large floor areas free of columns.<sup>59</sup> Kahn's work with concrete-framed buildings put him at the forefront of industrial design, which led to industrial commissions with many companies. Notable factory designs include the Ford Motor Company factory in Highland Park, Michigan (1909), and the River Rouge Plant in Detroit, Michigan (1917).<sup>60</sup> Kahn also designed plants for the Chrysler Corporation.<sup>61</sup>

Although Kahn designed some notable non-industrial buildings, such as the Detroit Athletic Club, the General Motors Building, and the Fisher Building, all in Detroit, his significance derives from his industrial designs. He enjoyed designing his "beautiful factories" and personally did very little nonindustrial work in the last decade of his life. Kahn died in 1942 at the age of 73.<sup>62</sup>

3M had the opportunity to become aware of the Kahn firm's expertise in industrial design through Kahn's design of the Ford Motor Company Plant along Mississippi River Boulevard in Saint Paul, completed in 1924.<sup>63</sup> In 1935, 3M acquired a Studebaker plant in Detroit, designed by Kahn, for the manufacture of cements and adhesives.<sup>64</sup> A contemporary description of the organization and operations of Albert Kahn, Inc. by George Nelson, suggests that the firm's approach would have appealed to McKnight and other executives at 3M. Nelson concluded: "Not only have Albert Kahn, Inc. brought architecture to industry, they have also brought industry to architecture."<sup>65</sup> Because Kahn was inclined toward industrial designs and because by the late 1930s his time was increasingly devoted to military facilities, it is likely that the 3M Administration Building was designed by an associate architect in the firm.<sup>66</sup>

<sup>57</sup> Ibid., 25-26.

<sup>58</sup> Ibid.

<sup>59</sup> Ibid., 124-125.

<sup>60</sup> Ibid., 43-53.

<sup>61</sup> Ibid., 172-182.

<sup>62</sup> Ibid., 214.

<sup>63</sup> Hess and Larson, 149-150.

<sup>64</sup> "The Story of 3M," December 1949, 4; Grant Hildebrand, *Designing for Industry: The Architecture of Albert Kahn* (Cambridge, Mass.: MIT Press, 1974), 124.

<sup>65</sup> George Nelson, *Industrial Architecture of Albert Kahn, Inc.* (New York: Architectural Book Publishing Company, 1938), 19-20.

<sup>66</sup> Hildebrand, 197, 213.

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The 3M Administration Building is an important example of the Moderne style with classically inspired elements. Architectural historian Paul Clifford Larson calls it “the last major monument in the style” in the city of Saint Paul.<sup>67</sup> Most commonly utilized in institutional buildings, such as courthouses, the Moderne style evolved as a result of debate among traditional and modernist architects. Traditionalists, who adhered to the ideals of the Ecole des Beaux-Arts, felt that the classical design vocabulary was most fitting for public buildings because it uniquely expressed democratic values. Modernists called for minimal ornamentation, asymmetrical design, and use of new materials. The work of Paul Phillippe Cret was particularly influential in the adoption of the Moderne style for federal and civic buildings.<sup>68</sup> Cret’s design for the Hartford (Connecticut) County Building and Courthouse of 1926 was praised for its “style liberation” and became an important prototype for the modern classical architecture of the 1930s. The bold rectangular pillars on the facade of the Hartford building, widely identified with the freedom from traditional classicism, were derived from the little-used Attic order. Cret reinterpreted the forms and overall tone of classicism in the Hartford County Building and then reinterpreted the frieze and cornice assembly in his influential Folger Shakespeare Library in Washington, D.C., completed in 1932. Cret’s “liberation” of the classical forms was widely adopted by architects for civic and commercial buildings during the 1930s, as the simplified, non-ornamented, and modern appearance appealed to both the architects and their clients.<sup>69</sup>

The modernized classicism utilized symmetrical facades with rows of windows divided by pilasters to simulate columns, but ornamentation was generally angular and geometric and was kept to a minimum. Columns, pilasters, and entablatures were often abstracted and classical ornament and forms could be reduced to geometric incisions in stone, altered in scale, or reinterpreted in other ways. Stone enclosing walls cut by vertically grouped windows with crisp surrounds and abstracted pilasters created a rhythmic pattern of piers and windows perceived as a series of solids and voids. The composition is even more abstract in the 3M Administration Building, with the recessed vertical window openings set in limestone reveals—what Larson describes as “an utterly abstract composition of voids and solids.”<sup>70</sup>

In Saint Paul other buildings were constructed in the Moderne style of the 1930s. Larson calls it “the garb of choice for public and commercial buildings of monumental scale.”<sup>71</sup> The Ford Motor Company Plant, an industrial building built in 1924 and mentioned above, also designed by Albert Kahn, received attention for its straightforward expression of concrete, steel framing, and its lack of ornament.<sup>72</sup> Unlike the 3M Administration Building, the Ford plant incorporated administrative functions into the main industrial building. This was a typical configuration for industrial buildings in Saint Paul.

<sup>67</sup> Hess and Larson, 163.

<sup>68</sup> Lois Craig, ed., *The Federal Presence: Architecture, Politics, and Symbols in United States Government Building* (Cambridge, Mass.: MIT Press, 1979), 294-297.

<sup>69</sup> Ibid.

<sup>70</sup> Hess and Larson, 163.

<sup>71</sup> Ibid., 152.

<sup>72</sup> Ibid., 149.

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Other buildings designed for office and commercial use employed the Moderne style with classical elements. The Saint Paul City Hall and Ramsey County Courthouse (1930-1931, Holabird and Root with Ellerbe Architects) was designed with many elements of the classical Moderne style, including: tall vertical windows recessed from the wall plane; geometrical ornamentation; a broad, stepped "plinth" of three stories forming the base of the tower; and a barely marked termination in a thin frieze, which makes the building look like it might continue its vertical growth. The Northern States Power Company building (1932, Ellerbe Architects) has Mankato stone walls with abstracted classical detail above a granite base. The vertical window groups are set in bronze frames with bronze spandrels. The Tri-State Telephone Company building (1936, Clarence H. Johnston, Jr.) is a multi-story, flat-roofed, symmetrical structure that has tall, narrow windows, recessed from the wall plane. Sculpted detailing is pared down from the Beaux-Arts manner in order to give an updated and modern design to the building.<sup>73</sup> All three buildings are located in downtown Saint Paul on relatively constrained sites, and all three designs emphasize verticality.

West of downtown Saint Paul, along commercial University Avenue, are more modest two-story examples of the Moderne style. The Minnesota Milk Company Building (1931-1932, Charles Hausler) is a concrete slab-and-pilaster factory building faced in limestone and adorned with chevron friezes and a short ziggurat tower. The Quality Park Investment Company Building (1934, Ellerbe and Company), a store and office building, is faced with limestone that creates abstracted piers flanking vertical windows and a distinctive corner treatment.

The 3M Administration Building, also located away from downtown Saint Paul, contrasts with all of these examples. It is a stand-alone office building in the midst of an industrial complex. The relatively open site sets the two-story building apart from its immediate surroundings, and the design elements balance the building's overall verticality with horizontality. The result is a Moderne design that conveys a monumental spirit.

In conclusion, as a nationally significant building under National Register Criterion A in the areas of Commerce, Industry and Innovation, the 3M Administration Building not only serves as the physical manifestation of the growth the 3M Company experienced during the 1930s, but also signifies the firm's rise to international prominence in the 1940s and 1950s as its resources continued to be devoted to research, new product development, and product diversification. This house built by research, and designed by the Saint Paul architectural and engineering firm of Toltz, King and Day, Inc., in association with the noted Detroit architectural and engineering firm of Albert Kahn, Inc., was the showcase headquarters for the 3M Company. The 3M Administration Building continues to exemplify significance locally under National Register Criterion C for its Moderne style with distinctive abstracted classical forms. As the most architecturally distinctive building constructed on the 3M Company's Saint Paul campus, and as the last remaining building from that campus, it best conveys the significance of 3M.

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<sup>73</sup> Ibid., 160-161.

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### Description of Figures

Figure 1. View of 3M Administration Building's Main Lobby, Opening Day, April 1940. (MHS photograph collection)

Figure 2. View of north facade, 3M Administration Building, circa 1940. (MHS photograph collection)

Figure 3. Main entrance, 3M Administration Building, circa 1940. (MHS photograph collection).

Figure 4. Mr. McKnight's office, second floor 3M Administration Building, 1949. Note the octagonal window in the upper right corner. (MHS photograph collection)

Figure 5. Photo of the 3M Administration Building and article on the importance of research. (*Look Magazine*, August 7, 1945, page 53).

Figure 6. The 3M Administration Building under construction in 1939. (MHS photograph collection)



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Figure 7. The 3M Administration Building under construction in 1939. (MHS photograph collection)

Figure 8. The cornerstone is laid for the 3M Administration Building while Mr. McKnight and other 3M executives look on. (MHS photograph collection)

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**Previous documentation on file (NPS):**

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # \_\_\_\_\_
- recorded by Historic American Engineering Record # \_\_\_\_\_
- recorded by Historic American Landscape Survey # \_\_\_\_\_

**Primary location of additional data:**

- State Historic Preservation Office
  - Other State agency
  - Federal agency
  - Local government
  - University
  - Other
- Name of repository: Minnesota Historical Society

**Historic Resources Survey Number (if assigned):** RA-SPC-0455

**10. Geographical Data**

**Acreeage of Property** Less than one acre

Use either the UTM system or latitude/longitude coordinates

**Latitude/Longitude Coordinates**

Datum if other than WGS84: \_\_\_\_\_

(enter coordinates to 6 decimal places)

- |              |            |
|--------------|------------|
| 1. Latitude: | Longitude: |
| 2. Latitude: | Longitude: |
| 3. Latitude: | Longitude: |
| 4. Latitude: | Longitude: |

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**Or**

**UTM References**

Datum (indicated on USGS map):

NAD 1927 or  NAD 1983

- |             |                 |                   |
|-------------|-----------------|-------------------|
| 1. Zone: 15 | Easting: 495051 | Northing: 4979019 |
| 2. Zone:    | Easting:        | Northing:         |
| 3. Zone:    | Easting:        | Northing:         |
| 4. Zone:    | Easting :       | Northing:         |

**Verbal Boundary Description** (Describe the boundaries of the property.)

The 3M Administration Building is located on part of the parcel identified as the Ramsey County Assessor's Parcel ID # 28.29.22.33.0053. It is bounded by Bush Avenue on the north, North Mendota Street on the west, a line that is the extension of the former northern curb line of Reaney Avenue on the south, and the western boundary of a former parking lot on the east.

**Boundary Justification** (Explain why the boundaries were selected.)

The site boundary consists of the property historically associated with the 3M Administration Building at 777 Forest Street/900 Bush Avenue in Saint Paul, Minnesota.

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### 11. Form Prepared By

name/title: Andrew J. Schmidt, Marjorie Pearson, and Renee L. Hutter, Architectural  
Historians (Summit Envirosolutions, Inc., St. Paul MN) updated by Emily Ramsey, Senior  
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e-mail: eramsey@mac-ha.com  
telephone: 312-786-1700 x7013  
date: May 21, 2014

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### Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

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### Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

### Photo Log

Name of Property: 3M Administration Building

City or Vicinity: St. Paul

County: Ramsey State: MN

Photographer: Emily Ramsey

Date Photographed: February 2014

Description of Photograph(s) and number, include description of view indicating direction of camera:

- 1 of 11: North and east elevations, looking southwest
- 2 of 11: North elevation, looking east with flagpole in foreground
- 3 of 11: South and west elevations, looking northeast
- 4 of 11: Main entrance at center of north elevation, looking south
- 5 of 11: Secondary entrance on west elevation, looking east
- 6 of 11: Secondary entrance on east end of south elevation, looking northwest
- 7 of 11: Main lobby, first floor, looking southeast
- 8 of 11: First floor elevator lobby, looking west
- 9 of 11: Main stair, from landing
- 10 of 11: Second floor office space
- 11 of 11: Second floor board room, looking west

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 460 et seq.).

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.



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Ramsey Co., MN  
County and State

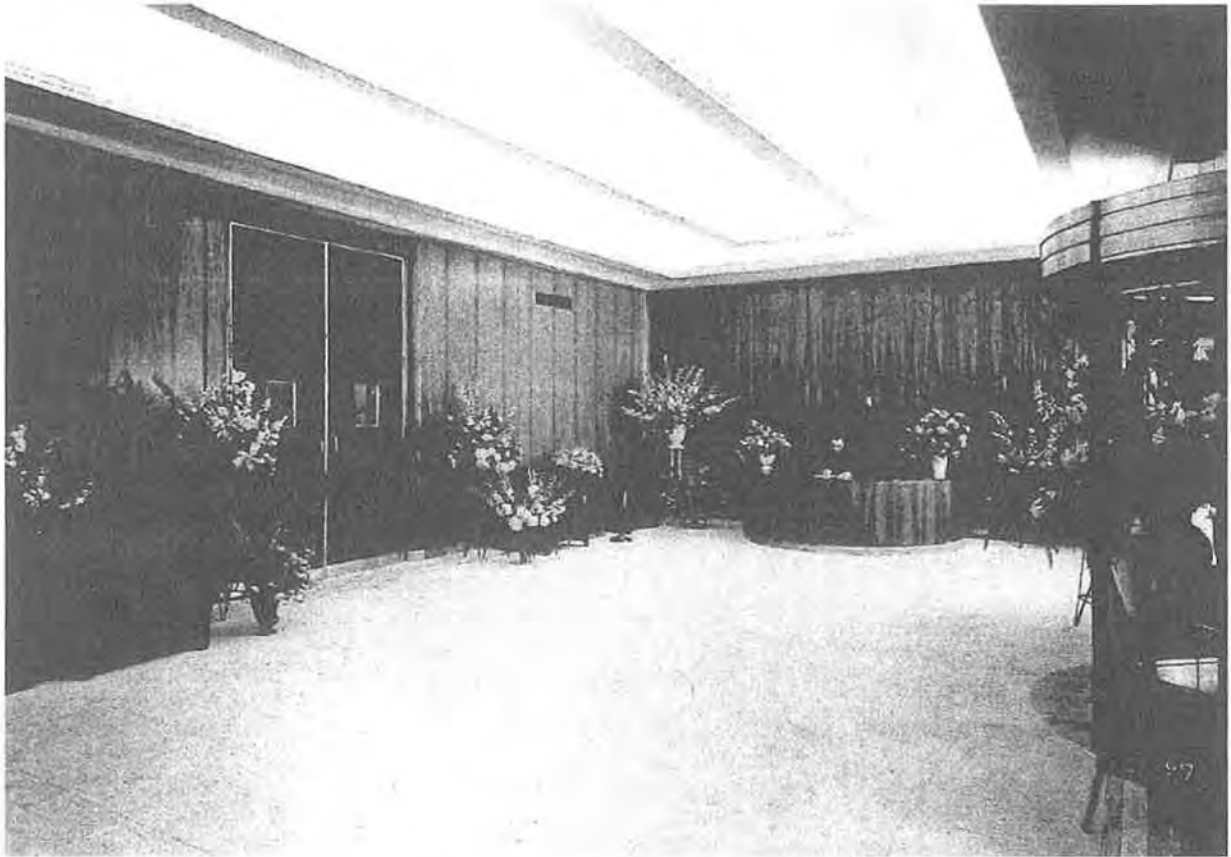


Figure 1. View of 3M Administration Building's Main Lobby, Opening Day, April 1940.  
(MHS photograph collection)

3M Administration Building  
Name of Property

Ramsey Co., MN  
County and State

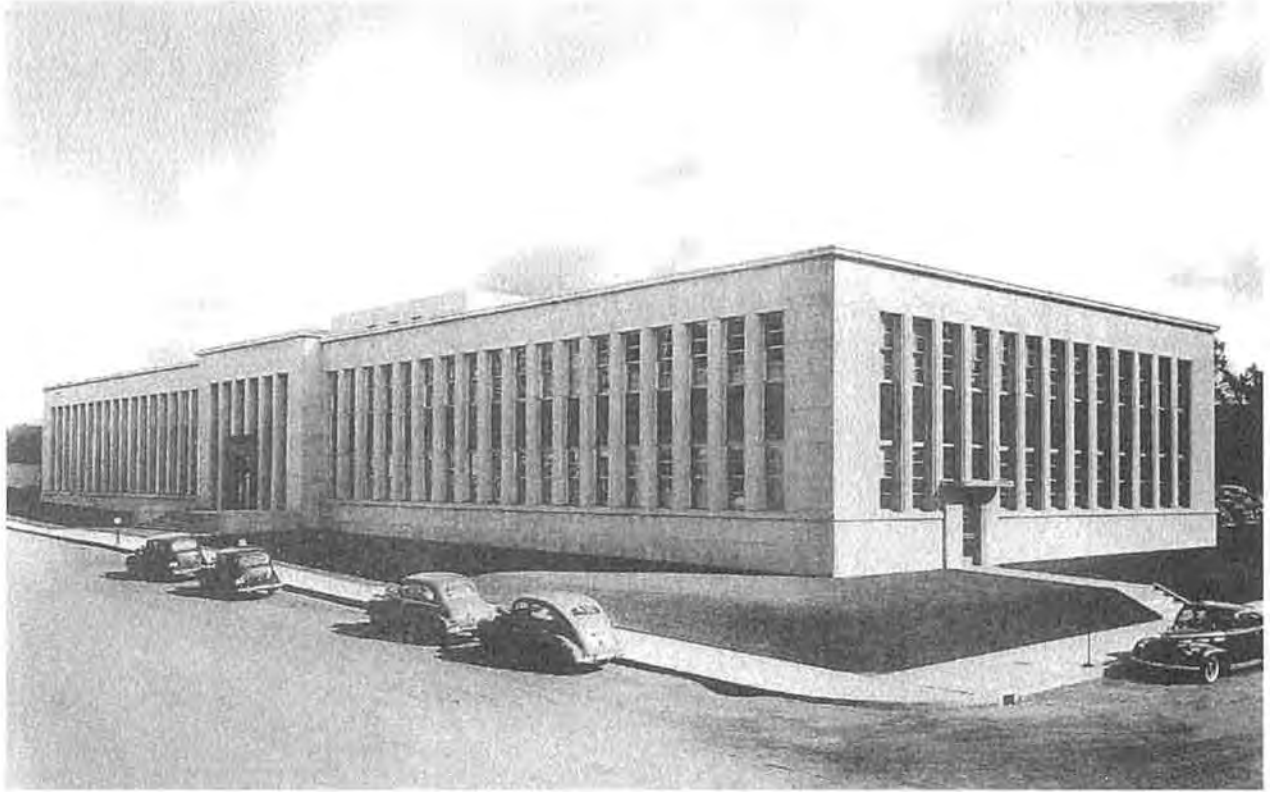


Figure 2. View of north facade, 3M Administration Building, circa 1940. (MHS photograph collection)

3M Administration Building  
Name of Property

Ramsey Co., MN  
County and State



Figure 3. Main entrance, 3M Administration Building, circa 1940. (MHS photograph collection).

3M Administration Building  
Name of Property

Ramsey Co., MN  
County and State



Figure 4. Mr. McKnight's office, second floor 3M Administration Building, 1949. Note the octagonal window in the upper right corner. (MHS photograph collection)

3M Administration Building  
Name of Property

Ramsey Co., MN  
County and State



Figure 5. Photo of the 3M Administration Building and article on the importance of research. (Look Magazine, August 7, 1945, page 53).

3M Administration Building  
Name of Property

Ramsey Co., MN  
County and State

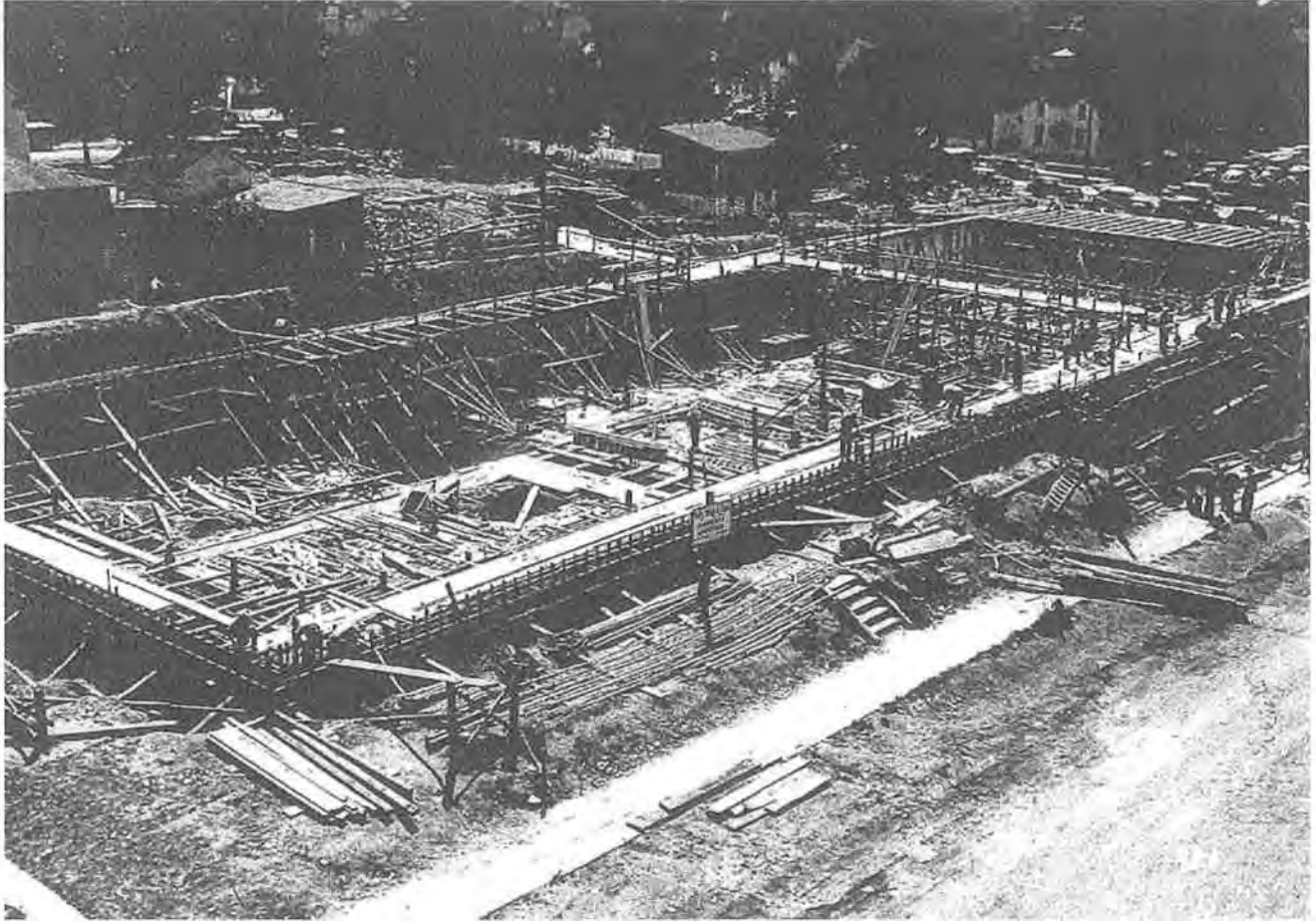


Figure 6. The 3M Administration Building under construction in 1939. (MHS photograph collection)



3M Administration Building  
Name of Property

Ramsey Co., MN  
County and State



Figure 7. The 3M Administration Building under construction in 1939. (MHS photograph collection)

3M Administration Building  
Name of Property

Ramsey Co., MN  
County and State

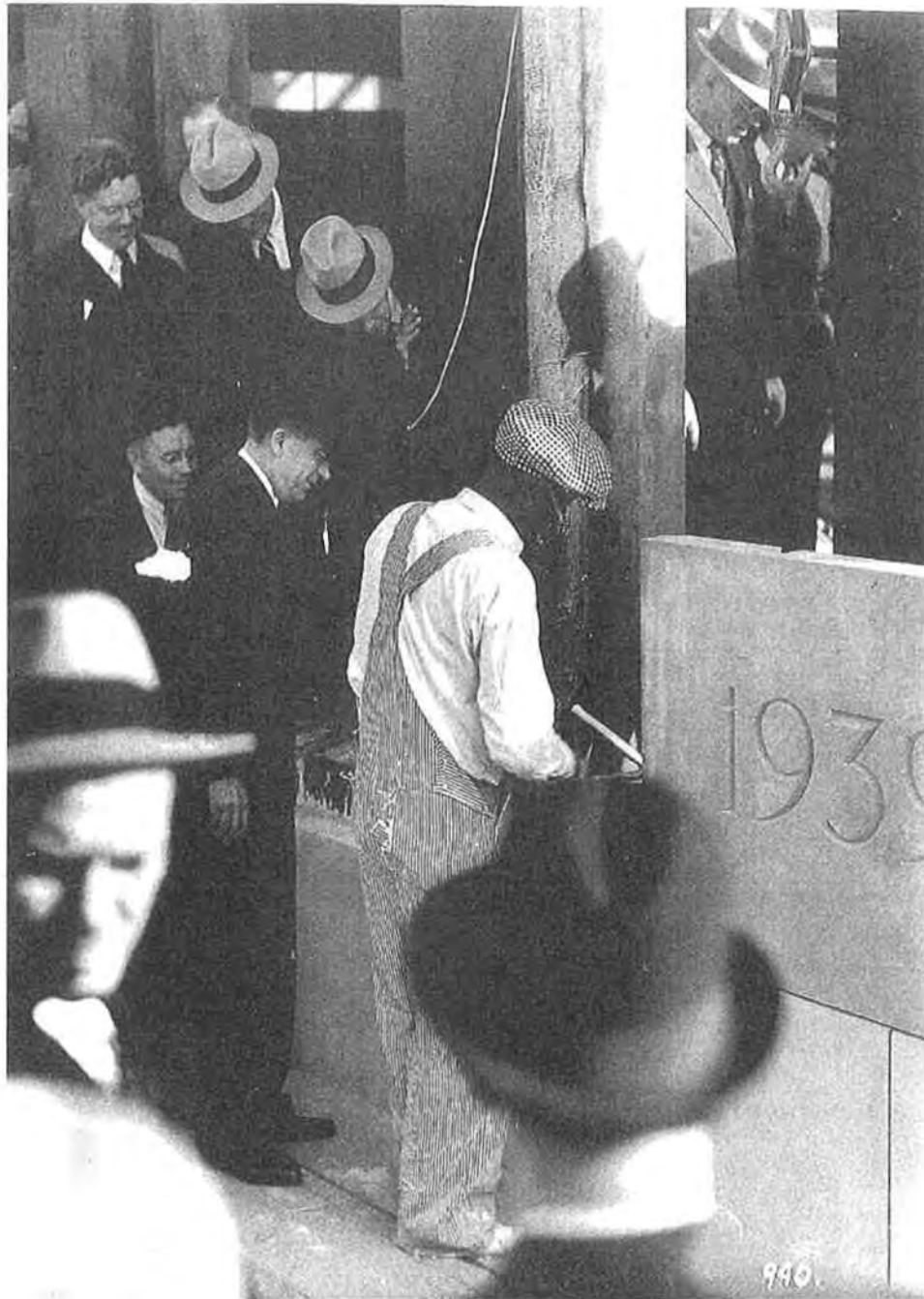


Figure 8. The cornerstone is laid for the 3M Administration Building while Mr. McKnight and other 3M executives look on. (MHS photograph collection)




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MINNESOTA MINING AND  
MANUFACTURING COMPANY























UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES  
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: 3M Administration Building

MULTIPLE NAME:

STATE & COUNTY: MINNESOTA, Ramsey

DATE RECEIVED: 12/12/14      DATE OF PENDING LIST: 1/21/15  
DATE OF 16TH DAY: 2/05/15      DATE OF 45TH DAY: 1/27/15  
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 14001212

REASONS FOR REVIEW:

APPEAL: N    DATA PROBLEM: N    LANDSCAPE: N    LESS THAN 50 YEARS: N  
OTHER: N    PDIL: N    PERIOD: N    PROGRAM UNAPPROVED: N  
REQUEST: Y    SAMPLE: N    SLR DRAFT: N    NATIONAL: Y

COMMENT WAIVER: N

ACCEPT     RETURN     REJECT    \_\_\_\_\_ DATE

ABSTRACT/SUMMARY COMMENTS:

RECOM./CRITERIA A.C  
REVIEWER [Signature]      DISCIPLINE Historic  
TELEPHONE \_\_\_\_\_      DATE 1/27/15

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.

Minnesota Historical Society  
State Historic Preservation Office  
345 Kellogg Blvd West, St. Paul, Minnesota 55102  
651/259-3451



**TO:** Carol Shull, Keeper  
National Register of Historic Places

**FROM:** Denis P. Gardner

**DATE:** December 4, 2014

**NAME OF PROPERTY:** 3M Administration Building

**COUNTY AND STATE:** Ramsey County, Minnesota

**SUBJECT:** National Register:

- Nomination
- Multiple Property Documentation Form
- Request for determination of eligibility
- Request for removal (Reference No.     )
- Nomination resubmission
- Boundary increase/decrease (Reference No.     )
- Additional documentation (Reference No.     )

**DOCUMENTATION:**

- Original National Register of Historic Places Registration Form
- Multiple Property Documentation Form
- Continuation Sheets
- Removal Documentation
- Photographs
- CD w/ image files
- Original USGS Map
- Sketch map(s)
- Correspondence
  - Owner Objection
  - The enclosed owner objections
  - Do  Do not  constitute a majority of property owners

**STAFF COMMENTS:**



CITY OF SAINT PAUL  
Mayor Christopher B. Coleman

390 City Hall  
15 West Kellogg Boulevard

Telephone: 651-266-8510  
Facsimile: 651-228-8521

October 28, 2014

Ms. Barbara Mitchell Howard  
Deputy State Historic Preservation Officer  
Minnesota Historical Society  
345 Kellogg Boulevard West  
Saint Paul, MN 55102

RE: Certified Local Government Comment on the nomination of:  
**3M Administration Building (Building 21), St. Paul, Ramsey County** to the National  
Register of Historic Places.

Dear Ms. Mitchell Howard,

Thank you for the opportunity to comment on the National Register nomination for the 3M Administration Building located at 777 Forest Street. While the building is all that is left of a larger complex, it was built as the *showcase headquarters* for the company and will remain a tangible reminder of the significance of 3M as an international corporation but more specifically the company's contribution to the City of Saint Paul and East Side neighborhoods.

I concur with the findings of the Saint Paul Heritage Preservation Commission and support the nomination of the 3M Administration Building to the National Register of Historic Places under history and architecture. I look forward to exploring ways this nomination may lead to increased awareness of this historic landmark and to the building's respectful rehabilitation.

Sincerely,

Christopher B. Coleman  
Mayor

cc: Ward 7 Council President Kathy Lantry  
Ward 6 Council Member Daniel Bostrom  
Richard Dana, HPC Chair  
HPC file



CITY OF SAINT PAUL  
*Christopher B. Coleman, Mayor*

1400 City Hall Annex  
25 E. Fourth Street  
St Paul, Minnesota 55102

Telephone: 651-266-9078  
Facsimile: 651-228-3220  
Web: [www.stpaul.gov/hpc](http://www.stpaul.gov/hpc)

October 28, 2014

Barbara Mitchell Howard  
Deputy State Historic Preservation Officer  
Minnesota Historical Society  
345 Kellogg Blvd. W.  
Saint Paul, MN 55102

RE: Certified Local Government Comment on the nomination of:  
**3M Administration Building (Building 21), St. Paul, Ramsey County** to the National Register of Historic Places.

Dear Ms. Mitchell Howard:

Thank you for the opportunity to comment on the National Register nomination for the 3M Administration Building. Saint Paul Heritage Preservation Commissioners, Steve Trimble, meets the Federal Standards for History and Robert Ferguson and Renee Hutter Barnes, meet the Federal Standards for Architectural History. Their brief biographies are included. All have reviewed the National Register nomination and provided feedback.

The Commissioners agree that the property meets Criteria A for broad patterns of history under commerce and industry and Criteria C for architecture and the Moderne Movement. The information presented in the nomination form is comprehensive and clearly written however; the HPC Members have submitted additional comments for corrections and consideration for the final nomination form that moves forward to the National Park Service (attached). Additionally, Commissioner Meller commented during the discussion that it is nice to see a more contemporary building being nominated.

The Saint Paul Heritage Preservation Commission (HPC) allowed for public comment during their October 9, 2014 Business Meeting. There was no public testimony received and the HPC voted 7 to 0 to support listing the 3M Administration Building to the National Register of Historic Places.

Sincerely,

Amy Spong  
Historic Preservation Specialist

cc: Mayor Christopher B. Coleman  
Ward 7 Council President Kathy Lantry  
Ward 6 Council Member Daniel Bostrom  
File

Steve Trimble comments for 3M NRHP nomination: With a few minor reservations, I believe that the Nomination form does a fine job of covering the dual considerations of Category A and Category C. It could also be said that the roles of McKnight and Bush and Ordway in the corporate development and their later philanthropic accomplishments might suggest an inclusion of Category B that speaks of “persons significant in our past.”

The section on the construction and architecture makes a good case that the building be designated under Category C. Albert Kahn headed a prominent architectural firm and this design is a good example of Moderne style for a building in an industrial setting. As pointed out in the form, local architectural historian Paul Larson calls it “the last major monument” of this style in St. Paul. It is also one of the few examples of Art Deco/Moderne structures outside of the downtown area.

The St. Paul Port Authority tore down even more important structures—especially the historic Building #1 where masking tape and cellophane tape were invented—were razed without any major attempt to find reuses for them. This makes the single remaining building even more important as the sole representative of what had once been determined to be a possible small historic district.

The nomination form does a good job of covering almost all of the major inventions and economic eras of 3M during the period of significance. It did look like there was a bit too much reliance on secondary sources—especially Virginia Huck’s *Brand of the Tartan*, but use was made of the corporate records in the Minnesota Historical Society.

I would have liked to see more on the positive impact on the surrounding neighborhoods, although this may not be relevant to a proposal that looks mostly at national impact. It would have been nice to mention of the effect 3M had on the employment in the surrounding East Side neighborhoods. It provided stable, well-paying jobs and, along with other industrial enterprises in the area, helped transform the East Side into a predominately working class section of St. Paul.

There was also no mention of the personnel of the company who were represented by an early company employee association that was replaced after a successful union organizing drive following World War Two. The skilled workers were part of the continuing development of the company and could be recognized in the nomination form.

Renee Hutter Barnes comments for 3M NRHP nomination: The last sentence on Section 8 Page 21 should be corrected as it states the building is the most intact and distinctive on the Saint Paul campus, however, all other buildings have now been torn down and therefore it is the only remaining building. (This was also discussed at the HPC meeting).

Robert Ferguson comments for 3M NRHP nomination: The nomination is thoroughly researched and clearly written. The Developmental history/additional historic context information consists of extended and informative accounts of the 3M Company and the architect Albert Kahn, and less extended accounts of Toltz, King, and Day and the Moderne style in Saint Paul. These are abstracted in the Narrative



Statement of Significance to argue convincingly for national significance under Criterion A in the areas of Commerce, Industry, and Invention and local significance under Criterion C in the area of Architecture.

Site plans, both historic and current, would be helpful in understanding the building's situation in the (no longer extant) 3M campus. At the very least, including more of the USGS map to the west would begin to address this.

Section 8, pp. 18-19: The Albert Kahn material cited in nn. 55-62 appears to be credited to Lathrop 2010, which is not correct. Perhaps the citation at n. 55 should be Hildebrand 1974?

Section 8, p. 20, nn. 68-69: The author of the relevant chapter in Craig, ed. 1979 should be cited, particularly since there is a quotation.

Section 8, pp. 20-21, nn. 70-73: The citation at n. 70 should be Hess and Larson, not Craig.

Section 8, p. 21, paragraph 2: The Minnesota Milk Building also has limestone facing.