Materials Conservation: Field Methods

Frances Gale, Instructor

ROBERT E LEE ELEMENTARY SCHOOL 3308 Hampton Rd, Austin, Texas

INTRODUCTION

The Robert E. Lee Elementary School was built in 1939 by the Austin Independent School District and funded by the Federal Works Progress Administration. The architects were Giesecke and Harris with Roy L. Thomas as associate architect. The two-story school is located in the historic Hancock neighborhood in Central Austin. Like many other Art Deco buildings, Lee Elementary School is decorated with elegant details. The building is among the few 1940s Art Deco educational buildings in Austin and witnessed growth of the neighborhood. Unfortunately, not many records survive that document its construction. The earliest documents found during the research are the drawings and constructions documents for the first addition - the 1952 addition of a cafeteria and a gym designed by Roy Thomas, the assistant architect of the original building. Our research is based on the Roy collection and Richard A. Thompson's book *The Hancock Neighborhood: An Urban Oasis*.

BUILDING HISTORY

In 1939, the new school was open with the first students arriving in the September of that year; it was the first school fueled by natural gas instead of coal in Austin Independent School District. Before being named after "Robert E Lee", a southern general during the Civil War, the names "North East Elementary School" or "N. E. Elementary School" were used (probably as construction names) and appeared on the 1952 construction documents. These names suggested the relative location of the neighborhood and the layout of the city 75 years ago.

The most interesting parts of the history of Lee Elementary are the changes that occurred over the 75 years as the neighborhood as well as the city grew. Not long after its construction, the neighborhood became crowded and the school could no longer host the increasing number of the children. In 1952, 13 years after the first building was constructed, the school purchased "the White House," a one-story dwelling next to the school for six grade class rooms. In the same year, the gym and cafeteria designed by Roy Thomas were added adjacent to the original 1939 building. In 1986, three new kindergarten classrooms were completed on the north of the auditorium. In 1998, a library building, designed by architects Coffee, Crier and Schenck, was added in the open area on the north. During the fall of 2006, elevators and electrical renovations were completed and a ramp was added at the north entrance.

Each addition was designed in a compatible style. The architects all followed the forms and use of materials and kept the old and new as an ensemble. At the same time, the architects added unique character to the additions so it is not difficult to distinguish them. The additions on the north are differentiated from the original building by the materials of the base course, a brick veneer instead of exposed concrete. For the cafeteria, the spandrel panels are brick instead of tile.

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¹ http://www.lee-elementary.org/about-lee/

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CHARACTER DEFINING FEATURES

Like a typical Art Deco building, the design of the school suggests symmetry, distinctive horizontal and vertical divisions, elegant decoration and modern building materials. The later additions followed the original style were built with similar materials. The character defining features include:

- A T-shaped symmetrical floor plan, with two lines of classrooms along a central corridor with an auditorium on the west.
- Buff brick, dark brown tile spandrel and reddish patterned bricks which formed horizontal and vertical elements
- Glass blocks above entrances
- Streamline-decorated entrance canopies
- Vertical banding in the middle of the main facade, with simple, decorative carving on top
- Decorative horizontal curved limestone banding
- Bronze signage in an Art Deco font with "ROBERT E. LEE" and "SCHOOL" on the main facade and "AUDITORIUM" on the north facade of the auditorium

BUILDING MATERIALS

Both traditional and modern materials were used in the building. The oldest part of the building has a concrete base course. The primary material is extruded brick. Two colors of brick were used: buff brick in most area and reddish brick in vertical banding, panels above some windows, entrance lintels and decorative belts. The brick walls are in running bond construction. Some brick are smaller to build the decorative belt along the base course, openings and spandrel panel. The spandrel panel was decorated with reddish-brown glazed tiles with smaller brick. In a 1952 construction files prepared by Roy L. Thomas, a list of Materials Stored on Job (Figure 1) suggested that face brick were from the Elgin Standard Brick Company, which was acquired by Butler Brick Company (later called the Elgin-Butler Brick Company) in 1965. Though the documents were from the 1952 addition projects, it is reasonable to believe that the architect (who was the assistant architect for the original building) used the materials from the same source because the building style is quite similar and correspondence between Roy Thomas and Giesecke and Harris Architects shows they were working together on the project. According to the same file, the tiles on the spandrel were probably form Acme Brick Co., founded in 1852 and located in Fort Worth³.

Limestone is another distinctive material of the building. It was used in window sills, parapet coping, the curved banding below the parapet and on the top of the pier on the main facade. Simple but elegant lines on the pier top are noticeable when looking closely. The file mentioned above also recorded that the limestone was produced by Texas Cut Stone Company, now Cut Stone, Inc.

The use of modern materials illustrates the Art Deco style of the building. Glass block is the most obvious one. Glass block with vertical patterns on the exterior and horizontal pattern on the other side were used in the opening above the entrances on the east, north and south elevations. The unique pattern forms interesting effects when light goes through it. Another character defining

² https://www.tshaonline.org/handbook/online/articles/dleqk

³ http://www.brick.com/aboutus/history.htm

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element is the metal used in windows and the bronze "Robert E Lee School" and "Auditorium" Signs in Art Deco font.

DETERIORATION AND RESULTING CONDITIONS

Soiling is the most common condition and affects limestone banding of the parapet and bricks near windows and drainage pipes. The condition is less noticeable on the main facade than the other three elevations where there seems to be a lack of maintenance. The condition occurs more often on areas exposed to moisture and has an adverse effect the appearance of the building.

Cracking is another noticeable condition. It occurs on the concrete foundation, limestone and brick walls. The most serious condition is probably the vertical cracking on the north end of the main facade that extends from the top of the first floor window to the first floor level. Similar cracking also occurs on the bricks on the south side where the addition was added. Smaller cracks are noticeable on tiles and limestone components, but do not appear to be damaging.

Some corrosion affects many areas of the building and chipping is present on brick, tiles and limestone. The condition usually occurs at the corners or the edges. Pitting can be seen on limestone and slight flaking is present on window sills. A more serious condition is brick spalling. Glaze loss and crazing is present on most tiles and tiny cracks can be seen throughout. Some tiles have been replaced. However, the new glazed tiles look different from the original ones because of the deteriorated condition of the original tile.

Most of the glass blocks exhibit fogging, which forms when there is an opening at the seam which allows moisture and dirt to enter. The condition is quite obvious in the light and there is no good treatment to remove the moisture and dirt.

Corrosion is a common condition for all metal elements including the window frame above the entrance, the ironwork on the parapets and the bronze sign. The aluminum alloy window frame which believed to be a replacement of the old metal sash window is not affected. Corrosion of the cast iron and steel window frames are quite noticeable and has resulted in rust stains on the limestone under them.

CONCLUSIONS

Though there are minor deterioration issues affecting the main facade, the building generally retains its elegance. The most common conditions are the vertical cracks on the north side of the main facade. The condition might due to movement or interior stress. Structural examination is recommended to determine the severity of this condition. The fogging glass blocks is also a problem. Because there seems no treatment for moisture and dirt inside the glass blocks, the best solution is to replace the ones with serious fogging condition. Some chipped and spalled masonry materials should also be replaced. Though the issue isn't a structural problem, these conditions are very noticeable. The west, north and south elevations of the original building have not been as well maintained and soiling affects their appearance. This condition is most noticeable near drainage pipes. However, the texture of the bricks makes soiling less obvious.

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REFERENCES

Thomas, Roy L. "Roy L. Thomas: An Inventory of His Records, Drawings, and Photographs, 1910-1966." Accessed November 26, 2014. http://www.lib.utexas.edu/taro/utaaa/00015/aaa-00015.html.

Hancock Neighborhood Association. The Hancock Neighborhood: An Urbane Oasis. Austin, Tex.: Hancock Neighborhood Association, 1999.

"About Lee | Lee Roadrunners." Accessed November 26, 2014. http://www.lee-elementary.org/about-lee/.

Jester, Thomas C. *Twentieth-Century Building Materials: History and Conservation*. Getty Publications, 2014.

"Elgin-Butler Brick Company." Wikipedia, the Free Encyclopedia, October 25, 2014. http://en.wikipedia.org/w/index.php?title=Elgin-Butler_Brick_Company&oldid=631014919.

KLEINER, DIANA J. "ELGIN-BUTLER BRICK COMPANY," June 12, 2010. https://www.tshaonline.org/handbook/online/articles/dleqk.

"MasterFormat Specification Divisions (CURRENT)." *Archtoolbox.com*. Accessed November 15, 2014. http://www.archtoolbox.com/representation/specifications/csidivisions.html.

APPENDIX

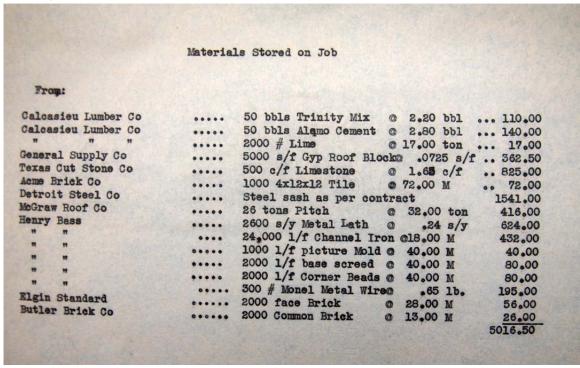


Figure 1, courtesy of Alexander Architectural Archive, University of Texas Libraries