

**NYS Building/Structure  
Inventory Forms for  
280 Vulcan Street  
and  
344 Vulcan Street.**

**BUILDING-STRUCTURE INVENTORY FORM**

**NYS OFFICE OF PARKS, RECREATION  
& HISTORIC PRESERVATION  
DIVISION FOR HISTORIC PRESERVATION  
(518) 237-8643**

**YOUR NAME:** Christine M. Longiaru

**DATE:** April 2000

**YOUR ADDRESS:** 183 Anderson Pl., Buffalo, NY 14222  
**ORGANIZATION (if any):**

**TELEPHONE:** (716) 884-4526

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**IDENTIFICATION**

- 1. **BUILDING NAME(S):** Plant No. 5 (GM Tonawanda Engine Plant)
- 2. **COUNTY:** Erie    **TOWN/CITY:** Tonawanda (T) (MCD 02923)    **VILLAGE:**
- 3. **STREET LOCATION:** 280 Vulcan Street
- 4. **OWNERSHIP:** a. public    b. private XX
- 5. **PRESENT OWNER:** General Motors    **ADDRESS:** Detroit, Michigan
- 6. **USE:** Original:    Present:
- 7. **ACCESSIBILITY TO PUBLIC:**    Exterior visible from public road: Yes XX  
No, high security complex.

**DESCRIPTION**

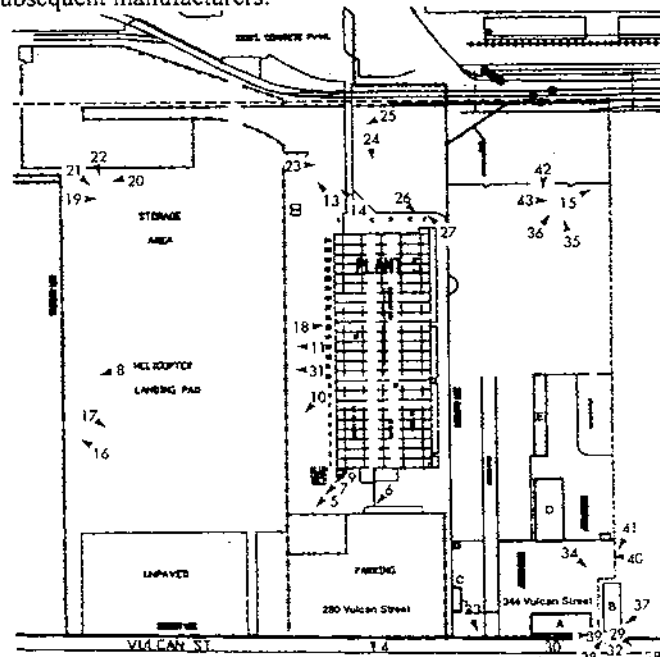
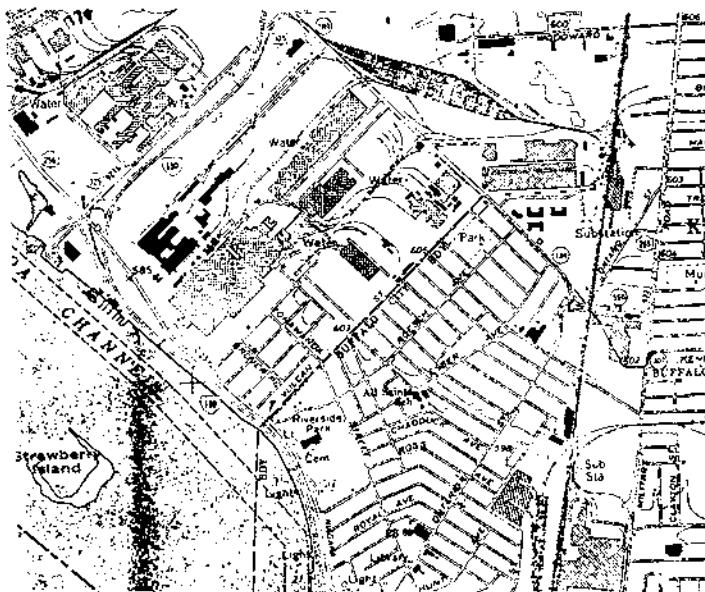
- 8. **BUILDING MATERIAL:** a. clapboard    b. stone    c. brick XX    d. board and batten  
e. cobblestone    f. shingles    g. stucco    h. metal  
i. vinyl    j. other: asbestos shingles

- 9. **STRUCTURAL SYSTEM:** (if known) a. wood frame with interlocking joints  
b. wood frame with light members  
c. masonry load bearing walls  
d. metal (explain) metal frame with concrete block and steel sash with glazing  
e. other

- 10. **CONDITION:** a. excellent    b. good XX    c. fair    d. deteriorated

- 11. **INTEGRITY:** a. original site    b. moved    if so, when?  
c. list major alterations and dates (if known):  
West and east elevations: one story brick faced additions for offices, locker rooms and storage.  
Interior: altered to accommodate subsequent manufacturers.

**12. MAP:**



**Plant No. 5--280 Vulcan Street**

- 13. THREATS TO BUILDING:** a. none known                      b. zoning                      c. roads  
 d. developers                      e. deterioration  
 f. other: plant will be demolished for construction of a new facility

**14. RELATED OUTBUILDINGS AND PROPERTY:**

- a. barn                      b. carriage house                      c. garage  
 d. privy                      e. shed                      f. greenhouse  
 g. shop                      h. gardens  
 i. landscape features:  
 j. other: parking lot and helicopter landing pad

**15. SURROUNDINGS OF THE BUILDING (check more than one if necessary):**

- a. open land                      b. woodland  
 c. scattered buildings                      d. densely built-up XX  
 e. commercial XX                      f. industrial XX  
 g. residential XX                      h. other:

**16. INTERRELATIONSHIP OF BUILDING AND SURROUNDINGS:**

(Indicate if building or structure is in a historic district). Plant No. 5 is located on a small parcel of the GM Tonawanda Engine Plant, which GM acquired in 1971. The lot is located in the industrial section of southwestern Tonawanda, east of the Niagara River and River Road. The former path of the Erie Canal is located several blocks west of the property, below the present I-190 thruway. Kenmore Avenue lies just east of the property. The original GM Chevrolet Motor Plant (Plant No. 1) lies immediately northwest of Plant No. 5. The primarily working-class neighborhood of Riverside is located south of Vulcan Street in the City of Buffalo.

The 280 Vulcan Street lot has 415 feet of frontage along Vulcan Street and extends north for a depth of 132.1 feet. On the adjacent lot to the west is a former parking lot for the no longer extant foundry that was part of GM Motor Plant No. 1. The lot also has a helicopter landing area. This undeveloped lot is primarily used as a storage area for metal engine racks. The adjacent lot to the east is the former Farrel Birmingham Factory (circa 1917). Plant No. 5 was originally constructed by Farrel Birmingham and was part of their large manufacturing operations during World War II.

**17. OTHER NOTABLE FEATURES OF BUILDING AND SITE (include interior features if known):**

This one-story manufacturing building consists of a rectangular block on a poured concrete slab. It features a heavy steel frame and low concrete block, curtain walls. It has a rectangular monitor roof with an interior height of 43 feet. The roof has frame sub-roofing. Rows of continuous industrial steel sash comprise roughly 75% of the factory's wall surface. Asbestos shingles fill the areas between the rows of sash. The plant has 150,000 square feet with a clear span of 50 feet and columns spaced every 20 feet.

The lower flanking additions of the east and west elevation feature concrete block walls with a tile brick veneer. They feature similar industrial sash, though sections exhibit modern replacement sash. The additions housed a cafeteria, locker areas, storage rooms and offices.

**SIGNIFICANCE****18. DATE OF INITIAL CONSTRUCTION: 1942**

ARCHITECT:

BUILDER: Farrel-Birmingham Company

**Plant No. 5--280 Vulcan Street****19. HISTORICAL AND ARCHITECTURAL IMPORTANCE:**

Plant No. 5 is a good example of a largely intact mid-twentieth century manufacturing building. The factory's exterior displays a moderate to high level of architectural integrity with much of its original sash and materials remaining. However, the interior has been severely altered to accommodate subsequent manufacturers. Despite successive owners and uses, Plant No.5 largely retains its location, setting, materials, feeling and association. In addition, it still operates as a manufacturing facility.

In response to the U.S. Government's need for increased munitions production in World War I, the single-story factory became the dominant manufacturing building type (Banham 1986: 158). The single-story workshed superseded the earlier multi-storied Daylight factory because of its speedy construction and economy. In addition, the new factories had a high quality of light because of increased glazing created by the use of glass curtain walls and rectangular monitors (Ibid., 68). Albert Kahn, one of the premier industrial architects of the early twentieth century, employed the one-story design exclusively for his large industrial contracts. A late example of Kahn's factory designs is the GM Chevrolet Tonawanda Plant, which was built in 1937, prior to Plant No. 5. One-story factories are common throughout industrial sections along the Niagara River.

Plant No. 5 is historically significant for its association with the Farrel Birmingham Company and its manufacturing efforts during World War II. The company pioneered in the development of the propulsion gear system and related equipment for marine diesel drives. In 1942, the U.S. Navy ordered Farrel Birmingham to construct a new plant on the adjacent lot to the west (280 Vulcan Street). The new plant was built to enhance production of propulsion gears for small naval vessels of World War II. Farrel Birmingham was the first plant in Buffalo to receive the Navy "E" for their contributions to the war effort. They were recognized for outstanding workmanship and production.

In 1949, the American Brake Shoe Company purchased the factory at 280 Vulcan Street. The company was engaged in the production of railroad frogs and switches. Later on, it became affiliated with the Abex Corporation. The GM company acquired the plant in 1971 when it was absorbed into the large Chevrolet Tonawanda Engine Plant complex. Originally, GM used the plant for storage. In 1986, the motor company began manufacturing and finishing pistons and connecting rods.

**20. SOURCES:**

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- Percy, John W. *The Town of Tonawanda*. Dover, NH: Arcadia Publishing, 1997.
- Squire, Roger. *Manufacturers of Wheels and Motors*. Buffalo: Buffalo and Erie County Historical Society, 1969.
- State Listing of Major War Supply Contracts Active as of June 30, 1945*. Washington, DC: War Production Board Program and Statistics Bureau-Military Division, August 6, 1945.
- To All the Employees of Chevrolet Motor and Axle*. Tonawanda, NY: General Motors Corporation, 1937.
- The Town of Tonawanda Centennial, 1831-1936*. Buffalo: Whitney Graham, 1939.
- Tonawanda Town Assessor's Office--Files
- War Industrial Facilities Authorized, July 1940-August 1945*. Washington, DC: Industrial Statistics Division, July 30, 1946.

**21. THEME: Industrial Architecture**

Plant No. 5—280 Vulcan Street



Photo 4. South elevation of Plant No. 5, facing north from Vulcan Street.



Photo 5. Detail of west bay, south elevation. Facing northeast.

Plant No. 5--280 Vulcan Street



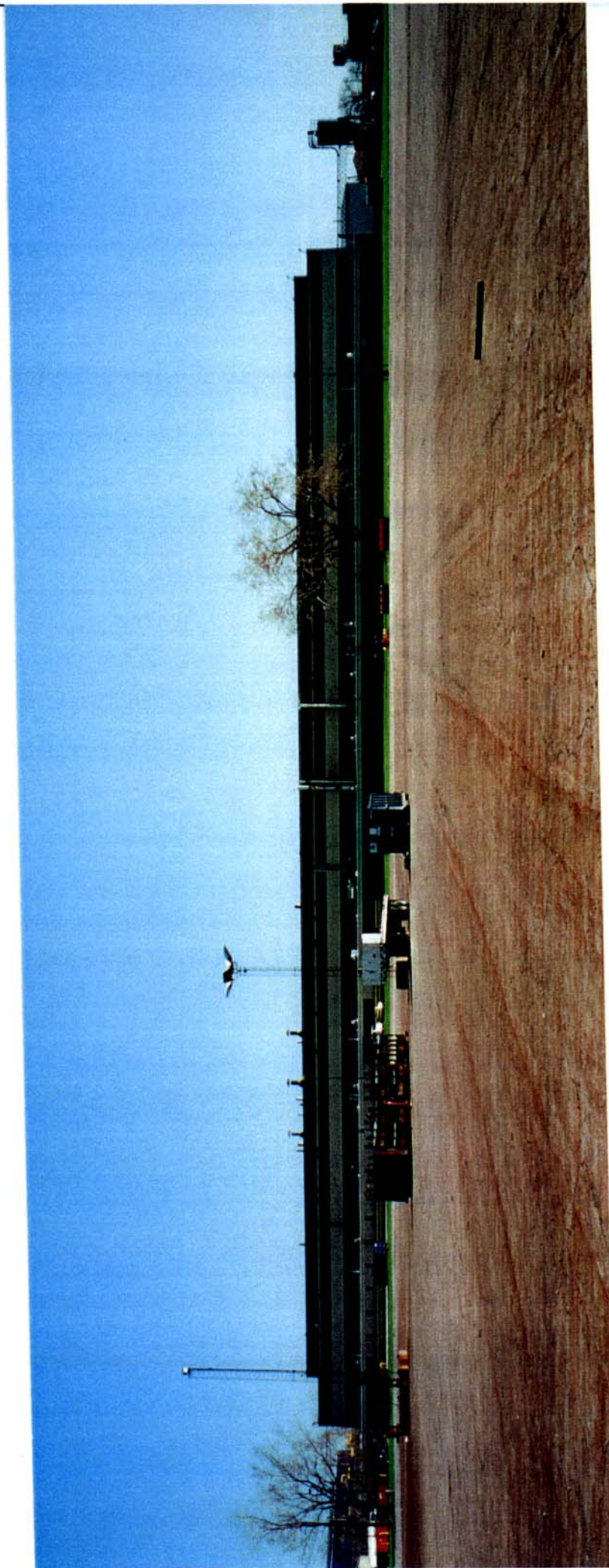
**Photo 6.** Central section and east bay of south elevation, facing northeast. Note main section has three rows of continuous metal sash. The areas between each sash course are clad with asbestos shingles.

Plant No. 5--280 Vulcan Street



**Photo 7.** The south elevation of the west, one-story addition. Facing northeast. Note industrial metal sash. This part of the plant once served as the receiving area office.

Plant No. 5---280 Vulcan Street



**Photo 8.** West elevation of Plant No. 5, facing east. The former parking lot for GM Motor Plant No. 1 is in the foreground. A helicopter landing pad is located in the southeast corner of the lot. The proposed plant will be partially constructed on this presently undeveloped parcel.



Plant No. 5--280 Vulcan Street



Photo 9. Detail of glazing, west elevation, facing northeast.

Plant No. 5--280 Vulcan Street



**Photo 10.** A view of the west elevation shows the juxtaposition of the west addition with the main building. Facing northeast. Note replacement windows of later addition. In the right foreground is a climate controlled, metal and glass smoking shelter for employees. These shelters are located throughout the GM Tonawanda Engine Plant complex.