

United States Department of the Interior  
National Park Service

# 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. **Place additional certification comments, entries, and narrative items on continuation sheets (NPS Form 10-900a).**

## 1. Name of Property

Historic name Underwood Computing Machine Company Factory

Other names/site number Underwood Corporation General Research Laboratory

## 2. Location

street & number 56 Arbor Street

☐ not for publication

city of town Hartford

☐ vicinity

State Connecticut

code CT

county Hartford

code 003

zip code 06106

## 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

Signature of certifying official/

Date

Title

State or Federal agency and bureau

In my opinion, the property \_\_\_ meets \_\_\_ does not meet the National Register criteria.

Signature of certifying official

Date

Title

State or Federal agency and bureau

## 4. National Park Service Certification

I, hereby, certify that this property is:

Signature of the Keeper

Date of Action

\_\_\_ 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:)

Underwood Computing Machine Company  
Factory  
Name of Property \_\_\_\_\_

Hartford, CT.  
County and State \_\_\_\_\_

## 5. Classification

**Ownership of Property**  
(Check as many boxes as apply)

<input checked="" type="checkbox"/>	private
<input type="checkbox"/>	public - Local
<input type="checkbox"/>	public - State
<input type="checkbox"/>	public - Federal
<input type="checkbox"/>	private

**Category of Property**  
(Check only **one** box)

<input checked="" type="checkbox"/>	building(s)
<input type="checkbox"/>	district
<input type="checkbox"/>	site
<input type="checkbox"/>	structure
<input type="checkbox"/>	building(s)
<input type="checkbox"/>	object

**Number of Resources within Property**  
(Do not include previously listed resources in the count.)

Contributing	Noncontributing
1	buildings
	sites
	structures
	Objects
	buildings
1	<b>Total</b>

**Name of related multiple property listing**  
(Enter "N/A" if property is not part of a multiple property listing)

**Number of contributing resources previously listed in the National Register**

## 6. Function or Use

**Historic Functions**  
(Enter categories from instructions)

Commerce/Trade: Business Office Building

Education: Research Facility- Laboratory

Industry: Manufacturing Facility

**Current Functions**  
(Enter categories from instructions)

Commerce/Trade: Business Offices,

Professional- Architect's Studio

Specialty Store- Bookstore

Social: Civic- Historic Preservation Office

Recreation and Culture: Theater- Movie Theater

Museum- Art Gallery

## 7. Description

**Architectural Classification**  
(Enter categories from instructions)

Italianate

**Materials**  
(Enter categories from instructions)

foundation: Stone- Brownstone, Concrete

walls: Brick

roof: Asphalt, Stone- Slate

other:

Underwood Computing Machine Company  
Factory

Name of Property

Hartford, CT.

County and State

---

**Narrative Description**

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

**Summary Paragraph**

See Continuation Sheet.

---

**Narrative Description**

See Continuation Sheet.

Underwood Computing Machine Company  
Factory

Name of Property

Hartford, CT.

County and State

## 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)

- |                                     |   |  |
|-------------------------------------|---|--|
| <input checked="" type="checkbox"/> | A | Property is associated with events that have made a significant contribution to the broad patterns of our history.   |
| <input type="checkbox"/>            | B | Property is associated with the lives of persons significant in our past.  |
| <input checked="" type="checkbox"/> | 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. |
| <input type="checkbox"/>            | 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)

Property is:

- |                          |   |  |
|--------------------------|---|--|
| <input type="checkbox"/> | A | owned by a religious institution or used for religious purposes.           |
| <input type="checkbox"/> | B | removed from its original location.  |
| <input type="checkbox"/> | C | a birthplace or grave.   |
| <input type="checkbox"/> | D | a cemetery.  |
| <input type="checkbox"/> | E | a reconstructed building, object, or structure.                            |
| <input type="checkbox"/> | F | a commemorative property.  |
| <input type="checkbox"/> | G | less than 50 years old or achieving significance within the past 50 years. |

**Areas of Significance**

(Enter categories from instructions)

Industry

Invention

**Period of Significance**

1917-1969

**Significant Dates**

1917

1936

1969

**Significant Person**

(Complete only if Criterion B is marked above)

**Cultural Affiliation****Architect/Builder**

Architect- F.H. Oldershaw

Builder- Robert Porteus

**Period of Significance (justification)**

See Continuation Sheet.

**Criteria Consideratons (explanation, if necessary)****Statement of Significance Summary Paragraph** (provide a summary paragraph that includes level of significance and applicable criteria)

See Continuation Sheet.

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

See Continuation Sheet.

Developmental history/additional historic context information (if appropriate)

## 9. Major Bibliographical References

**Bibliography** (Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets)

### 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 # \_\_\_\_\_

### Primary location of additional data:

☐ State Historic Preservation Office  
☐ Other State agency  
☐ Federal agency  
☐ Local government  
☐ University  
☐ Other  
Name of repository: \_\_\_\_\_

Historic Resources Survey Number (if assigned): \_\_\_\_\_

## 10. Geographical Data

**Acreage of Property** 2.9 acres  
(do not include previously listed resource acreage)

### UTM References

(Place additional UTM references on a continuation sheet)

1	18	690950	4625618	3			
	Zone	Easting	Northing		Zone	Easting	Northing
2				4			
	Zone	Easting	Northing		Zone	Easting	Northing

**Verbal Boundary Description** (describe the boundaries of the property)

The property is described as Parcel 328-001-011 in the Hartford Assessor Records.

**Boundary Justification** (explain why the boundaries were selected)

The boundary includes the entire parcel historically associated with the Underwood Computing Machine Company.

---

**11. Form Prepared By**

---

name/title\_ Lucas A. Karmazinas

organization Central Connecticut State University Graduate Studies date Decemebr 17, 2008

street & number 34 Maplewood Ave #3 telephone 860-428-7982

city or town West Hartford state CT zip code 06119

e-mail Lucas.karmazinas@gmail.com

---

**Additional Documentation**

---

Submit the following items with the completed form:

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

---

**Photographs:**

---

Submit clear and descriptive black and white photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

**Name of Property:** Underwood Computing Machine Company Factory

**City or Vicinity:** Hartford

**County:** Hartford

**State:** CT

**Photographer:** Lucas Karmazinas

**Date Photographed:** 12-1-2008

**Description of Photograph(s) and number:****1 of 21.**

West (front) elevation of factory from Arbor Street, showing main manufacturing building, 1917, and stair towers. Camera facing southeast.

**2 of 21.**

West (front) elevation of factory from Arbor Street, showing main manufacturing building, 1917, north tower, and central entryway. Camera facing southeast.

**3 of 21.**

Detail of south stair tower; showing brownstone quoins, parapet, cornice, and slate tiled roof. Camera facing southwest.

**4 of 21.**

Detail of north stair tower; showing entryway, double fireproof doors, brick segmented relief arch, architrave, and brownstone quoins.  
Camera facing east.

**5 of 21.**

Detail of central entryway, showing molded concrete details and glass doors.  
Camera facing east.

**6 of 21.**

Detail of lobby, showing interior of central entryway.  
Camera facing west.

**7 of 21.**

North elevation, facing Gray Pay Telephone Station Company, showing end of main factory, north stair tower, and window details.  
Camera facing southeast.

**8 of 21.**

West and southwest elevations from Arbor Street, showing south stair tower and the ell attached to the south elevation.  
Camera facing north.

**9 of 21.**

East elevation facing the New York, New Haven, and Hartford Railroad; showing main factory building, elevator, and restroom shafts as well as the receiving room, and northeast elevation of the ell.  
Camera facing northeast.

**10 of 21.**

East elevation facing the New York, New Haven, and Hartford Railroad; showing detail of rear blocks, hardening room and machine shop.  
Camera facing northwest.

**11 of 21.**

North elevation facing the Gray Pay Telephone Station Company, showing rear of main factory building and c. 1923 addition for cafeteria.  
Camera facing southwest.

**12 of 21**

Detail of lobby, showing features of entryway.  
Camera facing northwest.

**13 of 21**

Interior of lobby, showing detail of tile floor.  
Camera facing east.

**14 of 21**

Interior of lobby, showing ceiling details.  
Camera facing southeast.

**15 of 21**

Detail of first floor hallway; showing hardwood floors, wooden support beams, and exposed ceiling.  
Camera facing south.

**16 of 21**

Interior of south stairwell, showing detail of doorway leading into second floor hallway.  
Camera facing east.

**17 of 21**

Interior of south stairwell, showing detail of landing between the first and second floors.  
Camera facing southwest.

**18 of 21**

Interior of second floor hallway; showing detail of offices, drop ceilings, and fluorescent lighting.  
Camera facing south.

**19 of 21**

Interior of third floor hallway; showing detail of offices, wall features, and lighting fixtures.  
Camera facing south.

**20 of 21**

Interior of fourth floor hallway, showing ceiling detail.  
Camera facing northeast.

**21 of 21**

Interior of fourth floor hallway, showing detail of lighting fixture.  
Camera facing east.



## National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

County and State: Hartford, CT

Section number: 7 Page: 1

### Underwood Computing Machine Company Architectural Description:

The former Underwood Computing Machine Company factory sits on 2.9 acres, about one third of the block formed by Arbor Street, Capitol Avenue, the New York, New Haven, and Hartford Railroad, and Orange Street in the Parkville neighborhood of Hartford. The building measures 325 feet by 215 feet overall and consists of five interconnected blocks (See site plan) built between 1917 and 1923. The main block and two of the lesser blocks are of load-bearing, red brick construction. The remaining two blocks are constructed of metal lath and cement plaster with red brick exterior walls. Adjacent to the northwest elevation of the building is the 1912 Gray Telephone Pay Station Company. Adjacent to the south of the block is the 1920 Hartford Rubber Works Factory, designed by the firm of Lockwood, Greene, and Co. To the west lie Parkville's historic residential neighborhoods.

The front of the building is the main and oldest part of the factory (Photographs 1, 2). It is 325 feet wide and four stories tall. The building shows restrained Italianate influences through its tall arched windows, flat roofline, cornice, and square towers. The main block's steel beam and wooden truss support structure rests on a concrete foundation that is decorated on the exterior with roughly hewn brownstone. The windows have twenty-over-twenty sash, brownstone sills, and segmented brick relief arches. The cornice is of brick and copper construction completed in a simple decorative design and the flat roof is topped with asphalt and slag. At each end of the block is a four-story tower containing staircases to the upper floors. The towers have brownstone quoins, a simple cornice capped in copper, and a shallow hipped roof with slate shingles (Photograph 3). The windows in the towers are twenty-over-twenty sash, with brownstone sills and segmented brick relief arches. On the front (west) elevation at the ground level of each tower is a recessed entryway with a segmented brick relief arch and double fireproof doors. Above each entry way is a beveled brownstone block bearing the date of construction, "1917" (Photograph 4). Another entryway centered on the front elevation, likely added in 1936, is constructed of molded concrete and is heavily influenced by the Art Deco style (Photograph 5). It bears a large metal "56" indicating the building's address and features two glass doors leading into the building's lobby (Photograph 6).

The north elevation of the main block is 50 feet wide, contains twenty windows, and maintains the architectural styling of the front elevation (Photograph 7). An ell 50 feet by 50 feet is attached to the south elevation at a 45-degree angle and consists respectively of twenty-four, twenty, and twenty windows per side, all in four story bays (Photograph 8). The design is consistent with the rest of the main building. On the east (rear) elevation two narrow shafts project from the building's center extending the four stories from ground level to the roof (Photograph 9). One shaft contains each floor's bathrooms and the other the elevator. Like the stair towers the elevator shaft rises about six feet above the level of the roof and is topped with a brick and copper cornice and hipped roof. The original 37.5 horsepower Westinghouse Type SK machinery powers the elevator.

## National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

County and State: Hartford, CT

Section number: 7

Page: 2

The remaining four blocks are attached to the rear elevation on the north side of the bathroom and elevator shafts. The first is the boiler room measuring 35 feet by 56 feet. It contains the original coal-fired boiler and the oil furnace that replaced it by 1955. Despite a ceiling height of 25 feet, the fact that the boiler room is sunk below ground level causes it to stand less than one story above ground. Adjacent to the boiler room and situated behind the elevator shaft is a small, one story block that serves as the building's receiving room. Built of red brick it measures 30 feet by 50 feet and connects the rear blocks to the main part of the building.

Adjacent to the receiving room, the first of the main rear blocks is constructed of load-bearing brick walls built directly on a concrete foundation. Part of the original factory it measures 24 feet by 65 feet and stands one story. This space originally housed the factory's hardening room but was converted to a machine shop in 1936 (Photograph 10).

The last of the original components of the factory is the block adjacent to the former machine shop. Built of metal lathe and cement plaster with red brick exterior walls the block measures 50 feet by 130 feet and originally housed the polishing and plating departments. The space was converted into the factory museum in 1936.

The final major component of the factory was added to the north elevation of the polishing and plating block between 1920 and 1923. Containing the factory cafeteria this block measures 40 feet by 120 feet and was constructed of metal lathe and cement plaster with red brick exterior walls (Photograph 11).

With the exception of the addition of a 25 foot by 35 foot one story storage room to the east elevation of the boiler room in 1940 all major construction was complete by 1923. The exterior integrity of the factory building is intact with only minor modifications; including the filling of several windows, and the installation of visually appropriate replacement windows.

The interior design of the building reflects the Art Deco styling of its concrete entryway (Photograph 12). The building's lobby maintains most of the features original to a major 1935 remodeling during which the building was converted from a factory to research and development facility. The lobby's tile floor is set in a black and white diamond pattern of squares - measuring one foot on a side - set in groups four across by four across (Photograph 13). The effect is of alternating black and white, four foot by four foot, diamonds stretching the length of the floor. These are periodically interrupted for decorative effect by two foot by two foot blocks of pale blue tiles. Black wooden molding runs along the base of the walls. Seven wooden pilasters, evenly spaced from the front to the rear of the lobby, interrupt the walls. Two wooden pillars, one foot distant from each of the side (north and south) walls, stand at the lobby's midpoint (Photograph 14). Like the pilasters, these rise to the ceiling terminating in one of seven wooden beams crossing the lobby. Between the beams, the ceiling is painted a pale blue, matching the floor's tile accents.

United States Department of the Interior  
National Park Service

National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

---

County and State: Hartford, CT

---

Section number: 7

Page: 3

---

On the north side of the lobby, two doors provide access to space converted into offices and a sales school in the 1935 remodel. The original doors have been replaced with metal fireproof doors; likely in the late 1980's. The walls are of wood and plaster construction. On the south side of the lobby is the property manager's office, a hallway leading to the first floor's south wing, and an alcove containing the first floor bathrooms. Also along the south wall of the lobby are two large glass cases containing a collection of over two-dozen antique Underwood typewriters and computing machines.

Opposite the entry along the rear (east) wall is the building's Westinghouse elevator, converted from freight to personnel use in 1935. To the left of the elevator is a doorway leading to the receiving room and rear blocks of the building. The walls of the receiving area show the building's load-bearing brick wall construction, wooden support beams, and wood floors above. All are painted white. The rear blocks, once containing the hardening department, polishing and plating room, and cafeteria - now occupied by the non-profit arts advocacy group, Real Art Ways - were converted into a theater for independent cinema, art galleries, and cocktail lounge between 1996 and 2002.

The floors of the first floor's main hallway are of original hardwood, and the support beams and wood flooring above are visible (Photograph 15). The walls and ceiling are painted white. The lighting has been recently converted to fluorescent fixtures. At the end of the hall, an original fireproof door leads into the south stairwell

Each of the two stairwells is identical and true to their original form. They maintain many of the aesthetic qualities of the first floor hallway. Segmented brick relief arches span the doorways leading into the stairwells (Photograph 16). The landings are hardwood, the wooden stairs are painted black and the brick walls white (Photograph 17). The wooden support beams and floors above are exposed. Between each floor, a flight of twelve stairs leads to a landing before another twelve stairs rise to the floor above. Each landing has a large window facing (west) towards Arbor Street.

In 1935 the building's second floor was converted from open factory space into classrooms and a laboratory. The floor was again modified in the late 1980's when the current offices were constructed (Photograph 18). The walls throughout are of gypsum wallboard. Carpeting, modern fireproof doors, drop ceilings, and fluorescent lighting have also been added.

Third and fourth floor factory space was modified into offices in 1935. The extant frame and glass partitioning walls run the length of the building forming a central hallway (Photograph 19). Wooden fireproof doors, some with frosted glass, provide entry into each of the individual offices. Wooden molding, painted black, forms a chair rail and runs along both sides of the hallway for its length.

United States Department of the Interior  
National Park Service

**National Register of Historic Places Continuation Sheet**

Name of Property: Underwood Computing Machine  
Company Factory

---

County and State: Hartford, CT

---

Section number: 7      Page: 4

---

The walls are capped in white crown molding above which plaster detailing blends them into the ceiling forming a cove (Photograph 20). The ceiling is finished with plaster and painted white. Metal light fixtures suggest the influence of Art Deco styling (Photograph 21).

Overall alterations to the interior are minimal and do not impact the structure's physical or historical integrity. The building is currently occupied by an assortment of offices and studios including the Hartford Preservation Alliance and Real Art Ways.

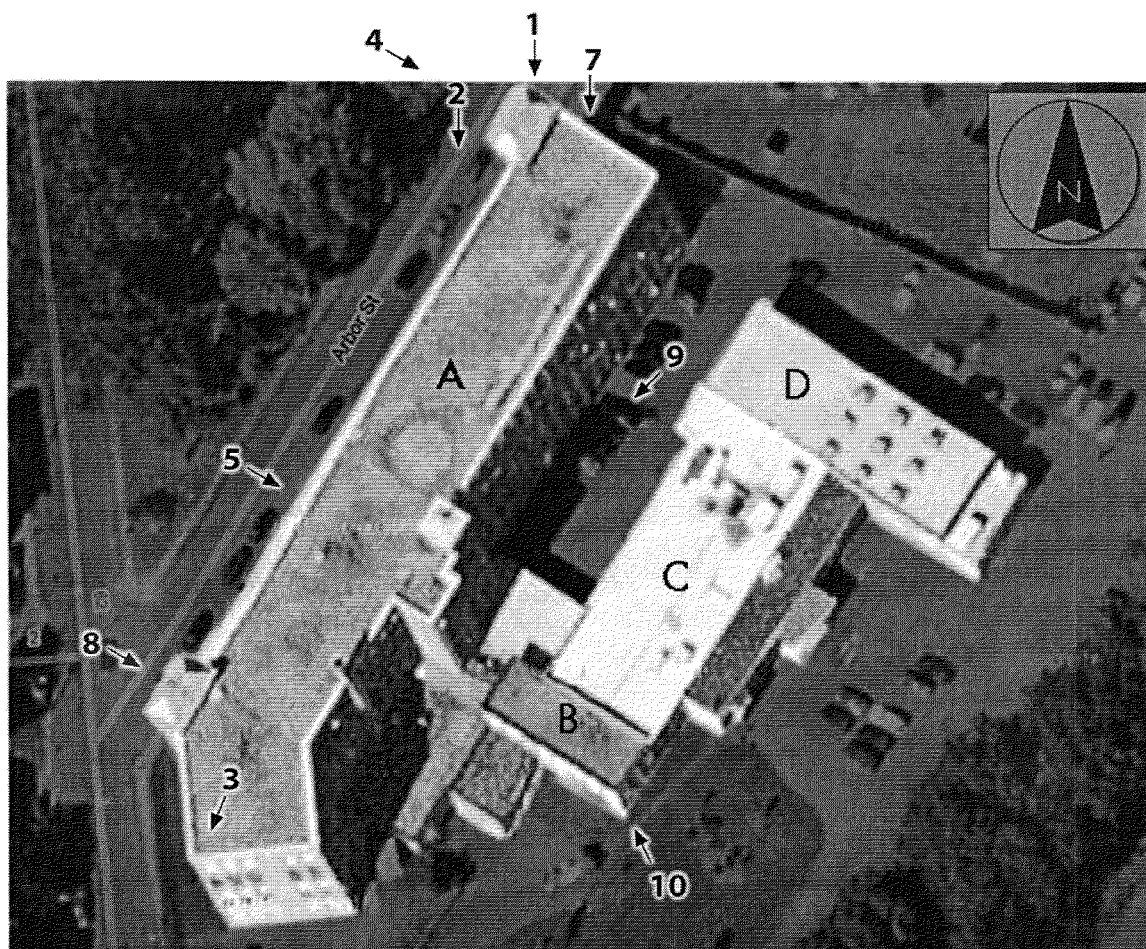
National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

County and State: Hartford, CT

Section number: 7

Page: 5



← 3 Photo position

50 Feet

SITE PLAN:

- A. Main Block
- B. Hardening Department
- C. Polishing and Plating Department
- D. Cafeteria

## National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

County and State: Hartford, CT

Section number: 8 Page: 1

---

### Significance: Underwood Computing Machine Company Factory

#### Summary

The Underwood Computing Machine Company factory is significant because of the important role the typewriter and computing machine industries played in the economic development of the City of Hartford and the state of Connecticut (Criterion A). The building functioned first as a production plant for the Underwood Computing Machine Company and later as a research and development facility for the Underwood Typewriter Company making it a significant aspect of the city's industrial past. Driven by successful machine tool and manufacturing entities Hartford emerged as a national leader in industrial productivity as early as the 1870s. By the turn of the century Hartford's resume included national leaders in firearms, hardware, sewing machines, machine tools, and bicycles. After the arrival of the Underwood Computing Machine Company in 1909 the city evolved into a world leader in typewriter and computing machine production and development. The Underwood Computing Machine Company factory represents a fine example of late brick mill construction and is one of the last surviving examples of 19<sup>th</sup> and early 20<sup>th</sup> century industrial architecture in Hartford (Criterion C). Aside from the Colt armory it is Hartford's last surviving architectural example of the precision industries, manufacturers that included firearms, sewing machines, and typewriters, once familiar in the city and particularly common along Capitol Avenue.

#### Historic Context

##### Computing Machines:

John T. Underwood, president of the Underwood Typewriter Company, organized the Underwood Computing Machine Company in New York in 1909 for the purpose of producing bookkeeping and computing machines. After briefly operating in New York City the concern followed the precedent of its sister company and located in Hartford hoping to share in the latter's successful operations in the city. While the company's management remained in New York, production moved to the top floor of the Chamber of Commerce building on Hawthorne Street.<sup>1</sup>

The Chamber of Commerce building was built specifically with the intent of providing new industrial entities a place to locate as they established themselves within the city. The Underwood Computing Company shared the factory with the Arrow Electric Company, an entity incorporated in 1905 that manufactured push button switches, sockets, wiring devices, and other electrical products.<sup>2</sup>

## National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

---

County and State: Hartford, CT

---

Section number: 8

Page: 2

---

It was hoped that the Chamber of Commerce building would replicate the success of the city's Board of Trade Building, which had been critical in luring the Underwood Typewriter Company to Hartford in 1901. The *Hartford Courant* called that event, "An incident which serves as a constant reminder to the progressive spirit of the city."<sup>3</sup> This favorable industrial climate encouraged businesses such as the Underwood Computing Machine Company to locate in the city. However, despite the suitability of their new factory the Underwood Computing Machine Company's tenure on Hawthorne was short. In 1916, after considerable growth, the Arrow Electric Company bought the Chamber of Commerce building, a move that left the Underwood Computing Machine Company without a home.<sup>4</sup>

In order to remain in the city the company quickly sought out a new location to continue manufacturing. They found this in a parcel of land abutting Hawthorne and Forest Streets not far from the Chamber of Commerce building. However, the prospect of further industrial development in the Forest Street neighborhood elicited a quick response from residents who wanted to preserve the character of their street and spare it from the industrial development that exemplified many of the surrounding streets, including Hawthorne Street, Laurel Street, and Capitol Avenue. In an effort to protect the city's and their own interests, rather than block the project, a group of Forest Street residents organized a committee with the purpose of securing an alternative site for a new Underwood Computing Machine Company factory. In December 1916 the committee located a suitable property on Arbor Street next to the Gray Telephone Pay Station Company and moved to exchange the deed for the original property on Forest and Hawthorne Streets.<sup>5</sup>

In the meantime at the urging of Charles D. Rice, superintendent of the Underwood Typewriter Company, a group of Hartford businessmen moved to secure the capital necessary for the construction of the new factory. The Hartford Industrial Development Company was organized in late December 1916 in order to raise the initial \$150,000 for construction. Behind Leon P. Broadhurst, president of the Phoenix State Bank, and Ferdinand Richter of Fuller, Richter, and Aldrich, they did so in just three days. Notable stockholders included John T. Underwood, organizer of the Underwood Computing Machine Company and president of Underwood Typewriter; Dewitt Bergen, treasurer of Underwood; and Charles D. Rice, superintendent of Underwood; as well as a host of Hartford residents, and the G. Fox Company. The Underwood Computing Company's three hundred employees moved into the completed building in November 1917.<sup>6</sup>

The Underwood Computing Machine Company's move into its new factory allowed it to expand the manufacture of its products, which it sold both nationally and internationally. Predecessors to early calculators and billing machines the company's computing machines were complex devices that allowed the user to add and subtract from a running value while simultaneously producing typewritten bills displaying credits and expenditures affecting the total funds. The machines were quick, accurate, and flexible. They even allowed the user to switch out the

National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

County and State: Hartford, CT

Section number: 8

Page: 3

computing mechanisms and operate the machine as an ordinary typewriter. Unlike the typewriters of the day, however, the devices were partially powered by electricity; a feature that assisted in many of the operations and reduced user fatigue. A contemporary description of the devices called them, "marvels of engineering accomplishment."<sup>7</sup>

Like contemporary typewriters, the manufacture of Underwood's computing machines required a highly skilled workforce, and technically advanced, specifically designed machinery. They followed many of the same processes of milling, drilling, surfacing, polishing, buffing, and japanning that went into typewriter production and the thousands of parts that went into the devices were similarly assembled entirely by hand. Many of these operations had been developed in Hartford's armory business and were successfully transmitted into the city's other industries including sewing machine and bicycle production. This meant that Hartford, with its well-trained population of workers, was an ideal environment for manufacturing typewriters and computing machines and as such both branches of the Underwood Company thrived in the city.<sup>8</sup>

By 1926 business was booming for Underwood. Underwood Computing Company assets were estimated at \$4,999,842, and operating income was \$333,865, an increase of \$82,000 over the previous year. Employment had risen to 650 workers. The Underwood Typewriter Company was the largest producer of typewriters in the world and its plant operated with 5,000 employees. Early in 1927, at the apex of this success, the Underwood Computing Machine Company moved to purchase the plant on Arbor Street after their initial lease from the Hartford Industrial Development Company expired. Not long after this transaction, however, another significant exchange was made. In June of 1928, after acquiring the Underwood Typewriter Company, the business machine company Elliot Fisher purchased the Underwood Computing Machine Company.<sup>9</sup>

The stock market collapse of 1929 impacted the Underwood Computing Machine Company just as it did many of Hartford's other important industries. By 1930 the plant on Arbor Street sat idle as production moved to the main Underwood-Elliot Fisher factory on Capitol Avenue. By late 1935, however, the decision was made to convert the old plant into a research and development, engineering, and patent facility for Underwood-Elliot Fisher. After investing \$90,000 the company moved its research laboratory from New York City to Hartford in June 1936. The former Arbor Street factory housed two hundred employees, including thirty of the company's top engineers, patent attorneys, and specialized technicians. The modern facility included a laboratory, several machine shops, and numerous offices. It held the company's sales school where a corps of fifteen teachers educated classes of 160 students on the tools and techniques of selling typewriters to the national and international public through its 200 branch offices across the country and the globe. The company's service school, formerly located in New York City,



United States Department of the Interior  
National Park Service

National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

County and State: Hartford, CT

Section number: 8

Page: 4

was also moved to Arbor Street where a staff of ten teachers taught students how to maintain and repair the company's products.<sup>10</sup>

**Typewriters:**

During the Civil War Hartford's manufacturers profited greatly from Union military contracts and this industrial growth continued in the postwar decades that followed. As the state's population doubled in this period, Hartford grew from 29,000 residents to 80,000. A litany of industrial concerns employed these masses, most of which in the hub that surrounded the concentration of factories along Capitol Avenue. The Underwood Computing Machine Company factory was a critical participant in the dense concentration of industrial infrastructure that formed the city's manufacturing center.<sup>11</sup>

Hartford was home to a large contingent of talented engineers and machinists as early as the mid-nineteenth century. Many were trained and employed at the Colt armory in Samuel Colt's "college of mechanics" and as a result had an extensive knowledge of the armory business, precision industry, and machine tool production that would prove invaluable to the typewriter and computing machine industries. In the period following the Civil War a number of these individuals set out on their own, one by one establishing the industrial concerns that eventually made Hartford, and its Capitol Avenue, famous as a manufacturing center. These included Pratt and Whitney, Hartford Machine Screw, Billings and Spencer, the Cushman Chuck Company, the Weed Sewing Machine Company, and the Pope Manufacturing Company.

The reputation built by Hartford's inventors, engineers, machinists, and entrepreneurs made it a nationally recognized manufacturing center known for the skills of its workmen, the talents of its engineers, and the quality of its products. This industrial prowess was an influential factor in the Underwood Typewriter and Underwood Computing Machine Companies' decision to locate their production facilities in the city in 1901 and 1909 respectively. The Underwood Computing Machine Company's transition to Hartford significantly illustrates the city's perpetually evolving industrial atmosphere and its success helped the city maintain its manufacturing identity into the twentieth century.

After outgrowing factory space in Brooklyn, New York and then a four story plant in Bayonne, New Jersey Underwood was drawn to Hartford in 1901 by the reputation of its precision industries and skilled workforce, as well as by the persuasive voice of Colonel Albert A. Pope. Founder of the American bicycle giant, the Pope Manufacturing Company, Pope was a tireless booster for Hartford and his personal plea to Underwood was considered a central aspect of the company's decision to relocate in the city. The arrival of the Underwood Typewriter and Computing Machine Companies respectively, asserted Hartford's status as a crucial center of typewriter research and development.<sup>12</sup>

## National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

---

County and State: Hartford, CT

---

Section number: 8

Page: 5

---

Not long after the Underwood Company located in Hartford the city became a national leader in typewriter production; however, manufacturing of the devices was established well before the company arrived in the city. The first efficient prototype to be mass produced was designed by Christopher Latham Sholes of Milwaukee, Wisconsin in 1867. It was built by the gun maker E. Remington Company starting in 1875. The subsequent Remington Typewriter Company dominated the typewriter market in its early decades. The Remington machine, however, had a drastic flaw in that the operator could not see the printing point. Unable to read what they were writing one had to rely on memory until the type emerged several lines later.<sup>13</sup>

Recognizing the weaknesses of current typewriter designs and identifying room in the market for an improved model, John T. Underwood, an inventor of typewriter carbons and ribbons, bought the rights to a 'front-strike' machine designed by inventor Frank K. Wagner in 1894 that was the first that allowed the user to monitor their work, a feature referred to as "visible writing." The machine came into production by the company formed by John T. Underwood and Dewit Bergen, and took the Underwood name after briefly operating as the Wagner Typewriter Company.<sup>14</sup>

By 1905, the company was turning out 125 machines per day, triple that of competitor Remington. By 1909 the company had doubled the size of the original factory. In 1916 the Underwood Typewriter Company was Hartford's sixth largest taxpayer, and its towering smokestack bearing the name "Underwood" made the factory one of the most notable in the city.<sup>15</sup>

In its early years Underwood produced around 15,000 machines per year but after further growth and the construction of an additional plant in Bridgeport, volume increased to 235,000 per year in 1925, with 2,500,000 machines produced to that date. When the Connecticut historian, George B. Chandler wrote in 1925 the city of Hartford was considered not only the typewriter production capitol of the United States but, "the typewriter manufacturing center of the world."<sup>16</sup> The Underwood Typewriter Company was not only the largest producer of typewriters in the country at this time, but its Hartford typewriter factory also ranked as the second largest manufacturing plant in the entire state.<sup>17</sup>

Despite this impressive productivity the development of Underwood's and later Underwood-Elliott Fisher's products continued to take place in their main offices in New York City until the decision to move them in 1935. By this point changes in the industry demanded a reemphasis on the quality of typewriter design and engineering. Underwood-Elliott Fisher's competitors, particularly Hartford neighbor Royal, were growing stronger and as the production of computing machines continued to take place in the company's Capitol Avenue factory, the building on Arbor Street was the ideal location to expand the company's research and sales facilities.<sup>18</sup>

## National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

---

County and State: Hartford, CT

---

Section number: 8

Page: 6

---

Despite this emphasis on technological development American typewriter manufacturers saw their market share drop from 63 to 8 percent in the period after the Second World War. However, as late as 1951 the renamed, Underwood Corporation, operated typewriter factories in Hartford, Connecticut; New Hartford, Connecticut; and Southbridge, Massachusetts; a computing machine factory in Bridgeport, Connecticut; and a carbon paper and ribbon plant in Burlington, New Jersey. In 1954 they unveiled a line of three new products in what President Leon C. Stowell called a display of the company's "finest hour." The new model 150 typewriter, adding machine, and payroll machine were the products of an investment of \$1.2 million and the talented engineers at Underwood's research and development facility on Arbor Street. The efforts proved to be too little too late as the markets shifted and the company slipped beyond the point of resurrection. In 1959, the Italian company Olivetti bought the Underwood Corporation with the hopes of reviving the former national leader. Opting to focus on models already in production Olivetti closed down the research facility on Arbor Street in February 1960. Production at the Capitol Avenue plant ceased in January 1969. Olivetti moved its sales and service departments out of the Arbor Street facility in August 1969.<sup>19</sup>

### Architectural Significance

As one of the few extant examples of this area's industrial history the structure at 56 Arbor Street exemplifies the structures that have been lost and illustrates typical contemporary industrial design. The building reflects standard brick mill construction methods and its utilitarian design limits the presence of architectural flourishes beyond its brick cornice and the decorative entryway, added in 1936. The building possesses several aspects of general factory design: brick-pier construction; multiple stories; long, narrow proportions; large, plentiful windows; two stair-towers; and a flat, tarred roof. These features provided open workspace, a plentitude of light, increased fire resistance, and facilitated easy movement in and out of the building. The structure's slow-burning floors, fire doors, and sprinkler systems were other safety features typical of the period.

Frank H. Oldershaw, the Underwood Typewriter Company's head architect, designed the building for the Underwood Computing Machine Company. It is therefore not surprising that it was similar in construction method and aesthetic to the parent company's factory on Capitol Avenue. However, the building's layout also reflects the intention that it be adaptable to a variety of industrial uses. Built by a development company, albeit with an intended use, it necessarily had to be flexible and modifiable in the case a new occupant had to be found. This is achieved by an open floor plan and the electrification of machinery. The building needed little specialization to house the lathes, drills, and polishing machinery needed by the Underwood Computing Machine Company and

United States Department of the Interior  
National Park Service

**National Register of Historic Places Continuation Sheet**

Name of Property: Underwood Computing Machine  
Company Factory

---

County and State: Hartford, CT

---

Section number: 8

Page: 7

---

the ease of its conversion from factory to laboratory in 1936 further illustrates this point.<sup>20</sup>

<sup>1</sup> George B. Chandler, "Industrial History," in *History of Connecticut: In Monographic Form*, vol. 3, ed. Noris Galpin Osborn (New York: The States History Company:1925, 342, 360. Bruce Bliven Jr, *The Wonderful Writing Machine*. (New York: Random House, 1954, 88. Frank Cline, "Underwood Reaches Half Century Mark," *Hartford Courant*, September 16, 1951, pg. SM4.

<sup>2</sup> Chandler, 360. "The New Home of the Underwood Computing Machine Company," *Hartford Courant*, February 17, 1918, pg. X3.

"Underwood Computing Co. is Sold," *Hartford Courant*, June 14, 1928, pg. 1.

<sup>3</sup> "The New Home of the Underwood Computing Machine Company," *Hartford Courant*, February 17, 1918, pg. X3.

<sup>4</sup> "Exchange Saves Forest Street," *Hartford Courant*, December 1, 1916, pg. 16.

<sup>5</sup> "Arbor Street Land Conveyed," *Hartford Courant*, December 20, 1916, pg. 16. "Underwood Computing Machine Co. is Moving," *Hartford Courant*, November 11, 1917, pg. 15. "The New Home of the Underwood Computing Machine Company," *Hartford Courant*, February 17, 1918, pg. X3. "Underwood to Buy its New Plant," *Hartford Courant*, December 1, 1926, pg. 1.

<sup>6</sup> "Exchange Saves Forest Street," *Hartford Courant*, December 1, 1916, pg. 16. "Two Incorporation Certificates Filed," *Hartford Courant*, January 13, 1917, pg. 5. "Factory to be Started this Week," *Hartford Courant*, February 12, 1917, pg. 4. "Hartford Industrial Building Company to Increase Stock," *Hartford Courant*, August 21, 1917, pg. 5. "Underwood to Buy its New Plant," *Hartford Courant*, December 1, 1926, pg. 1. "Realty Documents Filed for Record," *Hartford Courant*, January 11, 1927, pg. 6.

<sup>7</sup> "Watch the Making of Typewriters," *Hartford Courant*, August 17, 1910, pg. 6. "The New Home of the Underwood Computing Machine Company," *Hartford Courant*, February 17, 1918, pg. X3.

<sup>8</sup> "Lockout Ahead of Strike," *Hartford Courant*, May 3, 1902, pg. 5. "Work Resumed," *Hartford Courant*, May 21, 1902, pg. 4. "Underwood Factory," *Hartford Courant*, December 1, 1903, pg.4. "Watch the Making of Typewriters," *Hartford Courant*, August 17, 1910, pg. 6.

<sup>9</sup> Bliven, 162. Chandler, 342. "Underwood May Pay \$2 Extra," *Hartford Courant*, October 29, 1925, pg. 9.

<sup>10</sup> "Underwood Will Not Move Two Plant," *Hartford Courant*, December 16, 1931, pg. 8. "Underwood to Remodel Closed Plant," *Hartford Courant*, November 19, 1935, pg. 16. "Idle Plants," *Hartford Courant*, December 20, 1935, pg. 18. "Allyn Wadhams Gets Underwood Contract," *Hartford Courant*, January 3, 1936. "Underwood Co. Expanding Use of Arbor St. Plant," *Hartford Courant*, May 23, 1936, pg. 1.

<sup>11</sup> Ellsworth Strong Grant, "The Miracle on Capital Avenue" *Hog River Journal* Vol. 2, no. 2 (2004): 25.

<sup>12</sup> "Talk on Inventions," *Hartford Courant*, March 12, 1902, pg. 5. "Watch the Making of Typewriters," *Hartford Courant*, August 17, 1910, pg. 6.

<sup>13</sup> Bliven, 47, 56. Nelson Current, *The Typewriter and the Men Who Made it*. Urbana: University of Illinois Press, 1954), 15, 82.

<sup>14</sup> Chandler, 342. "Business Machine Firsts By Underwood," *Hartford Courant*, April 30, 1950, pg. E11. "Underwood Reaches Half Century Mark," *Hartford Courant*, September 16, 1951, pg. SM4

<sup>15</sup> "Lockout Ahead of Strike," *Hartford Courant*, May 3, 1902, pg. 5. "Work Resumed," *Hartford Courant*, May 21, 1902, pg. 4. "Underwood Factory," *Hartford Courant*, December 1, 1903, pg.4. "Watch the Making of Typewriters," *Hartford Courant*, August 17, 1910, pg. 6.

<sup>16</sup> Chandler, 341.

<sup>17</sup> "Lockout Ahead of Strike," *Hartford Courant*, May 3, 1902, pg. 5. "Watch the Making of Typewriters," *Hartford Courant*, August 17, 1910, pg. 6. "No Sign of Summer Letup in Office Supply Business," *Chicago Daily Tribune*, August 22, 1910. "Stock Quote," *Chicago Daily Tribune*, Jan 4, 1911. "Underwood May Pay \$2 Extra," *Hartford Courant*, October 29, 1925, pg. 9. "Business Machinery is Product of Underwood," *Hartford Courant*, April 28, 1957, pg. 17F.

<sup>18</sup> Underwood Will Not Move Two Plant," *Hartford Courant*, December 16, 1931, pg. 8. "Underwood to Remodel Closed Plant," *Hartford Courant*, November 19, 1935, pg. 16. "Idle Plants," *Hartford Courant*, December 20, 1935, pg. 18. "Allyn Wadhams Gets Underwood Contract," *Hartford Courant*, January 3, 1936. "Underwood Co. Expanding Use of Arbor St. Plant," *Hartford Courant*, May 23, 1936, pg. 1.

<sup>19</sup> "Underwood Laboratory Has Strict Test Specifications," *Hartford Courant*, May 13, 1951, pg. E34. "Underwood Reaches Half Century Mark," *Hartford Courant*, September 16, 1951, pg. SM4. "Underwood Shows New Typewriter," *Hartford Courant*, January 19, 1954, pg. 20.

<sup>20</sup> "With Hartford Factory," *Hartford Courant*, December 22, 1916, pg. 20. "Start at Once on New Factory," *Hartford Courant*, March 17, 1917, pg. 3. "Hartford Industrial Building Company to Increase Stock," *Hartford Courant*, August 21, 1917, pg. 5. "Underwood Computing Machine Co. is Moving," *Hartford Courant*, November 11, 1917, pg. 15.

United States Department of the Interior  
National Park Service

National Register of Historic Places Continuation Sheet

Name of Property : Underwood Computing Machine  
Company Factory

County and State: Hartford, CT

Section number: 9

Page: 1

Bibliography:

Baldwin, Peter C. *Domesticating the Street: The Reform of Public Space in Hartford, 1850-1930*. Columbus: Ohio State University Press, 1999.

Bliven, Bruce Jr. *The Wonderful Writing Machine*. New York: Random House, 1954.

Chandler George B. "Industrial History." In *History of Connecticut: In Monographic Form*, vol. 4, edited by Noris Galpin Osborn. New York: The States History Company, 1925.

Current, Richard Nelson. *The Typewriter and the Men Who Made it*. Urbana: University of Illinois Press, 1954.

Epperson, Bruce. "Failed Colossus: Strategic Error at the Pope Manufacturing Company, 1878-1900." *Technology and Culture*, 2000 41(2): 300-320.

Faude, Wilson. *The Great Hartford Picture Book: From the Pictorial Archives of the Connecticut State Library*. Norfolk, VA.: Donning Co., 1985.

Grant, Ellsworth S. *The Colt Legacy: The Colt Armory in Hartford, 1855-1980*. Providence, RI : Mowbray Co., 1982.

\_\_\_\_. *The Miracle of Connecticut*. Connecticut: The Connecticut Historical Society and Fenwick Productions, 1992.

\_\_\_\_. "The Miracle on Capital Avenue." *Hog River Journal*, May/June/July 2004  
Vol. 2 (2); 25-29.

\_\_\_\_. *Yankee Dreamers and Doers: The Story of Connecticut Manufacturing*. 2<sup>nd</sup> ed.  
Connecticut: The Connecticut Historical Society and Fenwick Productions, 1996.

*Hartford Architecture Conservancy Survey Volume 1 (Downtown)*  
by the Hartford Architecture Conservancy, 1978-1980

*Hartford Architecture Conservancy Survey Volume 2 (South Neighborhoods)*  
by the Hartford Architecture Conservancy, 1978-1980

*Hartford Architecture Conservancy Survey Volume 3 (North and West Neighborhoods)*  
by the Hartford Architecture Conservancy, 1978-1980

Hoke, Donald. "Product Design and Cost Considerations: Clock, Watch, and Typewriter Manufacturing in the 19<sup>th</sup> Century." *Business and Economic History* 2, no. 18 (1989):119-128.

United States Department of the Interior  
National Park Service

National Register of Historic Places Continuation Sheet

Name of Property: Underwood Computing Machine  
Company Factory

County and State: Hartford, CT

Section number: 9

Page: 2

**Bibliography:**

Hounshell, David A. *From the American System to Mass Production, 1800-1932: The Development of Manufacturing Technology in the United States*. Baltimore: The Johns Hopkins University Press, 1984.

Orwell, Victoria. "Typewriters and the Vote." *Signs: Journal of Women in Culture and Society* vol. 29, no. 1 (2003): 55-83.

Weaver, Glenn. *Hartford: An Illustrated History of Connecticut's Capital*. Woodland Hills, CA: Windsor Publications, 1983.

**Atlases:**

Baker and Tilden. *Atlas of Hartford City and County*. Hartford, CT: Baker and Tilden, 1869.

L.J. Richards and Company. *Atlas of the City of Hartford*. Springfield, MA: L.J. Richards and Company, 1896.

Richards Map Company. *Atlas of the City of Hartford and the Town of West Hartford*. Springfield, MA: Richards Map Company, 1909.

Sanborn Map Company. *Atlas of the City of Hartford and the Town of West Hartford*. New York: Sanborn Map Company, 1917.

Sanborn Map Company. *Atlas of Hartford and West Hartford*. Sanborn Map Company, New York, 1920.

**Insurance Plans:**

"Underwood-Elliot Fisher Co." Hartford: Factory Insurance Company, 1923 (Edited 1936).

"Underwood Corp., Arbor Street Plant." Hartford: Factory Insurance Association, 1955.

**Newspapers:**

*Hartford Courant*, 1902-1968.

# UNDERWOOD COMPUTING MACHINE COMPANY FACTORY HARTFORD, CT

U.S.G.S. Hartford North  
Quadrangle, 1:24000

UTM Reference:  
18,690950,4625618



695  
3.2 MI. TO CONN. 3  
MERIDEN 18 MI.

40'

693

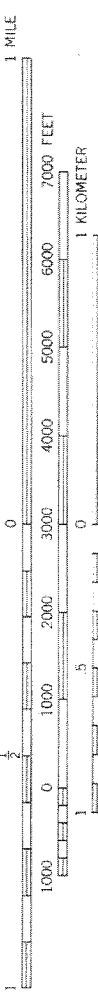
692 (HARTFORD SOUTH)  
6467 11 NW

691

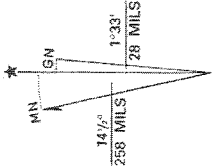
42°30"

610 000 FEET

SCALE 1:24 000



CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

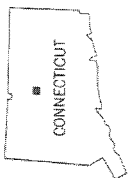


UTM GRID AND 1992 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

Revisions shown in purple and woodland compiled  
from aerial photographs taken 1991 and other sources  
Contours not revised. This information not field checked  
Map edited 1992

Purple tint indicates extension of urban areas

Heavy  
Medium  
Light



QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY

DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Hartford  
ray Department  
survey  
ographs  
vised 1964  
inneticut

are shown