

HISTORIC AND ARCHITECTURAL
RESOURCES INVENTORY
FOR THE TOWN OF
SIMSBURY, CONNECTICUT



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**Connecticut Commission
on Culture & Tourism**

HISTORIC AND ARCHITECTURAL RESOURCES INVENTORY FOR THE TOWN OF SIMSBURY, CONNECTICUT

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The researcher has endeavored to generate an overview document and forms that are as up-to-date and accurate as possible. This does not, however, preclude the value or need for additional data or corrections. Anyone with further information or insight is encouraged to contact Lynn Charest, Planning Department, Town of Simsbury, or email SimsburyHRI@gmail.com.

Resource inventories similar to this report are based primarily on the format applied in the *Historic Preservation in Connecticut* series, compiled by the Connecticut Historical Commission (since replaced by the Historic Preservation and Museum Division of the Connecticut Commission on Culture & Tourism). The template for this study was provided by the Historic Preservation and Museum Division of the Connecticut Commission on Culture & Tourism and drawn from the *Historical and Architectural Resource Survey of New Fairfield, Connecticut*, prepared in October 2008 by Philip S. Esser and Paul Graziano of *Associated Cultural Resource Consultants*.

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Table of Contents

Acknowledgements

I. Introduction.....	1
II. Methodology.....	4
III. The Historic Resource Inventory Form.....	6
IV. Historical and Architectural Overview.....	11
V. Bibliography.....	51
VI. Resources Related to Minorities and Women.....	54
VII. Recommendations.....	54
VIII. Index to Inventoried Resources.....	57

*Maps showing location of surveyed area follow page 1.

I. Introduction

In the fall of 2009, the East Weatogue Historic District Commission applied for, and received, a grant from the Historic Preservation and Museum Division of the Connecticut Commission on Culture & Tourism for the preparation of a Historic Resources Inventory. This report contains the results of the study, prepared between December 2009 and April 2010. The expectation was that this survey would enrich the town's historical record and supplement the body of information compiled in three preceding historic and architectural surveys conducted in 1975, 1992, and 1994. This project added over 150 buildings towards the East Weatogue Historic District Commission's final goal of documenting all of the historically significant resources in Simsbury, a target of over 600 structures.

This report follows the format found in the National Park Service publication, *Guidelines for Local Surveys: A Basis for Preservation Planning: National Register Bulletin #24*, and as identified by Connecticut's Statewide Historic Resources Inventory Update. It includes a historic and architectural overview illustrating the development of the survey area and commenting on its importance relative to the larger narrative of the town's history. It includes an individual inventory form for each resource surveyed identifying its historical and architectural significance. Additional sections highlight those resources potentially eligible for listing on the National Register of Historic Places, as well as those noteworthy for their connection to the history of women and minorities.

A primary objective of this survey was to identify and document the historic significance and integrity of the included structures. This was done in an effort to acknowledge the historic value of the resources in the survey area as well as to supplement the town's historic record. Extensively documented and adequately preserved historic resources are often limited to those related to notable figures, or are those that are the oldest or most architecturally detailed. Historic Resource Inventory studies, however, allow for a broad analysis of the resources in a survey area and help to draw out those that may have been overlooked or undervalued. In the simplest of terms, the Historic Resource Inventory serves as an "honor roll" of a town's historic buildings, structures, and sites, thus allowing for the recognition of a diverse body of resources.

Historic Resource Inventories play an important role in various governmental planning processes and allow both the Historic Preservation and Museum Division of the Connecticut Commission on Culture & Tourism and town planning departments to identify state and federal projects that might impact historic resources. Well-preserved built environments contribute to an area's quality of life and municipalities benefit directly from efforts to maintain the unique makeup and aesthetic diversity of their historic neighborhoods. Historic Resource Inventories help to reduce tear-downs, increase local infrastructure investment, and facilitate economic development by informing local governments and populations of the quality and character of their built environment, and by aiding in its protection and preservation. Historic structures gain their significance from the role they have played in the community and from the value the community places on them as a result. It is hoped that this Historic Resource Inventory will serve to increase appreciation of Simsbury's historic resources and in turn encourage their preservation.



Aerial View – Middle Hopmeadow Street Neighborhood (Google Earth). Map 1 of 2.



Aerial View – West Street Neighborhood (Google Earth). Map 2 of 2.

II. Methodology

The Survey

This survey of historic and architectural resources in the Town of Simsbury, Connecticut was conducted by Lucas A. Karmazinas of FuturePast Preservation, a Hartford firm specializing in research on historic resources. Fieldwork, photo documentation, research, and writing were carried out between December 2009 and April 2010. Copies of the final report and survey forms are deposited at the Simsbury Town Hall (Planning Department), Simsbury Historical Society, Simsbury Genealogical and Historical Research Library, Simsbury Public Library, and the Historic Preservation and Museum Division of the Connecticut Commission on Culture & Tourism, One Constitution Plaza, Hartford, CT 06103. Copies of the report and survey forms will also be deposited by the Historic Preservation and Museum Division of the Connecticut Commission on Culture & Tourism at the Connecticut State Library in Hartford, and the Special Collections Department of the Dodd Research Center at the University of Connecticut in Storrs.

The information needed to complete this Historic Resource Inventory was gathered through a “windshield” survey. This involved documenting each resource from the exterior and supplementing it with other public data, such as town tax assessor’s records. Neither the form, nor the survey in general, dictates what homeowners can do with their property nor does the included information violate the privacy of those whose property is included. For those homeowners who might be concerned about the implications of the survey, a review of the Historic Resource Inventory form demonstrates the public nature of the information included. Data collected includes: verification of street number and name; use; accessibility (public vs. private); style of construction; approximate date of construction (to be compared with assessor’s information); construction materials and details; condition of the resource; character of the surrounding environment; description of the resource; and exterior photographs. This survey represents an inventory of historical and architectural resources and no attempt was made to identify archaeological sites. Such an endeavor would have been beyond the scope of this study and would have necessitated specialized procedures, extensive fieldwork, and a greater allocation of resources.

The Survey Area

The survey area selected for this study is located in east-central Simsbury in the vicinity of the Ensign-Bickford Company plant, on the 600-block of Hopmeadow Street. Situated just south of the *Simsbury Center National Register District*, the neighborhoods within the survey area represent a substantially intact collection of residential structures, largely constructed by the Ensign-Bickford Company as worker housing around the turn-of-the-century. The target area is comprised of two zones, “Middle Hopmeadow” and “West Street” (See maps 1 and 2), delineated by the researcher, and identified primarily for their role as middle- and lower-class employee housing (the street index can be found at the end of Section II).

The Middle Hopmeadow-West Street Historic Resources Inventory survey area is a collection of extant period architecture set in a suburban industrial and rural environment. As discussed above, the identified resources demonstrate characteristics emphasizing developmental

construction of middle- and lower-class worker housing, in this case specifically that which was built around the Ensign-Bickford complex in the late 19th and early 20th centuries. The resulting development branched along and off of Hopmeadow and West Streets creating a pair of architecturally and socially analogous neighborhoods. The resources chosen for this survey include well-preserved examples directly reflecting these developmental patterns, as well as emphasizing the growth of the industrial zone along Hopmeadow Street during the 19th and 20th centuries.

Criteria for Selection

The Historic and Architectural Resources Inventory for the Town of Simsbury, Connecticut was conducted in accordance with the *Secretary of the Interior's Standards for Identification and Evaluation* (National Park Service, U.S. Department of the Interior, 1983). The methodological framework was drawn from the National Park Service publication, *Guidelines for Local Surveys: A Basis for Preservation Planning; National Register Bulletin #24* Derry, Jandle, Shull, and Thorman, National Register of Historic Places, National Park Service, U.S. Department of the Interior, 1977; Parker, revised 1985).

The criteria employed for the evaluation of properties were based on those of the National Register of Historic Places. The National Register is administered by the National Park Service under the supervision of the Secretary of the Interior. Properties recognized by the National Register include districts, structures, buildings, objects, and sites that are significant in American history, architecture, engineering, archaeology, and culture, and which contribute to the understanding of the states and the nation as a whole. The National Register's criteria for evaluating the significance of resources and/or their eligibility for nomination are determined by the following:

The quality of significance in American History, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess the integrity of location, design, setting, materials, workmanship, feeling, and association and:

- A. that are associated with events that have made a significant contribution to the broad pattern of our history, or;
- B. that are associated with the lives of persons significant in our past, or;
- C. that embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a distinctive and distinguishable entity whose components may lack individual distinction, or;
- D. that have yielded, or may be likely to yield, information important to prehistory or history.¹

The above criteria formed the basis for evaluating the buildings in this survey, however these parameters were also broadened to identify resources associated with individuals or events significant to Simsbury's history, or those structures that displayed vernacular styles or methods of construction typical of the period in which they were built. Not all of the resources identified by this inventory have been judged to be individually eligible for inclusion on the National Register. Connections have been found, however, between the Ensign-Bickford Company and almost all of the buildings surveyed. The relationship between Ensign-Bickford, a nationally significant industrial entity, and the surrounding neighborhoods makes them worthy of National Register

¹ *How to Apply the National Register Criteria for Evaluation; National Register Bulletin #15*, By the staff of the National Register of Historic Places, finalized by Patrick W. Andrus, edited by Rebecca H. Shrimpton, (National Register of Historic Places, National Park Service, U.S. Department of the Interior, 1990; revised 1991, 1995, 1997).

district recognition. Those resources determined to be eligible for nomination to the National Register of Historic Places, either individually or as part of a district, will be discussed later in the *Recommendations* section.

Historic Resource Inventories are often prepared by focusing on the oldest resources in a survey area. These are evaluated relative to the period in which they originated, and unified within the requisite overview study according to the chronology of the area's development. During the planning stages, several factors influenced the decision to conduct this survey geographically, rather than according to the construction date of the included buildings. First, was the fact that this Historic Resource Inventory would exclude any structures identified in previously conducted surveys, or listed on the National Register of Historic Places. These include the 'Historical and Architectural Survey of Simsbury Center, June 1994'; the 'Historical Resource Survey of Tariffville, 1992'; 'A Survey of Historic Structure and Landmarks in Simsbury, 1975'; the 'East Weatogue Historic District' (1990); the 'Simsbury Center Historic District' (1996); the 'Tariffville Historic District' (1993); and the 'Terry's Plain Historic District' (1993).² While these studies identify many of the oldest resources in town they left a substantial number of historic buildings undocumented. This included the large stock of worker housing built by the Ensign-Bickford Company between the 1860s and 1930s.

The Ensign-Bickford tenements emerged as an ideal study group due to their historical significance and architectural integrity, as well as for the density of their construction and proximity to the company plant. These characteristics bore a rich developmental history and alluded to the survey area's potential eligibility for nomination to the National Register. Over 150 resources were selected for this study, the majority built by the Ensign-Bickford Company. Although some possess alterations ranging from the application of synthetic siding, modern windows and doors, to the addition, or removal, of porches, all of these retained most of their historic character, features, and form.

III. The Historic Resource Inventory Form

A Historic Resource Inventory form was prepared for each historic resource surveyed. These were completed following a standard electronic document (.pdf format) created by the Historic Preservation and Museum Division of the Connecticut Commission on Culture & Tourism, the state agency responsible for historic preservation. Each form is divided into three main sections. These provide background, architectural, and historical information on the resource, and include; their street number and name, owner(s), type of use, style of construction, approximate date of construction, construction materials and details, physical condition of the resource, character of the surrounding environment, description of the resource, architect/builder (if known), exterior photographs, and historical narrative.

Much of the information in this inventory was gathered from town Assessor's records between December 2009 and April 2010. Architectural descriptions were drafted from exterior photographs taken during this same period and the historical narratives were based on archival research. The majority of the fields on the Historic Resource Inventory form should be self-explanatory, however the following is an elucidation of several of the more nebulous categories.

² It must be noted that in two instances the information gathered for a resource was inadequate and the opportunity to supplement the record was taken. Such occasions were limited to the 1975 survey, which was much less exhaustive than those that followed. The resources in question are 571 Hopmeadow Street and 23 Woodland Street.

Historic Name

In many cases the historic name of a resource serves as an indicator of its historical significance. When referring to public or commercial buildings, churches, social halls, etc., a historic name is based upon a structure's earliest known use and is typically straightforward. In the case of residential buildings things become a bit more complicated. Homes that sheltered the same family for a number of generations typically carry the surname of this family as their historic name, however, those homes that frequently changed hands or were rental properties are difficult to classify in this manner. Considering that the majority of the buildings identified by this survey were rented to Ensign-Bickford employees there are few that have been given historic names.

Interior Accessibility

This was a survey of exterior features and all of the resources studied were private buildings. As such, access to the interior of these structures was not requested of the owners, nor was it necessary.

Style

A building's style was characterized according to its earliest stylistic influences and regardless of later alterations or additions. Descriptions were based upon accepted terminology laid out in *A Field Guide to American Houses* by Virginia and Lee McAlester (Alfred A Knopf: New York, 1984). The most commonly applied architectural styles are described below. Many of the resources surveyed did not fall into a specific category as they lack the necessary attributes. These were simply classified as "vernacular." Such a term indicates construction typical of the period, yet lacking in many of the details and flourishes that would link it to a particular architectural style.

Greek Revival (1840-1880) – Homes patterned in the Greek Revival style were pervasive between 1825 and 1860, and as the name suggests, drew from the architecture of ancient Greece. Houses of this style have shallow pitched or hipped roofs, often with detailed cornices and wide trim bands. Fenestration consists of double-hung sash, tripartite, and at times, frieze band windows. Entry or full-width porches are common, typically supported by classical columns. Sidelights, transoms, pilasters, and heavy lintels often decorate doorways. Not limited to domestic applications, examples of the Greek Revival can be found in religious, commercial, and public buildings.

Gothic Revival (1840-1880) – The Gothic Revival style is based on the architecture of medieval England. Resurgent forms gained popularity in that country during the 18th century before appearing in the United States in the 1830s. The style's definitive characteristics include steeply-pitched roofs with steep cross gables, wall surfaces and windows extending into the gables, Gothic-inspired (typically arched) windows, and one-story porches. Decorative elements include intricate vergeboards in the gables, and detailed hoods over the windows and doors.

Italianate (1840-1885) – The Italianate, like the Gothic Revival, began in England before making its way into American architecture in the first half of the 19th century. The style was influenced by Italian country homes and Renaissance-era villas, yet developed into an entirely indigenous form once established in the United States. Italianate homes are typically two or three stories in height and have low-pitched (usually hipped or gable) roofs with widely overhanging eaves and detailed brackets. Tall and narrow windows are common and often have arched or curved window tops. Windows and doors are frequently crowned with decorative hoods.

Vernacular Victorian (1860-1910) – The buildings classified as Vernacular Victorian are those which demonstrate an amalgam of the architectural styles popular during the Victorian period (roughly 1860-1910). These included Stick (1860-c.1890), Queen Anne (1880-1910), Shingle (1880-1900), and Folk Victorian (c. 1870-1910) designs. While vernacular manifestations lack the intricate details of the high-style buildings they reference, shared features include rectangular plans, and front-facing pitched roofs, and one-story porches. Windows are typically double-hung sash and doors are wood paneled.

Queen Anne (1880-1910) – The Queen Anne style was the dominant residential form during the closing decades of the 19th century. The Queen Anne was popularized by a school of English architects, led by Richard Norman Shaw, and drew from English medieval models. Identifying features include steeply-pitched roofs of irregular shape and gable height, often with dominant, front-facing gables. Details include elaborate shingle or masonry patterns, cutaway bay windows, multi-story towers, and single- or multi-story porches. Other decorative elements include porch and gable ornamentation.

Colonial Revival (1880-1955) – This style gained popularity towards the end of the 19th century before becoming the most ubiquitous architectural form of the first half of the 20th century. Many manifestations of this style emerged, most sharing influences derived from early American, or Colonial architecture, such as Georgian, Federal, and Dutch Colonial buildings. Houses of this type commonly have rectangular plans, and hipped, pitched, or gambrel roofs. Decorative features mimic classical models and include elaborate porticos or porches. Double-hung sash and multipane, symmetrically-placed, windows are common, as are sidelight-flanked entries.

Tudor (1890-1940) - The Tudor label describes a style loosely based on Medieval English prototypes from the Elizabethan and Jacobean eras (1558-1625) and popular in the United States between 1890 and 1940. These homes are typically characterized by steeply-pitched, side-gabled roofs with prominent, pitched, cross gables, and varied eave-line heights. Half-timbered gables; tall, multipane, oriel, and bay windows; dominant chimneys; and elaborate wall cladding are common decorative features.

Date of Construction/Dimensions

Dates of original construction are based on the Simsbury Assessor's records, architectural and historical evidence, and archival research. In cases where the date listed by the Assessor's office seemed questionable, and a specific date could not be found through historical research, a circa (c.) precedes the year indicated. This evaluation is an educated guess based upon the structure's architectural detail, construction methods, and information gleaned from archival sources, including maps and atlases.

The Simsbury Assessor's records were also used to confirm and/or determine the dimensions of buildings. In many instances, Ensign-Bickford records indicate the measurements of tenements and these values were compared with the town records in order to ensure the highest level of accuracy. Where such information could not be found the town records were the sole reference. Assessor's records were also used to back up the survey of materials used in construction.

Condition

Condition assessments were based on a visual investigation of the exterior of inventoried structures. It was not possible to give a detailed assessment of the structural condition of the resources, as extensive and interior assessments could not be conducted. Buildings listed as being in "good" condition lack any glaring structural problems. Those listed as "fair" had problems, including badly peeling paint, cracked siding and windows, or damaged roofs, which if left unattended, could result in serious damage. None of the resources were listed as "Deteriorated", which would have indicated severe exterior problems and neglect.

Other Notable Features of Building or Site

While many of the preceding fields list the basic details of a resource's construction, specifically the style, original date, materials, structural system, roof type, and size, this category allows the surveyor to elaborate on a structure's other architectural qualities. In the case of this survey it typically included a building's orientation relative to the street, its floor plan (i.e square, rectangular, or irregular), height, roof structure and materials, window types, wall cladding, and porch details. As the state does not expect inventories of this nature to address the interiors of private buildings, no such descriptions were compiled or included. This field also allowed the surveyor to comment on any substantial alterations made to a resource.

Historical or Architectural Importance

Assessing the historical significance of each resource required detailed archival research. The methods applied varied, depending upon the information available for each structure, but did not include a complete chain of title research for each resource. Local land and census records, maps, atlases, and Ensign-Bickford business statements typically revealed the information necessary to confirm the dates given in the Assessor's records, or as was the case with a many structures, provide a different, yet more accurate, date of construction. This research also served to build a socio-historical narrative for each structure. These highlight the relationship between the building, its users, and the Ensign-Bickford Company, and demonstrate each resource's relevance to the development of the manufacturer and the community.

This field also contains information indicating how a particular resource exemplifies architectural qualities characteristic of a certain style or period, if pertinent. Architectural significance is assessed by evaluating a structure's historical integrity. This is determined by judging whether it retains the bulk of its original material, if contributes to the historic character of the area, or if it is representative of an architect's work, an architectural trend, or a building

period. Although many homes have been modified in some way, unless drastic alterations have been made, a building is likely to retain much of its historic character.

IV. Historical and Architectural Overview

Simsbury's Early Industries

Nestled within the lowlands of the fertile Farmington River valley, Simsbury, Connecticut's rural roots and bucolic location reflect the importance of agriculture in the town's economic history. This view, however, belies the town's industrial past and fails to represent a complete portrait of Simsbury's economic history. Since the town's founding in the second half of the seventeenth century, Simsbury's economy has consisted of industrial activities practiced alongside and in concert with those of agriculture. The earliest of these included cottage industries such as soap and candle production, milling operations for the preparation of lumber or grain, and the processing of pitch, tar, and turpentine. By the early nineteenth century, Simsbury had established itself as a notable industrial force in Connecticut. The most significant component of the town's industrial identity was, and remains, the Ensign-Bickford Company, established in 1836.

Similar to agriculture, many of Simsbury's early industries took advantage of the region's wealth of natural resources. Turpentine production capitalized on plentiful stands of pine trees, while stone, clay, and gravel drawn from local quarries provided the myriad building materials necessitated by a growing populace. Likewise, the town's most significant industry of this era, copper mining, benefitted from the extraction of this valuable metal. However, while Simsbury's lucrative copper mines did not last through the middle of the nineteenth century, an industry born out of and related to this business survives to this day as one of the longest continually-operated industrial entities in the state.¹

Bickford's Safety Fuse

Upon the celebration of their centennial in 1936, the Ensign-Bickford Company published a narrative of the history of the business titled, *100 Years, The Ensign-Bickford Company and the Safety Fuse Industry in America: A Record of One Hundred Years of Achievement, 1836-1936*.² In the introduction to this text, John E. Ellsworth lauds the significance of the invention of the safety fuse, placing it on the same high technological and social plane as Alfred Nobel's 1866 invention of dynamite. The text reads:

"The Safety Fuse, and the industry that sprang from it has been overshadowed by the discovery of dynamite by Alfred Nobel. Today the Nobel Prize Fund perpetuates the name and fame of the founder of the high explosives industry. His greatest invention, dynamite, is romantically termed "the modern Aladdin's Lamp" and hailed as "the greatest boon to the advancement of civilization the world has known since the printing press was invented." Yet behind the scenes, quietly at work, unknown to the general public and receiving no encomiums was the Safety Fuse. The dependability of this product and the safety it afforded in the ignition of black powder and other early explosive compounds was a great factor in facilitating the experimentation by Nobel and others that led up to the creation of the high explosives industry."³

There is certainly a valid argument in this opinion. The name Nobel, and the inventor's product, carries global recognition while that of the Ensign-Bickford Company is less renowned. To a degree, however, this validates the very mission of the Simsbury institution. As is stated in *100 Years*, "In a sense the invariable nonchalant regard with which the miner lights his fuse is the highest tribute that could be paid to the inventor and his successor manufacturers in the safety fuse industry the world over".⁴ The *raison d'être* of the Safety Fuse is that it function predictably and in a supportive role. Its place is that of back, rather than center stage. That being said, however, the significance of the product invented by the forbearers of the Ensign-Bickford Company, and the important role it plays in the developmental and economic history of Simsbury, cannot be underappreciated.⁵

The roots of the Ensign-Bickford Company can be traced to the invention of a "Miner's Safety Fuse" by William Bickford in 1831. Bickford was a Cornish leather merchant whose alleged horror over the all-to-frequent accidents in the English tin mines led to the development of a slow burning fuse meant to replace the dangerous and

unpredictable straw or goose quill fuses utilized at the time. Bickford's invention consisted of a hollow rope-like material spun out of flax, hemp, or cotton, filled with a combustible substance, secured with a tight wrapping of twine, then sealed and waterproofed with tar or varnish. The result was a relatively safe fuse that could be used to ignite all sorts of explosive charges on land and under water.⁶

The method of spinning or twisting the fuse casing, rather than filling a rigid device, created unique but significant differences in how pressures behaved within the product. This resulted in their predictable and thus safer character. Though initially slow to gain the confidence of mining companies, by 1840 Bickford's Safety Fuse was being used extensively and with notable success in English tin and coal mines, slate quarries, and by the British Government for military and civilian applications. The news of this safe alternative to traditional fuses quickly spread out of Britain, across Europe, and to America.⁷

Richard Bacon

Colonists discovered copper ore in the northern Simsbury hills, now East Granby, as early as 1705 and mined it successfully up until the Revolutionary War. At this point, a loss of markets resultant of British trade restrictions effectively halted production, and the mines fell temporarily silent. However, during, and for several decades after the conflict, the mine functioned as a prison for loyalists and petty criminals. Known as 'Old Newgate', the site's use as a prison was discontinued in 1827 and shortly thereafter a group of New York capitalists revived interest in its potential as a mine.⁸

Organized as the Phoenix Mining Company, this new enterprise took as its superintendent an old Wethersfield native and mining engineer by the name of Richard Bacon. It was Bacon who, in 1836, introduced Bickford's Safety Fuse to mining operations in the Farmington River Valley. Allegedly, Bacon's familiarity with the product could be traced to an April 1832 publication of the, "Register of Arts and Journal of Patent Inventions," in which the invention was highlighted. After learning of the product and

identifying its potential, Bacon eventually traveled to England in 1836 to pursue American sales rights.⁹

After meeting with George Smith of Bickford, Smith and Davey, the partnership in possession of Bickford's patent, Bacon was established as the company's exclusive American sales agent. That being said, substantial American tariffs drastically inflated the price of English fuse making it immediately clear that domestic production would be fiscally prudent. Bacon was encouraged to obtain an American patent for the invention and begin its manufacture in Connecticut. Joseph Eales, a foreman at Bickford, Smith and Davey's plant in Cornwall, England was sent to Simsbury to set up the factory and oversee operations. On the 6th of May, 1837 Bacon, Bickford, Eales and Company was established by contract as the first American Safety Fuse manufacturer.¹⁰

Bacon, Bickford, Eales and Company

The early relationship between Bacon, Bickford, Eales and Company and the English partners was one of cooperation and shared responsibility. As the Ensign-Bickford history reads, "All gains and losses of the new venture were shared on a basis of one-half to the English partners, one-third to Bacon and one-sixth to Eales".¹¹ In addition, the English firm provided their collaborators in Simsbury with all the required information and machinery to start production. The centennial history notes, "By its provisions the English were to send to America a complete set of fuse machines of latest design, were to furnish flax yarn until a satisfactory substitute could be found in America, and Joseph Eales was sent over to assist in erecting and operating the new factory".¹² The English firm even dictated the optimal size for the plant at 65 feet long, 12 feet wide, and of minimal height. Despite these instructions, evidence indicates that early production took place in extant structures located near Bacon's rural home, now identified as 11 Weatogue Street, rather than in a building specifically constructed for fuse manufacturing.¹³

Being a relatively simple and small-scale operation, Bacon, Bickford, Eales and Company did not maintain a permanent workforce. Rather, as was typical of the day, the company drew from the local population, taking advantage of lulls in the agricultural cycle

and calling in surrounding farmers to aid in production when necessary. Unfortunately, the blurry boundary between farm and factory led to practices that reduced the efficiency of the business. The Ensign-Bickford history notes, "Accounts were not always strictly segregated, tools were freely borrowed back and forth, and in the busy sowing and harvesting seasons the manufacturing business took a back seat".¹⁴ Although commonplace, such practices did not sit well with the English partners, and steps were soon taken to remedy what they considered an unacceptable business situation.¹⁵

On August 18, 1839, a thirty-year-old Cornishman by the name of Joseph Toy arrived in New York City, the first stop on his way to Simsbury. The English partners of Bickford, Smith & Davey, majority shareholders in Bacon, Bickford, Eales, & Co., sent Toy over from Britain with the purpose that he take over bookkeeping responsibilities for the American entity. It was hoped that Toy might establish better business management practices and facilitate improved communication between the two firms. The arrival of an Englishman intent on assuming the financial responsibilities of an American business, however, was likely not taken well by Bacon or the local farmers who worked for him. More than a few perhaps saw this as an infringement on their operation by those in the mother country. Despite these opinions, Toy's arrival would prove one of the most critical junctures in the history of fuse manufacturing in Simsbury.¹⁶

Joseph Toy

Having lost his parents while very young, Joseph Toy was forced to go to work in the mines at an early age. Despite the lack of a formal education, through individual dedication, hard work, and intellectual curiosity, he soon emerged a self-educated scholar in possession of a talented business mind. Fellow parishioners George Smith and Thomas Davey quickly identified Toy's skills, and he was brought into their fuse business as a bookkeeper and clerk around 1838. It was not long after this that the company identified the need to send a representative to America to oversee operations there. As the Ensign-Bickford history states, "Here was Toy – bright, intelligent, ambitious, experienced not only

as a miner but trained for a year in the fuse business, and above all a loyal friend to his benefactors".¹⁷ The choice of who would go was quite clear.¹⁸

When Toy, his wife Jane, and three children, Mary, Joseph, and Susan arrived in Simsbury, they took up residence with Joseph Eales in a "typical old-fashioned New England farmhouse"¹⁹ on East Weatogue Street near the fuse factory. The absence of any kind of comprehensive transportation infrastructure in this period essentially necessitated that participants in any business reside in close proximity to it and as such, it is not surprising that Bacon, Eales, Toy, and another Englishman by the name of Whitehead (working as foreman in the fuse shop), all lived along East Weatogue Road. The Toys moved twice shortly after their arrival, first to a home south of the Weatogue-Hartford Road (now the site of the home at 73 Hartford Road built c. 1926), and then to a second, several hundred yards north on the opposite side of Hartford Road. Eventually John Ellsworth, grandson of Joseph Toy, made the latter his home, calling it the Ann Toy House (now 76 Hartford Road).²⁰

After fire destroyed the East Weatogue Street plant on November 12, 1839,²¹ production was moved to the then abandoned Newgate mine, which Bacon still maintained. This arrangement, however, was only temporary and a new factory was soon built near the original location. This allowed it to be operated and carefully supervised by the partners who lived close by.²² The new plant was built just to the north of the original operation where a brook emerged from the hillside at a feature known as the "Devil's Stairs".²³ The company took advantage of the landscape and constructed its new buildings in a manner that capitalized on the site's potential for waterpower. As noted in the company history, "The brook was dammed up and the water led around the brow of a knoll to the south end of the building where the water wheel was located".²⁴ The fresh start allowed the firm to modify and organize the layout of their factory and to update their machinery, adjustments that increased the efficiency and speed of production.²⁵

Regardless of the financial impact of the devastating fire, its timing - which facilitated the relocation and expansion of the company - was rather fortuitous. American westward expansion, the growth of coal, copper, and iron mining, and rapid railroad development were a boon to companies in the blasting and explosive businesses. This in turn greatly increased demand for Bacon, Bickford, Eales, & Company Safety Fuse.

Furthermore, the local presence of the Farmington Canal and the factory's proximity to shipping facilities in Hartford provided the firm with efficient access to far-flung markets. The company was able to ship Safety Fuse to mines, quarries, railroad companies, and canal builders across Connecticut, New York, Pennsylvania, and further west, thus allowing it to effectively challenge local and distant competitors. These factors, combined with the company's increased production capacity, were a blessing to the injured business and helped it to quickly resume full production.²⁶

The encouraging financial situation was not, however, matched with operational stability or general good fortune. The company soon faced several challenges that threatened its very existence. These included the departure of Joseph Eales in 1842 after coming, "into some sort of difficulty,"²⁷ perhaps involving a woman, the affliction of Samuel Whitehead and Richard Bacon with health issues, and finally a paralyzing personality clash between Bacon and Toy. The former issues were alleviated after Toy requested help from the English partners, and they sent their engineer, a man by the name of Frey, to provide temporary assistance in running the plant. The latter personal problem was more difficult to solve. Another devastating fire, which consumed the plant in March 1851, proved to be the tipping point in the relationship between Bacon and Toy.²⁸

Toy, Bickford & Company

Many sources highlight the intelligence, charisma, and ambition of Joseph Toy while an equal number identify the irascibility of Richard Bacon. The Ensign-Bickford centennial history notes, "Toy was thoroughly imbued with his own capabilities and he never lacked self-confidence."²⁹ Contrast this with the illustration of Bacon as, "a typical, shrewd, stiff-necked Yankee, uncompromising, repressive, and uncooperative".³⁰ As such, the personal incompatibility of the two is not surprising. Furthermore, Bacon likely saw his role in the company being slowly supplanted by foreign representatives of the English firm, via Toy, while Toy and the partners surely viewed Bacon's mismanagement of the operation as a financial liability. This complex power struggle, combined with the nature of their personalities, was an ideal climate for disaster.³¹

Regardless of the personal nature of Toy and Bacon's disagreements, the recent destruction of the fuse factory demanded immediate action in order for the company to keep up with its bustling business. It seems, however, that Bacon was reluctant to make the move to rebuild and restart operations. The series of events that followed is difficult to reconstruct in a balanced manner as only Toy's letters survived to be documented, yet from these it can be seen that he quickly received the backing of the parent company and moved to resume production. A letter written to Toy by Thomas Davey on April 1, 1851, summarizes the situation at hand and the information contained justifies it being included in its entirety. Davey writes:

"My dear Joseph, I am very sorry to hear this morning of the accident which you have had, the Distruction (sic) of the Factory with the Books etc. I feel it more on your account than my own as it must give you vast deal of anxiety and trouble, before you can set it in order again, and especially you having no Partner near you to sympathize (sic) with you, however it will not do to look long at the dark side, you will I have no doubt receive by this Mail a letter from our Firm fully agreeing to what you recommend in complying with Mr. Bacon's wishes by Dissolving Partnership at once, if you can arrange with him in buying off his part of the land with any part of the factory premises which are worth buying or if you cannot get to him any terms, can you think of any other place which would do so well, could you get the stream of water near your own House, if not and you are driven from your present place, and by Mr. B's obstinacy compeled (sic) to go elsewhere, where you cannot get a stream of water you can put up a little Horse whim which would do all your Countering Reeling etc. on very little expense. In France I got up a little whim which is worked by one little Horse, and that drives the Countering Wheel Reeling Machine and Turning Lathe at the cost of about 1 f per day, so that you may consider yourself quite independent of Mr. Bacon and need not fear him in the least, and I hope that the late accident will be for good and not evil".³²

Davey's letter reveals several interesting points. First, the parent company very clearly, and perhaps understandably, supported Toy. It turns out that Toy had been granted a broad power of attorney by the partners when sent over from England in 1839, and this he evidently leveraged to Bacon's disadvantage in 1851, thus forming Toy, Bickford & Company. Also of interest, particularly to the survey area identified by this study, is the discussion Davey initiates regarding a new site for the factory. The preference is clearly for a site with suitable waterpower, however, the option to drive the machinery via a horse whim is a rather anachronistic alternative. When Bacon refused to give up the

original factory site in the dissolution, Toy entertained the idea of building on his own property and relying on a steam engine for power. Despite this option, a better alternative soon emerged.³³

Hop Brook

After the devastating factory fire, Toy salvaged a stockpile of material from the wreckage. He collected lumber, spools, jute and cotton yarn, powder, and tar on his Hartford Road property as he planned the company's next move. Allegedly these preparations caught the attention of Judge Jeffrey O. Phelps, who in passing one day mentioned to Toy that he could arrange to sell the entrepreneur a site with excellent waterpower on Hop Brook. Apparently this appealed immediately to Toy, who on May 5, 1851 wrote the English partners informing them that he had acquired the new property for a sum of \$1,000. This location, situated on Hop Brook east of its passing under Hopmeadow Street and just south of Drake Hill Road, became the new home of Toy, Bickford & Company and today remains the location of Ensign-Bickford Industries, Inc.³⁴

Toy's decision to relocate his factory along Hop Brook initiated what would be a substantial, albeit slowly developing, shift in the character of the area identified by this Historic Resources Inventory. In 1851, the corridor along Hopmeadow Street south of the site of the new plant remained essentially undeveloped. South of the Congregational Church, Hopmeadow Street (then known as the Avon Road, later South Main Street) extended from its intersection with the Canton Road (now West Street) and traversed a rural landscape before passing through Weatogue and Avon, villages then only lightly dotted with farmhouses. Just one residence in this portion of the survey area predates Toy's factory, this being the Greek Revival farmhouse situated along Second Brook, currently numbered as 476 Hopmeadow Street and built c. 1850.³⁵

Shortly after moving his fuse plant to Hop Brook, Toy bought a home and piece of land on the southeast corner of the intersection of Hopmeadow Street and Drake Hill (then Hartford) Road. Situated just to the north of the new plant, the property had been owned by the estate of Dudley H. Woodbridge, an old Simsbury family. Citing the uncomfortable

character of the original home, however, Toy eventually built a new residence, which he dubbed 'Chestnut Hill'. Later, his son-in-law, Joseph R. Ensign, moved this house in order to construct a larger and more opulent home on the site. Built with native sandstone in 1909, this building stands at the corner of Hopmeadow Street and Drake Hill Road and is listed on the National Register of Historic Places.³⁶

The Farmington Canal

It must be noted that the most substantial early nineteenth -century development in this section of Simsbury was not industrial, agricultural, or residential but rather related to transportation. This was, specifically, the construction of the Farmington Canal. Identifying the need for overland access to inland markets in the early 1820s, a group of New Haven businessmen formulated a plan to build a canal connecting their vibrant port with the Connecticut River at Northampton, Massachusetts. After the State granted a charter for the canal, Simsbury residents voted to approve its passing through town. Many hoped the canal would bring economic growth to the region, and significantly, by 1836, Simsbury citizens held 46 of the company's 5,414 shares.³⁷

Built over the course of the following decade, the eighty-mile canal crossed Simsbury along a rough north-south axis. It ran parallel to Hopmeadow Street for much of its length through town and entered the survey area from the north after crossing to the west side of Hopmeadow in front of the Congregational Church. It then flowed between Hopmeadow and Woodland Streets before again crossing to the east side of Hopmeadow and heading south out of the survey area on its way to Weatogue.³⁸

Constructing the Farmington Canal was an impressive feat of engineering. The task of digging a trough twenty feet wide and four feet deep across the uneven topography of the Connecticut River Valley was not an easy one. Even more difficult were the occasions that necessitated spanning the region's numerous streams and rivers. One such instance involved crossing Hop Brook between Hopmeadow and Woodland Streets. Here a bridge had to be built over which the canal could pass. Constructed in 1826 by Calvin Barber and

consisting of local brownstone quarried just upstream, the simple yet functional structure still stands, though it is no longer in use.³⁹

While the canal had many advantages compared to overland transportation, it did not prove profitable enough to survive through the 1840s. A variety of shortfalls plagued its operators. These ranged from the limitations of its eight-month operating season to local farmers displeased with the use of eminent domain in the project's construction and its crossing of their fields. The final blow was dealt by competition presented by the railroads, which crossed the state beginning in the 1840s and early 1850s. The first of these to reach Simsbury, the New Haven railroad's Canal Line, arrived in 1850.⁴⁰

The "Centre" District

In 1850, Simsbury consisted of thirteen school districts. The area identified by this survey made up the majority of its "Centre District". This fell in the geographical center of town, yet despite its central location, the Centre District remained one of the town's least developed in 1850. While Hopmeadow Street south of Hop Brook remained largely rural before the arrival of Toy, Bickford & Company, a small amount of residential and industrial growth had taken place along West Street. Although few structures from this early period survive along the street, there is evidence of a population at least large enough to justify the construction of a one-room schoolhouse on Firetown Road just north of its intersection with West Street. Built c. 1845, this small brownstone structure served the academic needs of the community into the 1920s.⁴¹

Only two structures found on West Street in 1850 remain today. These include the small wood-framed Greek Revival home at 52 West Street, built c. 1840 and Tuller's gristmill located at 73 West Street, built c. 1800.⁴² Tuller's mill is identified as the site of Simsbury's earliest saw and gristmill, a structure erected by Thomas Barber, John Moses, John Terry, and Ephram Howard c. 1680. Due to Simsbury's increasing need for finished lumber and ground grains, the town granted the aforementioned partners the right to establish a mill on the condition that they would execute a fair and honest business. As Vibert notes, they were in turn granted, "...twenty pounds, the use of Hop Brook, the right

to cut timber on town commons, and a miller's lot."⁴³ Some argue that the western portion of the extant building may be the original mill and its structural qualities and the character of its large hand-hewn beams support these opinions. In the early 1860s, Joseph Toy acquired the mill and converted it into a hemp yarn factory. Ralph Hart Ensign, a son-in-law of Toy, eventually assumed its operation. After Ensign's death in 1917, his son Joseph converted it back into a gristmill, a use it maintained until the 1950s.⁴⁴

Some time after the construction of this early mill, a family by the name of Woodbridge was granted the right to construct a dam and gristmill downstream. By 1804, this mill had in turn passed into the hands of Thomas Case, Dr. John Bestor, Benjamin Ely, and Calvin Barber who converted it into a gin distillery. Two of these men are also notable for their participation in other local industrial activities. Calvin Barber operated the nearby quarry from which stone was not only drawn for the Farmington Canal's bridge just downstream, but also provided material for local dams and the foundations and walls of many local structures. As Vibert notes, "Barber was responsible for many of the stone door steps, window sills, jambs, mantels and hearths found in houses of that vintage around Simsbury. Most of the red sand stone (sic) headstones used in Simsbury and neighboring cemeteries in that period came from Barber's quarry and shop".⁴⁵ Reacting to the proliferation of wool card manufacturing businesses in the early nineteenth century, Thomas Case operated a short-lived wire mill on Hopmeadow Street at the current site of the Simsbury Bank and Trust Company (981 Hopmeadow Street). Like similar ventures, this folded after larger Hartford concerns mechanized the industry.⁴⁶

The distillery established by Case, Bestor, Ely, and Barber subsequently fell into the ownership of the Belden family, who maintained it for three generations. From the elder Belden, the distillery passed to his son and eventually grandson, both named Horace. The family prospered in the spirits business and the wealth they accrued allowed them to build an impressive brownstone home on the southwest corner of West and Hopmeadow Streets (demolished). Significantly, the family matched their prosperity with generosity as the latter Horace gave the town \$40,000 for the construction of a public high school in 1908, \$10,000 for the construction of the Tariffville elementary school in 1925, and \$100,000 upon his death in 1930 for the upkeep of town roads.⁴⁷

Competition and Disaster

By June 14th, 1851, just three months after fire consumed the old plant, the first fuse produced in Toy's new factory headed for market. Despite the impressive nature of this achievement, Toy could hardly rest on his laurels. The following decades were some of the most competitive in the history of the fuse industry. Toy was placed in a difficult position as Richard Bacon had not quietly removed himself from the business but rather continued operations with his sons, Charles and Philip. In addition, Toy found himself increasingly in competition with other start-ups including the Avon firm of Andrews and Wheeler. Once back in operation, however, Toy aggressively marketed his business to both old and new customers. In a methodical manner, Toy contacted former accounts informing them of the departure of Bacon, ensuring them of the stability of the entity, and guaranteeing them the continued quality of his product.⁴⁸

Increasingly, industry competition resulted in the waging of dramatic price wars. At times these were so vicious that Toy claimed he was selling product below cost. At one point in October 1852, Toy notes in a letter to Joseph Eales that while their fuse was listed at three dollars and seventy-five cents per thousand feet, Bacon was selling this measure for two dollars. While Toy assured customers that as the oldest American fuse manufacturer Toy, Bickford & Company's product was superior to that of the upstarts and thus worth a higher price, he was simultaneously willing to undercut his competitors to make the sale. Under no condition would he allow Toy, Bickford & Company to be forced out of the market.⁴⁹

This competitive atmosphere was largely the product of news from several years earlier that gold had been discovered in the California hills. The subsequent mining boom spiked the demand for explosive fuse and resulted in the establishment of additional fledgling companies. By the early 1860s, these included among them the Lake Superior and Pacific Fuse Company and the California Pioneer Fuse Manufacturing Company. Competing with firms in proximity to the California mines was a serious challenge for Toy, Bickford & Company. Shipping safety fuse to customers on the west coast was no easy task in the 1860s. The lack of a transcontinental railroad and the unpredictability of ocean travel

around the tip of South America added exorbitant costs and significant delays to orders. Shipments often had to be split in two with the hope that half of the order would arrive on time, if it arrived at all. The situation seemed rather dire.⁵⁰

In order to counter the threats presented by fledgling west coast firms, Toy chose to send his son-in-law, Lemuel Stoughton Ellsworth, to California in order to start a competing branch. The inexperienced Ellsworth traveled west in March 1867, and by May the following year, had turned out 38,000 feet of fuse in the new plant. Growth continued through the following years. In 1869, 1870, and 1871, the company's west coast plant turned out an impressive 4,441,000 feet, 4,998,000 feet, and 9,500,000 feet of fuse, respectively. This rapid growth kept the Simsbury plant busy as all necessary equipment was designed and built at the main factory, and then shipped west.⁵¹

Despite this rapid growth, the California plant could not post a return. Costs and interest rates were high and funds scarce. Ellsworth soon soured to the situation and began to voice an interest in leaving the venture and returning to Connecticut. Toy implored that Ellsworth remain, but to no avail. His son-in-law resigned in August 1871.⁵²

The task of running the California plant quickly passed to another of Toy's son-in-laws, James Bestor Merritt. Formerly a Midwestern farmer, Merritt jumped at the opportunity to energize west coast operations and quickly made his mark. The California fuse business had become so hostile and unpredictable due to cutthroat competition between upstart firms that many agreed something needed to be done before the participating firms collapsed. Merritt laid the groundwork for an agreement under which the three major firms; Toy, Bickford; the Eagle Fuse Works; and the California Fuse works; would coordinate sales and share the market. The arrangement became the California Fuse Association and Merritt was named its managing agent. This move stabilized the industry, shored up Toy's west coast operations, and calmed nerves at home.⁵³

Deeply entangled within the challenges presented by this business climate, Toy, Bickford & Company was again faced with the familiar specter of tragedy. On December 20, 1859, an explosion and ensuing fire at the Simsbury plant killed eight employees and seriously burned another four, including Toy's son Joseph. The accident occurred in a two-story wooden building housing, shockingly, the machine and blacksmith shop on the ground floor and the fuse spinning room on the second. Employee accounts depict the

frequency of handfuls of spilled waste powder falling through the holes in the floor where belts powering the machinery traveled between floors, and of workers sitting on full powder kegs warming themselves in front of the coal fire at the end of the spinning room.⁵⁴ Apparently a spark or ember managed to come into contact with some of this loose powder, and a powerful explosion and fire resulted. A *Hartford Daily Courant* article describes the horror of the catastrophe noting, “The remains of the dead could be recognised (sic) only by the place they occupied, or by the fragments of clothing remaining upon the bodies. They were all burned to a crisp, and in some cases the bones are all that remain of those who suffered the horrible death.”⁵⁵ The loss of life surely would have been even worse had a number of employees not been absent from their posts. The loss of company property was estimated between \$5,000 and \$8,000.⁵⁶

The brownstone obelisk erected in Hopmeadow Cemetery as a tribute to the dead is not the only surviving vestige of the 1859 disaster. The factory as it can be seen today is a direct product of the dangerous nature of fuse manufacturing. While the 1859 explosion was the most serious and devastating loss to date, the tragedy was just one incident in a list of accidents sustained by the company up to that point. The seriousness of the matter elicited pause on the part of management. In the aftermath, Toy reassessed the arrangement, construction methods, and procedural practices of the company in order to increase safety. Following the accident, all factory construction was done in one-story stone and brick buildings, all operations were delineated and decentralized, and cleanliness within the plant was prioritized. Furthermore, as the *Ensign-Bickford Centennial* history notes, “not only was human life and safety involved but it was early realized that careful attention to such details bred in the employees an equal care at their work, which resulted in a better quality product.”⁵⁷ Regardless of reasoning, the new building and procedural approaches resulted in the industrial campus visible today and inspired the emphasis on employee well-being and operational safety that shaped the company – and the landscape surrounding it - over the ensuing decades.⁵⁸

Putting Down Roots

The results of the structural changes executed by Toy, Bickford and Company can be seen in the company's footprint in 1869. By this point in time, the company had built twelve buildings to the north of Hop Brook, on the east side of Hopmeadow Street. Most of these were of single-story mill construction with - the now ubiquitous - red sandstone block walls. The stone was drawn from a quarry at the base of Talcott Mountain, due east of the bridge at Terry's Plain. Originally operated by A. J. Ketchin & Sons of Tariffville, the quarry provided stone for the Ensign-Bickford Company as well as for many public buildings in Simsbury. Ensign-Bickford acquired the quarry in 1925, but has long since decommissioned it.⁵⁹

As can be seen on maps from the period, the factory's buildings were spread across the property so as to reduce the risk of explosive and fire damage. Furthermore, buildings were internally compartmentalized so each machine and operator had an individualized and separated space; a further attempt at minimizing loss should disaster strike. Three buildings indicated south of Hop Brook were owned by the company and operated as mills producing yarn and textiles used in manufacturing. These are sited and spaced in a manner similar to those north of the brook. A fourth structure south of Hop Brook is indicated as the home of a H. J. Nobles, likely the company's maintenance foreman.⁶⁰

As noted earlier, in its earliest years Bacon, Bickford, Eales and Company relied upon workers freed by seasonal downturns in Simsbury's largely agricultural economy. This type of employee was often unreliable and at times unmanageable; however, the size and cyclical nature of the fuse business prevented any other type of arrangement. By the 1860s, however, Toy, Bickford & Company was a reputable and expanding producer of safety fuse with a west coast branch and national market. As such, the company needed a stable and predictable workforce. To retain such a force it seems the company leaders felt they would need to provide it with shelter.⁶¹

By the 1860s, standardized, company-provided worker housing was not an uncommon aspect of American industrial centers. Examples of the mill village could be found across New England, and in the case of Simsbury, just up the road in Tariffville.⁶² The American impetus for these company-built factory towns can be found in the earliest

domestic cotton mills, established in northern Rhode Island in the late eighteenth and early nineteenth century. Similar to the English firms upon which they were largely modeled, Rhode Island mill owners made it a practice of hiring entire families so as to best take advantage of all potential labor sources, including children. Likewise, American mill operatives replicated the English practice of providing housing for their workers so as to more efficiently retain employees. These residences typically consisted of small, individual units intended for single-families, located in the vicinity of the factories. Infrastructure dating to the early nineteenth century, and found in towns such as Harris and Georgiaville, Rhode Island, mimics the English pattern of construction, and consists of well-spaced, modest single-family homes, sited in pleasant rural environments.⁶³

These company-built homes were typically utilitarian, yet attractive residences. As architectural historian William H. Pierson Jr. notes, "Architecturally, they were minimal structures, providing only the most essential space for family living. On the other hand, they were soundly built and handsomely proportioned and a few even displayed modest ornamental features."⁶⁴ Company housing of this type was intended to be comfortable and pleasant, yet simultaneously inexpensive and functional. It was conservative, but not inevitably boring.⁶⁵

While the early Rhode Island mills adopted the English residential model, later American company-provided housing followed an increasingly dissimilar scheme. The production capacity of Rhode Island's mills was severely limited due to the constraints presented by local waterways. None of the state's rivers were particularly large or powerful and this hindrance led investors and industrialists to look elsewhere for new opportunities as textile businesses boomed in the 1810s. The larger Connecticut and Merrimack Rivers offered much greater potential in regards to waterpower and as a result came to support a larger number of, and more expansive mills.⁶⁶

As firms like the Merrimack Company of Lowell, Massachusetts established themselves, and then ultimately expanded, demands for company housing likewise increased. While the company constructed simple 2 ½-story wooden duplex homes to house its workers in the 1820s, by the 1830s this model had been replaced by large brick boarding houses. As the boarding house became the Merrimack Company's residential standard it was increasingly copied elsewhere. Examples of large boarding-style factory

tenements from the 1840s and 1850s can be found across New England and are largely imitations of the precedent established in Lowell. These include, among others, the tenements found in Lawrence, Massachusetts as well as Manchester and Harrisville, New Hampshire.⁶⁷

Just as their industrial contemporaries had been confronted with the need to shelter the increasingly large number of workers they relied upon, so to did Toy, Bickford & Company management undoubtedly feel the pressure to provide local housing for their employees. To this they responded by building several tenements in the 1860's. These included a string of three buildings on the west side of Hopmeadow Street across from the factory, and a row of three houses on the east side of Woodland Street. Three houses further south along Hopmeadow Street were the residences of company employees, and may have been owned by the company as well.⁶⁸ While the company was certainly growing, it remained both a small and family-centered business. Considering this fact, as well as the company's English heritage, it is not surprising that Ensign-Bickford's employee housing followed the English, or early Rhode Island pattern. As such, the company-owned residences were simple, single-family homes, built according to local vernacular tastes, and sited close to the factory.⁶⁹

Except for the sandstone block structure owned by Mrs. Horace Belden on the west side of Woodland Street along Hop Brook, Toy, Bickford & Company either owned or had a direct connection with every structure in the Hopmeadow corridor of the survey area in 1869. What had been a rural section of town only two decades earlier was quickly becoming a bustling industrial village. Significantly, there were also signs of the company's growing presence on West Street.

Industrial activities upstream from the fuse factory continued to center around the mills and distillery. The success of the Beldens in particular is visible as they can be found to be the owners of five buildings along West Street and Firetown Road including two identified as distilleries. Joseph Toy is also indicated as the owner of five structures, four on the site of Tuller's Mill and one across the street. By this point Toy had taken over the gristmill and had converted it into a mill for processing hemp for use in fuse production. The structure across the street is likely the Gothic cottage currently identified as number 70 West Street. Considering Toy is also listed as the owner of a residence neighboring his

former home, Chestnut Hill, by that point the home of R. H. Ensign, it is likely that he rented out the structure on West Street.

Further residential development along West Street also shows signs of Toy, Bickford & Company's growth. Several newly constructed homes can be found, most notably that occupied by William Whitehead, a machinist at Toy, Bickford & Company, on Firetown Road (now number 24 Firetown Road). Additional residents include James N. Race (at 46 West Street), H. O. Wilcox (at 52 West Street), and E. B. Goodrich (at 122 West Street), who although not definitively identified as employees may have worked for Toy. Considering the proximity of this area to the factory and later residential patterns, it is not difficult to imagine that a number of workers made their homes here, perhaps as boarders.

The Loss of a Leader

While growth in industrial mining and the California Gold Rush drove fuse production through the 1850s and into the 1860s, the Civil War and post-war railroad expansion maintained increases through the 1870s. The development of dynamite in 1865 further stimulated these trends, and in doing so the demand for blasting fuse increased as well. In this period Toy, Bickford & Company expanded production on the west coast, penetrated the Canadian market via collaboration with the Hamilton Powder Company, established in 1862, and even made inroads into Mexico and South America. Impressively, while production in 1852 amounted to just eleven million feet of fuse, by the time of Toy's death in 1887 the number had increased to fifty-four million.⁷⁰

Toy, Bickford & Company's rapid development is a testament to the tenacity of Joseph Toy. The Ensign-Bickford centennial history argues, "The restless and boundless energy displayed by the aggressive Toy would be the despair of his descendants today were he here to set the pace."⁷¹ The company leader navigated the firm through internal and external challenges, through good business and bad, and through disastrous loss of life and property. This was a period in which failure was rampant in the fuse industry, yet rather than fall along the wayside Toy, Bickford had risen to national influence. The Ensign-Bickford history notes, "The pushing of safety fuse into every mine and quarry and

every hardware store in the country, until it was recognized as the standard method of igniting blasts, was no mean achievement, even if it did provoke competition that at times threatened to wreck the struggling concern.”⁷² Toy drove a dedicated business, a determined business, and, although frequently faced with dire straits, did not falter. His unwavering commitment helped the company navigate some of the darkest hours of its history and established the town of Simsbury as a significant industrial force.

Joseph Toy was unrelenting. As such, many of the company’s business moves may be interpreted as ruthless or cutthroat. Its relationship with employees, however, was far more considerate, perhaps even amicably paternalistic. The company did not rise to its high station with a blind eye towards the needs of those who worked so hard in its interest, or to the community in which they lived.⁷³ When Joseph Toy passed away in the spring of 1887 after forty-eight years of service, he left a legacy that characterized Toy, Bickford & Company as a family-owned and community-centered entity. The manner in which Toy’s descendants maintained this emphasis in the following decades characterized the ensuing development of the company and the landscape surrounding it.

The Ensign-Bickford Company

Having outlived two male heirs, Joseph Toy’s shares in Toy, Bickford & Company passed to his five daughters upon his death. One of his sons-in-law, Ralph Hart Ensign, immediately identified the potential for instability if a clear administrative system was not established and he moved to consolidate control. Ensign arranged with Charles Edson Curtiss and Lemuel S. Ellsworth, also both Toy’s sons-in-law, to buy out the remaining sisters whose husbands were clergymen. The result was the formation of a new partnership, known as Ensign, Bickford & Company. Ensign’s move ensured that business operations remained in family hands, a characteristic maintained until the 1970s.

Ensign’s move was characteristic of the man and, as demands on fuse production continued to increase, it proved to be a fortunate one. The Ensign-Bickford history notes, “In the thirty years of Ensign’s leadership the yearly volume of sales increased twelvefold over what Toy had been accustomed to think of as good business. In this almost runaway

growth someone was needed who had the vision of the future and would be prepared for it, yet had the conservatism and stability not to be overwhelmed by it – in this particular field the man of the hour without question was Ralph Ensign.”⁷⁴ Ensign’s next major move proved to be just as significant.

Ensign, Bickford & Company operated lucratively, and largely without incident, for two decades following its reorganization. However, in 1907, Ensign leveraged stock he had accumulated in Avon’s Climax Fuse Company thus forming a partnership between Ensign, Bickford & Company and its local competitor. The Avon fuse maker began in 1852 as R. Andrews and Sons, and had operated rather haphazardly, until 1883. At this point, an H.S. Chapman, founder of the Metallic Cap Company, took control and incorporated it as the Climax Fuse Company. Chapman brought stability to the company and forged an amiable relationship with both Toy and Ensign. By 1892, the latter had attained a half interest in the Avon enterprise. Fifteen years later it was decided that a full merger was in the best interest of both companies and Ensign made his move. The individual entities were dissolved and a new firm was incorporated as the Ensign-Bickford Company. Three-quarters of the stock in the new venture went to the Ensign-Bickford partners and the remaining twenty-five percent went to Chapman. The move merged two Farmington Valley companies with a history of cooperation, and solidified the region’s status as a source for quality detonation fuses. The two plants operated in tandem until 1969, when the Avon factory was closed and activities there were moved to Simsbury or other Ensign-Bickford facilities.⁷⁵

A Factory Campus

The aforementioned merger consolidated fuse-making operations in the Farmington River Valley and created the entity into which the next generation of Toy’s descendants would enter. The surnames of Ensign, Curtiss, Ellsworth, Seymour, and Darling are found across company rosters up to and beyond World War Two. These men, grandsons and grandnephews of Toy, guided the company through World War One, the Great Depression,

World War Two, and the great flood of 1955. In the process, they likewise helped shape Simsbury into the town it is today.

The factory that Ralph Ensign, Charles Curtiss, and Lemuel Ellsworth, took over in 1887 did not look dramatically different than that currently situated along Hop Brook. The Ensign-Bickford centennial notes that at that time, "Most of the buildings were of native red sandstone, located on the north bank of Hop Brook and clustered around the present fuseroom office and old coiling shop. Across the brook was an old wooden building that served as the cotton mill. On the hill to the north of the factory stood the old home of Joseph Toy and the more recent edifice of Ralph Ensign keeping paternal watch over the little industry."⁷⁶ The factory continued to grow as necessary. In 1896, a new stone cotton mill and office were constructed. In 1900, the company absorbed the hemp mill that Ralph Ensign operated on West Street and shifted production to two new mills on factory grounds where quality could be carefully overseen. In 1914, the company added a 160' by 40' building to manufacture its newest fuse product, which it called, "Cordeau-Bickford".⁷⁷ The Tariffville firm of A. J. Ketchin & Son completed all construction using sandstone drawn from its local quarry.⁷⁸

As the fuse manufacturer's business grew, its workforce grew as well. Simsbury historian, Lucious I. Barber, comments on Toy-Bickford & Company in *A Record and Documentary History of Simsbury*, stating that as early as the 1880s, "A large manufacturing establishment has been built up, and prosecuted with great success, giving employment to about 100 hands."⁷⁹ The tasks these employees completed were not dramatically different from those practiced by their forbearers. In the early years, women spun fuse in the morning and countered it in the afternoon. Men were responsible for varnishing the fuse, which then passed to young boys to be coiled and packed into second-hand grocery barrels. Twice a week the packaged fuse was loaded onto wagons, taken to Hartford, and loaded on boats bound for New York. When reliable railroad service reached Simsbury in the early 1870s, deliveries shipped out of the Simsbury depot half a mile north of the factory.⁸⁰ Through and beyond the turn-of-the-century, mechanization increasingly replaced manual tasks and technological advances led to diversified product lines. The core process of making fuse, however, remained largely unchanged. Fabric tubes continued to be filled with an explosive substance, covered with a protective casing, cut into determined lengths,

and packaged for sale. Much more dramatic was the extent to which the factory expanded through the 1940s.⁸¹

As noted, the company built new cotton and jute mills south of Hop Brook between 1896 and 1900 and a new fuse building in 1914. The *Hartford Courant* observed in 1913, “From one of the smallest industries the company has grown to be the principle industry in Simsbury. Its plant in Simsbury alone covers more than twenty acres.”⁸² By 1940—after spikes in business resultant of two world wars—more than a dozen new buildings had been added to the campus. These included powder storage magazines, a twisting room, spinning room, white room, counteracting room, spool room, dry room, carpenter, painting, and steamfitting shops, several storage areas, as well as stables and auto garages. Like previous buildings, these were typically one-story in height and constructed of local sandstone. The result was further development of the campus-like atmosphere for which the plant is often identified.⁸³ A contemporary description sets the scene:

“The plant appearance, therefore, is that of a series of low, flat-roofed buildings, scattered over a considerable area. Probably fifty per cent more buildings and machinery exist than are actually used because of the desire always to have additional capacity on hand in case disaster occurs to the main operations. For interfactory communication a series of concrete roads are used for wagon or auto trucking and wherever required wood runways, covered or not as necessary orders, lead from building to building. In the intervening areas grass plots, shrubs and trees carefully tended by the company’s own experts lend a neat homelike and rural appearance to the two plants. The company has not only its own nursery for landscape replacement purposes but its own red sandstone quarry located in Terry’s Plain nearby, which is an excellent source of a first-rate building material.”⁸⁴

The building stock was not the only aspect of the Ensign-Bickford Company’s factory evolving in late nineteenth and early twentieth century. The company also made the shift away from waterpower towards steam generators by the turn of the century. At first two Beach boilers drove the machinery via rope and pulley. By 1926, this network was replaced by a fuel oil Terry electric turbo-generator. Under the guidance of Robert Darling, brother-in-law of J. R. Ensign, this system ran parallel to that of the Hartford Electric Light Company allowing Ensign-Bickford to not only operate independently, but to draw from, or conversely supply, the local grid maintained by the Simsbury Electric Company (of which

Darling was also president). When floods disrupted connections to Hartford in March 1936, the company supplied local residents with electricity until power was restored. The Simsbury utility's merger with Hartford Electric eventually relieved Ensign-Bickford of such responsibilities.⁸⁵

A Factory Village

As a sizable industrial entity in a small town, it is no surprise that Ensign-Bickford long held the status as the largest holding on the town's tax rolls. In 1913, at the peak of its success, the Ensign-Bickford Company was assessed at \$752,905 of Simsbury's total grand list of \$3,000,000. The next closest assessments were for Mrs. A. E. Wood (\$105,675), Westminster School Company (\$103,233), and Horace Belden (\$101,575). The town's largest business concerns were exponentially smaller than the fuse manufacturer. The American Tobacco Company was assessed at \$65,825, while the Tariffville Lace Manufacturing Company, Wilcox & Co. (general merchants), Culman Brothers Tobacco Packing, and the Ketchen Tobacco Corp., were assessed at \$50,000, \$35,200, \$18,153, and \$17,825 respectively.⁸⁶

Although the Ensign-Bickford Company's financial contribution was substantial, the relationship seems, however, to have long been a symbiotic one. As noted by William Vibert in his *Three Centuries of Simsbury, 1670-1970*, "To say that the company had a vested interest in the town would be an understatement, as it would also be to say that the town had a vested interest in Ensign-Bickford."⁸⁷ Vibert's comment is significant not only for the fact that it hints at the economic vitality of the Ensign-Bickford Company but also in the sense that it alludes to the benefits residents of Simsbury reaped from Ensign-Bickford's presence. The company benefitted from a healthy and vibrant community and worked to assure that this existed in Simsbury. As such, the neighborhoods surrounding the plant were impacted and shaped by this interest to a degree no others in town experienced.

Ensign-Bickford's role in providing Simsbury with electricity is just one example of its significant community involvement. A *Hartford Courant* article highlighting the 50th anniversary of Ralph Hart Ensign's employment at the Ensign-Bickford Company describes

the company president's philanthropy. It notes, "A native of Simsbury, Mr. Ensign has always been deeply interested in its welfare and is ever ready to come to the fore promote anything that will result in advantage to the town."⁸⁸ Ensign made a number of benevolent gestures towards the town of Simsbury, which the *Courant* identifies at length:

"He has been of the greatest value to the community. The beautiful Methodist Church, build of brownstone in old Gothic style, dedicated June 10, 1909, is one of his gifts. He was one of the citizens who helped erect the Simsbury public high school building and the grammar school building, just completed, both of brownstone, without any expense to the town. He is an enthusiastic automobilist and consequently a liberal contributor towards the cause of good roads. His private gifts have brought comfort to many families, and it is said of him that he is ever on the alert to relieve suffering and better his home town."⁸⁹

Such generosity and munificence is rarely seen on a personal or corporate level today, yet it was just a fragment of Ensign-Bickford's contributions in this period. An additional example can be found in the case of the company fire department, which until 1944 protected not only the factory but served the surrounding Hop Meadow neighborhoods as well. Housed in a stone building on the south side of Hop Brook, the department was staffed by employees and financed by the company. As the town grew, the Simsbury Volunteer Fire Department assumed these duties. Ensign-Bickford also played a critical role in establishing the Village Water Company, to which the company provided essential capital and management.⁹⁰

As Ensign-Bickford and its workforce expanded, its connections with the community only increased and intensified. Vilbert's notes that, "In 1927 with a population around 3,000, the Ensign-Bickford payrolls had 616 people on them. On its 100th anniversary in 1936, still held back by the depression, Ensign-Bickford had 382 people on payrolls."⁹¹ Of this total figure, 258 employees worked in the Simsbury plant. These numbers attest to a significant fact, specifically, the considerable percentage of Simsbury residents Ensign-Bickford employed at a given time regardless of fluctuations in business. While not all of the company's employees lived in town, Vilbert notes that Ensign-Bickford made it a practice of hiring "...established residents living within a ten mile radius of the plant."⁹² Simsbury directories from the period attest to this fact and illustrate the local presence of a plethora of employees representing all levels of the pay scale.⁹³

Significantly, not only did Ensign-Bickford employ many local residents but it also relied on considerable numbers of women and immigrant minorities to fill payrolls. As the *Hartford Courant* noted of the company in October 1919, "...Here all members of a family, women as well as men, can find occupation... Previously foreigners had greatly outnumbered the American help, but during the war and since the American help has increased, and the foreigners decreased, until the proportions are nearly equal."⁹⁴ While the article indicates that the number of immigrants employed by the company had slightly decreased in the two years preceding publication, it simultaneously ascertains that the numbers of women and immigrants made up a substantial percentage of the workforce even after reductions. These statements appear to be representative of stable conditions. Seventeen years later 29% of the workforce was comprised of women, while 45% were immigrants.⁹⁵

The role of both of these groups is significant in the history of the company, as is illustrated by their prevalence throughout company rosters and town directories. The notable frequency with which the names of women in particular can be found throughout newspaper articles describing factory accidents, and those lost in them, is a further testament to their considerable importance – and sacrifices - to the manufacturing process.⁹⁶ Examples of the physical sacrifices of women in the plant are found, most notably, in the aftermath of plant explosions in 1852, 1892, and 1918. The December 21, 1859 explosion killed eight persons, all women. These included Miss Catherine Brisse, "two girls named Kitchen", Mrs. Charles Lanson, Miss Orpha J. Bacon, and "two sisters named Head".⁹⁷ The December 20, 1892 explosion injured six, including twenty year old Hattie Holcom and Annie Carter.⁹⁸ The accident on November 22, 1918 killed two women, eighteen-year-old Alberta Fournier and twenty-year-old Grace Rhodes, and badly injured four others.⁹⁹

Housing for the Working Class

Initially, as the majority of the fuse company's workers were locals drawn from field to factory only a select few required accommodations. By the 1880s, however, European

immigrants began to fill company rosters. The Irish came first. Next came Italians, who after helping to complete the Central New England Railroad, sought work in the mills around the turn of the century. Polish and Lithuanian families soon followed. Conveniently, these influxes corresponded with Ensign-Bickford's most considerable growth and jobs were plentiful, though local housing was initially in much shorter supply.¹⁰⁰

As noted, Ensign-Bickford employees took advantage of company-owned housing as early as the 1860s. In 1864 the company maintained seven "dwelling houses", with a total value of \$7,000.¹⁰¹ As the company grew through the 1870s, 1880, and 1890s it slowly expanded its stock of worker housing by building an additional one or two homes almost every year. Ensign-Bickford business statements from 1875 list twelve company-owned houses. By 1895, this number had risen to twenty-two residences, most of which located in proximity to the factory, on Hopmeadow and West Streets.

By the turn of the century, company growth necessitated significant hiring increases. In order to address both its need for workers and their need for housing, the Ensign-Bickford Company began to rapidly increase their stock of employee tenements. A building boom in 1906 added twelve new houses, primarily along Woodland Street and in a wooded section south of the factory known as "Pine Hill". Growth continued over the next several years and by the end of 1908 the company owned close to fifty tenements and 175 acres of land in Simsbury, valued at a total of \$127,350.¹⁰² While few years came close to the feverish pace of 1906, the company added an average of three or four homes annually until the Great Depression, when new construction ceased. Particularly busy building years included 1912 (ten new homes), 1916 (eight new homes), 1917 (thirteen new homes), 1918 (six new homes), 1921 (seven new homes), and 1926 (six new homes).

Ensign-Bickford's building program did not go unnoticed outside of the community. In 1913 the *Hartford Courant* noted that, "Following the English style the company maintains its own model villages for its employees, more than 100 homes in the town being owned by the company. These are thoroughly modern in every respect, and the employees fortunate enough to live in them, count themselves lucky, indeed."¹⁰³ This popularity was sustained over the following decade and in order to address perpetually increasing demands for housing, the company erected as many as sixty additional dwellings by the

late 1920's. This construction was concentrated on Pine Hill, along West and Woodland Streets, and in three developments, one off of West Street, one along and off of Bushy Hill Road, and one east of Pine Hill off of Hopmeadow Street. The latter neighborhoods are those currently identified as Maple Court, Davey-Bickford Streets, and Hazelmeadow-Gargon Place, respectively.

The Ensign-Bickford Company's tenements are utilitarian, yet well-built houses, noted for their quality by past and present residents alike. Most of the homes are single-family units with the majority constructed in a uniform fashion, following one of a limited number of patterns. Although popular in the early decades of the nineteenth century, this model had fallen out of favor among industrial firms by the 1840s and 1850s, replaced by large multi-story and multi-family boarding houses. By the turn-of-the-century, however, a shift in housing trends resulted in a reemphasis on the importance of smaller multi-family, or optimally, single-family homes.

As such, these formats became increasingly popular as industrial entities clamored to react to the needs, as well as wants, of their growing workforces in the first decades of the twentieth century. A study published during World War I, by the Department of Social Ethics at Harvard University noted, "In Bridgeport, Connecticut, in Flint Michigan, and in many places between and beyond, there has been the same harsh line of causation, - war orders, industrial boom, sudden influx of workers, house famine, a rise in rentals, and more or less inadequate attempts by employers and by commercial and philanthropic agencies to meet the demand for homes. However dubious the success of those attempts may be, there is at least an awakened sense of responsibility in solving a problem now acute and vivid but by no means new, the problem of providing adequate low-cost housing".¹⁰⁴ While the Harvard study focuses on the increasing need for housing resultant of industrial growth related to World War I, in the case of Ensign-Bickford the demand for worker housing was a far from recent development.

The Harvard housing study identifies several key justifications for the provision of housing by industrial institutions, two of which directly applicable to the case of Ensign-Bickford. It reads:

In our present state of economic development, the housing of workers is closely bound to the industry itself. There are four main reasons (by no means mutually exclusive) for the housing of employees by the employer: (1) *insufficient housing*, when a manufacturer moves into a small town or when for other reasons there is a scarcity of houses, he must provide dwellings in order to get and keep his labor; (2) *poor housing*, the existing houses while sufficient in capacity may be so unsanitary that the employer must build houses for his workers in order to insure their health and the consequent productiveness of his factory; (3) *exploitation*, the employer may desire to increase his economic hold on them by making their dwelling comfort dependant on their continued allegiance to him; and (4) *paternalism*, he may in the spirit of genuine benevolence believe that the living conditions of his employees can best be improved by his direct intervention.¹⁰⁵

The justification for Ensign-Bickford's building program falls rather neatly into the categories (1) and (4) found above. As the only major industry in rural Simsbury, the company's growth inherently necessitated the construction of new housing stock. As noted, this need was identified as early as the 1860s, and throughout the following decades building intensified during periods of workforce expansion. In addition, Ensign-Bickford's record of philanthropic gestures made in the interest of employees, and the community at large, further supports the argument that the company's decision to implement a substantial residential building program was grounded in benevolence, rather than exploitation.

Although the Ensign-Bickford building program predated the housing boom identified in the Harvard study, it shared many of the characteristics highlighted within that publication. Particularly significant is the ideal residential forms upon which it elaborates. The study states:

While the tenement, row dwelling, the "two-flat house," and the "three-decker" are advantageous because of their economy of land and of exterior wall construction, they are unsatisfactory by reason of their fire risk and their lack of privacy and of immediate access to land. The semi-detached house has a small advantage over the detached in the economies of the party wall and of land, and is most attractive to the prospective owner who desires an income from part of his house; because of its longer horizontal lines the semi-detached house can be made architecturally pleasing more easily than can the detached. The detached house, or cottage, has the advantages of maximum light and ventilation (the largest number of corner rooms and cross drafts), of minimum fire-risk, of independent use of land, and of maximum opportunity for a convenient arrangement of rooms.¹⁰⁶

Fitting with this mentality, the Ensign-Bickford housing constructed in the late nineteenth and early twentieth century was not a collection of rowhouses or large multi-family units such as those commonly provided by many large New England textile companies, or even as seen locally surrounding the Tariffville mills. Rather, it was characterized by freestanding single, or in a few select cases, two-family dwellings, similar to English counterparts or akin to those found near early Rhode Island mills. As noted, Ensign-Bickford had long followed this building pattern and was well ahead of the curve in regards to its resurgence. The only notable exception was a large boarding house constructed on Hopmeadow Street, south of Hop Brook opposite the factory, circa 1870, and demolished for parking space in 1937.¹⁰⁷

The earliest Ensign-Bickford tenements, those built in the 1860s, 1870s, and 1880s, are architecturally similar to other vernacular homes found in Simsbury during this period. A number of the tenement houses found along Hopmeadow Street, including 599 (c. 1875), 603 (c. 1875), 609 (c. 1875), 611 (c. 1875), 637 (c. 1866), 639 (c. 1863), and 641 (c. 1863) Hopmeadow Street, are representative of this form and established the company precedent for erecting simple vernacular tenements. These early homes are simple 1 ½ to 2-story, side-gabled, frame residences with pitched roofs and brownstone foundations. Most are rectangular in plan, either 16' x 30' or 21' x 28', although several can be found with cross-gable wings or other additions. A few retain their horizontal clapboard siding while others have been modified through the addition of modern aluminum or vinyl wall cladding. Entries are usually centered and flanked by one or two double-hung sash windows. As such, these homes are stylistically very similar to their Colonial precursors, of which there are copious examples in Simsbury. The influence of the Greek Revival movement, dominant between 1825 and 1860, is also visible in several of the early Ensign-Bickford houses. The aspect most suggestive of this style is the presence of small windows tucked under the eaves in the upper half-story of the façade as seen in the homes listed above. These are reminiscent of the frieze-band windows found in many Greek Revival homes, yet are clearly a vernacular interpretation of such details as the windows are larger, and are not situated in a formal frieze band.¹⁰⁸

Several nineteenth-century homes have been included in this inventory even though evidence has not been found that they were built by the Ensign-Bickford Company. Connections have, however, been uncovered between the company or its founding family and the former residents of just about all of these houses. Some, such as 12 Bushy Hill Road (c. 1862) and 571 Hopmeadow Street (c. 1870), were the homes of employees, while others, including 59 (c. 1883), 61 (c. 1863), 63 (c. 1871), 65 (c. 1888), and 70 West Street (c. 1880), were owned by the Toy family and likely sheltered individuals employed at the family's West Street hemp mill. Like the early Ensign-Bickford tenements, the majority of these residences are frame dwellings shaped by vernacular influences, although there are several that stand out for their architectural features. 571 Hopmeadow Street's asymmetrical plan, detailed verge boards, and one-story bay windows make it a well-preserved example of the Gothic Revival style, popular between 1840 and 1880. Likewise, 70 West Street's centered gable, steeply pitched roof, and half-timbered entry porch, are typical of Gothic Revival models. The simple gable-front and wing design of 122 West Street (c. 1870) is essentially vernacular, although the arched multipane windows in the gable end give it a subtly Italianate character, linking it to said style, fashionable between 1840 and 1885.¹⁰⁹

As noted, Ensign-Bickford intensified their construction of employee housing in the first decades of the twentieth century. Subsequently, over 125 company homes were built in the vicinity of the Simsbury plant between 1905 and 1931. Most of these were 2 to 2 ½-story, rectangular plan, wood frame residences, patterned in a simple gable front, Victorian-inspired form. Typical footprints among the extant gable front homes measure 18' x 26' (four homes), 19' x 24' (six homes), 20' x 24' (four homes), 20' x 26' (fourteen homes), 22' x 26' (four homes) and 24' x 26' (thirty-one homes). Examples include 11-22 Bickford Street (c. 1921-1926), 1-4 Hazelmeadow Place (c. 1918-1927), 2-12 Middle Lane (c. 1906-1912), 43-81 Woodland Street (c. 1907-1927), and 1-6 Woods Lane (c. 1906-1915). Houses with rectangular plans and front-facing pitched roofs were quite common during the Victorian period (roughly 1860-1910) and could be found in several of that era's most popular architectural styles. These included Stick (1860-c.1890), Queen Anne (1880-1910), Shingle (1880-1900), and Folk Victorian (c. 1870-1910) designs.¹¹⁰ Although Ensign-Bickford built most of its tenements after the popularity of these styles had waned,

the company's worker housing illustrates the frequency with which vestiges of architectural forms perpetuate after the peak of their popularity. Although the Ensign-Bickford homes lack the intricate ornamentation found on many Victorian houses, their essential form is characteristic of late nineteenth-century designs.

The gable-front model that Ensign Bickford used in the majority of its twentieth-century tenements is common among other working-class housing found in Simsbury during this period. As such, it is shared by a number of residences included in this inventory yet not conclusively identified as being company-built or owned. Examples include 105 (c. 1910), 107 (c. 1917), and 111 West Street (c. 1910) and 558 Hopmeadow Street (c. 1916). Ensign-Bickford employees lived in many of these homes and it is possible that the same builders charged with designing the Ensign-Bickford tenements also constructed these residences.¹¹¹ The popularity of the gable front design is illustrated by its prevalence within the survey area. Of approximately 130 twentieth-century homes surveyed, eighty-three, or about 64%, are gable front designs.

The survey area's remaining residences follow a mix of styles. The majority of these, thirty-one homes in total, are simple 2-story, rectangular plan, side-gabled, vernacular frame residences. Small, side-gabled vernacular homes were particularly popular with the Ensign-Bickford Company during World War I and seventeen of the aforementioned thirty-one houses were constructed in the four-year period between 1914 and 1918. The most common footprint measured 20' x 22' (twenty-two homes) and notable examples include the nine homes found on Stebbins Brook Lane in the Pine Hill neighborhood. Eight of the nine homes found on this street are side-gabled and all were built in 1917. Similar houses include 2, 3, 4, and 6 Davey Street (c. 1916-1919), 30, 32, 38, and 40 Hazelmeadow Place (c. 1918-1921), as well as 7, 9, and 11 Woods Lane (c. 1916-1917).

Ensign-Bickford's tenements were typically vernacular in style, though several examples are more direct in their nods to popular architectural forms. In particular, these demonstrate the increasing prevalence and pervasiveness of the Colonial and Tudor Revivals in the early twentieth century. The Colonial Revival reflected a renewed interest in English and Dutch colonial architecture and was the predominant American form in the first half of the twentieth century. A number of Ensign-Bickford homes embrace this model, including two of the company's most elaborate. 581 and 625 Hopmeadow Street

are two of the largest, and most detailed of the residences built by Ensign-Bickford. 581 Hopmeadow Street (1911) is a rectangular plan, 2 ½-story, side-gabled home, with a pitched roof and projecting, front-facing gable. It has a 1-story, partial-width porch with classical supports, and its entry is flanked by diamond-pane sidelights. 625 Hopmeadow Street (1909) is a rectangular plan, 2 ½-story residence, with a hipped roof and gabled dormers. It has a one-story entry porch with classical supports and its entry is flanked by sidelights. These features are distinctly representative of Colonial Revival designs and are two of the earliest examples of its application in Ensign-Bickford homes. 119 West Street (c. 1900), another fine example of the Colonial Revival, is one of the few homes of this style found in the survey area not built by the company.

The remaining Ensign-Bickford homes demonstrating Colonial Revival influences fall into two categories. The first group; 6-8, 14-16, 26-28, and 34-36 Hazelmeadow Place (c. 1919-1922); and 37-39 Bushy Hill Road (c. 1924) are multi-family, rectangular plan (24' x 38'), 2-story homes, with side-gambrel roofs. They have full-width shed dormers and partial-width porches. The gambrel roof is a clear reference to Dutch Colonial architecture and was a dominant feature in revival models. The second group; 40 Woodland Street (c. 1903), 4 Maple Court (c. 1920), 5 Hazelmeadow Place (c. 1922), and 6 Gargan Place (c. 1926) are single-family, rectangular plan (24' x 26' or 24' x 29'), 2 ½ -story residences with hipped roofs and hipped dormers. These homes are often referred to as "foursquares" due to their relatively square footprints and balanced facades. The examples built by Ensign-Bickford lack the symmetry of more elaborate foursquare homes, yet the reference is clear.

The last two homes of note are rather stylistically unique within the survey area. 10 and 18 Hazelmeadow Place (c. 1925) are subtle, yet characteristic examples of the Tudor Revival. This style, suggestive of the architecture of Medieval England, was popular between 1890 and 1940 and was distinguished by the presence of steeply-pitched, side-gabled roofs with steeply-pitched, dominant, front-facing cross gables. Typical design elements include tall, narrow windows with decorative glazing, and varied eave-line heights. Again, while not the most elaborate examples, 10 and 18 Hazelmeadow Place are distinctly Tudor in their styling and have the requisite structural features.

Regardless of architectural form, the majority of homes located in the survey area are of similar construction. They were built as modest, wood-framed residences with

white clapboard siding, tin-clad gable roofs, and double-hung sash windows. Many early examples have uncut or brownstone block foundations, likely drawn either from the quarry along Hop Brook, or at the base of Talcott Mountain. Eventually, poured concrete foundations became the standard. Such repetitive construction methods reduced company costs and made it easier to erect multiple houses in a short amount of time.

Several of the tenements found in the Ensign-Bickford Company's business records were not built by the firm, but were bought from local residents. Examples include the Hugh McIntyre House (577 Hopmeadow Street, c. 1900) purchased in 1911 for \$2,675, the August Nervegna House (136 West Street, c. 1917) purchased for \$3,500 in 1924, and the G. F. Weldon House (58 West Street, c. 1900) purchased for \$7,200 in 1926.¹¹² These homes were mixed among those the company had constructed and are architecturally similar to their contemporaries. Through a systematic process of building and acquisition, the Ensign-Bickford Company soon came to own the majority of structures in the survey area. In addition to their standing as the dominant property owner in the area, many Ensign-Bickford employees resided in the few remaining homes not owned by the fuse manufacturer.

The Ensign-Bickford Company made all of its housing available to employees at prices well below market rate. A *Hartford Courant* article from 1922 notes, "The Ensign-Bickford Company has attractive rents for its workers, and because both men and women are employed in its factories, and because both boys and girls can readily find employment during vacation, Simsbury is an ideal place for workmen's families".¹¹³ Before World War I Ensign-Bickford's monthly rents averaged about \$10 per month. By 1930, they had risen only to a meager average of \$20 per month.¹¹⁴ Ensign-Bickford allegedly made no attempt to profit from their tenements. Supporting this assertion is the fact that the company lost \$80,000 annually on housing between 1931 and 1958, regardless of the fact that rents were periodically raised to reflect market values.¹¹⁵ Some might question the fiscal prudence of this program, yet as the centennial history notes, "The maintenance of a complete housing group for employees on liberal rental terms is of great financial advantage to those employees who accept company houses, and the management has always regarded the cost of running its tenements as an indirect labor bill and a supplement to employee wages."¹¹⁶ The success of the program, and its popularity among

workers is very clear. By 1936, fifty-four percent of Ensign-Bickford employees resided in company tenements and any homes that happened to become available were rapidly filled.¹¹⁷

The Ensign-Bickford Company provided all major maintenance and painting as well as conducted annual safety inspections on all the homes they owned. In addition they made frequent modifications to the tenements on a rolling basis. Some of these upgrades were aesthetic and included the addition of porches or verandas, which many of the homes now have. At others times they were considerable quality of life additions, notably the installation of electric lighting during the 1910s, or oil furnaces and hot water tanks in the 1920s. Bathroom upgrades, “pipe covering”, gutter replacement, and general “improvements” were also common.¹¹⁸

The Ensign-Bickford Company tended to all tenement services, roads, and common grounds. As such, the company was responsible for installing water service to the Bushy Hill, Gargon Place (later Hazelmeadow Place), and Maple Court neighborhoods between 1918 and 1921; established sewer service between 1918 and 1919; and graded and paved roads when automobile use became common in the 1920s. The meticulous care the company took in the upkeep of their properties was a deliberate attempt to create a community atmosphere that instilled a sense of pride in the sensibilities of its workers. As the centennial history notes, “The policy of uniform and responsible tenement maintenance plays a significant role in keeping labor turnover low and workers contented. From it has flowed not only agreeable labor relations but quality output.”¹¹⁹ While initially done out of the utilitarian need to draw in workers, the building and maintenance programs became a valuable component in Ensign-Bickford’s efforts to retain their workforce and uphold the company’s status as a community-minded institution. The effect was the creation of an industrial village that even today retains its cohesive aesthetic character.¹²⁰

In addition to its campus-like plant and residential villages, the Ensign-Bickford Company also once owned a large amount of undeveloped acreage west of the plant. Known as the “Powder Woods”, this area amounted to 300 acres in 1915 and 600 acres by 1936. Due to the dangerous nature of the explosive materials the company worked with, there was a need for safe storage areas distanced from both the factory and residential districts. As such, large powder magazines were constructed in this area one-eighth of a

mile away from the plant. Small quantities of powder were brought onto factory grounds several times a day so only as much material as was needed at any given time would be present. This helped to minimize any damage if an accident were to occur. In order to reduce the risk of forest fire, the company also constructed a series of wide breaks and fire roads throughout the Powder Woods. While Ensign-Bickford no longer stores material in this area most of the land remains owned by the company.¹²¹

The conclusion of World War II was the beginning of the end for the Ensign-Bickford Company's residential program. To a degree never before seen, returning GIs sought out owner-occupied housing and the placidity of suburban environments. The subsequent post-war housing boom reduced the need for employer-provided arrangements as sprawling developments satisfied demand. While homeownership was the exception in 1930, by the 1960s it was the overwhelming standard with 60% of American families owning the homes they lived in. Additionally, it was in 1969 that the Ensign-Bickford Company closed their Avon plant after making the significant decision to decentralize the production of blast products, transferring most manufacturing to Kentucky and Colorado. In 1970, after 130 years of family operation, the Ensign-Bickford Company transferred into private-ownership.¹²²

After Ensign-Bickford ceased operations in Avon, the company formed the Ensign-Bickford Realty Corporation (EBR) in order to relieve itself of the sixty-eight homes and 540 acres of property that it owned there. The town of Avon acquired the factory buildings and converted them into municipal offices and community arts spaces. Many of the homes were sold to current residents or former employees, and the company partnered with the Farmington Industrial Park (FIP) to develop the land, much of which eventually became used for office parks. By 1971, these transactions were complete and the company turned its attention to real estate in Simsbury.¹²³

Ensign-Bickford executed the sale of residences in Simsbury in a series of phases. By neighborhood these went as follows: Phase 1, Pine Hill; Phase 2, Woodland Street-Hopmeadow; and Phase 3, Davey-Bickford Street. The remaining homes on Maple Court, Hazelmeadow Place, and elsewhere were sold off last. The company again chose FIP as the developer and the Pine Hill properties were turned over on July 1, 1973. Residents were given the priority option to buy, which four did. Those that did not were relocated and

their houses made available to other buyers. Tenants affected by Phase 2 were notified of the purchase option in August 1972, and all decided to stay in their homes. Phase three was initiated in May 1974, and the remaining sales followed shortly thereafter.

The late 1970s closed the books on Ensign-Bickford's one hundred year history of providing housing for its Simsbury employees. Over the course of seven decades, the company's building program established a bustling factory village surrounding the Hopmeadow Street plant. The rows of modest, yet attractive homes still found throughout these neighborhoods allude to the community that coalesced around the family-operated industry and evoke an image of the vibrant population that came to live around it. This population helped invigorate and sustain both the company and the town. As such, the survival of these neighborhoods is a testament not only to the quality and character of this building stock, which amazingly, is largely extant and architecturally intact, but also speaks to the lasting impact of the Ensign-Bickford Company and its development.

The history of Ensign-Bickford is relevant not only regarding its fortitude as a nationally important industry but also in regards to the significant social role the company has played since its establishment. Family-owned until 1970, the Ensign-Bickford Company represents a rare example of an American industry managed and operated by, as well as in concert with, its local community for the majority of its existence. These factors, combined with a commitment to quality and a focus on developing new technologies, established Ensign-Bickford as a formidable and stable industrial entity capable of weathering economic downturns and the dramatic shifts in American manufacturing that spelled the demise of so many other institutions. As has been demonstrated, the buildings and neighborhoods identified by this survey were developed, occupied, maintained, and largely owned by the Ensign-Bickford Company or its employees. As such, their histories are mutually inclusive and inextricably intertwined. Their historical significance to the town of Simsbury is something that must be identified, highlighted, and preserved.

¹ William M. Vibert, *Three Centuries of Simsbury; 1670-1970* (Simsbury: Simsbury Tercentenary Committee, Inc., 1970), 91-93.

² John E. Ellsworth, *100 Years: The Ensign-Bickford Company and the Safety Fuse Industry in America; A Record of One Hundred Years of Achievement, 1836-1936* (Chicago: Lakeside Press; R.R. Donnelly & Sons Co., 1936).

³ Ellsworth, xiii.

⁴ Ellsworth, xiv.

⁵ Ibid.

⁶ Ellsworth, 9; Arthur Pine Van Gelder and Hugo Schlatter, *History of the Explosives Industry in America* (New York: Columbia University Press, 1927), 722.

⁷ Ellsworth, 18; Van Gelder, 722.

⁸ Ellsworth, 22; Vibert, 107; 146.

⁹ Ellsworth, 22; Van Gelder, 723.

¹⁰ Ellsworth, 25; Van Gelder, 724.

¹¹ Ellsworth, 27.

¹² Ellsworth, 26-7.

¹³ Ellsworth, 27; David F. Ransom, Consultant, Connecticut Historical Commission. National Register Nomination for "East Weatogue Historic District, Simsbury, CT," January 6, 1990.

¹⁴ Ellsworth, 28.

¹⁵ Ellsworth, 28.

¹⁶ Ellsworth, 29; Van Gelder, 724.

¹⁷ Ellsworth, 33.

¹⁸ Ellsworth, 33.

¹⁹ Ellsworth, 35.

²⁰ Ellsworth, 35; David F. Ransom, Consultant, Connecticut Historical Commission. National Register Nomination for "East Weatogue Historic District, Simsbury, CT," January 6, 1990.

²¹ Thus causing three thousand dollars worth of damage; Ellsworth, 38.

²² Ellsworth, 38.

²³ This has been identified as being in the vicinity of the home currently at 34 Weatogue Street; Vibert, 151; David F. Ransom, Consultant, Connecticut Historical Commission. National Register Nomination for "East Weatogue Historic District, Simsbury, CT," January 6, 1990.

²⁴ Ellsworth, 38.

²⁵ Ellsworth, 38.

²⁶ Ellsworth, 40-41; Vibert, 151; 162-4.

²⁷ Ellsworth, 42.

²⁸ Ellsworth, 42.

²⁹ Ellsworth, 48.

³⁰ Ellsworth, 48.

³¹ Ellsworth, 48.

³² Ellsworth, 54.

³³ Ellsworth, 56.

³⁴ Ellsworth, 56; David F. Ransom, Consultant, Connecticut Historical Commission. National Register Nomination for "East Weatogue Historic District, Simsbury, CT," January 6, 1990; Vibert, 151; Van Gelder, 725.

³⁵ The Hopmeadow Street corridor of the survey area is that located south of its intersection with West Street and north of Second Brook.

³⁶ Notably, when the Ensign House was built, the former homestead was divided into two pieces: one half moved to the rear of the property, the other transported to Woodland Street. Both homes became tenements for factory employees; Ellsworth, 62.

³⁷ Ellsworth S. Grant, *Yankee Dreamers and Doers: The Story of Connecticut Manufacturing* (Connecticut: The Connecticut Historical Society, 1996), 103; Vibert, 163.

³⁸ *Yankee Dreamers*, 103; Vibert, 163.

³⁹ *Yankee Dreamers*, 103; Vibert, 97, 163-4.

⁴⁰ *Yankee Dreamers*, 107; Vibert, 163.

⁴¹ "Atlas of Hartford City and County, 1869", Baker & Tilden, Hartford, CT, 1869.

⁴² Town of Simsbury, Assessor's Information; Vibert, 94; Baker and Tilden, "Atlas of Hartford City and County, 1869", Baker & Tilden, Hartford, CT, 1869.

⁴³ Vibert, 94.

⁴⁴ Vibert, 94; "Grist Mill Changes Hands in Simsbury", *Hartford Courant*, 21 April 1918, pg. 11; "Down by Simsbury's Old Mill Stream", *Hartford Courant*, 29 June 1947, pg. SM5.

⁴⁵ Vibert, 151.

⁴⁶ Vibert, 95, 147-8.

⁴⁷ Vibert, 95, 150.

⁴⁸ Ellsworth, 67.

⁴⁹ Ellsworth, 69.

⁵⁰ Ellsworth, 83.

⁵¹ Ellsworth, 86; Van Gelder, 726.

⁵² Ellsworth, 91.

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- ⁵³ Ellsworth, 92; Van Gelder, 731.
- ⁵⁴ Ellsworth, 74; Van Gelder, 725.
- ⁵⁵ "Terrible Calamity at Simsbury: Eight Persons Burned to Death, Several Others Injured!", *Hartford Courant*, 21 December 1859, pg. 2.
- ⁵⁶ Ellsworth, 76.
- ⁵⁷ Ellsworth, 77.
- ⁵⁸ Ellsworth, 77; Van Gelder, 725.
- ⁵⁹ Vibert, 98; "Statements of Business: March 31, 1861 – December 31, 1918; December 31, 1918 – December 31, 1925; and December 31, 1925 – December 31, 1929." Ensign-Bickford Collection, Simsbury Free Library, Section 14, Box 286; Baker and Tilden, "Atlas of Hartford City and County, 1869", Baker & Tilden, Hartford, CT, 1869.
- ⁶⁰ Baker and Tilden, "Atlas of Hartford City and County, 1869", Baker & Tilden, Hartford, CT, 1869; Van Gelder, 727.
- ⁶¹ Ellsworth, 171; "Statements of Business: March 31, 1861 – December 31, 1918; December 31, 1918 – December 31, 1925; and December 31, 1925 – December 31, 1929." Ensign-Bickford Collection, Simsbury Free Library, Section 14, Box 286.
- ⁶² David F. Ransom, Consultant, Connecticut Historical Commission. National Register Nomination for "Tariffville Historic District, Simsbury, CT," September 28, 1992.
- ⁶³ William H. Pierson, Jr., *Technology and the Picturesque, the Corporate and the Early Gothic Styles*. (New York: Oxford University Press, 1978), 57.
- ⁶⁴ Pierson, 57.
- ⁶⁵ Pierson, 57.
- ⁶⁶ Pierson, 59.
- ⁶⁷ Pierson, 86.
- ⁶⁸ One of these homes was that of E. P. Griswold, the company's woodshop and general repairs foreman.
- ⁶⁹ Even fifty years later the Hartford Courant identifies the Enign-Bickford tenement village as being built in the "English style". "Fifty Years with Simsbury Company", *Hartford Courant*, 2 August 1913, pg. 11.
- ⁷⁰ Ellsworth, 98.
- ⁷¹ Ellsworth, 98.
- ⁷² Ellsworth, 98.
- ⁷³ "Woman at Fuse Plant for 40 Years", *Harford Courant*, November 6, 1939, pg. 16.
- ⁷⁴ Ellsworth, 101.
- ⁷⁵ Ellsworth, 110-112.
- ⁷⁶ Ellsworth, 103
- ⁷⁷ "To Manufacture New Safety Fuse", *Hartford Courant*, 26 July 1914, pg. 15.
- ⁷⁸ "Fifty Years with Simsbury Company", *Hartford Courant*, 2 August 1913, pg. 11.
- ⁷⁹ Lucius I. Barber M.D., *A Record and Documentary History of Simsbury; 1643-1888*. (Simsbury: The Abigail Phelps Chapter, Daughters of the American Revolution, 1931), 387.
- ⁸⁰ Vibert, 164; Ellsworth, 107.
- ⁸¹ Sanborn Map Company, "Map of Simsbury", New York: Sanborn Map Company, 1923; Sanborn Map Company, "Map of Simsbury", New York: Sanborn Map Company, 1940.
- ⁸² "Fifty Years with Simsbury Company", *Hartford Courant*, 2 August 1913, pg. 11.
- ⁸³ Sanborn Map Company, "Map of Simsbury", New York: Sanborn Map Company, 1923; Sanborn Map Company, "Map of Simsbury", New York: Sanborn Map Company, 1940.
- ⁸⁴ Ellsworth, 168.
- ⁸⁵ Ellsworth, 136; Ellsworth S. Grant, *Exploding into the Space Age: The Story of Ensign-Bickford Industries, Inc.* (Simsbury; The Ensign-Bickford Company, 1989), 17; Vibert, 154.
- ⁸⁶ "Simsbury; Grand List of \$3,000,000 – Heaviest Taxpayers", *Hartford Courant*, 10 February 1913, pg. 12; "Hartford Little Suburban Directory; 1913, 1915", (Hartford: Clark-Delano Co., 1913, 1915.).
- ⁸⁷ Vilbert, 154.
- ⁸⁸ "Fifty Years with Simsbury Company", *Hartford Courant*, 2 August 1913, pg. 11.
- ⁸⁹ "Fifty Years with Simsbury Company", *Hartford Courant*, 2 August 1913, pg. 11.
- ⁹⁰ Ellsworth, 136; *Exploding into the Space Age*, 17; Vibert, 154; "Powder in Danger from Forest Fire", *Hartford Courant*, 12 April 1927, pg. 1.
- ⁹¹ Vilbert, 153.
- ⁹² Vilbert, 153.
- ⁹³ "Farmington Valley Directory: For the Towns of Avon, Canton, East Granby, Granby, and Simsbury Connecticut; 1917, 1928, 1932", (Salem: Henry M. Meek Publishing Co., 1917, 1928, 1932.)
- ⁹⁴ "Simsbury Plant Increases Activity", *Hartford Courant*, 12 October 1919, pg. 1.
- ⁹⁵ Vibert, 154. "Forty-four Years in One Factory", *Hartford Courant*, 3 August 1919, pg. 9.

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- ⁹⁶ "Hartford Little Suburban Directory; 1913, 1915", (Hartford: Clark-Delano Co., 1913, 1915.); "Farmington Valley Directory: For the Towns of Avon, Canton, East Granby, Granby, and Simsbury Connecticut; 1917, 1928, 1932", (Salem: Henry M. Meek Publishing Co., 1917, 1928, 1932).
- ⁹⁷ "Terrible Calamity at Simsbury: Eight Persons Burned to Death, Several Others Injured!", *Hartford Courant*, 21 December 1859, pg. 2.
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- ⁹⁹ "One Woman Dead, One Dying, Several Injured in Simsbury Monition Plant Explosion," *Hartford Courant*, 23 November 1918, pg. 1.
- ¹⁰⁰ Ellsworth, 177; *Exploding into the Space Age*, 77
- ¹⁰¹ "Statements of Business: March 31, 1861 – December 31, 1918; December 31, 1918 – December 31, 1925; and December 31, 1925 – December 31, 1929." Ensign-Bickford Collection, Simsbury Free Library, Section 14, Box 286.
- ¹⁰² "Inventory, The Ensign-Bickford Co." Ensign-Bickford Collection, Simsbury Free Library.
- ¹⁰³ "Fifty Years with Simsbury Company", *Hartford Courant*, 2 August 1913, pg. 11.
- ¹⁰⁴ Winthrop A. Hamlin, *Low-Cost Cottage Construction in America: A Study Based on the Housing Collection in the Harvard Social Museum*. (Cambridge: Harvard University, 1917), 3.
- ¹⁰⁵ Hamlin, 3.
- ¹⁰⁶ Hamlin, 6.
- ¹⁰⁷ Ellsworth, 171.
- ¹⁰⁸ Virginia and Lee McAlester, *A Field Guide to American Houses*. (New York: Alfred A. Knopf, 2002), p. 179.
- ¹⁰⁹ Virginia and Lee McAlester, *A Field Guide to American Houses*.
- ¹¹⁰ Virginia and Lee McAlester, *A Field Guide to American Houses*.
- ¹¹¹ Although research has determined that A. J. Ketchin & Sons of Tariffville built the majority of Ensign-Bickford's factory buildings, the identity of the builder(s) responsible for constructing the company's tenements has not been revealed. Oral histories indicate that Ensign-Bickford maintained its own carpentry shop and that company builders erected the residences, however additional evidence must be found to support these claims. An obituary found for Collinsville builder Charles J. Fox (1841-1915) does indicate that Fox, "...had worked for the Ensign-Bickford Company in the Simsbury and Avon plants for thirteen years, having charge of all construction work." "Builder of Danbury Post Office Dies," *Hartford Courant*, 8 December 1915, pg. 16. Fox's service with the company during its busy building period, and his identified role, supports the idea that the company maintained its own builders and carpenters, and operated independent of outside assistance.
- ¹¹² "Inventory, The Ensign-Bickford Co." Ensign-Bickford Collection, Simsbury Free Library.
- ¹¹³ "Ensign-Bickford Business Growing Helps Simsbury," *Hartford Courant*, 20 August 1922, pg. 16.
- ¹¹⁴ "Rents", Avon; c. 1910s to 1950s. Ensign-Bickford Collection, Simsbury Free Library, Section 13, Box 251.
- ¹¹⁵ *Exploding into the Space Age*, 77
- ¹¹⁶ Ellsworth, 180.
- ¹¹⁷ *Exploding into the Space Age*, 77; Ellsworth, 177.
- ¹¹⁸ "Inventory, The Ensign-Bickford Co." Ensign-Bickford Collection, Simsbury Free Library.
- ¹¹⁹ Ellsworth, 171.
- ¹²⁰ Ellsworth, 171; "Ensign-Bickford Company Cutting Out Chestnut Trees," *Hartford Courant*, 14 January 1917, pg. 3; "Ensign-Bickford Co. to Plant 20,000 Trees," *Hartford Courant*, 6 May 1911, pg. 1.
- ¹²¹ Ellsworth, 181; "Fifty Years with Simsbury Company", *Hartford Courant*, 2 August 1913, pg. 11; "Simsbury Cleans Out its Forest," *Hartford Courant*, 21 February 1915, pg. 2; "Preventing Brush Fires in Simsbury; Fire Wardens Conserving Both Time and Property," *Hartford Courant*, 7 April 1918, pg. 13.
- ¹²² *Exploding into the Space Age*, 78.
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VI. Resources Related to Women and Minorities

Evidence has been found indicating that a number of prominent families in Simsbury kept captive Africans as household servants in the late eighteenth and early nineteenth centuries. Despite this fact, however, no evidence has been found of a captive or free black population living within the survey area. This is not altogether surprising considering the relatively late period in which the survey area was developed, and the socio-economic profile of its residents. The neighborhoods around Ensign-Bickford were populated primarily by lower-middle or lower-class industrial workers and small farmers. In the 1860s and 1870s, this population was primarily of English heritage. This changed in the 1880s as the company expanded and its demand for workers increased.

While the survey area has always been rather economically homogenous, by the early 1900s, the population living here was remarkably diverse in terms of the backgrounds of its residents. Initially, the majority of the fuse company's workers were drawn from the local population, yet by the 1880s, European immigrants, both men and women, began to fill company rosters as the demand for employees increased. The Irish came first. Then Italians, who after helping to complete the Central New England Railroad, sought work in the mills around the turn of the century. Polish and Lithuanian families soon followed. By 1936, 29% of the workforce was comprised of women, while 45% were immigrants.

These hiring patterns changed the social character of the neighborhoods surrounding the factory as Eastern and Southern European names began to fill Simsbury directories. The homes identified in this survey sheltered individuals from a variety of ethnic backgrounds and facilitated a diversity not found anywhere else in the town of Simsbury. As noted, however, men were not the only breadwinners. Similarly important is the role that women have long played in company history. The frequency with which the names of women are found throughout newspaper articles describing factory accidents, and those lost in them, is a grim testament to their considerable importance – and sacrifices – to the manufacturing process. From its earliest days, women composed a significant percentage of Ensign-Bickford's payroll and it would be a difficult task to a single house identified by this survey that was not the home of a woman employed at the company at one point or another.

VII. Recommendations

Recommendations for the National Register of Historic Places

A major purpose of a Historic Resource Inventory study is to identify those resources which satisfy the criteria for nomination to the National Register of Historic Places. As the people of Simsbury have long been committed to the preservation of their history, and the resources related to it, many areas of town have structures, buildings, sites, or districts already listed on the National Register of Historic Places. This section identifies those resources, and consists of recommendations as to which properties are likely future candidates, either listed individually, or as historic districts.

These recommendations are an informed opinion only and should not be construed as excluding any site from consideration for National Register of Historic Places designation. The sites listed below possess qualities that appear to make them eligible for listing on the National Register, however a separate and specific study must be made to determine confirm this. This process, and final evaluation, is administered by the Historic Preservation and Museum Division of the Connecticut Commission on Culture & Tourism, One Constitution Plaza, Hartford, CT 06103.

Existing National Register Properties or Districts in Simsbury

Individual National Register Listings

The *Horace Belden School* and *Central Grammar School*, listed in 1993, includes 2 resources at 933 Hopmeadow and 29 Massaco Streets.

The *Drake Hill Road Bridge*, listed in 1990, includes 1 resource on Drake Hill Road over the Farmington River.

The *Eno Memorial Hall*, listed in 1993, includes 1 resource at 754 Hopmeadow Street.

The *Drake Hill Road Bridge*, listed in 1990, includes 1 resource at 720 Hopmeadow Street.

The *Amos Eno House*, listed in 1975, includes 1 resource on Hopmeadow Street.

The *Heublein Tower*, listed in 1983, includes 1 resource in Talcott Mountain State Park.

The *John Humphrey House*, listed in 1990, includes 1 resource at 115 East Weatogue Street.

The *Stratton Brook Park Pavilion*, listed in 1986, includes 1 resource off Old Farms Road.

The Captain *Elisha Phelps House*, listed in 1972, includes 1 resource at 800 Hopmeadow Street.

The *Simsbury Bank and Trust Company Building*, listed in 1986, includes 1 resource at 760-762 Hopmeadow Street.

The *Simsbury Railroad Depot*, listed in 1976, includes 1 resource at 754 Hopmeadow Street.

The *Eno Memorial Hall*, listed in 1993, includes 1 resource at Railroad Avenue and Station Street.

The *Simsbury Townhouse*, listed in 1993, includes 1 resource at 695 Hopmeadow Street.

The *Eno Memorial Hall*, listed in 1993, includes 1 resource at 754 Hopmeadow Street.

National Register Districts

The *East Weatogue Historic District*, established in 1990, includes 124 resources along East Weatogue Street and Hartford Road.

The *Tariffville Historic District*, established in 1992, includes 167 resources along Center Street, Church Street, Church Street Extension, Elm Street, Main Street, Maple Street, Mountain Road, Red Hill Road, Tariffville Road, Tunxis Place, Tunxis Road, and Winthrop Street.

The *Terry's Plain Historic District*, established in 1993, includes 27 resources along Ferry Lane, Goodrich Road, Quarry Road, and Terry's Plain Road.

The *Simsbury Center Historic District*, established in 1996, includes 48 resources along East Hopmeadow Street, Mall Way, Phelps Street, Railroad Avenue, Station Street, and Wilcox Street.

Recommended National Register Districts

The study area identified by this Historic Resources Inventory contains a highly intact collection of period architecture set in a suburban industrial and rural environment. The number, concentration, and integrity of the historic resources inventoried in this survey support the eligibility of the entire survey area as a National Register historic district. The surveyed resources demonstrate characteristics emphasizing developmental construction of middle- and lower-class worker housing, built around, and in tandem with the Ensign-Bickford complex during the late-nineteenth and early-twentieth centuries. The resulting development branched along and off of Hopmeadow and West Streets creating architecturally and socially analogous neighborhoods surrounding the nationally significant factory. The resources identified by this survey include well-preserved examples directly reflecting these developmental patterns, as well as emphasizing the growth of the significant industrial zone along Hopmeadow Street during the 19th and 20th centuries.

If a large Ensign-Bickford Company historic district is not nominated to the National Register, several of the neighborhoods within the survey area could stand on their own as small districts or could be combined with adjacent areas to form slightly larger districts. These include the Pine Hill neighborhood, Hazelmeadow and Gargon Place, Davey and Bickford Streets, Maple Court, Woodland Street, West Street, and Hopmeadow Street. These neighborhoods include resources of similar pattern and vintage with multiple streets possessing a single design, with minor variations, for all structures.

Properties That Appear Individually Eligible for the National Register

While the survey area is notable for its potential character as a historic district, the following individual properties are suggested for nomination to the National Register.

571 Hopmeadow Street, Gothic Revival/Italianate home, c. 1870.

576 Hopmeadow Street, Queen Anne home, c. 1890.

581 Hopmeadow Street, Colonial Revival home, c. 1911.

625 Hopmeadow Street, Colonial Revival home, c. 1909.

56-58 West Street, Queen Anne home, c. 1900.

VIII. Street Index

<u>Inventory No.</u>	<u>Street Address</u>	<u>Date</u>	<u>Architectural Style</u>
1	7 Bickford Street	1921	Vernacular
2	9 Bickford Street	1921	Vernacular
3	10 Bickford Street	1923	Vernacular
4	11 Bickford Street	1921	Gable Front Vernacular
5	12 Bickford Street	1925	Gable Front Vernacular
6	14 Bickford Street	1926	Gable Front Vernacular
7	16 Bickford Street	1926	Gable Front Vernacular
8	18 Bickford Street	1926	Gable Front Vernacular
9	22 Bickford Street	1924	Gable Front Vernacular
10	6 Bushy Hill Road	1916	Vernacular Colonial Revival
11	11 Bushy Hill Road	1914	Gable Front Vernacular
12	12 Bushy Hill Road	1862	Vernacular
13	13 Bushy Hill Road	1913	Gable Front Vernacular
14	17 Bushy Hill Road	1917	Gable Front Vernacular
15	19 Bushy Hill Road	1917	Gable Front Vernacular
16	20 Bushy Hill Road	1917	Gable Front Vernacular
17	24 Bushy Hill Road	1910	Gable Front Vernacular
18	26 Bushy Hill Road	1906	Gable Front Vernacular
19	35-37 Bushy Hill Road	1924	Vernacular Colonial Revival
20	2 Davey Street	1919	Vernacular
21	3 Davey Street	1916	Vernacular
22	4 Davey Street	1916	Vernacular
23	5 Davey Street	1915	Gable Front Vernacular
24	6 Davey Street	1917	Vernacular
25	7 Davey Street	1914	Gable Front Vernacular
26	8 Davey Street	1917	Gable Front Vernacular
27	9 Davey Street	1913	Gable Front Vernacular
28	11 Davey Street	1867	Vernacular
29	2 Gargon Place	1927	Gable Front Vernacular
30	4 Gargon Place	1926	Gable Front Vernacular
31	6 Gargon Place	1926	Vernacular Colonial Revival
32	8 Gargon Place	1926	Gable Front Vernacular
33	1 Hazelmeadow Place	1927	Gable Front Vernacular
34	2 Hazelmeadow Place	1918	Gable Front Vernacular
35	3 Hazelmeadow Place	1922	Gable Front Vernacular
36	4 Hazelmeadow Place	1918	Gable Front Vernacular
37	5 Hazelmeadow Place	1922	Vernacular Colonial Revival
38	6-8 Hazelmeadow Place	1921	Vernacular Colonial Revival

39	10 Hazelmeadow Place	1925	Vernacular Tudor
40	14-16 Hazelmeadow Place	1922	Vernacular Colonial Revival
41	18 Hazelmeadow Place	1925	Vernacular Tudor
42	20 Hazelmeadow Place	1925	Gable Front Vernacular
43	22 Hazelmeadow Place	1925	Gable Front Vernacular
44	24 Hazelmeadow Place	1923	Vernacular
45	26-28 Hazelmeadow Place	1921	Vernacular Colonial Revival
46	30 Hazelmeadow Place	1921	Vernacular
47	32 Hazelmeadow Place	1921	Vernacular
48	34-36 Hazelmeadow Place	1919	Vernacular Colonial Revival
49	38 Hazelmeadow Place	1918	Vernacular
50	40 Hazelmeadow Place	1918	Vernacular
51	42 Hazelmeadow Place	1918	Gable Front Vernacular
52	504 Hopmeadow	1927	Gable Front Vernacular
53	552 Hopmeadow	1907	Gable Front Vernacular
54	553 Hopmeadow	1909	Gable Front Vernacular
55	558 Hopmeadow	1916	Gable Front Vernacular
56	563 Hopmeadow	1916	Gable Front Vernacular
57	571 Hopmeadow	1870	Vernacular Gothic Revival with Italianate influences
58	575 Hopmeadow	1917	Gable Front Vernacular
59	576 Hopmeadow	1890	Vernacular Queen Anne
60	577 Hopmeadow	1900	Gable Front Vernacular
61	581 Hopmeadow	1911	Colonial Revival
62	595 Hopmeadow	1890	Vernacular
63	599 Hopmeadow	1875	Vernacular
64	603 Hopmeadow	1875	Vernacular
65	605 Hopmeadow	1912	Vernacular
66	609 Hopmeadow	1875	Vernacular
67	611 Hopmeadow	1875	Vernacular
68	619 Hopmeadow	1860	Vernacular Greek Revival
69	625 Hopmeadow	1909	Colonial Revival
70	631 Hopmeadow	1912	Gable Front Vernacular
71	635 Hopmeadow	1938	Vernacular Colonial Revival
72	637 Hopmeadow	1866	Vernacular
73	639 Hopmeadow	1863	Vernacular
74	641 Hopmeadow	1863	Vernacular
75	643 Hopmeadow	1909	Vernacular
76	2 Maple Court	1928	Gable Front Vernacular
77	3 Maple Court	1920	Gable Front Vernacular
78	4 Maple Court	1920	Vernacular Colonial Revival
79	5 Maple Court	1929	Gable Front Vernacular
80	6 Maple Court	1931	Vernacular
81	7 Maple Court	1931	Vernacular
82	1 Middle Lane	1912	Gable Front Vernacular

83	2 Middle Lane	1912	Gable Front Vernacular
84	3 Middle Lane	1912	Gable Front Vernacular
85	4 Middle Lane	1911	Gable Front Vernacular
86	5 Middle Lane	1908	Gable Front Vernacular
87	6 Middle Lane	1906	Gable Front Vernacular
88	7 Middle Lane	1907	Gable Front Vernacular
89	8 Middle Lane	1906	Gable Front Vernacular
90	9 Middle Lane	1910	Gable Front Vernacular
91	10 Middle Lane	1908	Gable Front Vernacular
92	11 Middle Lane	1906	Gable Front Vernacular
93	12 Middle Lane	1906	Gable Front Vernacular
94	1 South Road	1928	Gable Front Vernacular
95	3 South Road	1928	Colonial Revival
96	1 Stebbins Brook Lane	1917	Vernacular
97	2 Stebbins Brook Lane	1917	Vernacular
98	3 Stebbins Brook Lane	1917	Vernacular
99	4 Stebbins Brook Lane	1917	Vernacular
100	5 Stebbins Brook Lane	1917	Vernacular
101	6 Stebbins Brook Lane	1917	Vernacular
102	7 Stebbins Brook Lane	1917	Vernacular
103	9 Stebbins Brook Lane	1917	Vernacular
104	11 Stebbins Brook Lane	1917	Gable Front Vernacular
105	56-58 West Street	1900	Gable Front and Wing Vernacular Victorian
106	59 West Street	1883	Vernacular
107	61 West Street	1863	Vernacular
108	63 West Street	1871	Gable Front Vernacular Victorian
109	65 West Street	1888	Gable Front and Wing Vernacular Victorian
110	70 West Street	1880	Vernacular Gothic Revival
111	82 West Street	1907	Gable Front and Wing Vernacular
112	86 West Street	1907	Vernacular
113	88 West Street	1915	Gable Front Vernacular
114	90 West Street	1918	Gable Front Vernacular
115	101 West Street	1910	Gable Front and Wing Vernacular
116	103 West Street	1817	Vernacular
117	105 West Street	1910	Gable Front Vernacular
118	107 West Street	1917	Gable Front Vernacular
119	111 West Street	1910	Gable Front Vernacular
120	114 West Street	1900	Gable Front and Wing Vernacular Victorian
121	119 West Street	1900	Vernacular Colonial Revival
122	122 West Street	1870	Gable Front and Wing Vernacular Victorian
123	134 West Street	1915	Gambrel Front Vernacular Colonial Revival
124	136 West Street	1917	Gable Front Vernacular
125	140 West Street	1895	Gable Front Vernacular
126	146 West Street	1910	Gable Front Vernacular

127	22 Woodland Street	1905	Vernacular
128	23 Woodland Street	1860	Vernacular
129	26 Woodland Street	1883	Cross-gabled Vernacular
130	27 Woodland Street	1910	Cross-gabled Vernacular
131	28 Woodland Street	1906	Gable Front Vernacular
132	30 Woodland Street	1906	Gable Front Vernacular
133	N/A	-	-
134	31 Woodland Street	1916	Gable Front Vernacular
135	32 Woodland Street	1905	Vernacular
136	35 Woodland Street	1916	Gable Front Vernacular
137	37 Woodland Street	1920	Gable Front Vernacular
138	38 Woodland Street	1906	Gable Front Vernacular
139	39 Woodland Street	1920	Vernacular
140	40 Woodland Street	1903	Vernacular Colonial Revival
141	43 Woodland Street	1927	Gable Front Vernacular
142	44 Woodland Street	1907	Gable Front Vernacular
143	75 Woodland Street	1913	Gable Front Vernacular
144	77 Woodland Street	1912	Gable Front Vernacular
145	81 Woodland Street	1912	Gable Front Vernacular
146	83-85 Woodland Street	1890	Gable Front and Wing Vernacular
147	1 Woods Lane	1912	Gable Front Vernacular
148	2 Woods Lane	1906	Gable Front Vernacular
149	3 Woods Lane	1913	Gable Front Vernacular
150	4 Woods Lane	1909	Gable Front Vernacular
151	5 Woods Lane	1915	Gable Front Vernacular
152	6 Woods Lane	1910	Gable Front Vernacular
153	7 Woods Lane	1916	Vernacular
154	8 Woods Lane	1910	Gable Front Vernacular
155	9 Woods Lane	1916	Vernacular
156	10 Woods Lane	1910	Gable Front Vernacular
157	11 Woods Lane	1917	Vernacular
158	12 Woods Lane	1911	Gable Front Vernacular